AN

ENCYCLOPÆDIA

OF

PLANTS;

COMPRISING

THE DESCRIPTION, SPECIFIC CHARACTER,
CULTURE, HISTORY, APPLICATION IN THE ART
AND EVERY OTHER DESIRABLE PARTICULAR RESPECTING
ALL THE PLANTS
INDIGENOUS, CULTIVATED IN, OR INTRODUCED TO
BRITAIN:

COMBINING

ALL THE ADVANTAGES OF A LINNEAN AND JUSSIEUEAN SPECIES PLANTARUM
AND HISTORIA PLANTARUM, A GRAMMAR OF BOTANY,
AND A DICTIONARY OF BOTANY AND VEGETABLE CULTURE.

The whole in English;

WITH THE SYNONYMES OF THE COMMONER PLANTS IN THE DIFFERENT EUROPEAN
AND OTHER LANGUAGES;
THE SCIENTIFIC NAMES ACCENTUATED, THEIR ETYMOLOGIES EXPLAINED;
THE CLASSES, ORDERS, AND BOTANICAL TERMS ILLUSTRATED BY ENGRAVINGS;
AND WITH
FIGURES OF NEARLY TEN THOUSAND SPECIES,
EXEMPLIFYING SEVERAL INDIVIDUALS BELONGING TO EVERY GENUS INCLUDED
IN THE WORK.

EDITED BY J. C. LOUDON, F.L.S. H.S. &c.
THE SPECIFIC CHARACTERS BY AN EMINENT BOTANIST;
THE DRAWINGS BY J. D. C. SOWERBY, F.L.S.; AND
THE ENGRAVINGS BY R. BRANSTON.

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PREFACE.

In this Encyclopædia are included all the indigenous, cultivated, and exotic plants which are now found in, or have been introduced into, Britain. The object of the work is to give a natural history of these plants, accompanied by such descriptions, engraved figures, and elementary details, as shall enable a beginner, who is a mere English reader, to discover the name of every plant which he may find in flower, refer it to its proper place, both in the Natural and Artificial Systems of Classification, and acquire all the information respecting it which is useful or interesting. It must be evident to all who are conversant with the present state of botany, and who know the number of plants which have been introduced into Britain, that to accomplish such an object within the limits of a volume is a task of no ordinary difficulty; some explanation of the manner in which it has been executed may therefore be required.

The Work is divided into Two Parts. The First Part (p. [1.]) contains the Linnean or Artificial Arrangement of all the genera and species, with all the details comprehended in botanical description and natural and artificial botanical history, and with engraved portraits of one or more species of each genus. The Second Part (p.1051.) contains the Jussieuean or Natural Arrangement of all the genera, without repetition of the species or any details connected with them: but as the names of the natural orders are added after each genus in the Artificial System, and as each genus in both arrangements is numbered, a direct reference may be had from the second arrangement to the first, and from the first to the second; reference may also be had indirectly, through the medium of the Contents or Index.

An Introduction is given to each system of arrangement (p. [1.] & 1051.), and a General Introduction to the whole work (p.xix),in which its uses are explained. When the beginner has a plant in flower and would ascertain its name, he will turn to the Linnean System, as explained in the Introduction to that system (p. [1.]); and, when he has but a small part of any plant, he will turn to the Natural System, as directed in the General Introduction (p. xix).

All the Technical Terms, or words not usually found in an English dictionary, are explained in the Glossary (p. 1094.); and engravings are given of such of the objects designated as might occasion any difficulty to a beginner. This Glossary and the two Introductions (p. [1.] & 1051.) form together a complete Grammar of Botany.

The Table of Synonymes in various languages (p. 1108.) may, to a certain extent, be considered as presenting the Popular Floras of the various countries where these names are used; since it is only to the remarkable plants of a country that vernacular names are given.

The signs used for the habits of plants (column 3.), and their duration in the garden (col. 4.), are improvements in botanical description by the Editor *, now applied for the first time. The twenty-three varieties of habit are indicated by

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* Originally exhibited in the Encyclopædia of Gardening, 2d edit. 1824, p. 126.

figures of the plants themselves; as a grass for a grass, a bulb for a bulb, a plant floating on water for an aquatic, &c. &c., to recollect which requires no exertion of memory. A perennial is indicated by a triangle, instead of the old sign, ♃; an annual remains a circle as before, ○, because among other reasons gardeners sow patches of annual flowers in circles; and a biennial is a double circle, ◎, instead of the old sign, ♂. The bark stove is a square, □; the dry stove three sides of a square, ⊐; the green-house two and a half sides of a square, ⊔; and the frame two sides of a square, ⌟. By combining the signs of duration with habitation, △⃞ ⊐△ ◎⃞ ⊔◎, &c. &c., much room is saved in abridged botanical description. Thus in consequence of the single innovation of the triangle and the square, we have simplified and extended the power of indicating the habits and habitations of plants by signs from ten, the usual number in the most complete botanical catalogues, to forty, the number employed in this work.

It is usual, in botanical works enumerating genera and species, to give an Appendix containing the additions discovered or made since the book began to be printed. An Appendix to this Encyclopædia may possibly appear at some future period; but, in the mean time, the *Hortus Britannicus*, by the same Editor, which contains an enumeration brought down to the end of the year 1832, will serve every purpose of an Appendix, and, in so far as it embraces some reformations in the genera, will be found superior to any Appendix that could be made.

No farther explanation of the nature and use of this work appearing necessary, it only remains to present the thanks of the Proprietors and of the Editor to Aylmer Bourke Lambert, Esq. F.R.S. V.P.L.S. F.G.S. &c., for allowing Mr. Sowerby the freest use of his rich botanical library and extensive herbarium, for the selection of subjects to be engraved; and to David Don, Esq. Lib.L.S., Mr. Lambert's librarian, for his unremitted and unwearied exertions, during upwards of seven years, to facilitate the labours of Mr. Sowerby. To Robert Brown, Esq. F.R.S. V.P.L.S. &c.; to the Council of the Linnean Society; and, again, to David Don, Esq., in his capacity of librarian to the Linnean Society, the Proprietors are much indebted for similar services; and they beg leave to thank, in a very particular manner, Messrs. Loddiges of Hackney, for original drawings of many species, made from living plants in their unrivalled collection of exotics. Without the Herbarium of Mr. Lambert, and the Hot-houses of Messrs. Loddiges, this work could not have been produced.

It remains only for the Editor to state, that the botanical merits of this publication belong entirely to Professor Lindley, F.R.S. L.S. G.S. &c., and J. D. C. Sowerby, Esq. F.L.S. &c. The former determined the genera and the number of species to be arranged under them; prepared the specific characters, derivations, and accentuations; he either wrote or examined the notes; and he corrected the whole while passing through the press: the latter, assisted by Mr. Don and Messrs. Loddiges, sought out the figures, dried specimens, or living plants, necessary for illustration, and made drawings of them on the blocks to be engraved, in that accurate and scientific manner, and with that appropriate taste, for which his late father was long so much distinguished, and for which he himself has not yet been equalled in this or in any country. All that the Editor can deem to be his own is the plan of the work; and if this be found not to have failed in answering those expectations which the state of science, in botany and the compilation of books, might have warranted in 1822, when this work was commenced, he will have obtained all the approbation to which he is entitled.

Bayswater, May, 1829. J. C. L.

In the present edition various corrections have been made, and many references to figures have been supplied where they were wanting.

Bayswater, May, 1836. J. C. L.

CONTENTS.

Preface - - - iii
List of Books referred to - - - vii
List of Authorities for Generic and Specific Names xiv
Abbreviations used in the Linnean Arrangement xvii
General Rules for Pronouncing Botanical Names xviii
General Introduction - - - xix

LINNEAN ARRANGEMENT.

Introduction to the Linnean Arrangement - - [1]
Table of Linnean Classes - - - - [2]

- MONANDRIA, genera and their characters - - 1
  - *Monogynia*, genera and species - - 2
  - *Digynia*, genera and species - - - 8
- DIANDRIA, genera and their characters - - 8
  - *Monogynia*, genera and species - - 10
  - *Digynia*, genera and species - - - 28
  - *Trigynia*, genera and species - - - 28
- TRIANDRIA, genera and their characters - - 30
  - *Monogynia*, genera and species - - 34
  - *Digynia*, genera and species - - - 52
  - *Trigynia*, genera and species - - - 74
- TETRANDRIA, genera and their characters - 76
  - *Monogynia*, genera and species - - 80
  - *Digynia*, genera and species - - - 104
  - *Tetragynia*, genera and species - - 104
- PENTANDRIA, genera and their characters - 108
  - *Monogynia*, genera and species - - 118
  - *Digynia*, genera and species - - - 194
  - *Trigynia*, genera and species - - 224
  - *Tetragynia*, genera and species - - 228
  - *Pentagynia*, genera and species - - 228
  - *Polygynia*, genera and species - - 234
- HEXANDRIA, genera and their characters - 236
  - *Monogynia*, genera and species - - 240
  - *Digynia*, genera and species - - - 288
  - *Trigynia*, genera and species - - 290
  - *Polygynia*, genera and species - - 294
- HEPTANDRIA, genera and their characters - 296
  - *Monogynia*, genera and species - - 296
  - *Digynia*, genera and species - - - 298
  - *Tetragynia*, genera and species - 298
  - *Heptagynia*, genera and species - - 298
- OCTANDRIA, genera and their characters - 300
  - *Monogynia*, genera and species - - 302
  - *Digynia*, genera and species - - - 324
  - *Trigynia*, genera and species - - 326
  - *Tetragynia*, genera and species - - 328
- ENNEANDRIA, genera and their characters - 332
  - *Monogynia*, genera and species - - 332
  - *Trigynia*, genera and species - - - 334
  - *Hexagynia*, genera and species - - 336
- DECANDRIA, genera and their characters - 338
  - *Monogynia*, genera and species - - 340
  - *Digynia*, genera and species - - - 364
  - *Trigynia*, genera and species - - 372
  - *Pentagynia*, genera and species - - 380
  - *Decagynia*, genera and species - - 390
- DODECANDRIA, genera and their characters - 392
  - *Monogynia*, genera and species - - 392
  - *Digynia*, genera and species - - 398
  - *Trigynia*, genera and species - - 398
  - *T[illegible]nia*, genera and species - - 406
  - *[illegible]ia*, genera and species - - 406
  - *[illegible]ynia*, genera and species - - 406
- ICOSANDRIA, genera and their characters - 408
  - *Monogynia*, genera and species - - 410
  - *Di-pentagynia*, genera and species - - 424
  - *Polygynia*, genera and species - - 442
- POLYANDRIA, genera and their characters - 456
  - *Monogynia*, genera and species - - 458
  - *Digynia*, genera and species - - 470
  - *Trigynia*, genera and species - - 472
  - *Pentagynia*, genera and species - - 474
  - *Polygynia*, genera and species - - 476
- DIDYNAMIA, genera and their characters - 490
  - *Gymnospermia*, genera and species - - 494
  - *Angiospermia*, genera and species - - 512
- TETRADYNAMIA, genera and their characters - 536
- MONADELPHIA, genera and their characters - 560
  - *Pentandria*, genera and species - - 562
  - *Heptandria*, genera and species - - 568
  - *Octandria*, genera and species - - 578
  - *Decandria*, genera and species - - 578
  - *Dodecandria*, genera and species - - 580
  - *Polyandria*, genera and species - - 582
- DIADELPHIA, genera and their characters - - 598
  - *Pentandria*, genera and species - - 600
  - *Hexandria*, genera and species - - 600
  - *Octandria*, genera and species - - 602
  - *Decandria*, genera and species - - 604
- POLYADELPHIA, genera and their characters - 650
  - *Decandria*, genera and species - - 650
  - *Polyandria*, genera and species - - 652
- SYNGENESIA, genera and their characters - 660
  - *Æqualis*, genera and species - - 666
  - *Superflua*, genera and species - - 696
  - *Frustranea*, genera and species - - 730
  - *Necessaria*, genera and species - - 738
  - *Segregata*, genera and species - - 744
- GYNANDRIA, genera and their characters - 748
  - *Monandria*, genera and species - - 750
  - *Diandria*, genera and species - - 766
  - *Hexandria*, genera and species - - 766
- MONŒCIA, genera and their characters - - 768
  - *Monandria*, genera and species - - 770
  - *Diandria*, genera and species - - 772
  - *Triandria*, genera and species - - 772
  - *Tetrandria*, genera and species - - 780
  - *Pentandria*, genera and species - - 786
  - *Hexandria*, genera and species - - 788
  - *Polyandria*, genera and species - - 790
  - *Monadelphia*, genera and species - - 800
- DIŒCIA, genera and their characters - - 816
  - *Monandria*, genus and species - - 820
  - *Diandria*, genera and species - - 820
  - *Triandria*, genera and species - - 826
  - *Tetrandria*, genera and species - - 828
  - *Pentandria*, genera and species - - 832
  - *Hexandria*, genera and species - - 836
  - *Octandria*, genus and species - - 840
  - *Enneandria*, genera and species - - 840
  - *Decandria*, genera and species - - 842
  - *Dodecandria*, genera and species - - 842
  - *Icosandria*, genera and species - - 844
  - *Polyandria*, genera and species - - 844
  - *Monadelphia*, genera and species - - 846
- POLYGAMIA, genera and their characters - - 852
  - *Monœcia*, genera and species - - 854
  - *Diœcia*, genera and species - - - 868
- CRYPTOGAMIA, genera and their characters - 874
  - *Filices*, genera and species - - - 875
    - *Polypodiaceæ*, genera and species - 876
    - *Osmundaceæ*, genera and species - - 886
    - *Ophioglosseæ*, genera and species - 886
  - *Equisetaceæ*, genus and species - - 890
  - *Lycopodineæ*, genera and species - - 892
  - *Marsileaceæ*, genera and species - - 894
  - *Musci*, genera and species - - - 894
    - *Evaginulati*, genus and species - 896
    - *Vaginulati Olocarpi*, genera and species 896
    - *Vaginulati Schistocarpi*, genus and spec. 916
  - *Hepaticæ*, genera and species - - 918
  - *Algæ*, genera and species - - - 924
    - *Diatomeæ*, genera and species - - 926
    - *Nostochinæ*, genus and species - 926
    - *Confervoideæ*, genera and species - 930
    - *Ulvaceæ*, genera and species - - 940
    - *Florideæ*, genera and species - - 940
    - *Fucoideæ*, genera and species - - 944
  - *Lichens*, genera and species - - 948
    - *Idiothalami*, genera and species - 950
    - *Cœnothalami*, genera and species - 956
    - *Homothalami*, genera and species - 970
    - *Athalami*, genus and species - - 974
    - *Pseudo-lichenes*, genera and species - 974
  - *Fungi*, genera and species - - - 978
    - *Hymenomycetes*, genera and species - 986
    - *Gasteromycetes*, genera and species - 1022
    - *Hyphomycetes*, genera and species - 1036
    - *Coniomycetes*, genera and species - 1040

CONTENTS.

NATURAL ARRANGEMENT.

Introduction to the Jussieuean System - - 1051

VASCULARES.

Dicotyledones

Ranunculaceæ - - 1054
Dilleniaceæ - - 1055
Magnoliaceæ - - 1055
Annonaceæ - - 1055
Menispermeæ - - 1055
Berberideæ - - - 1055
Podophyllaceæ - 1055
Hydropeltideæ - - 1055
Nymphæaceæ - 1055
Papaveraceæ - - 1056
Fumariaceæ - - 1056
Cruciferæ - - - 1056
Flacourtianeæ - 1058
Capparideæ - - 1058
Violarieæ - 1058
Polygaleæ - - 1058
Droseraceæ - - 1058
Bixineæ - - - 1058
Cistineæ - - 1058
Caryophylleæ - - 1059
Lineæ - - - 1059
Frankeniaceæ - - 1059
Malvaceæ - - - 1059
Bombaceæ - - - 1059
Byttneriaceæ - - 1059
Tremandreæ - - - 1060
Tiliaceæ - - - 1060
Elæocarpeæ - - - 1060
Sapindaceæ - - 1060
Hippocastaneæ - - 1060
Hippocraticeæ - 1060
Marcgraaviaceæ - - 1060
Acerineæ - - - 1060
Malpighiaceæ - - 1060
Hypericineæ - 1061
Guttiferæ - - - 1061
Viniferæ - - - 1061
Geraniaceæ - 1061
Oxalideæ - - - 1061
Tropæoleæ - - 1061
Balsamineæ - - 1061
Zygophylleæ - - 1061
Meliaceæ - - - 1062
Cedreleæ - - - 1062
Aurantiaceæ - 1062
Ternstromiaceæ - - 1062
Camellieæ - - - 1062
Olacineæ - - - 1062
Rutaceæ - - - 1062
Coriarieæ - - - 1063
Ochnaceæ - - - 1063
Simarubaceæ - - 1063
Celastrineæ - - - 1063
Rhamneæ - - 1063
Bruniaceæ - - 1063
Samydeæ - - - 1063
Homalineæ - - 1064
Terebinthaceæ - - 1064
Leguminosæ - - 1064
Rosaceæ - - - 1067
Salicariæ - - - 1068
Melastomaceæ - - 1068
Myrtaceæ - - - 1068
Combretaceæ - - 1068
Passifloreæ - - - 1068
Cucurbitaceæ - - 1068
Loaseæ - - - 1069
Halorageæ - - 1069
Onagrarieæ - - - 1069
Ficoideæ - - - 1069
Portulaceæ - - - 1069
Cacti - - - 1069
Grossulaceæ - - 1069
Semperviveæ - - 1069
Saxifrageæ - - 1070
Philadelpheæ - 1070
Cunoniaceæ - - - 1070
Araliaceæ - - - 1070
Umbelliferæ - - 1070
Rhizophoreæ - - 1071
Hamamelideæ - - 1071
Caprifoliaceæ - - 1071
Lorantheæ - - 1071
Rubiaceæ - - - 1071
Opercularineæ - - 1072
Valerianeæ - - - 1072
Dipsaceæ - 1072
Calycereæ - 1072
Compositæ - - 1072
Campanulaceæ - 1075
Goodenoviæ - - 1075
Stylideæ - 1075
Gesnericæ - - 1075
Ericeæ - 1075
Myrsineæ - 1075
Sapoteæ 1076
Symplocaceæ - 1076
Ebenaceæ - - - 1076
Oleinæ - - - 1076
Jasmineæ - - 1076
Apocyneæ - - - 1076
Asclepiadeæ - 1077
Gentianeæ - - - 1077
Bignoniaceæ - - 1077
Cobæaceæ - - - 1077
Polemoniaceæ - - 1077
Convolvulaceæ - - 1077
Boragineæ - - - 1077
Cardiaceæ - - - 1078
Solaneæ - - - 1078
Orobancheæ - - - 1078
Scrophularineæ - - 1078
Labiatæ - - - 1079
Pedalinæ - - 1079
Myoporineæ - - - 1079
Verbenaceæ - - 1079
Acanthaceæ - - 1079
Lentibulariæ - - 1079
Primulaceæ - - - 1080
Globularinæ - - - 1080
Plumbagineæ - - 1080
Plantagineæ - - - 1080
Nyctagineæ - - 1080
Amaranthaceæ - 1080
Illecebreæ - - - 1080
Chenopodeæ - - 1080
Polygoneæ - - - 1081
Begoniaceæ - - - 1081
Laurineæ - - - 1081
Myristiceæ - - - 1081
Proteaceæ - - - 1081
Thymelææ - - - 1082
Santalaceæ - - - 1082
Elæagneæ - - - 1082
Aristolochiæ - - 1082
Euphorbiaceæ - - 1082
Resedaceæ - - - 1083
Calycantheæ - - 1083
Atherospermeæ - - 1083
Empetreæ - - - 1083
Urticeæ - - - 1083
Amentaceæ - - 1083
Ulmaceæ - - - 1083
Casuarineæ - - - 1083
Coniferæ - - 1083
Chloranthеæ - - 1084
Piperaceæ - - - 1084
Cycadeæ - - - 1084

Monocotyledones

Hydrocharideæ - - 1084
Orchideæ - - - 1084
Scitamineæ - - - 1085
Canneæ - - - 1085
Musaceæ - - - 1085
Hæmodoraceæ 1085
Irideæ - - - 1085
Amaryllideæ - - 1086
Hypoxideæ - - - 1086
Dioscoreæ - - - 1086
Hemerocallideæ - - 1086
Asphodeleæ - - 1086
Smilaceæ - - - 1086
Bromeliaceæ - - - 1086
Liliaceæ - - - 1087
Melanthaceæ - - 1087
Butomeæ - - 1087
Alismaceæ - - 1087
Commelineæ - 1087
Junceæ - - - 1087
Eriocauleæ - - - 1087
Pandaneæ - - - 1087
Naiades - - - 1087
Restiaceæ - - - 1087
Palmæ - - - 1088
Gramineæ - - 1088
Cyperaceæ - - - 1089
Aroideæ - - - 1089
Fluviales - - - 1090

CELLULARES

Foliaceæ

Filices - - - 1090
Equisetaceæ - - - 1090
Lycopodineæ - - 1090
Marsileaceæ - - 1090

Aphyllæ

Musci - - - 1091
Hepaticæ - - - 1091
Algæ - - - 1091
Lichens - - - 1091
Fungi - - - 1092

Glossary of Terms - - - - - - - 1094
Table of Synonymes in all Languages - - - 1108
General Index of Latin and English Names - - - 1143

NAMES OF BOOKS REFERRED TO.

A. ac. pa. 860. Act. par.	Mémoires de l'Académie Royale des Sciences. 1 vol. 4to. 1666—1788. Paris.
Abb. ins. 780.	Abbott's Natural History of the Insects of Carolina. Folio.
Abel China, 394.	Abel (Clarke). A Voyage to China. 4to.
Ac. E 886.	Acta Eruditorum quæ Lipsiæ publicantur. 50 vols. 4to 1682–1731.
Act. bon. 176.	De Bononiense Scientiarum et Artium Instituto Commentarii. 4to. Bononiæ. 7 vols. 1748—1791.
Act. helv. 540. Ac. h. 828.	Acta Helvetica physico-mathematico-botanico-medica. 8 vols. 4to. Basileæ, 1757—1777.
Act. holm. 944.	Kongl. svenska vetenskaps academiens Handlingar. 8vo. Stockholm, 1739—1816.
Act. petr. 58.	Commentarii Academiæ Scientiarum Imperialis Petropolitanæ. 14 vols. 4to. Petropoli, 1728—1751.
Act. ups. 90.	Acta literaria et Scientiarum Upsaliæ publicata. 8vo. 1720—1816.
Allion. 94.	Allioni (Carolus). Rariorum Pedemontii Stirpium Specimen. 1 vol. 4to. Taurini, 1755.
All. auc. 16.	*Id.* Auctuarium ad Floram Pedemontanam. 1 fasc. 4to. Taurini, 1789.
All. ped. 16.	*Id.* Flora Pedemontana, 3 vols. fol. Taurini, 1785.
Alp. æg. 196.	Alpinus (Prosper). De Plantis Ægypti liber. 4to. Venetiis, 1592.
Alp. ex. 94.	*Id.* De Plantis exoticis libri duo. 4to. Venetiis, 1629.
Amœn. ac. 334. Am. ac. 382	Linnæi Amœnitates Academicæ, seu dissertationes antehac seorsim editæ. 10 vols. 8vo. Holmiæ and Lipsiæ, 1749, et seq.
Am. rut. 14.	Ammann (Johan) Stirpium rariorum in Imperio Rutheno sponte provenentium Icones et Descriptiones. 4to. Petrop. 1739.
And. ger. 578.	Andrews (Henry). Coloured Engravings of Geraniums. Fol. London.
And. hea. 304.	*Id.* Coloured Engravings of Heaths, with botanical descriptions. 3 vols. fol. London, 1802—1809.
Ann. bot. 4.	Annals of Botany, by C. König and J. Sims. 2 vols. 8vo. London, 1805 and 1806.
Ann. mus. 354. An. mu. 88.	Annales du Muséum d'Histoire Naturelle. 20 vols. 4to. Paris, 1802—1813.
Ard. me. 176.	Arduini (Pietro). Memoria di Osservazioni e di Sperienze sopra la Coltura e gli Usi di varie Piante. 4to. Padova, 1766.
Ard. spec. 24.	*Id.* Animadversionum botanicarum Specimen. 4to. Patavii, 1759.
As. r. 2.	Asiatic Researches, or the Transactions of the Society instituted in Bengal. 4to. Calcutta, 1788, &c.
Asso arr. 556.	De Asso (Ignatius). Synopsis Stirpium indigenarum Arragoniæ. 4to. Marsiliæ, 1779.
Aublet, 16 Aub. guian.	Aublet (Fusée). Histoire des Plantes de la Guiane Française. 4 vols. 4to. London, 1773.
Balb. diss 676. Balb. miss. 66.	Balbis (Joh. Baptist.). Miscellanea Botanica. 4to. 1804.
Banks ic. Kæ. 806.	Banks (Josephus). Icones selectæ Plantarum quas in Japonia collegit et delineavit E. Kæmpfer. Fol. London, 1791.
Banks r. hous. 26.	*Id.* Reliquiæ Houstonianæ. 4to. London, 1781.
Barr. ic. 24. Bar. rar. 204.	Barrelier (Jacobus). Plantæ per Galliam, Hispaniam, et Italiam observatæ. Fol. Parisiis, 1714.
Bartr. trav. 480. Bartr. iter. c. ic.	Bartram's Travels in North America. 8vo.
Batarra, 990.	Batarra (John Ant.). Fungorum Agri Ariminensis Historia. 4to. Faventiæ, 1759.
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LIST OF AUTHORITIES

FOR

GENERIC AND SPECIFIC NAMES.

Abel.	*Abel* A traveller in China, and author of a Notice of Chinese plants
Ach.	*Acharius.* A Swedish professor, and writer upon Lichens
Ad., Adans	*Adanson.* A French systematical botanist.
Afz	*Afzelius* A Swedish professor.
Ag., Agh., Agdh.	*Agardh.* A Swedish professor, and writer upon Algæ, &c
Ait	*Aiton.* The superintendant of the King's garden at Kew
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Amm.	*Ammann* An old Russian botanist.
And., Andr., Andrs.	*Andrzejowski.* A Russian botanist.
Ard.	*Arduini* An Italian botanist
Aub., Aubl.	*Aublet.* A French traveller in Guiana
Balb	*Balbis.* A French professor of botany
Ban.	*Banks.* A great traveller and patron of science.
Bat.	*Batard* A writer upon the Flora of France
Batsch.	*Batsch.* A writer upon Fúngi.
Baumg.	*Baumgarten.* A German botanist
B. C.	*Botanical Cabinet.* By Loddiges and Sons.
Beauv.	*Palisot de Beauvois.* A French traveller and botanist
Bell.	*Bellardi.* An Italian botanist.
Berg.	*Bergius.* A Swedish writer upon Cape plants
Bern., Bernh	*Bernhardi.* A German botanist.
Bert., Bertol.	*Bertolini.* A writer upon the Flora of Italy.
Bess.	*Besser* A Russian professor, resident in the Crimea
Bieb	*Bieberstein* A Russian botanist of great note.
Biv.	*Bivona* A Sicilian botanist.
B. M.	*Botanical Magazine.* By Curtis, Sims, &c.
Boer.	*Boerhaave.* An old Dutch botanist
Böhm.	*Böhmer.* A German botanical writer
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Bon., Bonpl	*Bonpland.* A French traveller in South America, and botanist
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Br.	*Robert Brown.* A celebrated English botanist, and traveller in New Holland.
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B. R., B. Reg.	*Botanical Register.* By Ker and Lindley
B. Rep.	*Botanical Repository.* By Andrews and others.
Brid	*Bridel.* A German writer upon mosses.
Brot.	*Brotero* A Portuguese botanist.
Brouss.	*Broussonet.* A French botanist, and traveller in Barbary.
Buch.	*Buchanan.* An English physician, and traveller in Nepal.
Bull	*Bulliard.* A French writer on Fúngi.
Burc., Burch	*Burchell.* An English botanist, and traveller at the Cape of Good Hope
Burm., Brm.	*Burmann.* A Dutch editor of other people's works
Cæsalp.	*Cæsalpinus.* A famous old Italian botanist.
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Cels	*Cels.* A French nurseryman.
Cham.	*Chamisso.* A German traveller round the world.
Chois	*Choisy.* A Swiss botanist
Clus.	*Clusius.* An old French botanist and traveller.
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Comm.	*Commelin.* A Dutch garden botanist.
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Crz	*Crantz.* An Austrian botanist.
Curt	*Curtis* An English writer upon plants.
Cuss	*Cusson.* A Swiss writer upon Umbelliferæ, whose wife burnt his herbarium
Cyr.	*Cyrilli* An Italian botanist.
D. C., Dec.	*Decandolle.* A celebrated French systematic botanist.
Del.	*Delile* A French professor, and traveller in Egypt.
Desf.	*Desfontaines.* A French botanist, and traveller in Barbary.
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Dill., Dillw.	*Dillwyn.* An English writer upon Confervæ.
Dittm.	*Dittmarr.*
Domb.	*Dombey.* A French traveller in South America.
Donn	*Donn* An English gardener and botanist.
Dufr.	*Dufresne* A French writer upon Valerians
Duh.	*Duhamel.* A celebrated French physiological botanist.
Dum.	*Dumont Courset.* A writer upon French garden plants
Dun.	*Dunal.* A French professor of botany.
Duroi.	*Du Roi.* A German writer upon plants.
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Ehr.	*Ehrhart.* A German botanist.
Ehrenb.	*Ehrenberg.* A German traveller in Arabia, &c
Esp.	*Esper.* A German writer on Fúngi.
Ettl.	*Ettlinger* A German writer on Salvia.
Ex. B.	*Exotic Botany.* By Smith.
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Flœrke.	*Flœrke.*
Fl. Per., Fl. p.	*Flora Peruviana.* By Ruiz and Pavon.
Forsk.	*Forskahl.* A Danish naturalist, and traveller in Arabia.

AUTHORITIES FOR GENERIC AND SPECIFIC NAMES.

Forst.	*Forster.* A traveller in the South Seas with Captain Cook.
Fr.	*Fries.* A Swedish botanist, and writer upon Fungi
Fraz.	*Frazer.* A gardener and collector plants in North America.
Frol.	*Frölich.* A German writer upon Gentiàna.
Funck.	*Funck.* A German cryptogamic botanist.
Gae., Gært.	*Gærtner.* A celebrated German carpologist.
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Gleditsch.	*Gleditsch.* A German botanist.
Gmel., Gm.	*Gmelin.* A Russian botanist, and traveller in Siberia.
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Herb.	*Of the Herbarium.*
Herit.	*Heritier.* A French botanist.
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H. K.	*Hortus Kewensis.* A catalogue of the plants growing in the King's garden at Kew.
Hoff., Hoffm.	*Hoffmann.* A German writer upon Umbelliferæ, &c
Holmsk.	*Holmskiold.* A Danish botanist.
Hook.	*Hooker.* An English botanist, and professor at Glasgow.
Hoppe.	*Hoppe.* A German botanist, and collector of plants.
Horn., Hornem.	*Hornemann.* A Danish botanist and professor.
Hort.	*Of the gardens.*
Host.	*Host.* An Austrian writer upon Grapes and European plants
H. Par.	*Of the Paris garden.*
Hud., Huds.	*Hudson.* An English writer upon British plants.
Humb.	*Humboldt.* A celebrated Prussian traveller and philosopher.
Jack., Jacks.	*Jackson.* An English botanist.
Ja., Jac., Jacq.	*Jacquin.* An Austrian traveller in South America, and botanist.
Jon.	*Jones.* An accomplished writer upon Indian matters.
J., Juss.	*Jussieu.* A celebrated French systematic botanist.
Kaulf.	*Kaulfuss.* A German writer upon Ferns.
Ker.	*Ker.* An English garden botanist.
Kit.	*Kitaibel.* A Hungarian botanist.
Kn. Pr.	*Knight's Proteàceæ.*
Kon.	*König.* Several German naturalists of this name.
Kunth.	*Kunth.* A Prussian botanist
Kunz.	*Kunze.* A German cryptogamic botanist.
Lag.	*Bagasca.* A Spanish botanist and professor.
Lam.	*Lamarck.* A French botanist.
La Peyr., Lap.	*La Peyrouse.* A French writer upon the plants of the Pyrenees.
Lawr.	*Lawrence* (Miss). An English flower painter.
Lax.	*Laxmann.* A German writer on Siberian plants.
Ledeb.	*Ledebur.* A botanist, and traveller in Siberia.
Lehm.	*Lehmann.* A German botanist.
L. fil.	*Linnæus the younger.* The son of the great Linnæus.
L'Her.	*L'Heritier.* A French botanist.
Lightf.	*Lightfoot.* A writer upon the Scottish Flora.
Lind., Lindl.	*Lindley.* An English botanist, and professor in London.
L. K.	*Link.* A Prussian botanist.
Lk., Link.	*Link.*
L., Linn.	*Linnæus.* The celebrated Swedish reformer of natural history.
Lob.	*Lobel.* An old writer upon plants.
Lodd.	*Loddiges.* English nurserymen and botanists.
Loe.	*Loesel.* An old Prussian botanist.

Lois.	*Loiseleur Deslongchamps.* A French botanist.
Lour.	*Loureiro.* A Portuguese traveller in Cochin China.
L. T	*Linnean Society's Transactions.*
Lyngb.	*Lyngbye.* A Danish writer upon cryptogamic matters.
Marcg.	*Marcgraan.* An old Dutch traveller in Brazil.
Mart.	*Martius.* A Bavarian botanist, and traveller in Brazil.
Mass.	*Masson.* A collector of plants at the Cape, and elsewhere.
Mayer.	*Mayer.* Several German botanists of this name.
M. B.	*Marschall v. Bieberstein.* A writer upon Russian botany.
Med.	*Medicus.* A German botanist of the last century.
Menz.	*Menzies.* A Scotch botanist, and traveller round the world with Vancouver.
Mert.	*Mertens.* A German professor.
Mey.	*Meyer.* A German botanist.
Mi., Mich	*Michaux.* A French botanist, and traveller in North America.
Mik.	*Mikan.* A German writer on Brazilian plants.
Mill.	*Miller.* An English gardener and botanist.
Mir.	*Mirbel.* A French physiological botanist.
Mohr.	*Mohr.* A German cryptogamic writer.
Mol.	*Molina.* An Italian writer upon the natural history of Chili.
Mönch.	*Mönch.* A German botanist.
Morett.	*Moretti*
Moug.	*Mougeot.* A German cryptogamic botanist.
Muhl, Mhl	*Muhlenberg.* A North American botanist.
Murr.	*Murray.* A German botanist.
Mutis.	*Mutis.* A Spanish botanist, resident in New Grenada.
Mx.	*Michaux.* See above.
Neck.	*Necker.* A German writer upon botanical affairs
Nees.	*Nees v. Esenbeck.* A German botanist.
Nois.	*Noisette.* A French nurseryman.
Nor.	*Noronha.* A Spanish botanist who visited Madagascar.
Nutt.	*Nuttall.* A North American botanist.
Ort.	*Ortega.* A Spanish botanist.
Otth.	*Otth.* A French writer in Decandolle's Prodromus.
Otto.	*Otto.* A Prussian gardener.
Pall.	*Pallas.* A Russian traveller and naturalist.
Panz.	*Panzer* A German botanist.
P. de B, Pal. de Beauv.	*Palisot de Beauvois.* A French botanist, and traveller in Africa.
Pers.	*Persoon.* A German botanist.
Pet.	*Petiver.* An old English botanist.
Pet. Th	*Du Petit Thouars* A French botanist, and traveller in Madagascar.
Ph., Psh.	*Pursh.* A Prussian botanist, and traveller in North America.
P. L.	*Paradisus Londinensis.*
Plin.	*Pliny.* An ancient writer upon natural history.
Plu.	*Plumier.* A French botanist, and traveller in the West Indies.
Poir.	*Poiret.* A French botanical compiler.
Poit.	*Poiteau.* A French botanist and draughtsman.
Poll	*Pollich* A German writer on the plants of the Palatinate.
Pour.	*Pourret.* A French botanist.
P. S.	*Persoon's Synopsis.*
Raddi.	*Raddi.* An Italian cryptogamic botanist, and traveller in Brazil.
Raf., Rafi.	*Rafinesque Schmalz.* A modern writer upon botanical matters.
R. & S.	*Römer and Schultes.* German editors of Linnæus's Species Plantarum.
R. B., R. Br., R. Brown.	*Robert Brown.* A distinguished English botanist, and traveller in New Holland.
Rchb.	*Reichenbach.* A German botanist.
Rebent.	*Rebentisch.* A Prussian botanist.
Red.	*Redouté.* A French botanical draughtsman.
[illegible]	*Relhan.* A writer upon the Flora of Cambridgeshire.
Retz., Rtz.	*Retzius.* A German botanist.
Rich.	*Richard.* A French botanist.

Risso.	*Risso.* An Italian writer upon Oranges
R. L.	*Redouté's Liliacées.*
Rosc.	*Roscoe.* An English botanist, and writer upon Scitamineæ.
Rotb.	*Rottboll.* A Danish botanist.
Roth, Rth.	*Roth.* A German botanical writer
Roxb., Rox.	*Roxburgh.* An Indian botanist.
Roy., Royens	*Van Royen* A Dutch botanist.
Rudge.	*Rudge* An English writer upon botanical subjects.
Rudol.	*Rudolph.* A German botanist
Sab., Sabine.	*Sabine.* An English amateur of botany.
Sal., Salisb.	*Salisbury.* An English botanist
Salm.	*The Prince of Salm Dyck.* A noble German amateur.
Savi	*Savi.* An Italian botanist.
Sc., Sch.	*Schkuhr.* A German writer upon Grasses and Ferns.
Schæff	*Schæffer.* A German writer upon Fungi
Schl., Schlect.	*Schlechtendahl* A German botanist.
Schleich.	*Schleicher.* A Swiss plant collector.
Schm., Schmidt.	*Schmidt.* A Bohemian botanist
Schneev.	*Schneevoght.* A Dutch nurseryman
Schott.	*Schott.*
Schousb.	*Schousboe.* A writer upon the Flora of Morocco.
Schr.	*Schreber.* A German botanist.
Schrad	*Schrader.* A German botanist.
Schrank.	*Schrank.* A Bavarian botanist.
Schult.	*Schultes.* A German botanist
Schum.	*Schumacher.* A Danish botanist
Schw., Schwægr.	*Schwægrichen.* A German cryptogamic botanist
Scop.	*Scopoli* An Italian botanist
Sib.	*Sibthorp.* An English botanist, and traveller in Greece.
Sims	*Sims.* An English garden botanist
S. M.	*Sole's Monograph of Mints*
Sm.	*Smith.* An English botanist, and purchaser of the Linnean Herbarium.
Smith Fl. Brit	*Smith's Flora Britannica.*
Sol.	*Solander.* A Swedish botanist, and companion of Sir Joseph Banks in Cook's voyage round the world
Sowerb.	*Sowerby.* An English botanical draughtsman.
Spar.	*Sparmann.* A Swedish travelling botanist.
Spr., Spreng.	*Sprengel.* A German botanist.
St., Stev.	*Steven.* A Russian botanist
Steph.	*Stephan.* A Russian botanist.
Stern	*Sternberg.* A noble German botanist.
St. Hil.	*Auguste St. Hilaire.* A French botanist, and traveller in Brazil.
Strauss.	*Strauss.* A German writer on Coffee.
Sturm.	*Sturm.* A German botanical draughtsman.
Sw., Swz.	*Swartz.* A Swedish botanist, and traveller in the West Indies.
Ten.	*Tenore.* A Neapolitan botanist.
Th., Thunb.	*Thunberg.* A Swedish botanical traveller.
Thuill.	*Thuillier.* A French botanist.
Tode.	*Tode.* A German writer on Fungi.
Tou.	*Tourey.* A North American botanist.
Trent.	*Trentepohl.*
Trev	*Treviranus.*
Turner	*Turner.* An old English herbalist.
Turp.	*Turpin.* A French botanist and draughtsman.
Turr., Turra.	*Turra.* An Italian botanist.
Tuss.	*Tussac.* A French writer on the Flora of the Antilles.
Va., Vahl.	*Vahl.* A Danish botanist.
Vaill.	*Vaillant.* A French botanist and traveller.
Vand.	*Vandelli.* A Portuguese botanist.
Vent., Ven., V.	*Ventenat.* A French botanist.
Vig.	*Viguier.* A writer upon Poppies.
Vill.	*Villars.* A French botanist.
Viviani.	*Viviani.* An Italian botanist.
W.	*Willdenow.* A German botanist.
W[illegible]	*Wahlenberg.* A Swedish botanist.
W[illegible]	*Waldstein.* A noble German patron of botany.
Wall.	*Wallroth.* A German botanist.
Walt.	*Walter.* A writer on the Flora of Carolina.
W. & K	*Waldstein and Kitaibel.* Authors of the Flora of Hungary.
Wats.	*Watson.* An English writer upon Trees and Shrubs
W.E., W.en.	*Willdenow's Enumeration of the Plants in the Berlin Garden.*
Web.	*Weber.* A German cryptogamic botanist.
Weihe.	*Weihe.* A German writer on Rubi.
Wendl., Wnl.	*Wendland.* A German garden botanist.
With.	*Withering.* An English botanist.
Wood.	*Woodville.* An English writer on Medicinal Plants.
Woods.	*Woods.* An English writer on Roses.
Wulf., Wulfen.	*Wulfen.* A German botanist.

TABLE OF ABBREVIATIONS AND REFERENCES

Used in Columns 3, 4, 5, 6, 7, 8, 9, 10, 11, and 12.

COLUMN 3. *Habit.*

♆	Deciduous tree.
♀	Evergreen tree.
⊤	Palm tree.
♣	Deciduous shrub.
●	Evergreen shrub.
⁂	Deciduous under-shrub.
⁑	Evergreen under-shrub.
§	Deciduous twiner, ligneous or herbaceous.
$	Evergreen twiner, lig or herb
⍊	Deciduous climber, lig. or herb.
⍑	Evergreen climber, lig. or herb
✱	Deciduous trailer, lig. or herb.
♂	Evergreen trailer, lig. or herb.
✲	Deciduous creeper, lig. or herb.
♁	Evergreen creeper, lig or herb.
✢	Deciduous herbaceous plant
£	Evergreen herbaceous plant.
♒	Grass.
♉	Bulbous plant.
✶	Fusiform-rooted plant.
✵	Tuberous-rooted plant.
≒	Aquatic.
₤	Parasite.

COLUMN 4 *Duration and Habitation.*

△	Perennial.
⊙	Biennial.
○	Annual.
⊔	Bark, or moist, stove.
⊐	Dry stove.
⊔	Green-house
⊥	Frame.
[△]	Bark stove perennial.
⊐△	Dry stove perennial.
⊔△	Green-house perennial.
△⌋	Frame perennial.
[⊙]	Bark stove biennial.
⊐⊙	Dry stove biennial.
⊔⊙	Green-house biennial.
⊙⌋	Frame biennial.
[○]	Bark stove annual.
⊐○	Dry stove annual.
⊔○	Green-house annual
○⌋	Frame annual.

COLUMN 5. *Popular Character.*

ag	agricultural.	m	medicinal.
cl	clothing.	or	ornamental
clt	cultivated in its native country.	p	poisonous.
		pr	pretty.
		rk	for rock-work.
cu	curious.		
cul	culinary.	ro	robust.
de	delicate.	spl	splendid.
dy	dyeing plant.	tm	timber tree.
ec	economical.	un	unattractive.
el	elegant.	w	weed, abundant in cultivated soils in its native country.
esc	esculent.		
fr	fruit tree.		
fra	fragrant.		
gr	grotesque.		

COLUMN 6. *Height.*

flt	floating.

COLUMN 7. *Time of Flowering.*

ja	January.		September.
f	February		October.
mr	March		November.
ap	April.	d	December.
my	May.	sp	Spring.
jn	June.	su	Summer.
jl	July.	aut	Autumn.
au	August	w	Winter
all sea	all seasons.		
wet w	wet weather.		

COLUMN 8 *Color of the Flower*

Ap	apetalous	La	lilac
Ærug	æruginous.	Lu	lurid.
		O	orange
B	blue	Och	ochraceous
Bd	blood.	Ol	olive.
Bh	blush.	Oliva	olivaceous.
Bk	black.	P	purple
Br	brown.	Pk	pink or
Bri	brick-colored.	Pl	pellucid
Brsh	brownish	R	red.
Bsh	bluish.	Ro	rosy.
Bt	bright	Rsh	reddish
C	crimson	Ru	rufous.
Cæs	cæsious	Rus	russet
Ch	chestnut.	Rust	rusty-colored
Ci	citron		
Cin	cinereous	S	scarlet.
Cop	copper-colored.	Saf	saffron.
		Sil	silvery.
Crea	cream-colored	Smo	smoky ash-color.
D	dark.	Spot	spotted
Din	dingy	St	striped.
Dl	dull.	Str	straw.
Dp	deep.	Su	sulphur.
F	flesh.	Tan	tan-colored.
Fer	ferruginous		
Fi	fiery	Taw	tawny
Fla	flame-colored.	Test	testaceous.
		Tran	transparent.
Ful	fulvid.		
Fus	fuscous		umber-colored.
G	green.		
Gl	glaucous	V	violet
Go	golden	Va	variegated.
Gsh	greenish.	Ve	vermilion.
Gy	grey.	Vy	veiny
Hoa	hoary	W	white
L	light.	Wsh	whitish.
Ld	livid.	Y	yellow.
Lem	lemon-colored	Ysh	yellowish.

COLUMN 9 *Native Country*

C. G. H.	Cape of Good Hope
E. Ind.	E. Indies.
N. Amer	North America.
N. Eur.	North of Europe
N. Holl.	New Holland.
N. S. W.	New South Wales.
S. Amer.	South America.
S. Eur.	South of Europe.
V Di. L.	Van Diemen's Land.
W. Ind.	West Indies.

COLUMN 10. *Year of Introduction of Exotics, and Localities of British Species.*

al. bogs	alpine bogs.
al. b. p.	alpine bushy places
al hea.	alpine heaths.
al. lak.	alpine lakes.
al. ma.	alpine marshes.
al. me.	alpine meadows.
al. riv.	alpine rivers.
al roc.	alpine rocks.
a. r. tr.	alpine rocks and trees.
ba.	banks.
bar. gr.	barren ground.
bar. he.	barren heaths.
bar. pa.	barren pastures
ba. s. p.	barren sandy places.
bog. h.	boggy heaths.
bog. pl	boggy places
bo. m. bgs m.	bogs on mountains
bo. me.	boggy meadows.
bor. fi.	borders of fields
br.	branches.
bu fi.	bushy fields.
bu. hi	bushy hills.
bu pl.	bushy places.
cal. ba. al.	calcareous banks.
ch. ba.	chalky banks.
ch. cl.	chalky cliffs.
ch. fi.	chalky fields.
ch. hil.	chalky hills.
ch. pa.	chalky pastures.
ch. so.	chalky soil.
ch wo.	chalky woods.
clov. fi.	clover fields.
clt gr.	cultivated ground.
cor. fi.	corn fields
dit.	ditches
dit. ba	ditch banks.
d.m.pl.	dry mountainous places.
dr. co	dry commons.
dr. fi.	dry fields.
dr. he.	dry heaths
dr. pa.	dry pastures.
dr. wo.	dry woods.
d. st pl.	dry stony places.
d. st w.	dry stony woods
dungh.	dunghills
ed of d.	edges of ditches.
gra. ba.	gravelly banks.
gra he.	gravelly heaths.
gra pa.	gravelly pastures.
gra so.	gravelly soil.
hea.	heaths
hea. w	heaths and woods.
hed.	hedges.
hed. b.	hedge banks.
hghl. v.	Highland valleys.
hil. pa.	hilly pastures.
ir bog.	Irish bogs.
ir. mo.	Irish mountains.
ir. roc.	Irish rocks.
ir. sho.	Irish shores.
ir. thi.	Irish thickets.
lak.	lakes.
m. al. p	moist alpine places.
mar.	marshes.
mar. la.	margins of lakes.
m a. w.	moist alpine woods.
m. c h.	moist chalky hills.
m. ch. s	moist chalky soil.
mea.	meadows.
me. pa.	meadows and pastures.
m. h. m. he.	mountainous heaths.
m hed.	moist hedges.
mic. ro.	micaceous rocks.
m. me.	moist meadows.
moi fi.	moist fields.
moi. gr.	moist ground.
moi h.	moist heaths.
moi. pl.	moist places.
moi. ro.	moist rocks.
moi. w.	moist woods.
mo. pl.	mountainous places.
mos. b.	mossy bogs.
moun.	mountains.
m. pas.	moist pastures.
ms. pas.	mountainous pastures.
m. r. h.	mountainous rocky heaths.
mrit. r.	maritime rocks.
m. r. tr.	moist rocks and trees.

m. s pl.	moist shady places
m thi.	mountainous thickets
m. wo.	mountainous woods.
mud.d.	muddy ditches.
mud s.	muddy shores.
n of e.	north of England
n of s.	north of Scotland
old w. old wa	old walls.
os. hol.	osier holts.
pas.	pastures.
pea. d.	peaty ditches
riv. ba.	river banks.
rivul.	rivulets.
ro. sid.	road sides.
rub	rubbish.
sa.hea.	sandy heaths
sal m.	salt marshes
sa. ma.	sandy marshes
san fi	sandy fields.
san. gr.	sandy ground.
san. pl.	sandy places
san sh	sandy shores.
sa pas.	sandy pastures
sa w d	salt-water ditches.
sa.w p	sandy wet places
sc. alp	Scottish alps
sc. bog.	Scottish bogs
sc isl	Scottish islands.
s. cliffs	sea cliffs
sc. ma	Scottish marshes
sc mo	Scottish mountains
sc. pas	Scottish pastures.
sc. roc.	Scottish rocks.
sc sh.	Scottish shores
sc. thi	Scottish thickets
sc wds sc. wo	Scottish woods
sea co.	sea coast.
sea sh.	sea shore.
sev. isl	Severn isles.
sha ba.	shady banks.
sha bo	shady bogs.
sha. la.	shady lanes.
sha. pl.	shady places
sh. roc.	shady rocks.
s. m. pl.	shady moist places
so. co.	south coast.
so. of s.	south of Scotland.
sp. bo.	spongy bogs.
sta. wa.	stagnant water.
st in w.	stones in water.
sto. hi.	stony hills
sto pa.	stony pastures
sto. pl.	stony places.
sto. wa.	stones and walls
sun hi.	sunny hills.
sun ro	sunny rocks.
thick	thickets.
tr	trees.
tr & st.	trees and stones
tru tr	trunks of trees.
tur. bo	turfy bogs.
tur he	turfy heath.
unc gr.	uncultivated ground
unc pl.	uncultivated places.
wa gr.	waste ground.
w al.h.	wet alpine heaths
w alp	Welsh alps
wat co.	watery commons
wat pl	watery places.
w bog	Welsh bogs.
w co	wet commons
w gr.	wet ground
w lak.	Welsh lakes
w roc.	Welsh rocks
w sa p.	wet sandy places
w s gr	wet shady ground
w sh p.	wet shady places.
wy.sh p	watery shady places
w. thi.	wet thickets.

COLUMN 11. *Propagation.*

B	by budding.
C	cuttings.
D	division of the plant.
G	grafting.
I	inarching.
L	layers.
Ls	leaves.
O	offsets.
R	division of the root.
S	seeds
Sk	suckers

COLUMN 12. *Soil.*

aq.	watery places.
co.	common garden soil.
c p.	common peat, or bog
h.	heavy rich clay
h l	heavy loam.
l.	loam.
l p.	loam and peat, most loam.
lt.	light vegetable soil.
lt. l	light loam.
m s.	moist soil
p.	peat.
p. l.	peat and loam, most peat.
r.	rich garden soil
r. m.	rich mould.
ru.	rubbish.
s.	sand
s l	sandy loam.
s p	sandy peat
s p. l	sand, peat, and loam.

RULES FOR PRONOUNCING BOTANICAL NAMES.

SYLLABLES.

In classical words *there are as many syllables as there are vowels*; except when *u* with any other vowel follows *g*, *q*, or *s*, and when two vowels unite to form a diphthong. The diphthongs are *æ*, *œ*, *ai*, *ei*, *oi*, *ui*, *au*, *eu*, and *ou*. These seldom coalesce in final syllables, *oo*, *ee*, *ea*, and other combinations which never occur as diphthongs in classical words, follow, in commemorative names, the pronunciation of their primitives, as Teèdia, Woódsia.

VOWELS

In this work *the accented vowels* are indicated by the mark placed over each; but as this only points out the vowel on which the stress is laid, the following observations will be found useful in showing when the vowel is to be sounded long, and when short In addition to the primary accent, every word of more than three syllables contains a secondary accent, which is regulated by the same rules The secondary accent must always be at least two syllables before the primary accent, as in *Chèlidònium*, for its place the ear is a sufficient guide, and even were it entirely omitted, still, however inharmonious, it would not be incorrect.

Every accented penultimate vowel is pronounced long, when followed by a vowel or a single consonant, as *Achillèa* tomentòsa, but it is shortened when followed by two consonants or a double one, as Sórbus, *Táxus*; except when the first consonant is a mute and the second a liquid, as Àbrus

Every accented antepenultimate vowel, except *u*, is pronounced short, as *Hellèborus*, *Hùmulus*; but when succeeded by a single consonant, followed by *e* or *i* and another vowel, it is lengthened, as Stellària; except *i*, which is short, as *Tìlia*.

A unaccented, ending a word, is pronounced like the interjection *ah*, as Sèta (*ah*).

E final, with or without a consonant preceding, always forms a distinct syllable, as Silènë, *Alòë*; also when the vowel is followed by a final consonant as Tri-chò-ma-nes, not Tri-cho-manes

I unaccented, if final, sounds as if written *eye*, as Spìca vénti (*eye*); but, when it ends a syllable not final, it has the sound of *e*, as *Mespilus* (*Mespelus*), Smithii (*Smithe-eye*).

Y is subject to the same rules as *i*

The diphthongs *æ* and *œ* conform to the rules for *e*; *ei* is generally pronounced like *eye*, the other diphthongs have the common English sounds

CONSONANTS.

C and *g* are hard before *a*, *o*, and *u*, as Córnus, Gàlium; soft before *e*, *i*, and *y*, as Cetrària, *Citrus*.

T, *s*, and *c*, before *ia*, *ie*, *ii*, *io*, *iu*, and *eu*, when preceded by the accent, change their sounds, *t* and *c*, into *sh*, as Blètia, *Vìcia*; and *s* into *zh*, as Blàsia: but, when the accent is on the first diphthongal vowel, the preceding consonant preserves its sound, as aurantiacum.

Ch, before a vowel, is pronounced like *k*, as Chelidònium (*kel*), Cólchicum (*kolkekum*); but in commemorative names it follows their primitives, as Richardsònia, in which the *ch* is soft.

Cm, *cn*, *ct*, *gm*, *gn*, *mn*, *tm*, *ps*, *pt*, and other uncombinable consonants, when they begin a word, are pronounced with the first letter mute, as *Ptèris* (*teris*), *Cnìcus* (*nikus*), Gmelina (*melina*), Gnidia (*nidia*), in the middle of a word they separate as in English, as *Lap-sàna*, *Lém-na*

Ph, followed by a mute, is not sounded; but, followed by a vowel or a liquid, sounds like *f*, as *Phlèum* (*fleum*)

Sch sounds like *sk*, as *Schœ̀nus* (*skenus*); in *ll* and *zm* both letters are heard.

S, at the end of a word, has its pure hissing sound, as *Dáctylis*, except when preceded by *e*, *r*, or *n*, when it sounds like *z*, as *Rìbes* (*ez*)

X, at the beginning of a word, sounds like *z*, as Xánthium; in any other situation it retains its own sound, as *Tàxus*, *Tàmarix*. (*Extracted from the Gardener's Magazine*, vol. v. p. 232.)

GENERAL INTRODUCTION.

The science of Botany consists of two departments, Phytology and Physiology. This Encyclopædia is exclusively devoted to the former department, and it is limited to the plants in Britain, indigenous and exotic.

Phytology, or the History of Plants, comprehends the knowledge of the external parts of plants, the determination of their names, their classification, their uses, their individual history, and their geography. The object of this work is to convey, in the most convenient manner and in the least possible space, a knowledge of the various particulars which arrange themselves under these heads.

A knowledge of the external parts of plants will be readily and agreeably obtained by turning over the first 700 pages of this work at random, looking at the engravings, and comparing them with the names and descriptions to which they refer; the same process will enable the reader to recognise, at sight, the 10,000 species figured in the 700 pages. In this way, botanical figures supply the place of a botanical garden; and the beginner learns the natures, the technology, and the general appearances of plants, almost as easily and naturally in the one case as he does in the other.

To determine the name of an unknown plant, it is necessary to be furnished with a specimen of it in flower. The parts of the plant including those of the flower being already known by the process above mentioned, its class will be ascertained by the Table of the Linnean System (p. 2.), and its order, genus, species, &c., by turning to the page referred to at the end of the class. Thus, if you hold in your hand a specimen of *P*hillyrèa angustifòlia in flower, on counting the stamens and pistils you find it belongs to Class II. Order 1., from which, in the Table in p. 2., you are referred to the details of the class in p. 8.; you there find, under Order 1., the characters of all the genera of that order, and that the flower which you hold in your hand best agrees with the definition given of the genus *P*hillyrèa, No. 33. But you wish to know the species; and, *P*hillyrèa being No. 33., you turn to that number in the details of the genera in the subsequent pages. After comparing its leaves with the specific character given of the different species, you find it best agrees with *P.* angustifòlia; and, finding this species numbered 143., you look for that number in the two plates of engravings in the lower parts of the pages, and find a figure which confirms your decision. By reading the abridgements in the line which follows the word angustifòlia, together with the note to the generic name *P*hillyrèa at the bottom of the page, you find in an abridged form its English name, habit, habitation in the garden, popular character, the height to which it grows, its time of flowering, the colour of its flower, its native country, the year of its introduction into Britain, its propagation, the soil in which it grows, a reference to a work where it is figured and described at greater length, and its uses in the arts, or whatever else is remarkable in its history. You find, also, the natural order to which the genus belongs, the etymology of the name, the French or German name, if the plant has a vernacular name in these languages, and, both generic and specific names being accentuated, you have the pronunciation. On turning to the Table of Synonymous Names (p. 1108.), you will find its vernacular name in the languages of the countries where it is common. If it is not so common in any country as to have received a vernacular name, it will not be found in that list. Finally, if you should not understand any of the terms used in the definition of the specific characters or in the notes, on turning to the Glossary (p. 1094.) you will find them explained, and illustrated where necessary by engravings.

When the beginner has a leaf or any part of a plant not in flower, he may ascertain, by turning to the Introduction to the Natural System (p. 1051.), to which of the three grand divisions of the vegetable kingdom it belongs, and may learn other particulars, according to circumstances which it is unnecessary to detail. Without the flower, he will not be able by the Natural System to determine the name of a plant; but, what is often much more important, with a very small portion of any part of a plant he will be able to discover something of its nature, an advantage which does not belong to the System of Linnæus.

The classification or arrangement of plants is made by botanists with a view to two objects: the first, to facilitate the discovery of their names, and thus to know them individually; the second, to give general ideas respecting their natures, and thus to know them as belonging to large masses or groups. Hitherto, no system has been discovered which has attained both these objects in an equal degree of perfection; but the Linnean Arrangement has made the greatest advances in teaching how to discover the names of plants, and the Jussieuean in teaching us their natures, and how to recognise them as belonging to certain masses or groups. In order that the student may acquire both these kinds of knowledge, we have given both arrangements. We have begun with the Linnean, not only as being best adapted for beginners, but because it is necessary to know how to discover the name of a plant, as well as to be able practically to recognise a number of plants, before attempting to know their natures, or to combine them in masses or groups.

"The standing objection to botany," says White of Selbourne, "has always been, that it is a pursuit that amuses the fancy and exercises the memory without improving the mind or advancing any real knowledge; and where the science is carried no farther than a mere systematic classification, the charge is but too true. But the botanist, who is desirous of wiping off this aspersion, should be by no means content with a list of names; he should study plants philosophically, — should investigate the laws of vegetation, — should examine the powers and virtues of efficacious herbs, — should promote their cultivation, and graft the gardener, the planter, and the husbandman, on the phytologist: not that system is by any means to be thrown aside; without system the field of nature would be a pathless wilderness; but system should be subservient to, not the main object of, our pursuit."

"After all that has been effected, or is likely to be accomplished hereafter," Professor Lindley observes, "there will always be more difficulty in acquiring a knowledge of the Natural System of Botany than of the Linnean. The latter skims only the surface of things, and leaves the student in the fancied possession of a sort of information which it is easy enough to obtain, but which is of little value when acquired; the former requires a minute investigation of every part and every property known to exist in plants, but when understood has conveyed to the mind a store of information, of the utmost use to man, in every station of life. Whatever the difficulties may be of becoming acquainted with plants according to this method, they are inseparable from botany, which cannot be usefully studied without encountering them." *

The History of Plants comprehends every thing relating to their use in the arts, or in any way as connected with man, with animals, or with civilisation. The Geography of Plants relates to the countries in which they are indigenous or acclimated, and to the soils and situations in which they grow or may be grown. Every thing essential in relation to these points will, as we have already stated, be found after the name of each species in the text, after the name of the genus in the notes below, under the natural order to which the genus belongs in the Natural Arrangement (Part II. p. 1051.), in the Table of Synonymes (p. 1108.), or in the Glossary (p. 1094.).

The General Index (p. 1143.) contains not only the names of the genera, and of the classes and orders of both systems, but those of all the remarkable species, and the more important systematic and British synonymes both of genera and species. The various names being included in the same alphabet, this Index may therefore be consulted as a Dictionary of Plants.

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* Synopsis of the British Flora, arranged according to the Natural Orders, &c., pref. p. vi.

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THE ENCYCLOPÆDIA OF PLANTS.

PART I.

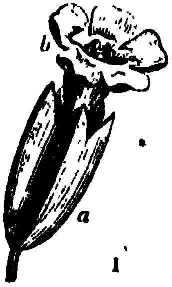
LINNEAN ARRANGEMENT.

THE main object of the artificial system of botanical arrangement is to facilitate the discovery of the names of plants. For this purpose some one organ, common to plants in general, is fixed on; and, according to certain conditions in which this organ is found, individual species are referred to their places in the system, as words, by their initial letters, are referred to their places in an alphabetical dictionary.

In the progress of artificial systems different organs have been fixed on by different botanists; but those which have been most extensively employed are the corollas by Tournefort, and the stamens and pistils, by Linnæus The system of Tournefort has been a good deal employed in France, and may be considered as the artificial system of that country; that of Linnæus has been employed in most other countries, and is justly esteemed by far the most perfect artificial system which has hitherto been produced. It is, therefore, adopted in this work

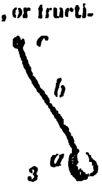
The application of the Linnean system in practice, Sir J. E. Smith observes, is, above all other systems, easy and intelligible. Even in pursuing the study of the natural affinities of plants, this botanist affirms "that it would be as idle to lay aside the continual use of the Linnean system, as it would be for philologists and logicians to slight the convenience, and indeed necessity, of the alphabet, and to substitute the Chinese character in its stead." (*Introduct. to Bot.*) "The student of the Linnean artificial system," he elsewhere observes, "will soon perceive that it is to be understood merely as a dictionary, to make out any plant that may fall in his way." (*Gram of Bot*) "If we examine," says Decandolle, "the artificial systems which have been hitherto devised, we shall find the most celebrated of them, that which was proposed by Linnæus, to possess a decided superiority over all others, not only because it is consistently derived from one simple principle, but also because the author of it, by means of a new nomenclature, has given to his terms the greatest distinctness of meaning." (*Elements of the Philos of Plants, by Decandolle and Sprengel.*) Whether or not subsequent advances in science may enable botanists to dispense with the Linnean system altogether, it is not for us to affirm; but in the meantime nothing can be more certain than that the Linnean system is the best leading arrangement for such a work as the present, in the existing state of botanical knowledge in Britain *

According to the Linnean system all plants are furnished with flowers, either conspicuous or inconspicuous. The plants with conspicuous flowers are arranged according to the number and position of their stamens and pistils; those with inconspicuous flowers are arranged according to the situation of the flowers on the plant, or according to other circumstances in the plant itself.



1

To discover the name of a plant by the Linnean system, therefore, all that is necessary for a beginner is to possess a specimen of it in flower, and to be able to know its different parts by the names given them by botanists. To discover the class, order, and genus of a plant, it is only necessary to be able to distinguish and name the different parts of the flower. These parts are: the calyx or cup (*fig* 1. *a*), which is that leaf, or those leaves, by which the flower is usually enclosed when in bud, and which, when the flower is expanded, appear under it. The corolla (*corona*, a crown) is the coloured leaf, or leaves, of a flower *fig.* 1 *b*). The stamen (or first principle of any thing) is the thread-like process, or processes, immediately within the leaves of the corolla (*fig* 2): it consists of two parts, the filament or thread (*a*), and the anther (*b*); this anther contains what is called the pollen, or fructifying meal (*c*). In the centre of the flower is the pistil (*fig.* 3.): it consists of three parts, the germen, or rudiments of the fruit or seed (*a*), the style (*b*), and the stigma or summit (*c*), which crowns the style, and is destined to receive the fructifying pollen.



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The pistil and stamen are the essential parts of a flower The corolla or the calyx may be wanting, and yet the flower will be termed perfect, because the absence of those parts is no obstacle to reproduction. Even the style and the filament may be absent without preventing the formation or ripening of the fruit; and there are many flowers which have the anther sitting close to the corolla, &c., without a filament, and the stigma to the germen without a style; but the anther, the germen, and the stigma are essential.

The seed is contained in the pericarp, or seed-vessel, which is the germen when grown to maturity. The name of seed vessel varies according to its form, substance, &c.; but the word pericarp (*peri*, about, *karpon*, a fruit) is applicable to all its varieties. The receptacle is the base or medium which connects the other parts of the fructification. (*Magazine of Natural History*, vol. i. p. 233.)

The degree of knowledge conveyed by the following Table, and the preceding observations, will enable a beginner to discover the class, order, and genus of any plant which he may find in flower.

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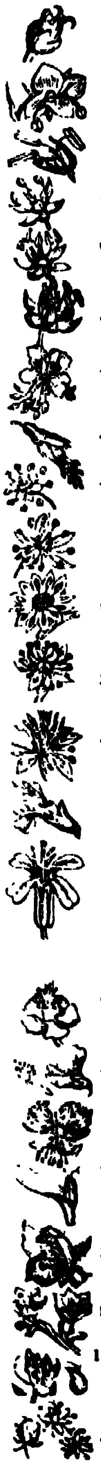
* The best work in the English language for acquiring a knowledge of the Linnean system of botany is *Smith's Introduction to Botany*; there are also various other works nearly as good, and detailed and familiar *Introductions* to both the *Linnean* and *Jussieuan Systems* will be found in the first and second volumes of *The Magazine of Natural History.*

LINNEAN ARRANGEMENT.

FIRST GRAND DIVISION. — *Plants with conspicuous Flowers* (*Phanerogàmia*).



	CLASSES.	ORDERS.
In the same flower, Male and female organs distinct, Stamens not united either above or below, Generally of equal length, Stamens and Pistils In Number,		
One,	1. Monándria (*monos*, one, *aner*, a man). Example, *Blitum capitatum*. 1	2. Monogýnia (*monos*, one, *gyne*, a woman), Digýnia (*dis*, twice, *gyne*, a woman).
Two,	2. Diándria (*dis*, twice, *aner*, a man). *Verónica Chamædrys*. 8	3. Monogýnia, Digýnia, Trigýnia (*tris*, thrice, *gyne*, a woman).
Three,	3. Triándria (*tris*, thrice, *aner*, man) *Poa ánn*. 30	3. Monogýnia, Digýnia, Trigýnia.
Four,	4. Tetrándria (*tetra*, four, *aner*, a man) *Córnus sanguínea*. 76	3. Monogýnia, Digýnia, Tetragýnia (*tetra*, four, *gyne*, a woman).
Five,	5. Pentándria (*pente*, five, *aner*, a man) *Lysimáchia ephemerum*. 108	6. Monogýnia, Digýnia, Trigýnia, Tetragýnia, Pentagýnia (*pente*, five, *gyne*, a woman), Polygýnia (*polys*, many, *gyne*, a woman).
Six,	6. Hexándria (*hex*, six, *aner*, a man) *Scílla bifólia*. 236	4. Monogýnia, Digýnia, Trigýnia, Polygýnia
Seven,	7. Heptándria (*hepta*, seven, *aner*, a man). *Æsculus Hippocástanum*. 296	4 Monogýnia, Digýnia, Tetragýnia, Heptagýnia (*hepta*, seven, *gyne*, a woman).
Eight,	8. Octándria (*okto*, eight, *aner*, a man) *Fuchsia coccínea*. 300	4. Monogýnia, Digýnia, Trigýnia, Tetragýnia.
Nine,	9 Enneándria (*ennea*, nine, *aner*, a man). *Rhéum Rhapónticum*. 332	3. Monogýnia, Trigýnia, Hexagýnia (*hex*, six, *gyne*, a woman).
Ten,	10 Decándria (*deka*, ten, *aner*, a man) *Saxífraga umbrósa* 358	Monogýnia, Digýnia, Trigýnia, Pentagýnia, Decagýnia (*deka*, ten, *gyne*, a woman).
Twelve,	11. Dodecándria (*dodeka*, twelve, *aner*, a man). *Sempervívum tectórum*. 392	6. Monogýnia, Digýnia, Trigýnia, Tetragýnia, Pentagýnia, Dodecagýnia (*dodeka*, twelve, *gyne*, woman).
Many, frequently twenty, attached to the calyx,	12. Icosándria (*eikosi*, twenty, *aner*, a man) *Cratægus Oxyacántha*. 408	3. Monogýnia, Di-pentagýnia (*dyo*, two, *pente*, five, *gyne*, a woman), Polygýnia.
Many, generally upwards of twenty, not attached to the calyx,	13 Polyándria (*polys*, many, *aner*, a man). *Clématis erecta*. 456	5. Monogýnia, Digýnia, Trigýnia, Pentagýnia, Polygýnia.
Of unequal length,		
Two long, and two short,	14 Didynámia (*dis*, twice, *dyo*, two, *nema*, a filament) *Teucrium lucidum*. 490	2 Gymnospérmia (*gymnos*, naked, *sperma*, seed), Angiospérmia (*aggeion*, a vessel, *sperma*, seed).
Four long, and two short,	15 Tetradynámia (*tetra*, four, *dyo*, two, *nema*, a filament). *Raphanus satívus* 536	2. Siliculósa (*silicula*, a silicle), Siliquósa (*siliqua*, a silique).
Stamens united,		
by the filaments,		
into one body,	16 Monadélphia (*monos*, one, *adelphos*, brother). *Malva frágrans*. 560	7. Triándria, Pentándria, Heptándria, Octándria, Decándria, Dodecándria, Polyándria
into two bodies,	17. Diadélphia (*dis*, twice, *adelphos*, a brother). *Onónis arvénsis*. 598	4. Pentándria, Hexándria, Octándria, Decandria.
into many bodies	18. Polyadélphia (*polys*, many, *adelphos*, brother) *Hypericum quadrán*. 6[illegible]0	4. Decándria, Dodecándria, Icosándria, Polyándria.
by the anthers or tops, into a cylinder,	19. Syngenésia (*syn*, together, *genesis*, origin). *Cichórium Intybus*. 660	5. Polygámia æquális (equal), Polygámia supérflua (superfluous), Polygámia frustranea (*frustra*, in vain), Polygámia necessaria (necessary), Polygámia segregáta (separated).
Male organs (stamens) attached to, and standing upon the female (pist il),	20 Gynándria (*gyne*, a woman, *aner*, a man). *Ophrys apífera*. 718	3. Monándria, Diándria, Hexándria.
In different flowers,		
on the same plant,	21. Monœ́cia (*monos*, one, *oikos*, house) *Cucúrbita Pèpo*. 768	8. Monándria, Diándria, Triándria, Tetrándria, Pentándria, Hexándria, Polyándria, Monadélphia.
on different plants,	22. Diœ́cia (*dis*, twice, *oikos*, house). *Cánnabis satíva* 816	14. Monándria, Diándria, Triándria, Tetrándria, Pentándria, Hexándria, Octándria, Enneándria, Decándria, Dodecándria, Icosándria, Polyándria, Monadélphia, Gynándria.
on the same or different plants along with hermaphrodite flowers,	23. Polygámia (*polys*, many, *gamos*, marriage) *Gleditschia triacánthos*. 852	2. Monœ́cia, Diœ́cia.

SECOND GRAND DIVISION. — *Plants with inconspicuous Flowers* (*Cryptogàmia*).

Reproductive organs scarcely visible, so that they have not been distinctly described,	24. Cryptogámia (*kryptos*, concealed, *gamos*, marriage), 874	11. Gonoptérides (*gonos*, seed, *pteris*, fern), Stachyoptérides (*stachys*, a spike, *pteris*, fern), Poroptérides (*poros*, a pore, *pteris*, fern), Fílices (*filix*, a fern), Hydroptérides (*hydor*, water, *pteris*, fern), Schismatoptérides (*schisma*, a cleft, *pteris*, fern), Músci (*muscus*, moss), Hepáticæ (*hepar*, a liver), A'lgæ (*alga*, sea weed), Líchens (Greek name), Fúngi (*fungus*, a mushroom).

To discover the particular species or variety of a plant it is necessary to become acquainted with the forms and different conditions of the leaves, stems, and other parts of the bodies of plants, as well as with their flowers, and this knowledge, as we have before stated (p. xix.), will be obtained with the greatest facility by turning to the Glossary (p. 1094.), and comparing the definitions with the engraved figures.

CLASS I. — MONANDRIA. 1 STAMEN.

THIS class, which is not large, contains chiefly exotic plants, and of these the tribe of Scitamineæ is considered one of the most beautiful families of the vegetable kingdom. The useful productions are chiefly the Ginger, Cardamom, and Turmerick, spices highly esteemed, and in general use wherever they are known, and can be procured. The Salicornia, a native of our sea-shores, is burned for kelp, and pickled for culinary purposes. Almost all the plants of this class are aquatics, or grow in marshes. They chiefly thrive best in a sandy loam, from which their roots should be well cleaned every year.

The genera of the Scitamineæ and Canneæ have been remodelled by Roscoe, whose arrangement has received considerable improvement from the hand of the late Dr. Roxburgh. The nature of the floral envelope of those plants has long been a subject of dispute among botanists, some considering the colored inner segments to be true petals and to be variable in numbers; and others, supposing them to be part of the calyx and constant in number, their occasional variation in number being capable of explanation. Persoon (*Synopsis*, p. 1.) is of opinion that many of the genera of the first section ought to be referred to Gynandria. According to Willdenow and others, the following species belonging to other classes have only one stamen.

Monogynia. Mangifera indica; Alchemilla aphanes, several species of Scirpus, Cyperus, Schœnus, Kyllinga, Cryptostomum monandrum, Chorizandra, Polycnemum monandrum, Hopea.

Digynia. Lacistema, Leersia, Salsola, and many grasses.

Order 1. MONOGYNIA. 1 Stamen. 1 Style.

§ 1. *Germen inferior, anther simple, style erect, free. Flowers spathaceous.*

1. *Canna*. Anther attached to the edge of the petal-like filament. Style thick, club-shaped. Stigma linear, obtuse.

2. *Maranta*. Anther attached to the petal-like filament. Style petal-shaped. Stigma three-sided. Flowers panicled

3. *Calathea*. Anther attached to the petal-like filament. Style petal-shaped. Stigma cucullate Flowers in close heads.

4. *Thalia*. Anther attached to its proper filament. Style depressed. Stigma depressed, perforated, and gaping.

5 *Phrynium*. Anther attached to its proper filament. Style united to the tube of the corolla, hooked at the end. Stigma funnel-shaped. Seeds with an arillus.

§ 2. *Germen inferior, anther double, style inclosed in the furrow formed by the anther. Flowers spathaceous*

6. *Hedychium*. Anther naked. Tube of the corolla long and slender, with both limbs 3-partite, the interior one resupinate. Capsule dry.

7. *Roscoea*. Anther 2-lobed, incurved, surrounding the style with an appendage split at the base. Outer limb of the corolla 3-partite, with the upper segment erect and fornicate. Inner limb 2-lipped.

8. *Alpinia*. Anther not crowned. Interior limb of the corolla with one lip. Capsule berried. Seeds with an arillus.

9. *Hellenia*. Anther in some marginal. Filament linear, longer than the anther, with a very short rounded entire or 2-lobed appendage. Capsules crustaceous Seeds with an arillus.

10. *Zingiber* Inner limb of the corolla with one lip. Anther with a simple recurved horn at the end.

11. *Costus*. Interior limb of the corolla nearly campanulate, split at the back. Filament lanceolate. Anther in the centre of it or at some distance from the end. Seeds naked.

12. *Kæmpferia*. Tube of the corolla long and slender, with both limbs 3-partite. Anther with a 2-lobed crest.

13. *Amomum*. Inner limb of the corl. with 1 lip. Anther with an entire or 2-lobed crest. Seeds with an arillus.

14. *Curcuma* Both limbs of the corolla 3-partite. Anther with two spurs at the base. Seeds with an arillus.

15. *Globba*. Inner limb of the corolla 2-lobed or none. Filament hollow at the base, with a wedge-shaped lip Anther with an appendage or none. Seeds attached to 3 parietal placentas.

16. *Mantisia*. Outer limb of the corolla 3-partite, inner filiform with a double trifid limb. Filament 4-partite at the end.

§ 3. *Germen superior, corolla irregular.*

17. *Philydrum*. Calyx 2-leaved colored. Filaments 3 united at the base, the two lateral ones barren and petal-shaped. Seeds numerous, minute.

§ 4. *Germen inferior, corolla irregular. Flowers naked.*

18. *Lopezia*. Cal. 4-leaved. Cor. 4-petaled, unequal. Filaments two: one antheriferous, the other petal-shaped abortive. Caps. 4-valved, 4-celled, many seeded.

§ 5. *Germen inferior, corolla regular, flowers naked.*

19. *Boerhaavia*. Cal. 1-leaved, ob-conic, inclosing the seed. Cor. plaited, on the end of the calyx.

20. *Centranthus*. Cor. 5-lobed, regular, spurred. Caps. 1-celled, crowned with the limb of the calyx expanded into a plumose pappus.

§ 6. *Apetalous.*

21. *Pollichia*. Cal. 1-leaved, 5-toothed. Seed 1. Fruit upon the heaped, berried scales of the receptacle

22. *Salicornia*. Cal. turbinate, entire, fleshy. Stamen inserted into the bottom of the cal. Style 2-fid. Utricle inclosed in the fleshy calyx. Seed vertically compressed.

23. *Hippuris*. Cal. entire, minute. Style in the hollow of the anther. Germen inferior, one seeded, crowned by the rim of the calyx.

24. *Zostera* Spadix linear in the sheath of the leaf, bearing seed on one side. Stamens opposite the germens and alternate with them, sessile. Caps. one-seeded.

25. *Chloranthus*. Stamen irregular, fleshy, lobed, fixed to the side of the germen. Stigma capitate. A drupa.

Order 2. DIGYNIA. 1 Stamen. 2 Styles.

26. *Corispermum*. Cal. 2-leaved. Cor. O. Seed one, oval, convex-plane. (Stamens often 5.)

27. *Callitriche*. Cal. 2-leaved. Pet. O. Caps. 2-celled, 4-seeded.

28. *Blitum*. Cal. trifid. Cor. O. Seed one, immersed in a berried calyx.

29. *Aspicarpa*. Cal. 5-parted. Cor. O. Stamen included. Germen and Stigma 2-lobed. Fruit cartilaginous, 1-seeded.

Systematic Name and Authority.	English Name.	Habit.	Habitation in the Garden.	Popular Character	Height in Feet	Time of Flowering.	Color of the Flower.	Native Country.	Year of Introduction of Exotics, and Localities of British Species.	Propagation	Soil	Reference to Figures.
1. CAN'NA. *W.*	Indian Shot.					*Canneæ.*	*Sp.* 17—20.					
1 pátens *Rosc.*	spreading	¥	⊔	or	2	my	R.y	Rio Jan.	1778.	R	r.m	Bot. reg. 576
2 índica *Rosc.*	common	¥	□	or	2	ja.d	R	India	1570.	R	r m	Red. lil. 201
β *maculáta*	*spotted*	¥	□	or	2	ja.d	R.y	India	...	R	r.m	Hook. ex. fl. 58
3 coccínea *Rosc.*	scarlet	¥	□	or	2	ja.d	S	S. Amer.	1731.	R	r.m	Bot. mag. 452
4 lùtea *Rosc*	yellow	¥	□	or	2	ja.d	Y	E. Indies	1629.	R	r m	Bot. mag 2085
5 Lambérti *Lind.*	Lambert's	¥	□	or	4	my	S	Trinidad	1819.	R	r m	Bot. reg. 470
6 gigantéa *R L.*	gigantic	¥	□	or	5	d.ja	R.y	S. Amer.	1809.	R	r.m	Bot. reg. 206
7 occidentális *Rosc.*	western	¥	□	or	3	s d	R.y	W Indies	1822.	R	r.m	Bot. reg. 772
8 limbáta *Rosc.*	bordered	¥	□	or	3	ja.d	R	Brazil	1818.	R	r m	Bot. reg. 771
9 variábilis *W.*	variable	¥	□	or	3	ja d	R	India	1822	R	r.m	
10 rúbra *W*	red	¥	□	or	3	ja d	R y	W Indies	1820.	R	r.m	
11 rubricáulis *Lk*	red-stemmed	¥	□	or	3	my	R	......	1821	R	r.m	
12 edùlis *B R*	eatable	¥	□	or	3	s d	R	Peru	1820	R	r.m	Bot. reg. 775
13 speciósa *B M*	shewy	¥	□	or	3	au.s	R	......	1820.	R	r.m	Bot. mag. 2917
14 pedunculáta *B M*	stalked	¥	□	or	6	s.d	O	......	1820	R	r m	Bot mag 2929
15 fláccida *Rosc.*	flaccid	¥	□	or	5	jl	R	S. Carol.	1788.	R	r.m	Sal. st. ra 3. t 2
16 glaúca *Rosc.*	glaucous	¥	□	or	2	jn au	Y	S. Amer.	1732.	R	r m	Ex. b. 2 t 102
β *rufa*	*rufous*	¥	□	or	2	jn au	Br	S. Amer.	...	R	r.m	Bot. mag. 2302
17 iridiflóra *Fl Per*	nodding flow	¥	□	or	6	d ja	R	Peru	1816.	R	r.m	Bot. mag. 1968
2. MARAN'TA *W.*	Arrow Root.					*Canneæ*	*Sp.* 7—20.					
18 arundinácea *W.*	Indian	¥	□	or	2	jl au	W	S Amer.	1732.	R	s.l	Bot mag. 2307
19 oblíqua *Rudge*	oblique	¥	□	or	2	d	R	Guiana	1808.	R	s l	Ru p g p. 8. t. 2
20 lútea *Jacq.*	yellow	¥	□	or	2	jn jl	Y.w	Caraccas	1809	R	s l	Jac ic r. 2 201
21 angustifòlia *B. M*	narrow-leaved	¥	□	or	2	jl au	R	W Indies	1820.	R	s l	Bot. mag 2398
22 Tonchat *W*	ovate	¥	□	or	8	jl au	R	E Indies	1819	R	s l	Rumph 4. t. 7
23 gibba *L. K*	gibbous	¥	□	or	4	au	O	E. Indies	1818	R	s l	
24 comosa *W.*	close-spiked	¥	□	or	2	jn jl	Y w	Surinam	1812.	R	s l	
3 CALATHE'A. *Mey*	Calathea					*Canneæ.*	*Sp* 1—4					
25 zebrína *Lind* *Marânta zebrìna* B. M	striped-leaved	¥	□	or	2	ja.d	R y	Brazil	1815	R	s p	Bot reg. 385
4 THA'LIA *W.*	Thalia					*Canneæ*	*Sp.* 1—2					
26 dealbáta *Rosc*	mealy	*	⊔	or	4	jl.au	W	S Carol	1791	R	p l	Bot mag 1690
5. PHRY'NIUM *W*	Phrynium					*Canneæ.*	*Sp.* 2					
27 capitátum *W.*	headed	¥	□	or	5		W	E Indies	1807	R	s l	As r. 11. t. 3
28 dichótomum *Roxb.*	forked	¥	□	or	5	jl au	W	E. Indies	1810	R	s l	
6. HEDY'CHIUM. *W*	Garland Flowers.					*Scitamineæ.*	*Sp* 9—14					
29 coronárium *Roxb.*	sweet-scented	¥	□	or	5	jn s	Y	E Indies	1791	R	p l	Bot. mag 708
30 angustifólium *Rox.*	scarlet	¥	□	or	5	jn s	S	E. Indies	1815.	R	s l	Bot reg. 157
31 elatum *Br*	tall	¥	□	or	5	jn.d	Y	E Indies	1818.	R	s.l	Bot reg. 526
32 Gardneriánum *Wall*	Gardner's	¥	□	or	7	jn au	Y	E. Indies	1819.	R	r.s	Bot. reg 771
33 flavéscens *B. C*	pale-yellow	¥	□	or	6	jn	Y	India	1822.	R	s.l	Bot. cab. 729
34 spicátum *B M.*	spiked	¥	□	or	3	jn	Y	E. Indies	1810.	R	co	Bot. mag. 2300
35 grácile *Roxb*	slender	¥	□	or	3	jn	W	Bengal	1823.	R	s l	
36 flávum *Roxb.*	yellow	¥	□	or	3	jn.au	Y	Nepal	1822.	R	s l	Bot cab 604
37 heteromállum *B R*	variable	¥	□	or	3	jn.au	Y	India	1822.	R	s.l	Bot reg. 767

History, Use, Propagation, Culture,

1 *Canna.* From a Celtic word signifying a cane or mat. *Le Balisier*, Fr *Blumenrohr*, Ger. *Canna*, Ital. The first three species are found wild within the tropics on all the continents, and chiefly in moist woods, or spongy woody wastes: in America and the Brazils, they are known by the name of wild plantain, and their leaves are used as envelopes for many objects of commerce; from which circumstance, the French name of the plant (*balisier*) is said to have arisen; *balija* being Spanish for an envelope. Clusius says he saw the C. lutea flowering by house-sides in Spain and Portugal, and that the inhabitants there use the seed for making their rosaries: in the East Indies the seeds are sometimes used as shot. The roots of C. edulis are eaten, dressed in various ways, in Peru The seeds of most of the species are round, hard, black, shining, heavy, and about one sixteenth of an inch diameter. These grow readily, or the plants may be propagated by dividing the roots; Miller recommends rich garden earth, Sweet (*Bot. Cultiv.* p. 34.) light rich soil for all the species. Most of these, if planted in a warm border early in summer, will flower there during the season.

2 *Maranta.* So named from Bartholomeo Maranti, a Venetian physician, who wrote three books chiefly to illustrate Diosc.; died 1554. *Galangre*, Fr. *Galgant*, Ger. The M. arundinacea is called Indian arrow-root, because its thick fleshy root was thought to extract the poison from wounds inflicted by the poisoned arrows of the Indians. In the West Indies it is used as an alexipharmic, to resist the force of poisons;

Essential specific Character.

1 Inner limb of the corolla 3-fid, Seg. ovate equal sprdg. with long claws, Lip bifid, rev. Leaves ovate lanc
2 Inner limb of the corolla trifid, Segments lanceolate acuminate straight
3 Inner limb of the corolla trifid, Segments straight emarginate
4 Inner limb of the corolla bifid
5 Peduncle short inclosed in the upper leaf, Inner limb of the corolla trifid, Segments ovate lanceolate sub erect, Lip erect spreading entire
6 Peduncles elong. Inner limb of corolla 3fid, Seg. lanceol. spathul. reflexed spreading, Lip oblong entire
7 Segments of cor. 2 entire ovate unequal, Lip bifid bent down
8 Segments of cor. 3 broad emarginate and crenate: the claws long, Lip. 2-fid bent down
9 Leaves of cal. lanceolate acute, Cor. 5 parted, Leaves ovate-obl acute at both ends cordate
10 Leaves of cal. oblong obtuse, Cor. 6 parted, Leaves ovate-obl. acute at both ends cordate
11 Leaves sessile ovate with the sheaths and nerves very red, Inner limb 4 parted
12 Leaves smooth and stems colored at the base, Roots tuberous and large, Middle seg. of corolla very short
13 Flowers sessile in pairs, Segments of cor. 2 erect bifid, Lip spotted revolute
14 Flowers on stalks: outer segments reflexed, inner 3 erect, Leaves lanceolate pointed at each end
15 Inner limb of the corolla trifid, Segments flaccid
16 Inner limb of the corolla trifid, Segments ovate straight, Lip three-lobed fringed

17 Stem and Leaves beneath downy, sheaths curled and colored at the edge, Flowers cernuous

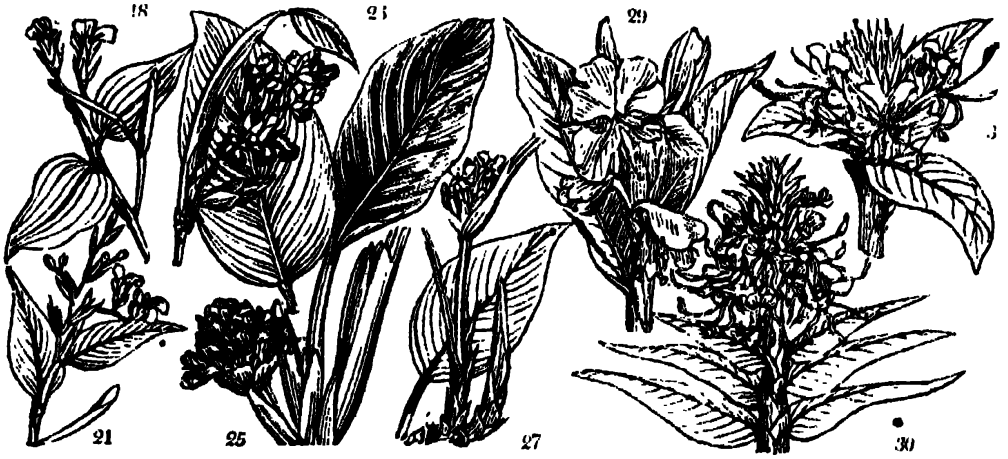
18 Culm branched herbaceous, Leaves ovate lanceolate somewhat hairy underneath
19 Leaves ellipt. oblique at end, Spikes elong. in fasc. Bract erect, 2-fid. imbricate acute pubesc.
20 Culm branched knotty ovate smooth, Spikes terminal subternate, Bracteas colored
21 Stem knotty, Leaves lanc. narrow, Panicle wavy, Inner bracts colored, Calyx ovate
22 Stem shrubby branching, Leaves ovate smooth
23 Leaves oblong lanc. pubesc. Fl. stalks 2-fid. Germ very hairy
24 Stemless, Scape naked, Spikes comose, Bracteas reflexed

25 Flowers in dense heads shorter than the leaves which are striped with purple

26 Calyx two-flowered, Culm reedy powdered, Leaves ovate revolute at the apex

27 Stemless, Leaves radical
28 Shrubby, dichotomous, Leaves cordate

29 Leaves lanceolate, Spikes compact imbricated, Segments of the cleft lip of the corolla lunulate
30 Leaves linear lanc. Spikes open, Fasc. of flowers subtern. Seg. of cleft lip obl the other 5 segs. of cor. lin.
31 Leaves obl. lanc. smooth, Spikes loose, Fascic. tern. 3 fid Inner segs. of the cor linear-cuneate, Lip bifid
32 Spike many-fl. loose, Fascicles many-fl. distant, Lip obovate bifid, Filament colored longer than corolla
33 Leaves lanceolate, Spike loose ovate, Petals linear, Lip ovate 2-lob. Fil. the same length as petals
34 Spathes truncate 1-fl. Outer segments of cor. linear, Lip roundish 2-lobed longer than the style
35 Leaves lanceolate, Spike terml. open, Flowers sol. scattered, Lip bifid sessile: stigm ½-lanceol Pet linear
36 Leaves broad, Spike terml imbricate, Bract. 4-fl Cor with linear segm. Lip. obcordate retuse
37 Upper leaves wavy silky beneath, Spike loose conical, Filament much longer than corolla



and Miscellaneous Particulars.

washed, pounded, and blanched, it makes a fine powder and starch, and may be used as food, resembling in many respects the salep. A light loamy soil suits all the species, which, though tender, are readily propagated by dividing the root.

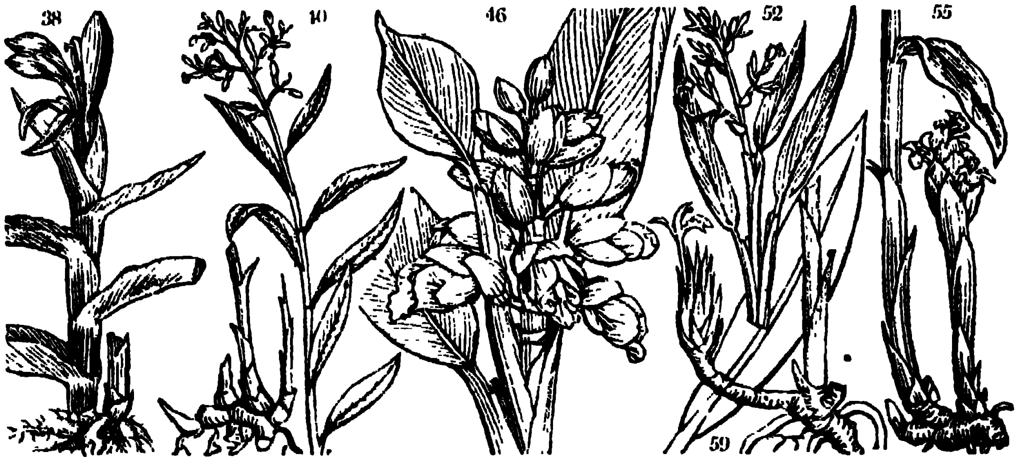
3. *Calathea.* So named by Meyer, probably from the cup-like stigma of the genus. It is much admired on account of its singularly striped foliage, to which the specific name alludes, and its ovate spike of purple flowers, about the size of a large pine-cone.

4 *Thalia.* In memory of John Thalius, a German physician, at Nordhuys, author of Plantæ Hercynæ, 1588. An aquatic, and if planted two or three feet under water, will survive our winters, in the open air. It flowers beautifully.

5. *Phrynium.* Φρυνιον, a plant which grows in marshes, the habitation of frogs, from φρυνος, a frog. The leaves are used in Malabar and China, for wrapping up cakes in the oven; before expansion they infuse them in spirit of rice or sugar diluted with three times its quantity of water, to make vinegar. *Loureiro.*

6. *Hedychium.* From a Greek word signifying sweet, from the grateful odour it emits. This beautiful genus requires a light rich soil, and large pots to make the plants flower freely. H. angustifolium deserves a place in every collection.

7. **ROSCO'EA.** *Sm*	ROSCOEA.					*Scitamineæ.*	*Sp.*	1—5.				
38 purpúrea *Sm*	purple	♃	[Δ]	or	1		P	Nepal	1820.	R	s l	Ex. b. t. 108
8. **ALPI'NIA.** *W.*	ALPINIA.					*Scitamineæ.*	*Sp.*	13—19.				
39 comósa *Jacq.*	close-spiked	¥	[Δ]	or	1			Caraccas	1752.	R	s.l	Ja. ic. rar. v. 3
40 Galánga *W.*	loose-flowered	¥	[Δ]	elt	6	oc.f	W.y	E. Indies	...	R	s.l	Ru. am. 5. t. 63
41 racemósa *Ros*	clustered	¥	[Δ]	or	5	jl.s	W	W. Indies	1752.	R		Pl. ic. 11. t. 20
42 occidentális *Sw.*	occidental	¥	[Δ]	or	6		W	Jamaica	1793.	R	s.	
43 nútans *Ros.*	nodding	¥	[Δ]	or	13	ap jn	Pk	E. Indies	1792.	R	s.	Ex. b 2. t 106
44 cérnua *B M.*	drooping	¥	[Δ]	or	6	ap jn	Pk	E. Indies	1804.	R	s	Bot. mag 1900
45 calcaráta *Ros*	upright	¥	[Δ]	or	3	s	W	E. Indies	1800.	R	s.	Bot. rep. 421
46 malaccénsis *Ros.*	petiolate	¥	[Δ]	or	5	ap.my	W	E. Indies	1799.	R	s.l	Bot. reg. 328
47 mútica *Roxb.*	spurless	¥	[Δ]	or	5	au	W	E. Indies	1811.	R	s.	
48 Cardamómum *Roxb*	cardamoms	¥	[Δ]	elt	8	au	W.p	E. Indies	1815	R	s.	R. mal 11. t.4, 5
49 spicáta *Roxb*	spiked	¥	[Δ]	or	2			Sumatra	1822.	R	r.m	
50 tubuláta *B R.*	tubular	¥	[Δ]	or	2	jl.au	R	Demarara	1820.	R	s.l	Bot. reg. 777
51 Allúghas *W.*	Ceylon	¥	[Δ]	or	2	f m	R	E. Indies	1796.	R	s.l	Bot. rep. 501
9 **HELLE'NIA.** *R.B.*	HELLENIA.					*Scitamineæ.*	*Sp.*	1.				
52 cærúlea *Br.*	blue	¥	[Δ]	or	2		B.e	N. Holl.	1820.			
10. **ZIN'GIBER** *Rosc*	GINGER.					*Scitamineæ.*	*Sp*	8—16.				
53 pandurátum *Roxb*	fiddle-lipped	♃	[Δ]	or	[illegible]	my jn	Pk	E. Indies	1812.	R	s.l	
54 Mióga *Ros.*	Japanese	♃	⌊Δ⌋	or	[illegible]	my.jn	Pk	Japan	1796.	R	r.m	Kæm. ic 1
55 officinále *Ros.*	narrow-leaved	♃	[Δ]	elt	[illegible]	jn.au	R	E. Indies	1605.	R	r.m	Jac. vin. 1. t. 73
56 Zerúmbet *Ros.*	broad-leaved	♃	⌊Δ⌋	or	[illegible]	au	Y G	E. Indies	1690.	R	r.m	Ex. b. 2. t. 112
57 Casumúnar *Roxb*	downy-leaved	♃	⌊Δ⌋	or	[illegible]	s.n	W.y	E. Indies	1807.	R	r m	Bot mag. 1426
58 purpúreum *Rosc.*	purple-bracted	♃	⌊Δ⌋	or	2		P	E. Indies	1796	R	s l	
59 róseum *Roxb.*	ıy	♃	⌊Δ⌋	or	2		R.y	E. Indies	1822.	R	s.l	Roxb. cor. 2. 126
60 squarrósum *Roxb.*	squarrose	♃	⌊Δ⌋	or	2		Pk	E. Indies	1822.	R	s.l	
11 **COS'TUS.** *Rosc.*	COSTUS.					*Scitamineæ.*	*Sp.*	6—13.				
61 arábicus *L.*	Arabian	♃	⌊Δ⌋	or			W	both Ind.	1752.	R	s.l	
62 spicátus *W.*	spiked	♃	⌊Δ⌋	or			Y	W. Indies	1793.	R	s.l	Jacq am. t 1
63 speciósus *Rosc.*	shewy	♃	⌊Δ⌋	or			W	E. Indies	1799.	R	s l	Jacq. ic 1
β *angustifolius.*	*nw-leaved*	♃	⌊Δ⌋				W	E. Indies	1799.	R	s.l	Bot reg 665
64 áfer *B. R.*	African	♃	⌊Δ⌋	or		jn jl	W	S. Leone	1822.	R	s l	Bot. reg. 683
β *hirsutus.*	*hairy*	♃	⌊Δ⌋	or		jn jl	W	S. Leone	1822.	R	s.l	
65 spiralis *Rox.* *Alp spiralis.*	spiral	♃	⌊Δ⌋	or		n.d		St. Vinc.	...	R	s.l	Jacq. schb 1. t 1
66 villosissimus *Jacq.*	villous	♃	⌊Δ⌋	or	6	n.d	Y	St. Vinc.	1822.	R	s.l	
12. **KÆMPFE'RIA.** *W.*	GALANGALE					*Scitamineæ.*	*Sp.*	6—8.				
67 rotúnda *L.*	round-rooted	♃	⌊Δ⌋	or	1	jl.au	R.w	E. Indies	1764	R	s l	Bot. mag. 920
68 Galánga *L.*	officinal	♃	⌊Δ⌋	elt	1	jn.s	W p	E. Indies	1728.	R	s l	Bot mag 850
69 angustifólia *Jacq.*	narrow leaved	♃	⌊Δ⌋	or	1	m.ap	W B	E. Indies	1797.	R	s l	Red lil. 7 t 389
70 panduráta *B Reg.*	fiddle-shaped	♃	⌊Δ⌋	or	1	ap jn	P	E. Indies	1797.	R	s l	Bot. reg. 173
71 latifólia *Donn.*	broad-leaved	♃	⌊Δ⌋	or	1	ap jn	W	E Indies	1803.	R	s.l	
72 ovalifólia *Roxb.*	oval	♃	⌊Δ⌋	or	1	jl	W.p	Malacca	1822.	R	s.l	
13. **AMO'MUM.** *Rosc.*	AMOMUM.					*Scitamineæ*	*Sp.*	7—20.				
73 Afzélii *Ros.*	sweet scented	♃	⌊Δ⌋	or	[illegible]	my jn		S. Leone	1795.	R	r m	Ann bot. 1. t 13
74 grandiflórum *E. B.*	large-flowered	♃	⌊Δ⌋	or	3	jn jl		S Leone	1795.	R	r m	Ex. bot t 111
75 angustifólium *Rox.*	narrow-leaved	♃	⌊Δ⌋	or	8	jn.jl		Madagasc.		R	r.m	Sonn it 2 t. 137
76 Grana Paradisi *W.*	grain of parad.	♃	⌊Δ⌋	elt	1	f.mr		Madagasc.		R	r.m	Rh. mal. 11. t. 6
77 dealbátum *Roxb.*	insipid	♃	⌊Δ⌋	or	3	mr ap		Bengal	1819.	R	s.l	
78 sylvéstre *W.*	wild	♃	⌊Δ⌋	or	1	mr ap		E. Indies	1819.	R	s.l	Slo. jam. 1. t. 105
79 subulátum *Roxb*	subulate	♃	⌊Δ⌋	or	3	mr ap		Bengal	1822.	R	s l	



History, Use, Propagation, Culture,

7. ***Roscoea.*** Named by Sir J. E. Smith, in honour of W. Roscoe, Esq., the accomplished historian of the Medicis, and the first botanist who elusidated the plants of the order Scitamineæ. The species are little known, but are both beautiful and curious.

8. ***Alpinia.*** After Prosper Alpini, an Italian physician and botanist, who practised at Cairo between 1580 and 1584, and died in 1615. *Canne de Rivière*, Fr. A splendid genus, requiring rich soil, a moist heat, and plenty of room. A. racemosa answers best when treated as an aquatic.

9. ***Hellenia.*** In honour of C. N. Hellenius, Professor at Abo, who, in 1798, published several academical dissertations. The same culture answers this plant as recommended for Hedychium.

10. ***Zingiber.*** From the original Indian appellation. *Zingembre*, Fr. *Ginfer*, Ger.; and *Zenzer*, Ital. Many of the specific names employed in the genus are derived from the vernacular names of the species. The roots of Z. officinale, and zerumbet, much used in the kitchen and in medicine, form a considerable export from our West India Islands. As a medicine, ginger is particularly useful in flatulent colic, debility, and laxity of the system, and in torpid and phlegmatic constitutions, to excite a brisker action of the vessels. The roots of ginger are taken up when the stalks fade, and, being first washed and scalded, are afterwards dried in the sun. This forms black ginger; the white sort is never scalded, but only washed and dried. When the root is to be

38 Flowers large terminal in the sheaths of the top of the stem, Leaves obl. acute sm.

39 Spike terminal comose, Bracteas colored longer than the flowers, Leaves oblong-ovate pubescent
40 Leaves sessile broad lanc. Panicle terml. Lip obl. unguiculated bifid, Caps. obov. smooth, Seeds few
41 Lip trifid, Leaves ovate-lanc. apex revolute, Caps. striated
42 Lip emarginate, Leaves lanceolate ovate very smooth [and bifid, Caps. sphær open on sides, Seeds few
43 Leaves lanc short stkd. small, Rac. comp. droop. Lip broad 3-lob. lateral incurv into a tube: external curled
44 Racemes terminal drooping, Lip bifid, Leaves lanc. acumin. Margins rough with little spinous teeth
45 Leaves linear-lanc. polished, Spike compound erect, Lip ovate-obl. apex curled and bifid
46 Racemes spiked, Lip round und. 2-lob. Caps. vill. Leaves obl. villous beneath
47 Racemes compound, Lip 3-lob. no spur, Caps. berried, Leaves narrow shining
48 Scape radical compound flexuose procumbent, Lip 3-lob. calcarate
49 Spike terminal oblong compactly imbricated with narrow sharp bractes
50 Leaves bifar. very remote scape sheathed radical, Bracts dry pointed perm. Cor. tub. Lip included, Anth. sess
51 Nectary 2-leaved, Capsules spongy, Leaves smooth entire

52 Lip emarg. Leaves and colored capsules smooth, Style hairy

53 Spikes radical, Leaves stalked broad smooth, Ligula large, Lip fiddle-shaped
54 Segments of the corolla concave acute equal, Lip ovate concave
55 Leaves sub-sessile linear-lanceolate smooth, Spikes elevated oblong, Bracteas acute, Lip 2-lobed
56 Stems decl. Leaves bifar sess. lanc Spike long-ped oval close obt Bract broad obov. obt. margs col Lip 3 lob
57 Stem erect, Leaves narr sess. Spikes compact cone-shaped, Bracteas ovate pointed, Lip 3-lobed
58 Spikes lat. Bracteas ovate col Segm of cor erect, Nect. 2-lob.
59 Spikes lat. Leaves short-stalked lanc. Spikes lax ½ in the earth, Lip entire
60 Spikes lat. squarr. ½ in the earth, Bract. narrow recurv. Lip 3-lobed

61 Nect. ovate entire, Leaves smooth on both sides
62 Nect. wavy sub-3-fid. Leaves pointed entire shining, Spike close
63 Nect. obsol. 3-lob. fringed wavy, Leaves silky beneath

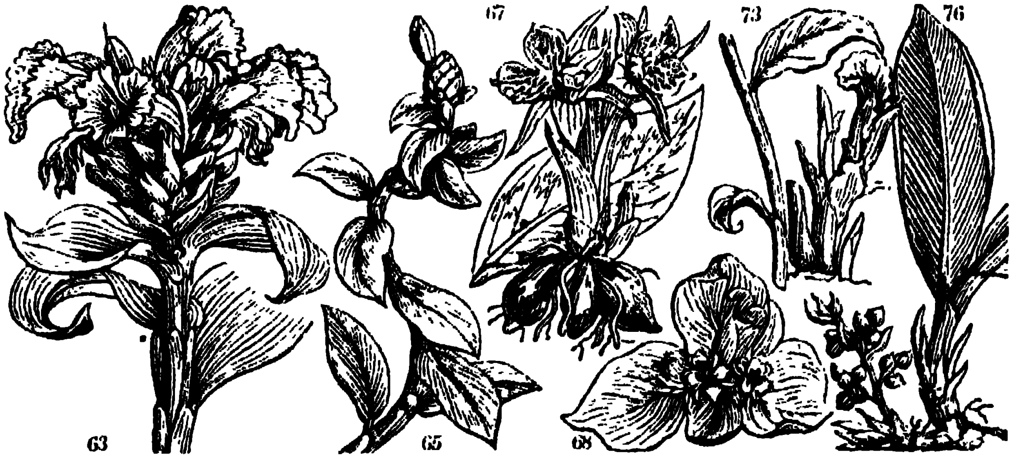
64 Cal. short with 3 grnish. blunt teeth, Fil. sm. at back, Leaves lanc. hairy or sm Spike turb close, Br. obt herb

65 Nect. concave entire, Leaves long-ellipt. thick shining

66 Leaves rounded and stem very hairy, Flowers crisp

67 Dorsal segments of nectary lanc. acute: frontal 2 part. Segments obovate, Leaves oblong colored beneath
68 Dorsal segments of nect. obtuse obsoletely 3 lobed: frontal 2-lobed wavy, Leaves ovate pale beneath
69 Dorsal segments of nect linear obtuse: frontal emarg Leaves lanc. pale beneath
70 Leaves stalked broad lanc. smooth, Spike central, Cor. with inferior segment very large and panduriform
71 Leaves orbiculate ovate wavy woolly beneath
72 Leaves oval, Spike central, Anther crest jagged

73 Scape very short, Flowers heaped, Leaves distant ovate acum. entire smooth
74 Scape short, Flowers numerous close, Sterile stem simple, Leaves ellipt lanc. pointed
75 Scape naked very short, Spike capitate, Leaves linear lanceolate
76 Scape branching lax, Leaves ovate
77 Leaves broad villous beneath, Spikes radical, Lip round oval, Crest broad truncated, Caps. 9 winged
78 Scape naked, Spike elong Bract. inflated, Leaves broad lanceol.
79 Leaves lanceol. smooth, Spikes obovate echinated, Lip oblong



and Miscellaneous Particulars.

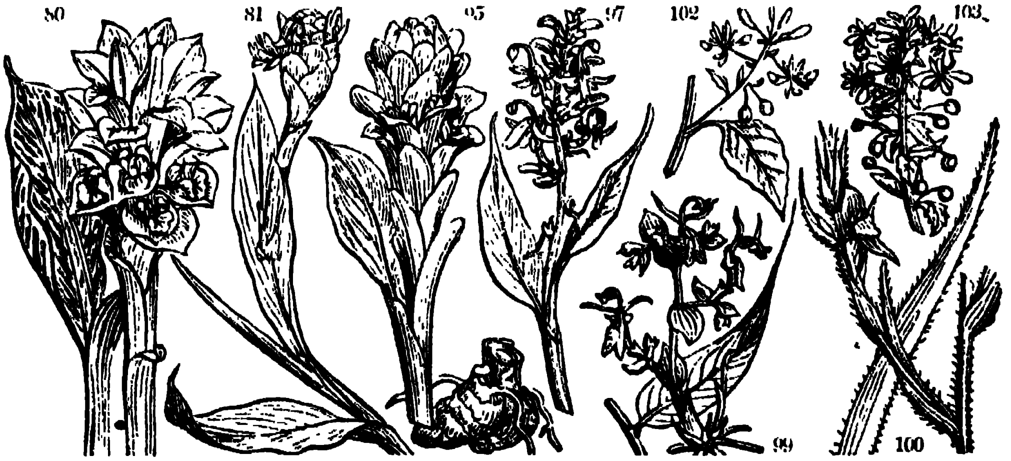
preserved in syrup, it is taken up and scalded before fully grown. After steeping and washing in water, it is put in jars, and covered with a thin syrup. (Browne's Jamaica.) Z. zerumbet is used in the East in cataplasms and fomentations, but not as internal medicine.

11. *Costus.* From its name in Arabic, *gosth.* Jacquin has shewn that the *costus* of the moderns is not the same as the plant so called by the ancients. *Costwurtz,* Ger., and *costo,* Ital. All the species grow in woods in their native countries, and their roots partake somewhat of the qualities of ginger.

12 *Kæmpferia.* In honor of Engelbert Kæmpfer, the Japanese traveller; born in Lemgow in Westphalia in 1651; died in 1716. *Zedoaire,* Fr. and *Grosse Galgant,* Ger. This is a curious genus of low stemless plants, with tuberous roots, a pleasant aromatic smell, and sharpish taste. The root is purple without and white within, and is esteemed a stomachic and cephalic. When the plants are not in a growing state, they require little or no water; otherwise like bulbs which are kept always moist, they will not flower freely.

13. *Amomum.* From α, privative, and μωμος, impurity, it has always been esteemed a powerful counter poison; or perhaps a corruption of *phamâmâ*, the Arabic appellation of the plant. *L'amome des Indes,* Fr. *Inguer* and *Gengiovo,* Ital. Most of the species formerly included under this genus are placed by Roscoe under Zingiber.

14. CURCU'MA. *W*	TURMERIC.				*Scitamineæ*. *Sp*. 16—18.							
80 Zedoária *Ros.*	broad-leaved	⚘	[△]	or	3	ap au	R	E. Indies	1797.	R	r.m	Bot. mag. 1546
81 Zerúmbet *Roxb*	Zedoary	⚘	[△]	clt	3	ap.au	Y	E. Indies	1807.	R	r.m	Bot. mag. 2000
82 æruginósa *Roxb*	green-rooted	⚘	[△]	or	5	ap au	R.y	E. Indies	1807.	R	r.m	
83 rubéscens *Roxb.*	reddish	⚘	[△]	or	3	my.s	Y	E. Indies	1805.	R	r.m	Rosc. scit. ic.
84 cæsia *Roxb.*	cæsious	⚘	[△]	or	1	ap.jn	Y	Bengal	1819.	R	s.l	
85 comósa *Roxb.*	many-flowered	⚘	[△]			my	R.y	E. Indies	1819.	R	s.l	
86 eláta *Roxb.*	tall	⚘	[△]			my	Cr	E. Indies	1819.	R	s.l	Rosc. scit. ic.
87 ferrugínea *Roxb.*	sweet-rooted	⚘	[△]			my	Y	E. Indies	1819.	R	s.l	Rosc. scit. ic.
88 leucorhiza *Roxb.*	white-rooted					my	R.y	E. Indies	1819.	R	s.l	
89 xanthorhiza *Roxb.*	yellow-rooted					my	R	Amboyna	1819.	R	s.l	
90 rubricaúlis *Lk.*	red-stemmed					my	R	E. Indies	1822.	R	s.l	
91 angustifólia *Roxb.*	narrow-leaved	⚘	[△]			jl	Y	E. Indies	1822.	R	s.l	As. res. 11. 5
92 viridiflóra *Roxb.*	green-flowered	⚘	[△]			jl.au	Y.o	Sumatra	1822.	R	s.l	
93 petioláta *Roxb.*	long-stalked						Y	Pegu	1822.	R	s.l	Rosc. scit. ic.
94 Amáda *Roxb*	Mango-ginger	⚘	[△]	c	2	ap.jn	R.y	Bengal	1819.	R	s.l	Rosc. scit. ic.
95 lónga *Ros.*	long-rooted	⚘	[△]	c	2	au		E. Indies	1759.	R	s.l	Jac. vind. 3. t. 4
15. GLOB'BA. *Ros*	GLOBBA.				*Scitamineæ* *Sp*. 2—11.							
96 marantína *Ros.*	round-headed	⚘	[△]	c	1½	jl.au	Y	E. Indies	1800.	R	s.l	Ex. bot. 2. t. 103
97 sessiliflóra *B M.*	sile-flower'd	⚘	[△]	c	1½	au	Y	Pegu	1807.	R	s.l	Bot. mag. 1428
98 Careyána *Roxb.*	Dr. Carey's	⚘	[△]	c	1½	au	Y	Pegu	1822.	R	s.l	Bot. cab. 691
•16 MANTI'SIA. *Sims*	MANTISIA.				*Scitamineæ*. *Sp*. 1.							
99 saltatória *B M.*	opera girls	⚘	[△]	c	1	jn	P	E. Indies	1808.	R	s.l	Bot. mag. 1320
17 PHILY'DRUM. *B. P.*	PHILYDRUM.				*Related to Junceæ*, R. B. *Sp*. 1—2.							
100 lanuginósum *B P*	woolly	¥	[○]	o	3	jn.jl	Y	China	1801.	C	l.p	Bot. mag. 783
18. LOPE'ZIA *Cav*	LOPEZIA				*Onagrariæ*. *Sp*. 4—5.							
101 hirsúta *H K*	hairy	¥	[○]		1½	s.n	R	Mexico	1796.		co	Jac. c. s.5. t.15. f 4
102 racemosa *H. K.*	smooth	¥	[○]		1½	au.o	R	Mexico	1792		co	Bot. mag. 254
103 coronáta *H K*	coronet-flower.		○		1½	jl s	R	Mexico	1805.		co	Bot. rep. 551
104 cordáta *Horn*	cordate		○		1½	jl s	P	Mexico	1821.			
19. BOERHAA'VIA *W*.	HOGWEED.				*Nyctagineæ*. *Sp*. 5-							
105 eréсta *W*	upright	¥	[△]	or	1½	jl s	W	India	1733		co	Jac. vind. 1. t. 5, 6
106 diffúsa *W*	spreading	♣	[△]	or	1	au s	Cr	India	1690		co	Her. par. 2. 7. ic.
107 hirsúta *W*	scarlet-trailing	★	□			my au	R	Jamaica	1733.		co	Jac. vind. 1. t. 7
108 scan'dens *W*	climbing	‡	□			ap s	G	Jamaica	1691.		co	Jac. vind. 1. t. 4
109 viscósa *Lag*	clammy	‡	[△]			s	Sc	Peru	1821.			
20. CENTRAN'THUS *Mch*	CENTRANTHUS.				*ineæ* *Sp* 3—4.							
110 ruber *D C.*			○	or	1½	my jl	Cr	Britain				Eng. bot. 1531
111 angustifolius *D C.*	narrow-leaved		○	or		my jl	Cr	S. Europe	1759.			Fl. græc 29
112 calcitrapa *Duf*	cut-leaved					my jl		Portugal	1683.			Fl. græc 30
21. POLLI'CHIA *W*	POLLICHIA				*Chenopodeæ* *Sp*. 1.							
113 campéstris *W*	short-leaved	♣	[○]	or	6	s	Ap	C B S	1780	C	co	Sm. spicil. 1. t 1
22 SALICOR'NIA *W*	GLASSW				*Chenopodeæ* *Sp*. 5—18.							
114 arabica *W*	Arab	■	⊔	or	1	jn jl	Ap	Arabia	1758	C	s l	Mor. 2. t. 33. f. 7
115 fruticósa *W*	shrubby	●	⊔	or	1	au.s	Ap	Britain	sea sh	S	s	Eng. bot 2467
116 radicans *E B*	rooting	♣	△	or	1	s	Ap	Britain	sea sh.	S	s	Eng. bot. 1691
117 herbácea *W*	marsh		○	clt	1	au s	Ap	Britain	sea sh.	S	s	Eng. bot. 415
118 procúmbens *E B*	procumbent	♣	○	clt	½	au	Ap	England	sal m.	S	l	Eng. bot. 1691
23. HIPPU'RIS. *W*	MARESTAIL				*Halorageæ* *Sp*. 1.							
119 vulgáris *W*	common	*	△	clt	1	my jn	Ap	Britain	dit	R	co	Eng bot. 763



History, Use, Propagation, Culture,

14 *Curcuma.* From the Arabic ***kurkum*** or ***hercum.*** ***Babilonischer safran***, Ger. C. longa was formerly much used in cookery to give things a color, and is still so used in the East Indies, for dyeing. The root was reputed aperient and resolvent, and was given in jaundice: it tinges the urine of a deep yellow. The roots of C. zerumbet powdered and mixed with the powdered wood of Cæsalpinia Sappan is copiously thrown about by the Hindoos during their holidays in March. The tubers of many species yield a very beautiful pure starch like arrowroot, which in some places, especially Travancore, forms a large part of the diet of the inhabitants.

15 *Globba* Its Indian name, and that also by which it is known in the Moluccas. *Globée*, Fr. Most of the species produce spikes of smoky-colored berries about the size of grapes, and which are sometimes eaten.

16. *Mantisia* The flowers bear a singular resemblance to some of the insects called mantis. The name of the species is derived from a fanciful notion that the flowers are like a dancing figure attached to a wire.

17. *Philydrum* Φίλος and ὕδωρ, a lover of water, in allusion to the places in which it grows. A pretty biennial plant, requiring but little protection from frost.

18 *Lopezia* Dedicated by Cavanilles to the memory of the licentiate Thomas Lopez, a Spanish botanist, who is said to have directed his attention to the natural history of the New World. The species are chiefly elegant annuals, and well deserving of cultivation

19. *Boerhaavia* So named in honor of the famous Boerhaave of Leyden, born at Voorhoot in 1668, and died

80 Spikes lateral, Bulbs small with long palm. tub. yell. inside, Leaves broad sessile silky beneath all green
81 Spikes lat Tub. palm. pale straw-col Leaves gr. stalk. brd. with a pur. cloud down the mid. Fl. short. than brac
82 Spikes lateral, Roots æruginous within, Leaves stalked with a faint rusty cloud beyond their middle above
83 Spikes lat. Roots pearl col. inside, Leaves broad on winged red stalks above the sheaths: rib and scape red
84 Spikes lateral, Roots green inside palmate, Leaves narr. with a rusty cloud in middle
85 Spikes lateral clavate comose, Roots ovate pale yell. inside, Leaves all green
86 Spikes lateral, Tubers large incurved pale yellow, Leaves sessile villous beneath all green
87 Spikes lat. Roots palm. scented pale yell. inside palmd. Leaves and sheath rusty with a pale red spot in mid.
88 Spikes lat. few-flowered comose, Tubers long spreading pale inside, Leaves smooth pure green
89 Spikes lat. Tubers all yellow, Leaves sessile green broad with a purple cloud down the middle
90 Spikes lat. Leaves stalked oblong with red sheaths
91 Spikes lat. Root with pale pendulous tubers, Leaves stalked narrow, Flowers longer than bractes
92 Spikes central, Tubers palmate deep yellow, Leaves long stalked broad-lanceolate, Plant all green
93 Spikes central, Leaves on long stalks cordate, Coma lilac
94 Spikes central few-flowered, Tubers palmate pale yellow inside, Leaves broad smooth on long stalks
95 Spikes central, Roots deep orange inside, Leaves long stalked broad green

96 Leaves lanceolate, Spike terminal sub-sessile cone-shaped bulbiferous, Anther 4-horned
97 Spike whorled, Lateral segments of cor. longest, Appendage cordate, Bractes lanc. withering, Bulbiferous
98 Leaves ovate lanc. villous beneath, Racemes compound term. bulbif. Anther naked roundish

99 The only species

100 Flowers bright yellow, Leaves hairy

101 Leaves ovate villous, Stem round
102 Leaves ovate attenuate at base, with the 4-cornered stem smooth
103 Leaves shining, Stems angular, from the decurrent stalks, Corymbs leafy at the base
104 Leaves roundish cordate ciliated smooth, Branches angular

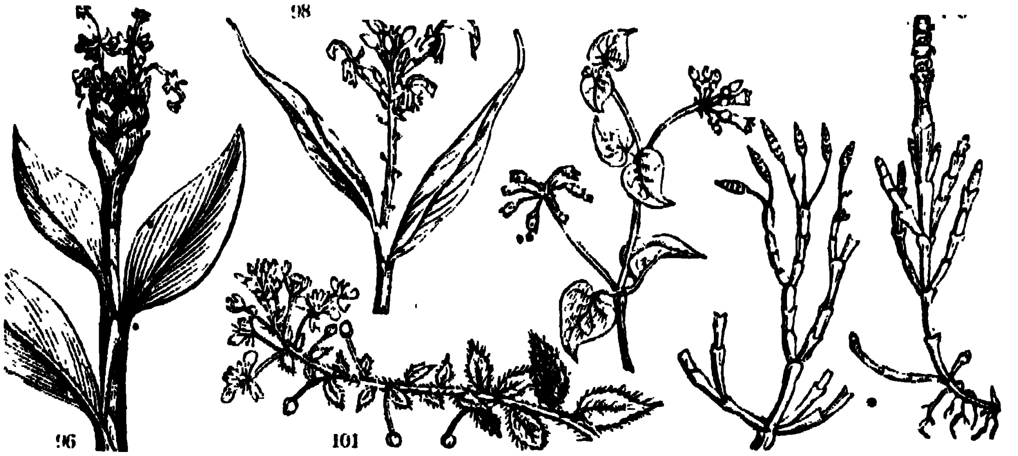
105 Stem 4-cornered smooth, Joints clammy, Flowers panicled, Leaves angular-dotted with black beneath
106 Stem round pubescent, Flowers in capitate corymbs
107 Stem roundish hairy, Leaves ovate acute sub-repand, Flowers in heads diandrous
108 Stem climbing, Leaves all cordate, Flowers in umbels diandrous
109 Villous viscid, Leaves ovate acute sub-repand, Stem procumbent, Flowers in heads triandrous

110 Leaves entire lanceolate, Stem ½-shrubby at base, Flowers corymbose, Stamens nearly twice as long as cor.
111 Leaves linear, Stem herbaceous, Flowers corymbose, Stamens nearly thrice as long as corolla
112 Rad. leaves ovate cauline pinnatifid, Stem upright smooth, Flowers panicled

113 Stems branching declining, Flowers minute sessile in axillary heads

114 Leaves alternate sheathing obtuse gaping on one side
115 Stem erect shrubby, Joints of the young branches 2-sided, Scales of flowers truncate membranous
116 Stem shrubby procumb. rooting, Joints compressed emarg. cylindr. Spikes obl. Style deeply divided, Stam. 2
117 Herbaceous spreading, Joints emarginate compressed at end, Spikes axillary opp. stalked, Scales blunt
118 Herbaceous procumbent, Joints obconic, Branches simp. Spikes fastigiate, Stamens 2

119 Leaves whorled 10-12 linear acute



and Miscellaneous Particulars.

in 1758. *La Tassole*, Fr. He was the first friend and protector of Linnæus. All the plants of this genus are possessed of little beauty.

20. *Centranthus.* From κεντρον, a spur, and ανθος, a flower, in allusion to the calcarate corolla.

21. *Pollichia.* In honor of Jean Ad. Pollich, a German botanist, who published in 1776, a history of the plants of the Palatinate. The only species is an obscure herbaceous plant.

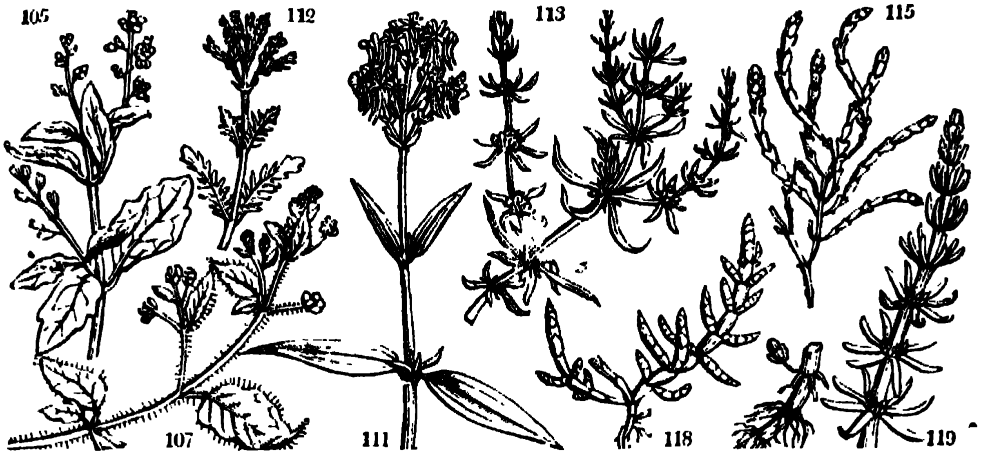
22. *Salicornia.* From sal, salt, and cornu, a horn; saltwort, marsh samphire. *Le Christemarine*, Fr. *Glass schmaltz*, Ger., and *Erba-cali*, Ital. S herbacea is gathered when in flower, and pickled in salt and vinegar like samphire, for culinary purposes. The whole plant has a saltish taste, and is greedily devoured by cattle. All the species, excepting the S. arabica, abound on the shores of the Mediterranean, and are there burnt for soda, which is much used in the manufactures of soap and glass, especially at Marseilles.

23. *Hippuris* From ιππος, a horse, and ουρα, a tail. *La Pesse d'eau, or pin aquatic*, Fr. *Schafthalm*, Ger., and *Hippuride*, Ital. The flower of this plant is one of the simplest among perfect plants; it has only one stamen and one pistil, unprotected by either calyx or corolla, and it produces only one seed. The situation of the leaves in whorls is not usual in European plants, excepting in the stellatæ of Linnæus. The flowers in the beginning of summer are mostly hermaphrodite, but in autumn many of them are female. By absorbing a great quantity of inflammable air, this plant is reputed to assist in purifying the putrid air of marshes. It is eaten by wild ducks.

24. ZOSTE'RA. *L.*	SEA WRACKGRASS				*Fluviales*		*Sp.* 1				
120 marina *L.*	common	△	cc		au.s	Ap	Britain	sh.	S	s	Eng. bot. 467
25. CHLORAN'THUS. *W.*	CHLORANTHUS				*Chloranthea.*		*Sp.* 3—				
121 inconspicuus *W.*	trailing	☐	cu	1	ap.s	Ap	China	1781.	C	co	
122 monostáchys *Lindl.*	herbaceous	△⃞	cu	1	my	Ap	China	1819.	C	co	Lind. coll. 17
123 monánder *Br*	upright	☐	cu	1½	jn	Ap	China	1817.	C	co	

DIGYNIA.

26. CORISPER'MUM. *W.*	TICKSEED.				*Chenopodeæ.*		4—9.				
124 hyssópifólium *W.*	hyssop-leaved	○		1½	jl	Ap	Europe	1739.	S	co	Fl. græc. 1. t. 1
125 squarrósum *W.*	rough-spiked	○		1	au.s	Ap	Russia	1759.	S	co	Pall. ross. 2. t. 99
126 Redówskii *Fisch.*	Redowsky's	○		½	jl au	Ap	Siberia	1822.	S	co	
127 intermédium *Schw.*	intermediate	○		½	jl.au	Ap	Poland	1822.	S	co	
27 CALLIT'RICHE. *W.*	WATER STARWORT				*Halorageæ*		*Sp.* 1.				
128 aquática *E. B.*	common	○		½	ap.o	W	Britain	dit	S	aq	Eng. bot. 722
28. BLI'TUM. *W.*	STRAWBERRY BLITE.				*Chenopodeæ.*		*Sp.* 3.				
129 capitátum *W.*	berry-headed	○	or	2	my.au	Ap	Austria	1633.	S	ru	Pt et T. fl. p 1. t. 2
130 virgátum *W*	slender	○	or	2	my.s	Ap	S. Europe	1680.	S	ru	Bot. mag. 276
131 chenopodioides *Lam.*	goosefoot	○		2½	my au	Ap	Crimea	1797.	S	co	M. h. 1. t. 32. f. 11
29. ASPICAR'PA. *Rich.*	ASPICARPA				*Malpighiaceæ*						
132 úrens *Rich.*	stinging	△⃞		5½	jn.jl	Ap	S. Amer.	1821.	C	co	Mem. m. 2. t. 13



History, Use, Propagation, Culture,

24 *Zostera.* From ζωστηρ, a riband; the leaves of *Z. oceanica* are a foot long and an inch broad, resembling a riband. *La Zostère*, Fr., and *Seetang*, Ger. This plant abounds on the coast of Yarmouth, where it is thrown on shore in such abundance that mounds are made with it to enclose the encroachments of the sea. It is also used as thatch, and said to endure for upwards of a century; by exposure it bleaches white. In Sweden and Holland it is used as a manure, and is preferred to hay for stuffing beds. Horses and swine eat it, but cows are not fond of it. The rush-like envelopes of Italian liquor-flasks are prepared from this plant.

25 *Chloranthus.* So named from χλωρος, green, and ανθος, a flower, on account of the greenish hue of its inconspicuous inflorescence. The structure of the flower is very curious, and so anomalous, as to render it difficult to tell to what class of Linnæus it is referable. For further remarks upon this subject, see Mr. Lindley's *Collectanea Botanica*, p. 17.

26 *Corispermum.* From κορις, a bug or tick, and σπερμα, a seed. *Le Corisperme*, Fr., and *Der Wanzen-*

CLASS II. — DIANDRIA. 2 STAMENS.

This class, which is not large, and so entirely artificial that no other characters than those of the Linnæan definition can be assigned to it, contains some elegant and fragrant plants belonging to Jasmineæ, Scrophularineæ, and Labiatæ: examples of the two latter orders are Veronica and Salvia, extensive genera chiefly of hardy herbaceous plants. The most useful of the class are the pepper and the olive: the jasmine is used in perfumery; the sage and rosemary in cookery; and the privet and syringa for garden hedges. One or two species are employed in medicine, several are border flowers; but the greater number of the class are plants of curiosity.

Cœlarium is a leguminous plant, and is widely removed from its natural place, which is Diadelphia; so are Salvia, Monarda, Rosmarinus, Veronica, and many others, which would have been naturally referred to Didynamia.

Under this class Persoon has placed the genus Gunnera, which Willdenow injudiciously referred to Gynandria. A great variety of diandrous plants are scattered through the other classes of Linnæus; but as such plants are chiefly, with the exception, perhaps, of grasses, diandrous, on account of the incomplete formation of some of their stamens, the rudiments of which are usually obvious, it is scarcely necessary to particularise more than the following, viz.:—

D. MONOGYNIA. Viola diandra; Salicornia herbacea, virginica; Anychia dichotoma; several species of Boerhaavia. D. DIGYNIA. Polycnemum salsum; Bufonia tenuifolia. D. TRIGYNIA. Holosteum diandrum.

ORDER I. MONOGYNIA. 2 Stamens. 1 Style.

§ 1 *Flowers complete, inferior, monopetalous, regular.*

30 *Cœlarium.* Cal. 5-cut, with a persistent tube. Cor. flattish. Legumen one-seeded, filled with a soft fæcula.
31 *Maytenus.* Cal. 5 lobed. Cor. campanulate, entire. Caps. compressed, 2-valved, with 2 cells, and 2 seeds

120 Leaves entire somewhat 3-nerved, Stems nearly round

121 Spikes compound, Stem decumbent
122 Spike simple solitary, Stem upright
123 Spikes 2-4 simple, Stem upright, Leaves thick

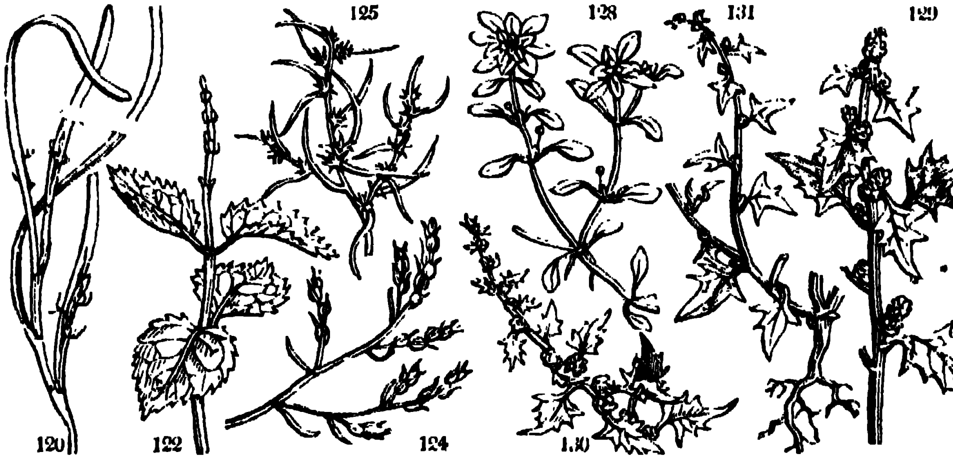
DIGYNIA.

124 Spikes terminal, Flowers distant, Leaves nerveless and bractes unarmed
125 Spikes axillary, Flowers close imbricat. Leaves nerveless and bractes mucronate pungent
126 Spikes terminal, Flowers becoming remote, Leaves nerveless and bractes pungent, Fruit incurved
127 Spikes terminal and axillary, Flowers imbricate, Leaves and bractes mucronate, Stem villous

128 A small floating plant resembling Lemna

129 Heads in terminal spikes
130 Heads lateral scattered
131 Heads axillary small not juicy, Stem very branching

132 A stinging twining perennial plant



and Miscellaneous Particulars.

same, Ger. The species abound in the south of Russia in marshy steppes with Salsola and Atriplex. Round the Caspian sea they grow six feet high, are red in winter, and eaten by camels.

27. *Callitriche* From καλλος or καλος, and θριξ, hair. *Le Callitrice*, Fr. *Der Wasserstern*, Ger., and *Callitrica*, Ital. A little aquatic plant, liable to variation in its appearance; on which account some botanists have divided it into several species.

28. *Blitum* From βλιτον, insipid, or, according to Dr Theis, from the Celtic *blith*, which has the same import. *Le Blète*, Fr. *Die Beermelde*, Ger., and *Blito*, Ital. After the flowers are past, the heads swell to the [illegible] The [illegible] tain the hands, and were formerly used by cooks for coloring puddings. Some consider the B. virgatum as only a variety of the other.

29. *Aspicarpa*. From ἀσπις, a round shield, and καρπος, fruit, in reference to the form of the ripe fruit.

32. *Olea* Cor 4-cleft. Segments subovate. Drupe one-seeded.
33. *Phillyrea* Cor 4-cleft. Berry one-seeded.
34 *Chionanthus*. Cor. 4-cleft. Segments very long' Drupe one-seeded, with a furrowed nut.
35. *Notelæa*. Cal 4-toothed. Cor. 4 short oval petals united by the base of the stamens. Filaments 4 horned. Style O. Stigma bifid Drupe with a papery putamen.
36. *Ligustrum*. Cor. 4-cleft. Berry 4-seeded.
37. *Syringa*. Cor 4-cleft. Capsule of two cells.
38. *Nyctanthes* Cor 4-cleft. Segments truncated. Caps with two cells edged. Seeds solitary.
39. *Jasminum* Cor. 5 or 8-cleft. Berry with two divisions. Seeds solitary with an arillus.

§ 2. *Flowers complete, inferior, monopetalous, irregular.*

40. *Veronica*. Cor. 4-cleft: limb flattish; the lowest segment the narrowest Capsule 2-celled.
41. *Galipea*. Cor 4 or 5-cleft, hypocrateriform. Stam. 4 2-sterile.
42. *Schwenkia*. Cor. nearly equal: the orifice plaited, stellate, and glandular. Stam. 5: 3-sterile. Capsule 2-celled.
43. *Gratiola*. Cor. 4-cleft, 2-lipped, resupinate Stamens 4: 2-sterile. Caps. 2-celled.
44. *Schizanthus*. Cal. 5-parted. Cor 2-lipped resupinate: the upper lip 5-parted, the lower 3-parted Stam. 4, 2-sterile. Caps. 2-valved, 2-celled.
45. *Elytraria*. Cal. 4-5-parted. Cor. 5-cleft, nearly equal Caps. 2-valved, 2-celled. Seeds attached below to a dissepiment contrary to the valves.
46. *Hypoestes*. Cal. 5-cleft equal, with a 4-cleft 3-flowered involucrum. Cor 2-lipped. Stamens 2. Anthers 1-celled. Seeds fixed by little hooks.
47. *Justicia*. Cal. 5-parted equal. Cor. 2-lipped or ringent: the lower lip divided. Anthers 2-celled. Seeds attached by little hooks.
48. *Dicliptera*. Cal. 5-parted. Cor. bilabiate. Caps. with two elastic valves, ½ 2-celled, the dissepiment retaining the seeds by its inflexed toothed edge
49. *Eranthemum*. Cal. 5-parted. Cor. 5-cleft, with the tube curved in the middle. Caps. many seeded.
50. *Wulfenia*. Cor. 4-cleft: smooth bearded. Cal 5-parted. Caps. 2-celled.
51. *Calceolaria* Cor. ringent, inflated. Cal 4-cleft Caps. 2-celled, 4-valved.
52. *Pinguicula* Cor. ringent, spurred Cal. 5-cleft Caps. 1-celled.
53. *Utricularia* Cor. ringent, spurred Cal. 2-leaved. Caps. 1-celled.

54. *Stachytarpheta* Cal. tubular, 4-toothed. Cor. hypocrateriform, unequal, 5-cleft, curved. Stam. 4: 2 sterile. Seeds two.

55 *Lycopus*. Cor 4-cleft, nearly equal, with one segment emarginate. Stamens distant. Seeds naked.

56. *Amethystea*. Cor. 5-cleft, nearly equal, with the lowest segment concave. Stamens near each other. Seeds naked.

57. *Ziziphora*. Cal. cylindrical with ten lines, somewhat 2-lipped, 5-toothed, closed with hairs. Cor. 2-lipped. Seeds 4 naked.

58. *Cunila*. Cal. oblong, 5-toothed, closed with hairs. Cor. 2-lipped. Seeds 4 naked.

59. *Hedeoma*. Cal. 2-lipped, gibbous at the base. Cor. ringent. Stamens 4: 2 sterile.

60. *Monarda*. Cor. ringent: helmet linear, wrapping up the anthers. Seeds naked

61. *Rosmarinus*. Cor ringent. Helmet arched, bifid. Stamens curved, with a tooth. Seeds naked.

62. *Salvia*. Cor ringent. Filaments stalked cross-wise. Seeds naked.

63. *Collinsonia*. Cor somewhat ringent: the lip very finely divided. Seeds naked.

64. *Catalpa*. Cor 5-cleft, irregular. Cal. 2-parted. Stam. 3 sterile. Caps. 2-celled. Seeds at each end with a membranous pappus

65. *Ghinia*. Cor ringent. Cal with 5 bristles. Fruit, a fleshy 4-celled nut.

§ 9. *Flowers complete, inferior, polypetalous.*

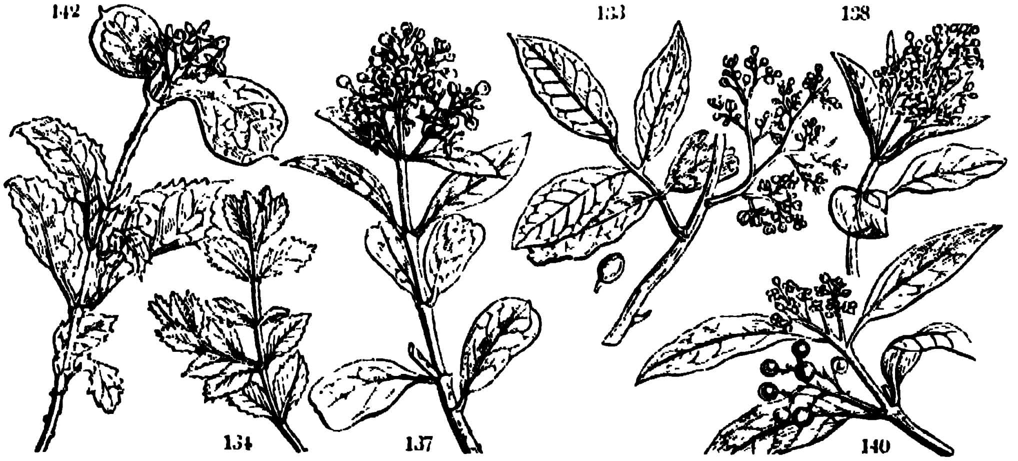
66. *Fontanesia* Cor with 2 petals. Cal. 4-parted. Caps. 2-celled, not opening.

67. *Linociera* Cor. with 4 petals. Cal. 4-toothed. Berry with 2 cells.

68 *Ancistrum*. Cal 1-leaved, armed with barbed spines. Cor. 4 petals inserted into edge of calyx. Stam. 2-4-5. Stigm. finely divided Seed one, inclosed in the calyx.

MONOGYNIA.

30. CODA'RIUM. *Vahl*	Wild Tamarind.				*Leguminosæ*. *Sp.* 1—2.							
133 acutifólium *Afz.*	shining-leaved	♀	☐	or	20		G	S. Leone	1800.	C	l.p	Rœ. arc. 1. 31. t. 6
31 MAYTE'NUS. *Mol.*	Maytenus.				*Celastrinæ*. *Sp.* 1.							
134 boária *Mol.*	yellow-fruited	♀	⊔	or	15		W	Chili	1822	C	co	Feuill. ch. 3. t. 27
32. O'LEA *W.*	Olive.				*Oleinæ*. *Sp* 8—12.							
135 oleáster *Hoffm.*	bastard	♣	⊔	or		jn.au		Portugal	1821.	C	co	
136 europǽa *W.*	European olive	♀	⊔	fr		jn.au		S. Europe	1570.	C	r m	Flora Græca t. 3
β longifólia	*long-leaved*	♀	⊔	fr		jn.au		S. Europe		C	r.m	
γ latifolia	*broad-leaved*	♀	⊔	fr		jn.au		S. Europe		C	r.m	Bot. cab. 456
δ ferruginea	*iron-colored*	♀	⊔	fr		jn au		S. Europe		C	r.m	
ε obliqua	*twisted-leaved*	♀	⊔	fr		jn.au		S. Europe		C	r.m	
ζ buxifolia	*box leaved*	♀	⊔	fr		jn.au		S Europe		C	r m	
137 capénsis *W. en*	leathery-leav'd	♣	⊔	or		jn s		C. B. S	1730.	C	p l	Bot. reg. 613
138 undulàta *W. e*	wave-leaved	♣	⊔	or		ap.my	W	C. B. S.	1730.	C	p.l	Bot. cab. 379
139 verrucósa *W.*	warted	♣	⊔	or		ap my	W	C. B. S.	1814.	C	p l	
140 americàna *W.*	American	♣	⊔	or		jn	W	N. Amer.	1758.	S	s p	Cat. car. 1. t. 61
141 excélsa *W.*	laurel-leaved	♀	⊔	or		my	W	Madeira	1784.	S	p l	
142 frágrans *W.*	fragrant	♣	⊔	or		jn.au	Y	China	1771.	L	p.l	Bot. mag. 1552



History, Use, Propagation, Culture,

30. *Codarium*. So named by Dr. Afzelius, from κωδάριον, a leathern pouch, in allusion to the pods of the tree. These are filled with an abundant pithy fæcula, which is eaten by the inhabitants of the coast of Guinea, where the fruit is called wild tamarinds.

31. *Maytenus* The barbarous name of the shrub, and applied as a generic name by Molina. It has the habit of a Rhamnus, and will probably form an hardy inhabitant of our gardens

32 *Olea* From ἐλαία, the Greek name for the plant; a word derived in its turn, as De Théis conjectures, from the Celtic *olew*, Bil. Olea is commonly put for the tree; oliva, for the fruit; and oleum, for the juice of the fruit. *L'olivier*, Fr. *Oelbaum*, Ger., and *Ulivo*, Ital. The cultivated olive came originally from Asia, and grows abundantly about Aleppo and Lebanon; it is naturalised in different parts of the south of France, Spain, and Italy, and found in hedges and woods, but the fruit of that kind is small and of no use. O. e. var longifolia, is the variety chiefly cultivated in the south of France and in Italy. O e. var latifolia, is chiefly cultivated in Spain; its fruit is near twice the size of the common olive of Provence or Italy, but the oil is so rank of flavor as to be too strong for most English palates. The oil and fruit, in a pickled state, are sent chiefly from Languedoc, Leghorn, and Naples to England, the best oil is from Leghorn, and the best pickles from Genoa and Marseilles. The tree seldom exceeds thirty feet in height, is branchy, glaucous, evergreen; and of so great longevity, that some plantations in Italy, as at Terni, are supposed to have existed from the time of Pliny. The tree delights in schistous, calcareous steeps, and does not thrive in elevated situations, or at a distance from the sea. The best oil is produced from fruit grown in calcareous soils Olive oil may be said to form the cream and butter of Spain and Italy; and the tree has been celebrated in all ages as the bounteous gift of heaven, and as the emblem of peace and plenty.

oil is made by crushing the fruit to a paste, then pressing it through a woollen bag, adding hot water as long as any oil is produced The oil is afterwards skimmed off the water, and put in tubs, barrels, and bottles for use. The best olive oil is of a bright pale-amber color without smell, and bland to the taste. Kept warm, it becomes rancid, and it freezes at 38° Fah It is of the same nature with all mild expressed vegetable oils; of these the most fluid are preferred, and hence the oils of olives and almonds are those chiefly used in medicine. Oily substances do not unite with the contents of acid stomachs; but to healthy patients they afford much

69. *Ornus.* Cal 4-parted. Cor. of 4 petals. Fruit, a winged Samara of two cells.

§ 10. *Flowers complete, superior.*

70. *Morina.* Cal. of the fruit toothed with bristles: of the flower bifid.
71. *Circæa.* Cal. 2 leaved. Cor. with two obcordate petals.
72. *Fedia.* Caps. 3-locular, crowned with the upright (not involute) limb of the calyx. Corolla irregular.

§ 11. *Flowers incomplete, with no corolla.*

73. *Pimelea.* Cal. funnel-shaped, with a 4-cleft limb. Stigma capitate.
74. *Cladium.* Cal. many-valved, 1-flowered: valves glumaceous, imbricated, the exterior smallest. Nut with a double coat.

Order 2. DIGYNIA. 2 Stamens. 2 Styles.

75. *Gunnera.* Cor. O. Cal. 2-toothed. Seed one, inclosed in a tough coat.
76. *Anthoxanthum.* Glume membranous, 3-flowered. Lateral florets neuter with one palea bearded; intermediate floret hermaphrodite, much shorter than the lateral ones. Paleæ obtuse, beardless. Seed free.

Order 3. TRIGYNIA. 2 Stamens. 3 Styles.

77. *Piper.* Cal. O. Cor. O. Berry 1-seeded. Spadix simple, slender, covered with little flower-bearing scales.

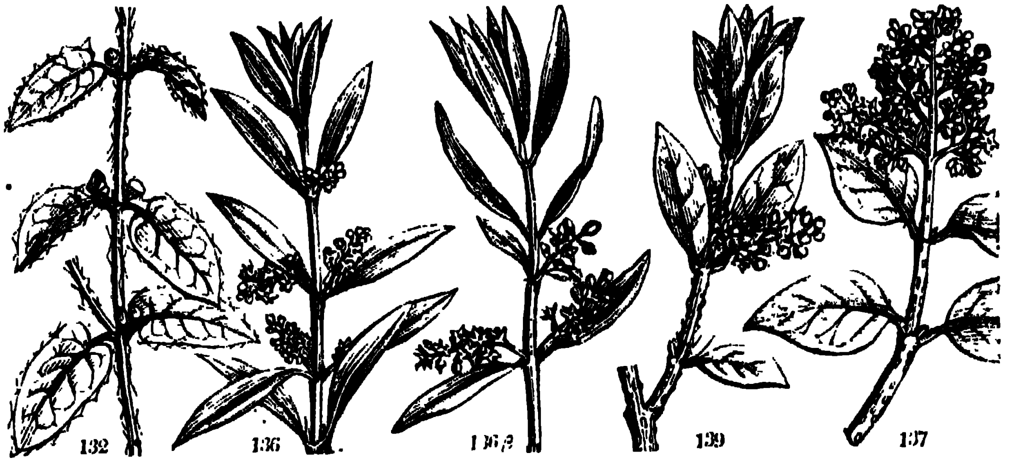
MONOGYNIA.

133 Leaves unequally pinnate, Leaflets oval acute the inner the smallest

134 Leaves sessile two inches long opposite or alternate oblong smooth serrated

135 Leaves oblong pointed entire: the young ones only hoary beneath, Branches spiny
136 Leaves lanceolate pointed entire hoary beneath, Branches angular not spiny
- β Leaves linear-lanceolate flat silky beneath
- γ Leaves oblong flat hoary beneath
- δ Leaves narrow acute at each end, rusty beneath
- ε Leaves oblong bent obliquely pale beneath
- ζ Leaves oblong ovate, Branches divaricate

137 Leaves oblong, Flowers racemose panicled terminal
138 Leaves elliptical wavy, Stalks of leaves green
139 Leaves lanceolate flat white beneath, Branches warted
140 Leaves elliptic-lanceolate, Bractes all persistent connate ovate, Racemes sub-compound narrow
141 Leaves elliptic acute, Bractes perfoliate: the lower cup-shaped persistent the upper large leafy deciduous
142 Leaves elliptic-lanceolate sub-serrate, Flowers single lateral in bunches



and Miscellaneous Particulars.

nourishment, and medicinally are supposed to correct acrimony, to lubricate, and relax. Olive oil is applied externally to bites and stings of poisonous animals, and to burns alone, with chalk, or in liniments and poultices. The ancients rubbed their bodies with it in dropsies and for various purposes; but it is now little used excepting for coughs and in worm cases

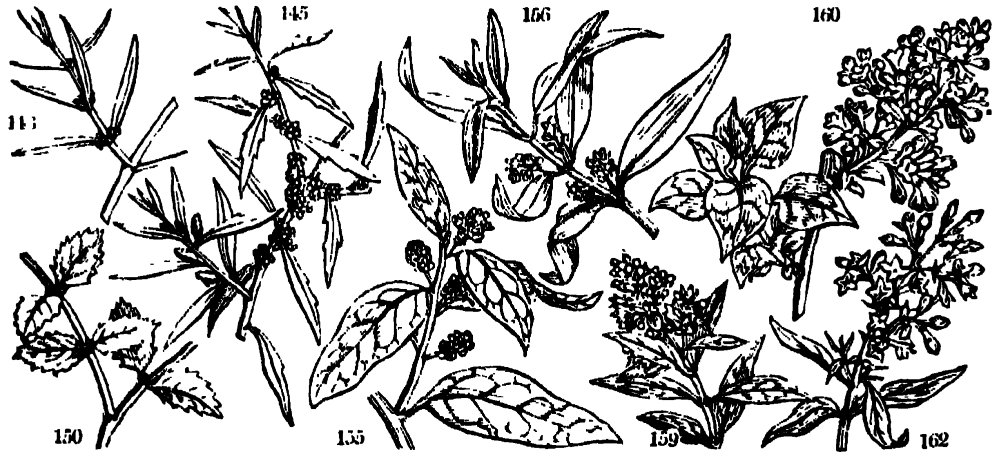
Pickled olives are prepared from unripe fruit by repeatedly steeping them in water, to which quicklime or any alkaline substance is sometimes added to shorten the operation. Afterwards they are soaked in pure water, and then taken out and bottled in salt and water, with or without an aromatic. They are eaten abroad as a whet before and during the principal meals, and in this country chiefly at the dessert. They are supposed to excite appetite and promote digestion. The finest kind of the prepared fruit is called by the merchants *Picholine*, after one Picholini, an Italian, who first discovered the art of pickling olives.

The culture of the olive abroad may be said to resemble that of grass orchards in Britain. It is propagated by suckers, large cuttings, or truncheons planted in trenches four feet deep, into which it is still the custom to deposit stones for encouraging moisture about the roots, as described by Virgil. (*Georg.* ii. 346) It is also propagated by chips of the stool, in the following manner: An old tree is cut down, and the ceppo, or stock, is cut into pieces of nearly the size and shape of a mushroom, and which, from that circumstance, are called uovoli. Care is taken that each uovolo shall have a small portion of bark. After being dipped in manure, the uovoli are planted thick in a bed and covered with earth to the depth of three inches; they soon throw up shoots, and are transplanted at the end of one year, and in three more are fit to be finally removed to the olive plantation.

The olive in Britain grows readily by cuttings, or may be grafted on the privet. With protection during frost, it may be maintained against a wall in the latitude of London Some trees so treated, produced a crop in the garden of Camden House, Kensington, in 1719; and in Devonshire, some trees have stood the winter for many years as standards, though without ripening their fruit. Large plants are frequently imported from Genoa, along with orange and pomegranate trees.

O. fragrans is highly odoriferous both in the leaves and blossoms; the plant is much esteemed on that account in China, and the leaves used at once to adulterate and flavor teas.

33. PHILLYRE'A. *L.*	PHILLYREA.				*Oleinæ.*	*Sp.* 9.						
143 angustifólia *W. en.*	narrow-leaved				8	my.jn	W	S. Europe	1597.	L	s.l	Lam. ill. t. 8. f. 3
β *rosmarinifólia*	*rosemary-leav.*	♣			8	my.jn	W	S. Europe	1597.	L	s.l	
γ *brachiáta*	*brachiate*					my.jn	W	S. Europe	1597.	L	s.l	
144 média *W. en*	twiggy	♣		or	15	my.jn	W	S. Europe	1597.	L	s.p	Duham. t. 27
β *buxifólia*	*box-leaved*	♣		or	15	my.jn	W	S. Europe	1597.	L	s.p	
145 virgata *W. en.*	privet-leaved	♣		or	15	my.jn	W	S. Europe	1597.	L	s.l	
146 péndula *W. en.*	drooping	♣		or	15	my.jn	W	S. Europe	1597.	L	s.l	
147 oleæfólia *W. en.*	olive-leaved	♣		or	15	my.jn	W	S. Europe	1597.	L	s.l	Pluk. al. t. 310. f. 5
148 lævis *W. en.*	smooth-leaved	♣		or	15	my.jn	W	S. Europe	1597.	L	s.l	
149 ilicifólia *W. en.*	holly-leaved	♣		or	15	my.jn	W	S. Europe	1597.	L	s.l	
150 latifólia *W. en.*	broad-leaved	♣		or	15	my.jn	W	S. Europe	1597.	C	r.m	Fl. græc. 1. t. 2
151 obliqua *W. en.*	oblique-leaved	♣		or	15	my.jn	W	S. Europe	1597.	C	r.m	
34. CHIONAN'THUS. *W.*	FRINGE-TREE.				*Oleinæ.*	*Sp.* 3.						
152 virgínica *W.*	smooth-leaved	♣		or	30	my.jl	W	N. Amer.	1736.	L	p.l	Cat. car. 1. t. 69
153 marítima *Ph.*	pubescent	♣		or	10	my.jl	W	N. Amer.	1736.	L	p.l	
154 axilláris *Br.*	axil-flowering	♣		or	7	my.jl	W	E. Indies	1810.	C	p.l	
35. NOTELÆ'A. *B. P.*	NOTELÆA.				*Oleinæ.*	*Sp.* 3.						
155 longifólia *B. P.*	long-leaved	♣	⊔	or	3	mr.jn	W	N.S.W.	1790.	C	s.p	Bot. rep. t. 316
156 ligustrína *Vent.*	privet-leaved	♣	⊔	or	3	jl.au	W	V. Di. L.	1807.	C	s.p	Vent. choix. 26. b
157 rígida *Desf.*	rigid	♣	⊔	or	3	jl.au	W	V. Di. L.	1821.	C	s.p	
36. LIGUS'TRUM. *W.*	PRIVET.				*Oleinæ.*	*Sp.* 2—4.						
158 lúcidum *H. K.*	wax-tree	♣		or	8	jn.s	W	China	1794.	g.l	s.l	Bot. mag. 2565
β *floribúndum*	*flowering*	♣		or	8	jn.s	W	China	1794.	g.l	s.l	
159 vulgáre *W.*	common	♣		or	10	jn.jl	W	Britain	hedg.	S	co	Eng. bot. 64
β *sempervirens*	*evergreen*	♣		or	8	jn.jl	W	Italy	...	L	co	
γ *xanthocárpum*	*yellow-berried*	♣		or	8	jn.jl	W	Italy	...	L	co	
37. SYRIN'GA. *W.*	LILAC.				*Oleinæ.*	*Sp.* 3—4.						
160 vulgaris *W.*	common	♣		or		my	B	Persia		Sk	co	Schk. han. 1. t. 2
β *violácea*	*purple*	♣		or		my	P	Persia		Sk	co	Bot. mag. 183
γ *álba*	*white*	♣		or		my	W	Persia		Sk	co	
161 chinénsis *W.*	Chinese	♣		or		my.jn	V	China		L	l.p	Duham. 2. t. 63
δ *rothomagénsis* Turp.	*hybrid*	♣		or			V	China		L	l.p	
162 pérsica *W.*	Persian	♣		or			P	Persia		L	s.p	Bot. mag. 486
β *alba*	*white*	♣		or		my	W	Persia		L	s.p	
γ *laciniáta*	*cut-leaved*	♣		or		my	P	Persia		L	l.p	Schm. ar. 2. t. 79
38. NYCTAN'THES. *W.*	NYCTANTHES.				*Jasmineæ.*	*Sp.* 1.						
163 arbor tristis *W.*	square-stalked	♣	☐	or			W	E. Indies	1781.	C	r.m	Bot. reg. 399
39. JASMI'NUM. *W.*	JASMINE.				*Jasmineæ.*	*Sp.* 18—40.						
164 Sambac *W.*	single Arabian	♣	☐	or	6	ja.d	W	E. Indies	1665.	C	r.m	Bot. reg. 1
β *fl. pleno*	*double ditto*	♣	☐	or	6	ja.d	W	E. Indies	1700.	C	r.m	Bot. rep. 497
γ *trifoliátum*	*Tuscan*	♣	☐	or		ja.d	W	E. Indies	1730.	C	r.m	Bot. mag. 1785
165 hirsútum *Ex. B.*	hairy Indian	♣	☐	or		my.au	W	E. Indies	1759.	C	r.m	Ex. bot. 2. t. 118
166 campanulátum *Lk.*	campanulate		☐	or				...	1822.	C	r.m	
167 laurifólium *Roxb.*	laurel-leaved		☐	or	4	my.s	W	E. Indies	1819.	C	r.m	Bot. reg. 521



History, Use, Propagation, Culture.

33. *Phillyrea.* Said to derive its name from φυλλον, a leaf, an etymology far from satisfactory. The genus consists of ornamental evergreen shrubs, the supposed varieties of which have been considered distinct species by most modern botanists. Some authors have united the genus with Olea; but they have not been followed generally.

34. *Chionanthus.* From χιων, snow, and ανθος, a flower. *Le Chionanthe*, Fr. *Der Schneeblume*, Ger., and *Albero de neve*, Ital. Both species are highly ornamental shrubs or low trees; their leaves are above half a foot in length, and 1½ inch in breadth, their flowers white, in numerous long bunches, and their fruit of the size and color of a sloe. They are propagated by seeds or grafting on the common ash.

35. *Notelæa.* From νοτος, south, and ελαια, olive: the olive of the south. A small ornamental genus of nearly hardy shrubs, which would probably endure the climate of this country in a favorable situation.

36. *Ligustrum.* From ligare, to tie, on account of its long pliable branches. *La Fresillon*, Fr. *Der Liguster*, Ger., and *Legustro*, Ital. The privet in old authors is called primprivet, as Professor Martyn conjectures, from its patience under the sheers. Few shrubs exceed it as a garden hedge-plant: it will thrive in the middle of coal-burning cities, in the shade, and under the drip of trees; though to flower well it requires an open airy situation. Cows, sheep, and goats eat it, but horses refus[illegible]

The Sphinx ligustri, *L.*, or privet hawkmoth, and Phalæna syringaria feed on it in the caterpillar state: the blister beetle, Lytta vesicatoria, from which cantharides is formed, is also found on it. Fully grown, the wood is fit for the turner, and a rose-colored pigment may be prepared from the berries, which, with alum, dye wool and silk of a durable green. The berries remain on the tree during winter in elegant purple clusters, and are not eaten by birds excepting in very severe weather, when bullfinches and some others feed on them. Like most plants that have been long in cultivation, the privet varies in its leaves, flowers, and fruit, and in the duration of the former. In its cultivated state it is always evergreen; found wild in woods and hedges, is ge-

143 Leaves linear lanceolate entire

144 Leaves lanceolate entire or serrate in the middle, Leaves 3-nerved

145 Leaves oblong lanceolate sub-serrate in the middle obsoletely veined, Branches erect
146 Leaves oblong lanceolate acute obsoletely serrated at the point veiny, Branches veiny
147 Leaves oblong lanceolate nearly entire obtuse narrowed at the base veiny
148 Leaves elliptic oblong nearly entire veiny somewhat obtuse
149 Leaves ovate oblong rounded at the base veiny serrated, Serratures with stiff points
150 Leaves ovate rounded at the base serrated acute veiny
151 Leaves oblong serrated acute at each end veiny

152 Racemes terminal, Stalks 3-flowered, Petals linear lanceolate, Leaves coriaceous
153 Leaves obovate lanceolate membranaceous pubescent, Panicles very lax, Fruit elliptic
154 Spikes axillary very short, Leaves oblong elliptic acute

155 Leaves lanceolate pointed sub-reclinate, Racemes length of the leaf stalks
156 Leaves lanceolate acute sub-erect, Racemes as long as the leaves
157 Leaves opposite rigid broad lanceolate entire, Bunches axillary

158 Leaves ovate oblong pointed shining above, Flowers spreading

159 Leaves ellipt-lanceolate smooth, Racemes compound dense

160 Leaves ovate cordate, Branches stiff white colored

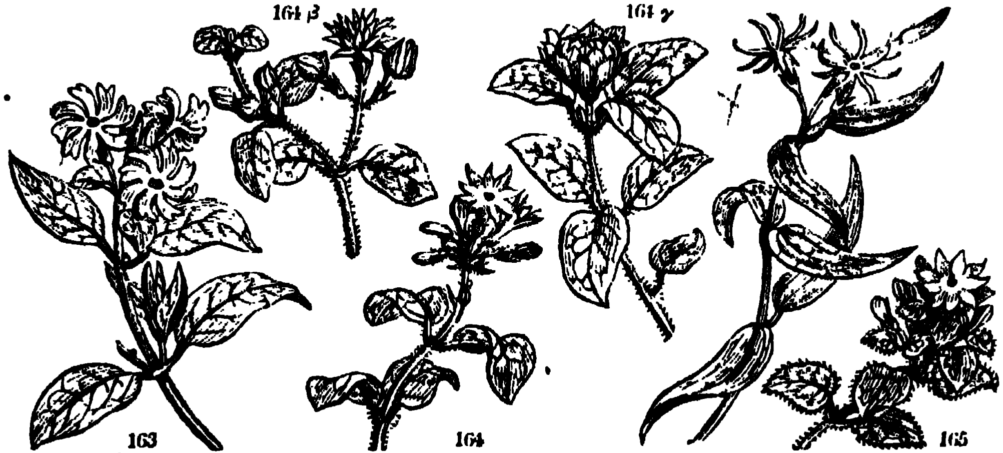
161 Leaves ovate-lanceolate, Branches stiff mottled

162 Leaves lanceolate, Branches virgate mottled

163 A delightfully fragrant plant, Leaves cordate, Flowers panicled

164 Leaves opposite sub-sessile oblong or cordate, Calyx with subulate teeth, Berries globular

165 Leaves cordate downy, Umbels terminal sessile many-flowered
166 Branches round pubescent, Leaves ternate oval pointed, Calyx bell-shaped with very short teeth
167 Leaves opp. shining lanc. 3-nerv. Fl. 1.5 ax. and term. Cal. 6.7 toothed, Cor 9.12 part. Seg. lin. the length of tube



and Miscellaneous Particulars.

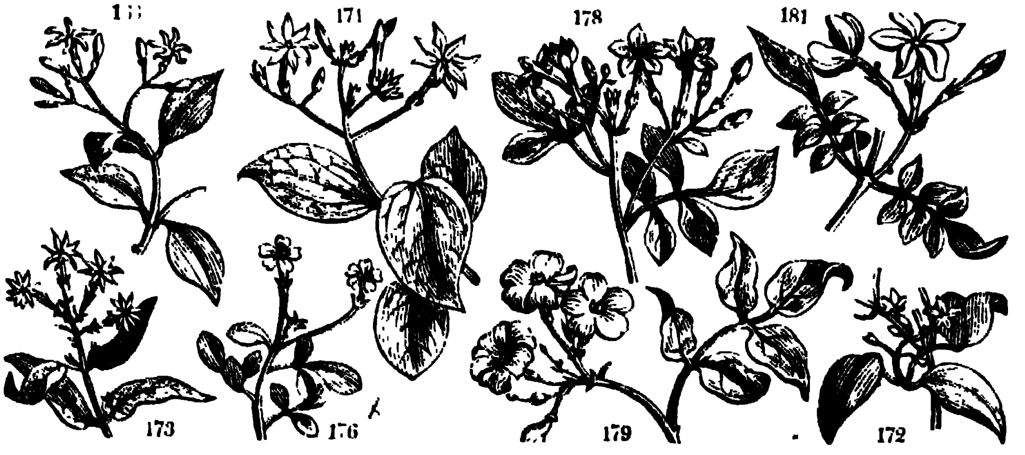
nerally deciduous. Sometimes the leaves grow by threes, are enlarged at the base and variegated. The regular number of stamens is two; but sometimes there are three or four in a flower. The berries are usually purple or black, but some have been seen of a white color; and a yellow fruited variety is common in the gardens. A kind of vegetable wax is said to be obtained from *L. lucidum* in China.

37. ***Syringa.*** Some say from Συριγξ, an Arcadian nymph, or, more properly, here, a pipe. The tubes of the finest Turkish pipes are manufactured from the wood of it; but the true root of the word is to be found in *sirinx*, its native name in Barbary. Lilac is a Persian word signifying a flower. *Le Lilas*, Fr. *Die Syrene*, Ger., and *Syringa*, Ital. All the species are most beautiful flowering shrubs, readily propagated by suckers, which they throw up in abundance. The common lilac seems to have been introduced before or during the reign of Henry VIII.; for in the inventory taken by order of Cromwell of the articles in the gardens of the palace of Nonsuch, are mentioned six lilackes; trees which bear no fruit, but only a pleasant smell. S. persica is well adapted for forcing in pots; but so treated its flowers are without fragrance.

38. ***Nyctanthes.*** From νυξ, night, and ανθος, flower, night-flower, its flowers expanding and smelling only in the night. *L. Arbor triste*, Fr. *Der Traurige baum*, Ger. It grows freely in loam and peat soil mixed, but seldom produces its exquisitely fragrant flowers in England. Sweet thinks it is generally kept too warm, and recommends a trial in the greenhouse or open air; but its appearance would probably be little improved by any manner of treatment, as it has but an indifferent aspect in its own country. Cuttings not too ripe, root readily in sand under a hand-glass.

39. ***Jasminum.*** From the Arabian jasmin (ysmyn). Linnæus obtained a fancied etymology from ια, a violet, and οσμη, smell. *Le Jasmine*, Fr. *Der Schasmine*, Ger., and *Il Gelsomino*, Ital. The flowers of J. sambac are of exquisite fragrance, and in high esteem both in the East and West Indies. It grew in the Hampton Court garden at the end of the 17th century; but being lost there, was known in Europe only in the garden of

168 **grácile** *B. P.*	slender	♣	└┘	or	3	ja d	W	Norfolk I	1791.	C	s.p	Bot. rep 127
169 **glaúcum** *W.*	glaucous	♣	└┘	or	3	au	W	C.B.S.	1774.	C	l.p	Sal. st. ra t. 8
170 **trinérve** *W.*	three-nerved	⌇	☐	or	20	...	W	Sylhet	1804.	C	l.p	
171 **simplicifólium** *W.*	simple-leaved	⌇	☐	or	3	jn jl	W	S. Seas	1800	C	r.m	Bot. mag. 980
172 **paniculátum** *Roxb.*	panicled	⌇	☐	or	5	ja	W	China	1818.	C	r.m	Bot. cab 469
173 **undulátum** *Vahl*	wavy	⌇	☐	or	5	ja	W	China	1819.	C	r m	Bot. reg. 436
174 **auriculatum** *Vahl.*	auriculated	⌇	☐	or	10	my.s	W	E. Indies	1790	C	r.m	Bot. reg. 264
175 **azóricum** *W.*	Azorian	⌇	└┘	or	5	ap n	Y	Madeira	1724.	C	r.m	Bot. reg. 89
176 **frúticans** *W.*	comm. yellow	●		or	3	ap.o	Y	S. Europe	1570.	C	r.m	Bot. mag. 461
177 **húmile** *W.*	Italian	●		or	3	jn.s	Y	S. Europe	1656.	L	co	Bot. reg. 350
178 **odoratíssimum** *W.*	sweet-scented	⌇	└┘	or	3	my.n	W	Madeira	1656.	C	r.m	Bot. mag. 285
179 **revolútum** *B R.*	curled flowered	⌇	└┘	or	12	m.o	Y	E. Indies	1812.	C	r.m	Bot. reg. 178
180 **officinále** *W.*	common white	⌇		or	15	jn.o	W	......	1548.	C	co	Bot. mag. 31
181 **grandiflórum** *W.*	Catalonian	⌇	└┘	or	15	jn.o	W	E. Indies	1629.	C	r.m	Bot. reg. 91
40. VERO'NICA. *W.*	SPEEDWELL				*Scrophularinæ.*			*Sp* 84—136.				
182 **sibírica** *W.*	Siberian	⚘	Δ	or	3	jl.au	B	Siberia	1779.	D	co	Am. rut. 20. t. 4
183 **virgínica** *W.*	Virginian	⚘	Δ	or	5	jl s	W	Virginia	1714.	D	co	Hoff. got. 15. t. 1
β incarnáta	*flesh-colored*	⚘	Δ	or	1	jl s	F	......	...	D	co	
184 **foliósa** *Schr*	leafy	⚘	Δ	or	2	jl s	B	Hungary	1805.	D	co	Wa. & K. 2. t 102
185 **crenuláta** *Vahl.*	notch-flowered	⚘	Δ	or	1½	jl s	B	S. Europe	1814.	D	co	Hoff. ph. t. E. f. 3
186 **marítima** *Schr*	sea-side	⚘	Δ	or	2	jl s	B	Sweden	1570.	D	co	Sc. v. p. 29. t. 1. f. 1
187 **angustifólia** *Fisch*	narrow-leaved	⚘	Δ	or	1½	jl s	B	Siberia	1822.	D	co	
188 **spúria** *Schr.*	bastard	⚘	Δ	or	2	jl.s	L.B	Siberia	1731.	D	co	Gmel. it. 1. t. 39
189 **paniculáta** *Pall.*	panicled	⚘	Δ	or	1½	jn jl	B	Russia	1797.	D	co	
190 **complicáta** *W. en*	folded-leaved	⚘	Δ	or	2	s o	B	S. Europe	1812.	D	s.l	Hoff. ph. t. E. f. 4
191 **azúrea** *Lk.*	sky-blue	⚘	Δ	or	3	jl s	B	......	1821	D	co	
192 **polystáchya** *Lk.*	many-spiked	⚘	Δ	or	2	jl.s	B	......	1821.	D	co	
193 **glábra** *Schr.*	smooth	⚘	Δ	or	4	jl.s	B	S. Europe	1804.	D	co	Sc. v. p. 25. t. 1. f. 4
β álba	*white*	⚘	Δ	or	4	jl.s	W	......	...	D	co	
194 **amethýstina** *W. en*	fine blue	⚘	Δ	or	4	jl.s	B	S. Europe	1812.	D	co	
195 **elátior** *W. en*	tall	⚘	Δ	or	7	jl.s	B	S. Europe	1808.	D	co	
196 **acúta** *Mart*	acute	⚘	Δ	or	5	jn.jl	B	......	1822.	D	co	
197 **argúta** *Schr*	sharp-notched	⚘	Δ	or	3	jl s	B	S. Europe	1812.	D	co	Sc. v p 22. t. 2. f. 2
198 **média** *Schr.*	long-spiked	⚘	Δ	or	3	jl s	B	Germany	1804	D	co	Sc. v p 23 t. 1 f. 2
199 **persicifólia** *Schott*	peach leaved	⚘	Δ	or	2	jl s	B	......	1823.	D	co	
200 **austrális** *Schr*	pubescent	⚘	Δ	or	1½	jl s	B	S. Europe	1812	D	co	Sc. v p. 24 t 2 f 3
201 **longifólia** *Schr.*	long-leaved	⚘	Δ	or	3	jl s	B	S. Europe	1731.	D	co	Sc v p 24 t. 2. f 1
β incarnáta		⚘	Δ	or	3	jl s	F	......	...	D	co	
γ álba		⚘	Δ	or	3	jl s	W	......	...	D	co	
202 **grόssa** *Mart*	short	⚘	Δ	or	2	jn.jl	B	Crimea	1821.	D	co	
203 **ambígua** *Mart.*	doubtful	⚘	Δ	or	3	jn jl	B	Sweden	1823.	D	co	
204 **negléeta** *W. en*	evanescent	⚘	Δ	or	1½	jl au	D.B	Siberia	1797.	D	co	Wa. & K. 3 t 244
205 **incána** *Schr*	hoary	⚘	Δ	or	2	jl s	B	Russia	1759	D	co	Hoff. got 15. t. 6
206 **rígens** *Mart.*	stiff	⚘	Δ	or	2	my jn	B	......	1823.	D	co	
207 **élegans** *D C.*	elegant	⚘	Δ	or	2	my.jn	Pk	S. France	1822.	D	co	
208 **brevifólia** *Lk.*	short-leaved	⚘	Δ	or	1	jn jl	B	......	1822.	D	co	
209 **spicáta** *Schr.*	spiked	⚘	Δ	or	1	jl.s	B	England	ch pa.	D	co	Eng. bot. 2
210 **clúsii** *Schott*	Ecluse's	⚘	Δ	or	½	jl.s	B	Hungary	1822.	D	co	
211 **menthæfólia** *Schott*	mint-leaved	⚘	Δ	or	1	jl.s	B	Austria	1823.	D	co	
212 **barreliéri** *Schott.*	Barreliers	⚘	Δ	or	1	jl s	B	S. Europe	1823.	D	co	
213 **orchidéa** *Crz*	orchis-flowrd.	⚘	Δ	or	1	jl s	B	Europe	1819	D	co	Bot. mag 2210
214 **hýbrida** *Schr*	Welsh	⚘	Δ	or	1	jl.s	B	England	moun	D	co	Eng. bot 673
215 **crassifólia** *Kit.*	thick-leaved	⚘	Δ	or	2½	my.jn	V	Europe	1822.	D	co	
216 **ruthénica** *Jacq.*	Hungarian	⚘	Δ	or	2	my jn	B	Hungary	1821.	D	co	
217 **Pónæ** *W*	Pona's	⚘	Δ	or	½	my jn	B	Pyrenees	1822.	D	co	
218 **villósa** *Schr.*	villous	⚘	Δ	or	1½	jl s	B	S. Europe	1804.	D	co	Sc. v. p. 31. t 1 f 5
219 **pinnáta** *Schr.*	wing-leaved	⚘	Δ	or	1	jn.au	B	Siberia	1776.	D	co	Hoff got. 15. t. 10
220 **incísa** *Schr*	cut-leaved	⚘	Δ	or	2	jn.au	B	Siberia	1779.	D	co	
221 **laciniáta** *Schr*	jagged-leaved	⚘	Δ	or	2	jn.au	B	Siberia	1780.	D	co	Jung. ic. rar. f. 2
222 **gentianoídes** *W.*	gentian-leaved	⚘	Δ	or	2	my jn	D.B	Levant	1748	D	co	Bot. mag. 1002
223 **pállida** *Hornem.*	pale	⚘	Δ	or	2	my jn	B	Tauria	1821.	D	co	
224 **bellidioídes** *W.*	daisy-leaved	⚘	Δ	or	½	jn.jl	B	Switzerl.	1775.	D	co	Hall. hist. t. 15 f 1



History, Use, Propagation, Culture,

the Grand Duke of Tuscany at Pisa, where Evelyn informs us (*Memoirs*, &c. by Bray), the plant was placed under guard that no cuttings might be purloined. A plant sent to Miller in 1730 restored it to England, and it is now a common greenhouse shrub. Plants of J. humile, also very odoriferous, are commonly imported from Genoa along with orange-trees. J. officinale has been a favorite wall-shrub from time immemorial. Its native country, as well as the date of its introduction are unknown. Gerarde, in 1597, says it was in common use for covering arbors. J. hirsutum is a tall tree, whose sweet-smelling flowers open during the night and fade at sun.

168 Leaves opposite simple ovate ellipt. Calyx smooth campanulate: teeth very short
169 Leaves lanceolate mucronate sub-coriaceous, Flowers 3 terminal
170 Leaves polished 3-nerved pointed, Fl. sol. Cal. 6.7 toothed, Cor. 6.8 part. Seg. filif. longer than the long tube
171 Spreading, Leaves obl. polished, Flowers 3 or many term. Cor. 6.8 part. Segm. linear acute equal to tube
172 Erect every part polished, Leaves ternate oval obtusely acuminate, Panicles terminal
173 Leaves simple cordate obl. shining, Branches and flower-stalks hairy, Racemes 3-flow. Calyx-teeth straight
174 Leaves sub-ternate, Leaflets ovate the pair minute or wanting, Teeth of cal. 5 gland. Cor. 7 part. Berr glob.
175 Leaves compound ternate ovate and sub-cordate, Calyx campan. smooth, Segm. of corolla equal to its tube
176 Leaves alternate ternate and simple, Leaflets sub-cuneate, Calyx-teeth subulate
177 Leaves alternate acute ternate and pinnate, Branches angular, Calyx-teeth very short
178 Leaves alternate obtuse ternate and pinnate, Branches slender, Calyx-teeth very short
179 Leaves in about 3 pairs ovate lanc. on short stalks, Cym. term. few or many-fl. loose, Anth. mucr. partly exsert.
180 Leaves pinnate acuminate, Buds upright
181 Leaves opposite pinnate exterior 3 or 5 leaflets confluent, Flowers terminal, Buds horizontal

Racemes or Spikes terminal, Leaves whorled and opposite.

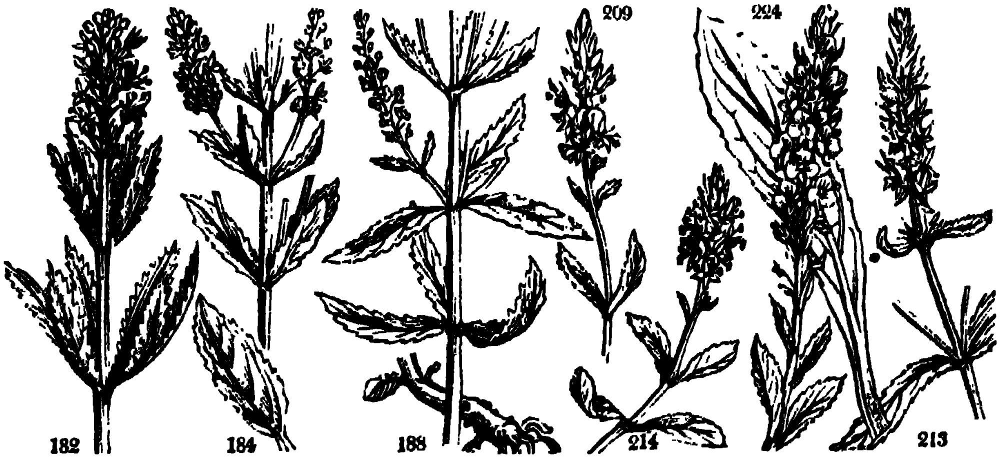
182 Leaves 5 6 or 9 together lanceolate sessile
183 Leaves 4 5 together lanceolate ovate stalked, Flowers cylindrical

184 Leaves 3 or 4 together ovate or ovate-lanceolate sub-biserrate; serratures unequal
185 Leaves ternate and opposite obl.-lanc. serrate, Cal acute, Cor. notched. [equal shorter than capsule
186 Leaves 3 or 4 togeth. lin. lanc. from an ov. bas. acumin. deeply doubly serr. with the stem sub-pub. Cal. nearly
187 Leaves opp linear narrowed by degrees very acute remotely serrated, Bractes longer than the flower-stalks
188 Leaves 3 or 4 together nearly sessile lanceolate simply serrate; serratures equal
189 Leaves narrow lanc remotely serr. or lin. and very ent. Bract. much longer than fl.-stalks, Stem ascending
190 Spikes lateral short nodding, Leaves opp folded together toothed: teeth thick, Segments of corolla entire
191 Leaves lan. lin. narr by deg to very end finely serr the serrat. at base of leaf deep. Bract longer than flower-st.
192 Leaves sub-sess. ovate acute serrated pubes. Flower bearing branches in bundles, Flow. sub-sess. very small
193 Leaves opp. 3 togeth. sub-cord. lanc. simply serrated with the stem smooth, Serratures remote nearly equal

194 Stem pubes. Leaves opp. and tern. lanc rather fleshy simply and remotely serrate wedge-shaped at the base
195 All over slightly pubes. Leaves 3 togeth lanc. acumin. sub-cord. at base doubly serrate: serrat. of base deepest
196 Leaves very long almost coriaceous opp. or 3 together on short stalks cordate at base acutely and unequally dentate serrate hanging down
197 Leaves lanceolate acute simply serrate entire at the end, Serratures distant simple equal
198 Leaves opposite and 3 together lanceolate acute serrate with the stem downy, Serratures near unequal
199 Leaves opp. and tern. lanc. very much lengthened out serrated to the very end, Bract. longer than fl.-stalk
200 Leaves ovate lanceolate simply serrate entire at the end with the stem pubescent, Serratures near unequal
201 Leaves opposite 3 or 4 together cordate lanceolate acuminate doubly serrated with the stem downy
202 Leaves 3 or 4 tog. at base widely cord. lanc. deeply doubly acutely uneq. dent. serr. Serr. sprdg. lowest distant.
203 Leaves 3 or 4 tog ov acum. cord at base doubly acutely and uneq. serr. beneath and with the stem pubesc.

Racemes terminal, Leaves opposite.

204 Hoary, Leaves lanceolate serrate acute at the base wedge-shaped and entire, Stem erect
205 Hoary, Leaves lanceolate crenate and nearly entire obtuse, Stem erect
206 Leaves on short stalks stiffish cordate at the base pointed closely acutely and doubly serrate, Stem pubescent
207 Leaves ovate oblong crenate stalked obtuse with the stem pubescent, Spikes many, Bractes very small
208 Stem simp. pub. Lvs. op lan. obl by deg. narr fr. base point ser ent. at end, up ones sub ser. Br. lon than fl.-st.
209 Slightly pub Lvs. cren. the rad. ov. obl running down into stalk, Caul. lanc. sess Fl spkd Br. and cal. pilose
210 Toment with stlkd. glands, Lvs. tooth rad. ov runn down into st. Caul. lan stlkd. Fl. in spks. Br. & cal cil.
211 Villous, Leaves serr. rad. ovate, Caul obl. acute stalkd at base and end entire, Fl in racemes, Bractes linear
212 Villous, Leaves cren rad. ov. Caul. obl. obtuse sub-sess Flow. in racemose spikes, Br. and cal smooth ciliate
213 Slightly pubesc. Leaves crenulate radical oblong ovate running down into stalk, Cauline lanceol acuminate sub-sessile, Flowers in close spikes
214 Lvs. uneq. tooth serr with stem pub rad. stlkd. ov. Caul sub-sess ellipt. obl. Fl in spks. Br lin lon. than cal.
215 Leaves opp. ov. lanc. runn. down into st the lower cren the upp ent. Spks. term or 3 tog. Fl like an orchis
216 Leaves ov. lan. uneq. ser. Br. lan. as long as cal. Cal 4 part uneq. Seg ov. obl. Caps. smth. rather long than cal.
217 Leaves cordate ovate sessile very obtuse with the very simple stem hairy, Racemes few-fl. Calyx smooth
218 Leaves oblong ovate cut and serrated with the stem somewhat villous
219 Stem ascending, Leaves in fasc the lower pinnate, the upper pinnatifid and simp Leafl. and div. filif. sprdg.
220 Leaves in fasc. stalked pinnatifid lanc Segm nearly entire, Racemes several, Seg. of the Calyx lanceolate
221 Leaves in fasc. on short stalks linear pinnatifid: Seg. entire, Raceme nearly sol. Seg. of calyx oblong ovate
222 Raceme corymbose term. Leaves radical obl. connate sheathing cartil crenate or ent. Stem simp ascending
223 Stem ascend. feeble, Lvs. lanc. obt. sub-serr.: lower sheathing, Rac loose, Up seg. of cor. wider than side ones
224 Leaves obov. cren. with simple ascend. stem pilose, Cauline lvs. remote, Rac corymb hairy about 5-flowered

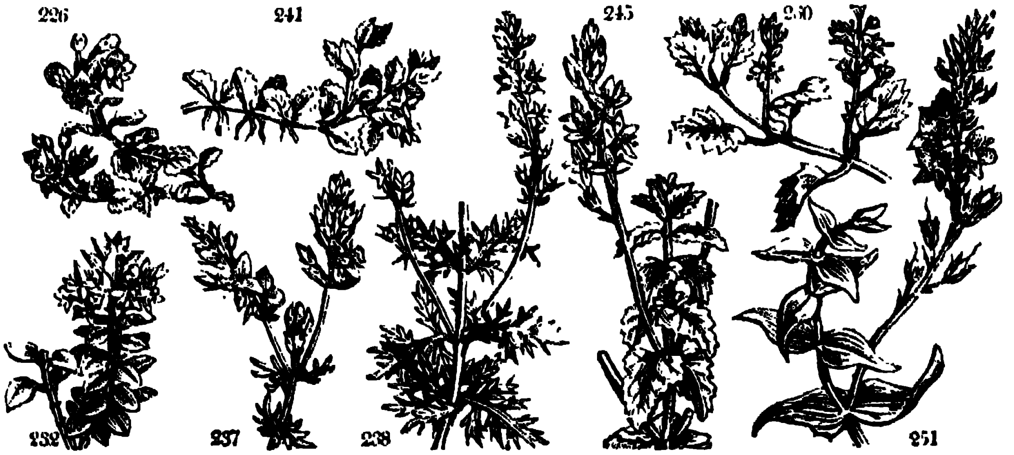


and Miscellaneous Particulars.

rise. All the species thrive in any light loamy soil or loam and peat, and cuttings root freely in sand under a hand-glass.

40. *Veronica.* A word said to have been altered from Betonica. (See that name.) *La Veronique*, Fr., and *Ehrenfreiso*, Ger. V. officinalis has been much recommended in Sweden and Germany as a substitute for tea, than which Professor Martyn says, it is more astringent and less grateful. Withering prefers V. Chamædrys for the same purpose. Several species were formerly in repute in medicine, and given in disorders of the lungs,

225 fruticulósa *W.*	flesh-colored	n.		or	½	jn.au	F	Scotland	Sc. alp	D	co	Eng. bot. 1028
226 saxátilis *W.*	blue-rock	⚘	△	or	½	jl	B	Scotland	Sc. alp	D	co	Eng. bot. 1027
227 alpína *W.*	alpine	⚘	△	or	½	my	B	Scotland	Sc. alp.	D	co	Eng. bot. 484
β integrifólia	*entire-leaved*	⚘	△	or	½	my.jn	B	Silesia	1814.	D	co	Krock. sil. 25. t 3
228 depauperáta *Kit.*	impoverished	⚘	△	or	½	ap.jl	B	Hungary	1823.	D	s.p	W & K. 3 t 245
229 serpyllifólia *W.*	smooth	⚘	△	or	½	ap.jl	B	Britain	me pa.	D	co	Eng. bot. 1075
230 hirsúta *Lk.*	hairy	⚘	△	or	½	ap.jl	W	......	1820.	D	s.p	
231 microphýlla *Kit.*	small-leaved	⚘	△	or	½	ap.jl	B	Hungary	1822.	D	s.p	
232 decussáta *W.*	cross-leaved	n.	⊔	or	1	jn.au	B	Falkl. I.	1776.	C	r.m	Bot. mag. 242
233 aphýlla *W.*	naked-stalked	⚘	△	or	½	my	B	Italy	1775.	D	co	Seg. ver. 1. t.3 f.2
234 Beccabúnga *W.*	Brook-lime	⚘	△	clt	2	my.jn	B	Britain	rivul.	D	co	Eng. bot. 655
235 anagállis *W.*	long-leav.-wat.	⚘	△	or	2	jl	B	Britain	mar	D	co	Eng. bot. 781
236 scutelláta *W.*	marsh	⚘	△	or	2	jn.au	F	Britain	mar.	D	co	Eng. bot. 782
237 orientális *W.*	various-leaved	⚘	△	or	½	jn.au	L.B	Levant	1748.	D	co	Bot. cab. 419
238 Jacquíni *Schott.*	Jacquin's	⚘	△	or	1	my.jn	B	Austria	1748.	D	co	Jac. aust. 4. t.329
239 austríaca *Jac.*	Austrian	⚘	△	or	1	jn.au	L.B	Austria	1748.	D	co	M. his. 2. t.23. f.17
240 multífida *W.*	fine-cut	⚘	△	or	½	my.jl	L.B	Siberia	1748.	D	co	Bot. mag. 1679
241 Allióni *W.*	shining-leaved	⚘	△	or	½	jn.au	L.B	S. Europe	1748.	D	co	All. ped. 1. t.46. f.3
242 officinális *W.*	officinal	⚘	△	or	½	ap.jl	B	Britain	bar. gr.	D	co	Eng. bot. 765
243 prostráta *W.*	trailing	⚘	△	or	1	my.jn	B	Germany	1774.	D	co	Riv. mon. 95
244 micrántha *Hoff.*	small-flowered	⚘	△	or	1½	my.jn	W	Portugal	1822.	D	co	Fl. port. t. 57
245 latifólia *W.*	broad-leaved	⚘	△	or	1	my.jn	W.B	Austria	1748.	D	co	Sw. fl. gard. 23
246 Teúcrium *P. S.*	rugged-leaved	⚘	△	or	2	jn.au	L.B	Germany	1596.	D	co	Bot. cab. 425
247 criníta *Kit.*	long bracted	⚘	△	or	1	jl.au	B	Hungary	1822	D		
248 Chamædrys *W.*	Germander	⚘	△	w	½	jl.au	B	Britain	m. pas	D	co	Eng. bot. 623
249 urticæfólia *W.*	nettle-leaved	⚘	△	or	1	jn.jl	L.B	Austria	1776.	D	co	Jac. aust. 1. t. 59
250 montána *W.*	mountain	⚘	△	or	½	jl.au	B	Britain	moi. w.	D	co	Eng. bot. 766
251 perfoliáta *B. P.*	perfoliate	⚘	⊔	or	1	jl.au	B	N.S.W.	1815	D	r.m	Bot. mag. 1936
252 labiáta *B. P.*	labiated	⚘	⊔	or	1	ap.jl	L.B	N. Holl.	1802.	C	r.m	Bot. mag. 1660
253 polymórpha *W. en.*	variable	⚘	△	or	1	jn.au	B		1817.	D	co	
254 vérna *W.*	vernal		○	w	½	ap.my	B	Britain	san. fi.	S	s	Eng. bot. 25
255 digitáta *W.*	digitated		○	w	½	jl	B	S. Europe	1805.	S	co	
256 triphýllos *W.*	fingered		○	w	½	ap.my	B	Britain	san. fi.	S	s	Eng. bot. 26
257 hederifólia *W.*	ivy-leaved	✱	△	w	½	mr.jn	B	Britain	clt. gr.	D	co	Eng. bot. 784
258 cymbalária *Bertol.*	twining	✱	○	or	2	au.my	W	S. Europe	1821.	S	co	Fl. græc. t. 9
259 peregrína *W.*	knotgrass-leav		○	or	½	mr.jn	W	N. Europe	1680.	S	co	Fl. dan. 407
260 filifórmis *W.*	long-stalked	✱	○	or	½	my	L.B	[illegible]	1780.			B. cen. 1. t.40. f.1
261 crísta gálli *Stev.*	cocks-comb	✱	○	or	½	ap.my	B	Caucasus	1815			Linn. trans.
262 præcox *All.*	early		○	or	½	mr	B	S. Europe	1775.			All. auc. 5. t. 1 f.1
263 acinifólia *W.*	basil-leaved		○	or	½	ap.my	L.B	S. Europe	1788.			P. et T. fl. p. 1 t. 23
264 arvénsis *W.*	wall	✱	○	w	½	ap.jl	B	Britain	old w			Eng. bot. 734
265 agréstis *W.*	field	✱	○	w	½	mr.jl	B	Britain	clt. gr.	S	co	Eng. bot. 783
41. GALIPE'A. *Aub.*	GALIPEA.					*Rutaceæ.*	*Sp.* 1.					
266 trifoliáta *W.*	three-leaved	♣	▭	or	4	?...	G	Guiana	1803.	C	p.l	Aublet 662 t.269
42. SCHWEN'CKIA. *W.*	SCHWENCKIA.					*Primulaceæ.*	*Sp.* 1—7.					
267 americána *W.*	American	£	◫		1	au.s	L.a	Guiana	1781.	C	s.p	Sch. bs. p.328. t.1
43. GRATI'OLA. *W.*	HEDGE-HYSSOP					*Scrophularinæ.*	*Sp.* 4—45.					
268 officinális *W.*	officinal	⚘	△	m	1	my.au	L.B	Europe	1568.	D	co	Fl. dan. 363
269 verónicifólia *W.*	speedwell-lvd.	¥	◫	or	½	jn.s	B	E. Indies	1798.	C	co	Rh. mal. 9. t. 58
270 virgínica *W.*	Virginian	⚘	△	or	1	au	Y	Virginia	1779.	D	co	
271 quadridentáta *Mich.*	four-toothed	⚘	△	or	½	my.au	W	N. Amer.	1821.	D	co	Lam. ill. t.16. f 2
44. SCHIZAN'THUS. *Fl. per.*	SCHIZANTHUS					*Scrophularinæ.*	*Sp.* 2					
272 pinnátus *Fl. per.*	pinnate		○		2	jn.o	W.P	Chili	1822.		l.p	Hook. ex. fl. 73
273 pórrigens *Hook.*	spreading stalk		○	or	2	jn.o	W.P	Chili	1822.			Hook. ex. fl. 86



History, Use, Propagation, Culture,

but they are now laid aside by regular practitioners. V. Beccabunga (latinised from *bachbunge*, its German appellation · *bach* is a brook; *beck*, provincial English), is sometimes gathered with watercresses, with which it is often found in limpid streams, and used as a spring salad. Almost all the species thrive in any soil or situation; the tallest are ornamental border flowers, the dwarf spreading sorts are well adapted for rock-work, edgings, or to be grown in pots. A few delight in peat soil, and some in moist situations; all are increased by seed, subdividing at the root, or cuttings. V. decussata will endure the open air if protected from frost.

41. *Galipea.* A name framed by Aublet from the vernacular appellation of the plant in French Guiana, where it is a native

42. *Schwenckia.* John Theodore Schwenck was a professor of medicine at Jena; died in 1671. There was another Schwenck a professor of botany to the garden at Leyden. The genus is, like the merits of the professors, but little known. One inconspicuous species is occasionally seen in our stoves. The

225 Upper leaves obl. sub-serr. Stems erect ½ shrubby, Rac. many-fl. Caps. roundish ov. scarcely longer than calyx
226 Upper leaves obl. obov. sub-serr. Caps. ovate larger than calyx, Stems shrubby diffuse, Corymb. term. few-fl.
227 Leaves smth. ellip. ov. ent. or ser. Corymb. term. somew. spiked, Cal. cil. Caps. ob. Stems tufted herb. simple
β Leaves elliptic ovate obtuse entire
228 Peduncle axillary subracemose few-flow. Leaves obovate obtuse sub-serrated, Fl.-stalks and calyxes pilose
229 Leaves opp. oblong crenate with the calyxes smooth, Racemes elongated, Flowers distant, Stem ascending
230 Glandular hairy, Stem ascending, Leaves oblong acute sub-crenate, Raceme elongated
231 Leaves opp. ovate irregularly crenate, Stem ascending, Bractes scarcely longer than flower-stalks

Racemes lateral.

232 Racemes few-flowered, Leaves elliptical perennial entire, Stem shrubby
233 Radical leaves roundish and oblong, Stem naked very short, Flower-stalk like a scape about 3-flowered
234 Leaves elliptical obtuse on short stalks serrulate, Cal. 4-parted, Stem procumbent below rooting
235 Leaves lanceolate serrate stem clasping, Cal. 4-parted, Stem erect
336 Leaves linear lanceol. nearly entire, Flow.-stalks pendulous or spreading, Cal. 4-parted, Stem nearly erect
237 Leaves lin. lanc. lower pectinate pinnatifid, upper entire, Cal. leaves unequal subulate, Stems procumbent
238 Leaves sess. pinnatifid and bipinnatifid, Lower bracte 3-fid longer than fl.-st. Cal. 5-part. Stem nearly erect
239 Leaves sess. lanceol. inciso serrate and pinnatifid, Bracte entire shorter than fl.-st. Cal. 4-part. Stem feeble
240 Leaves bipinnatifid, Segm. lanceol. and lin. Cal. leaves unequal subulate, Stems procumb. woody at base
241 Leaves oblong roundish stiff shining, with the procumbent creeping stem smooth, Flowers in close spikes
242 Leaves obovate or roundish serrate, Cal. 4-parted, Stem rooting at the bottom
243 Leaves sessile oblong obtuse serrated: the upper lanceol. flat, Cal. 4 or 5-part. Flowering stem ascending
244 Stem erect hairy all over, Lvs. sub-sess. oval coarsely and acutely cren. hairy, Cal. 4-part. larger than corolla
245 Leaves somewhat heart-shaped ovate sessile unequally obtusely serrate, Stem erect, Cal. 5-leaved
246 Lower leaves oblong coarsely serrated with the stem villous
247 Leaves sub-sessile ovate lanceolate unequally serrated, Cal. 5-parted, Segm. and bractes linear subulate
248 Lvs. cut serr. the upp. cord. ovate sess. the low. ov. stalk. Cal. 4-part. Stem hairy in 2 rows, Rac. long. than stem
249 Leaves sessile cordate ovate acute serrate, Cal. 4-parted, Stem erect
250 Leaves cord. ovate obtuse coarsely serrated with the stem and stalks hairy, Cal. 4-part. Rac. elong. filiform
251 Racemes lateral stalked many-flow. Leaves entire very smooth ovate acuminate joined together at the base
252 Racemes very long, Leaves elongate lanceolate acuminate unequally serrate
253 Fl.-stalks rather longer than bract. Lvs. lanc. wedge-shaped at base simply and doubly toothed, Stem prostrate

Flower-stalks one-flowered.

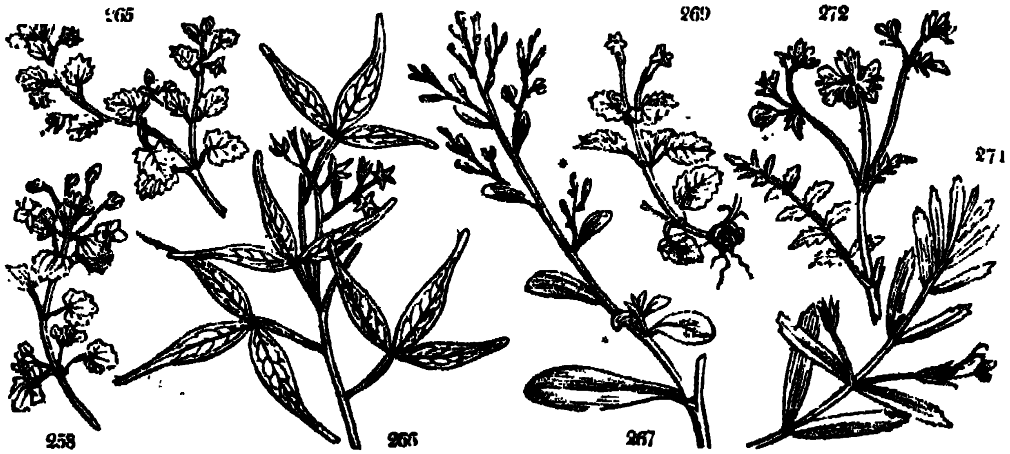
254 Flowers sub-sess. Leaves finger-parted, the upper undivided, Fl.-stalks shorter than the calyx, Stem erect
255 Flowers sessile, Leaves all finger-parted
256 Lower leaves entire: middle finger-parted: upper trifid, Fl.-stalks longer than calyx, Stem erect spreading
257 Leaves as long as stalk cord. rounded 5-lobed: the upper 3-lobed, Segm. of cal. cord. acute, Stem procumbent
258 Leaves cord. rounded with 5 or 9 but generally 7 teeth obtuse a little fleshy, Cal. of fruit spread. Caps. hairy
259 Flowers sessile, Leaves oblong a little serrate longer than calyx, Stem erect
260 Leaves roundish cordate crenate, Flower-stalks very long, Calyx leaves lanceolate
261 Flower-stalks as long as the leaves, Calyx 2-leaved, Leaflets 2-lobed serrate
262 Low. lvs. stalk. cord. ov. serr. floral nearly sess. short. than fl.-st. Caps. obov. emarg. turgid, Stem rather upr.
263 Flow. stalked, Low. lvs. stalked ov. serr. floral s.-sess. as long as fl.-st. Caps. obcord. comp. Stem nearly simple
264 Flow. nearly sess. Low. lvs. stalked cord. ov. serr. caul. cren. floral lanc. sess. longer than stalk, Cal. unequal
265 Leaves stalked cord. ovate serr. Cal. leaves ovate, Stem procumb. Fl.-stalks scarcely shorter than the leaves

266 Leaves alternate stalked, lanceolate entire

267 Stem slender simple, Leaves lanceolate, Cor. thrice as long as calyx

268 Leaves lanceolate serrate somewhat 3-nerved, Flowers on stalks
269 Leaves oblong acutely serrated, Stem creeping, Flowers racemose. [acuminate longer than the calyx
270 Leaves obovate lanc narrowed below remotely toothed nerved smooth, Fl.-stalk alternate very short, Caps.
271 Leaves lin. lanc. with a few teeth, Fl.-stalks as long as the leaves, Caps. much shorter than the subulate calyx

272 Stalk of fruit on one side deflexed at base
273 Stalk of fruit spreading all ways straightish



and Miscellaneous Particulars.

to the corolla are very singular, and demand a better explanation of their nature than has yet been

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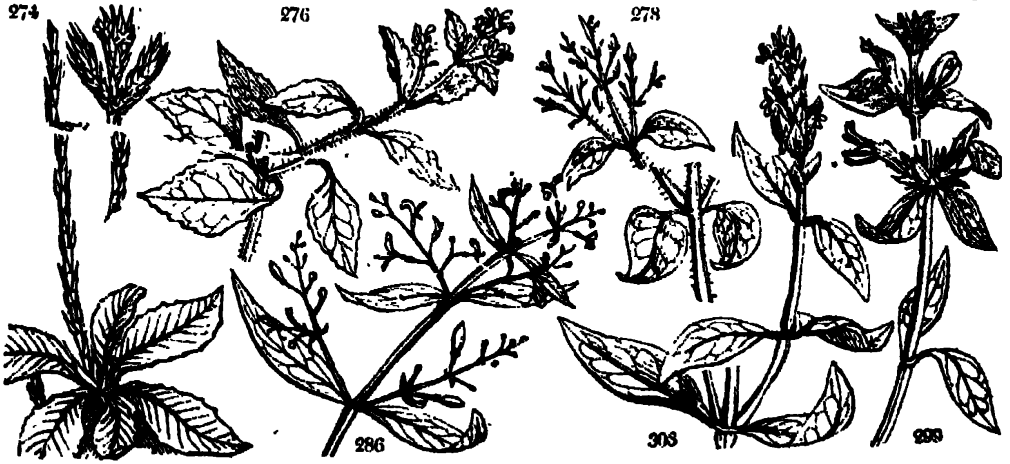
43. *Gratiola.* From *grātia*, grace (of God). Matthiolus called it gratia Dei, in allusion to its effects. G. officinalis is so bitter and obnoxious to cattle, that Haller assures us, there are meadows about Yverdun rendered entirely useless by its abundance. It is a powerful cathartic, and was long in use as such, but now laid aside.

44. *Schizanthus.* So named by the authors of the Flora Peruviana, from σχιζω, to cut, and ανθος, a flower. One of the most beautiful of herbaceous genera. Two species or rather varieties are now known, and ornament the green-house with their elegant panicles of lilac and white flowers. They are difficult of cultivation, requiring a very pure and moist atmosphere. They may be propagated by cuttings, but the best plants are raised from seeds, which have not hitherto been obtained, except from flowers artificially impregnated.

45. ELYTRA'RIA. *M.*	Elytraria.			*Acanthaceæ.*	*Sp.* 2—5.						
274 virgáta *M.*	twiggy		or	1	jl	W	Carolina	1813.	D	s.p	Mich. am. 1. t. 1
275 crenáta *Vahl.*	stemless		] or	½	jl	W	E. Indies	1820.	D	s.p	Roxb. cor. t. 127
Justicia acaulis Roxb.											
46. HYPOES'TES *R. Br.*	Hypoestes.			*Acanthaceæ.*	*Sp.* 2—10.						
276 involucráta *Roxb.*	involucred		] or	1½	jl.au	W	E. Indies	1811.	C	p.l	
277 purpúrea *W.*	purple		] or	2	my.jn	P	China	1822.	C	p.l	Ru. am 6. 22. 2
47. JUSTI'CIA. *W.*	Justicia.			*Acanthaceæ.*	*Sp.* 28—137.						
278 bicalyculáta *W.*	Malabar		[O] or	3	au	Y	E. Indies	1755.	S	s.l	Retz. st. 1775. t. 9
279 Ecbólium *W.*	long-spiked	⚘	[	3	mr.au	B	E. Indies	1759.	C	p.l	Bot. mag. 1847
280 coccínea *W.*	scarlet	⚘	[	5	f	S	S. Amer.	1770.	C	p.l	Bot. mag. 432
281 quadrífida *H. K.*	twiggy	⚘	[	3	mr.s	S	Mexico	1795.	C	p.l	Par. lon. 50
282 nigricans *Lour.*	black-striped	⚘	[	6	mr.s	W.R	China	1819.	C	p.l	
283 nítida *W.*	glossy	⚘	[	4	mr.s	W	W. Indies	1790.	C	p.l	Bot. rep. 570
284 bracteoláta *Jacq.*	small-bracted	⚘	[	6	jl.au	P	Caraccas	1823.	C	p.l	Jacq. ic. t. 205
285 picta *W.*	painted	⚘	[	8	jl.au	Cr	E. Indies	1780.	C	p.l	Bot. mag. 1870
286 paniculáta *Vahl.*	panicled	⚘		1½	jl.au	Pk	E. Indies	1811.	S	p.l	Rheed. mal. 9. t. 56
287 secúnda *Vahl.*	side-flowering	⚘		3	jn.jl	R	W. Indies	1793.	C	p.l	Bot. mag. 2060
288 ciliáris *W.*	ciliated			1	jl.au	W	W. Indies	1780.	S	s.l	Jacq. vin. 2. t. 104
289 lúcida *Vahl.*	shining-leaved	⚘		3	jl.au	Sc	W. Indies	1795.	C	p.l	Bot. mag. 1014
290 Gendarússa *W.*	willow-leaved	⚘		3	jn.jl	Li	E. Indies	1800.	C	p.l	Bot. reg. 635
291 carthaginénsis. *W.*	Caribæan	⚘		1½	jn.jl	Pu	Carthag.	1792.	C	s.p.l	Bot. reg. 797
292 pedunculósa *Mich.*	N. American	⚘		1½	jl.au	Li	N. Amer.	1759.	C	s.p.l	Bot. mag. 2367
293 procúmbens *W.*	procumbent	⚘	[	½	jl.au	Pk	E. Indies	1798.	L	s.p	Plk. al. t. 56. f. 3
294 comáta *W.*	balsam herb	£	[	2	jl.au		Jamaica	1795.	R	s.p	Sl. jm. 1. t. 103. f. 2
295 eustachiána *W.*	Eustachian	⚘	[	3	au.s	O	St. Eustac.	1799.	C	s.p	Bot. reg. 309
296 nasúta *W.*	white-flowerg.	⚘	[	2	f.o	W	E. Indies	1790.	C	p.l	Bot. mag. 325
297 pectorális *W.*	Garden-balsam	£	[	3	my.jn	P	W. Indies	1787.	L	s.p	Bot. reg. 796
298 periplocifólia *W.*	periploca-leav.	⚘	[	1½	jn	P	S. Amer.	1799.	C	s.p	Jac. col. s. t. 7. f. 2
299 furcáta *Va.*	forked	⚘	[	5	ap.au	V	Peru	1795.	C	p.l	Bot. mag. 430
300 lithospermifólia *W.*	gromwell-leav.	⚘	[ ] or	3	ap.au	P	Peru	1796.	C	p.l	Jac. schön. 1. t. 4
301 caracásana *Jacq*	violet	⚘	☐ or		my.jn	V	Caraccas	1822.	C	p.l	Jac pl. r 2. t. 206
302 adhátoda *W.*	Malabar-nut	¥	☐ or		my.jl	P	Ceylon	1699.	C	sl.	Bot. mag. 861
303 betónica *Va.*	betony-leaved	⚘	☐ or		my.jl	W	E. Indies	1757.	S	p.l	Rheede 2. t. 21
304 hyssopifólia *W.*	Snap-tree	⚘	⊔ or		mr.au	Y	Canaries	1690.	C	pl.	Mill. ic. 9. t. 13
305 orchioides *W.*	broom-leaved	⚘	⊔ or		au		C.B.S.	1774.	C	pl.	Vent. mal. 51
48. DICLIP'TERA.	Dicliptera.			*Acanthaceæ*	*Sp.* 5—25.						
306 hexanguláris *W.*	chickw.-leaved		[O] or	2	jl	R	S. Amer.	1733.	S	s.l	Pluk. t. 279. f. 6
307 scorpioides *L.*	scorpion-like	⚘	☐ or	3	jl		Vera Cruz	1802.	C	p.l	R. Houst. p. 3. t. 1
308 resupináta *W.*	resupinate		[O] or	1½	jl	W.P	S. Amer.	1805.	S	p.l	Cav. ic. 3. t. 203
309 pectináta *Vahl.*	small-flowered	⚘	☐ or	1½	jn.jl	B	E. Indies	1796.	C	p.l	Rox. cor. 2. t. 153
310 retúsa *Vahl.*	blunt	£	[Δ] or	2	mr.ap	P	W. Indies	1821.	C	l.	Bot. cab. 724
49. ERAN'THEMUM. *B P.*	Eranthemum.			*Acanthaceæ.*	*Sp.* 3—14.						
311 spinósum *B P.*	thorny	⚘	☐ or		jl.au		W. Indies	1733.	C	s.p	Jc. am. 2. t. 2. f. 1
312 pulchéllum *B. R.*	nervose	⚘	☐ or	2	ja.o	B	E. Indies	1796.	C	s.p	Bot. rep. 88
313 bícolor *B. M.*	two-coloured	⚘	☐ or		my.au	W.B	Luconia	1802.	C	s.p	Bot. mag. 1423
50. WULFE'NIA *W.*	Wulfenia.			*Scrophularinæ.*	*Sp.* 1.						
314 carinthíaca *W.*	annual		○ rk	1½	jl.au	B	Carinthia	1817.	S	co	Jacq. ic. 1. t. 2
51. CALCEOLA'RIA. *W.*	Slipperwort.			*Scrophularinæ.*	*Sp.* 7—55.						
315 pinnáta *W.*	wing-leaved		[O] or	2	jl.s	Y	Peru	1773.	S	s.p	Bot. mag. 41
316 scabiosæfólia *R. & S.*	scabious-leav.		[O] or	2	my.o	Y	Chili	1822.	C	co	Bot. mag. 2405
317 rugósa *Fl. per*	rugose	⚘	⌋ or	2	au.s	Y	Chili	1822.	C	co	Hooker fl. ex. 99
318 integrifólia *L.*	entire-leaved	⚘	⌋ or	2	au.s	Y	Chili	1822.	C	co	Bot. reg. 744



History, Use, Propagation, Culture,

45. *Elytraria.* From ἔλυτρον, an envelope, its stem being covered with sheaths or scaly envelopes. Little herbaceous plants of no ornament.

46. *Hypoestes; ὑποεσθὴς*, is an interior garment: it is probable that the involucrum suggested the application of the name. The plants have the habit of Justicia, from which they have been separated, and are chiefly tropical weeds.

47. *Justicia.* In honor of James Justice, F.R.S., an eminent Scotch cultivator, author of the *Scotch Gardener's Director*, published in 1784. J. pectoralis has the smell of new hay, combined with a refreshing aroma. In Domingo and Martinico the inhabitants make a syrup of it, which they use against disorders of the breast. The bruised leaves are good in wounds, whence the English appellation balsam, and the French name *herbe à charpentiére*. J. nasuta is said to possess extraordinary aphrodisiacal powers, and milk boiled in the roots is much employed on that account by Indian physicians. Rubbed with lime-juice, the roots are used to cure ring-worms. Most of the species are free flowerers, some as J. lucida

274 Flowering scales ovate villous at edge, Leaves lanceolate smooth entire, Scapes very long, Caps. obtuse
275 Stemless, Flowering scales ovate entire, of the scape lanceolate naked at the edge, Leaves oblong crena

276 Racemes axillary erect shorter than the leaves which are lanceolate toothed and with the stem hairy
277 Spikes axillary and terminal, Bracteas lanceolate smooth, Branches pubescent

Calyx double.

278 Panicles axillary dichotomous

Calyx simple, Flowers labiate.

279 Spikes terminal 4-sided imbricated, Bracteas oval, Leaves oblong ovate acuminate, Helmet linear
280 Spikes terminal, Bracteas and leaves elliptical, Helmet lanceol. reflexed at the end, Stigma of two plates
281 Leaves linear lanceolate, Flowers nearly solitary sessile tubular 4-cleft
282 Spikes terminal 2-ranked, Bractes setaceous, Leaves linear lanceolate
283 Racemes term. somewhat branched, Cal. whorled smooth, Leaves lanc. elliptic, sharp at both ends stalked
284 Racemes term. comp. Pedunc. 3 or 4-flowered, Bract. lanc. Leaves oblong pointed, Branches square rough
285 Racemes axillary and terminal, Flowers inflated at the throat whorled, Leaves elliptical variegated
286 Stems 4-sided brachiate, Leaves sub-sess. lanc. Flowers 1-sided erect, Lip linear revolute, Flowers downy
287 Racemes terminal compound 1-sided many-flowered, Bract. setaceous, Leaves ovate oblong. acuminate
288 Flowers axillary solitary sessile opposite, Calyx hispid, Leaves lanceolate obtuse ciliated at the base
289 Spikes terminal in heads, Leaves elliptic nerved blistered shining, Upper lip of corolla lanceolate
290 Spikes terminal leafy, Flowers whorled, Leaves elongated
291 Spikes axillary and terminal, Bractes oblong imbricate ciliate obtuse
292 Spikes axillary, Flowers close, Flower-stalks elongated alternate, Leaves lanceolate
293 Spikes lateral and terminal, Calyx 4-leaved linear hairy, Lower lip ovate, Leaves oblong
294 Spikes axillary and terminal filiform, Spikelets whorled
295 Spikes axillary and terminal, Flowers in pairs below single above, Bractes wedge-shaped
296 Upper lip of corolla subulate, Flower-stalks axillary dichotomous, Leaves elliptical entire
297 Panicle terminal dichotomous, Flowers spiked distant
298 Upper lip emarg. reflexed, Flowers axillary solitary sub-sess. opposite: term. in spikes, Lvs. ovate lanceolate
299 Lower lip 3-lob. Flow. axillary solitary and spiked, Lvs. ovate oblong narr. at each end, with stem pubescent
300 Lower lip 3-lobed, Flowers axillary sessile whorled, Bractes linear lanceolate, Leaves lanceolate.

Calyx simple, Flowers ringent.

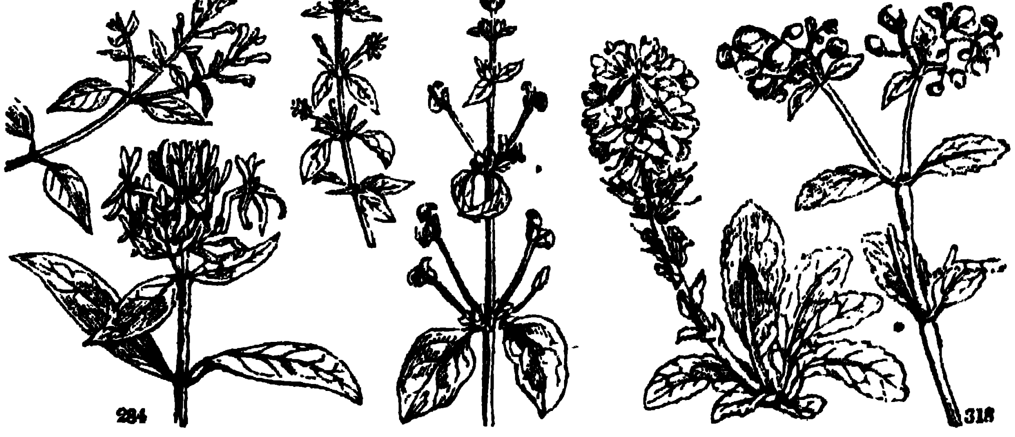
301 Spikes axillary and term. Flowers opposite, Bract. shorter than cal. Stem. and branc. round 6-streak. Leaves
302 Spikes axillary opposite, Bractes ovate acute nerved [ovate accuminate wavy-stalked
303 Spikes terminal, Bract. ovate acuminate netted with veins, Leaves lanceolate ovate stalked
304 Leaves lanceolate entire obtuse, Peduncles axillary 3-flowered 2-edged, Bractes shorter than the calyx
305 Peduncles solitary axillary one-flowered, Leaves lanceolate acute at each end sessile

306 Umbels axillary 3-flowered, Bractes 2 wedge-shaped, Leaves ovate, Flowers in loose spikes
307 Spikes axillary and terminal recurved, Leaves lanc. ovate hairy sessile, Bractes 2, Flowers in loose spikes
308 Flowers axillary rather whorled, Bractes 2-valved subcordate, Leaves ovate
309 Spikes axillary and term. 1-sided villous, Dorsal bractes lanc. 2-ranked with a membran. margin at the base
310 Spikes terminal, Bractes obovate retuse imbricated smooth, Leaves ovate acuminate

311 Flower-stalks about 1-flowered, Leaves oblong, Spines axillary
312 Spikes axillary and terminal imbricate, Bractes oblong veiny, Leaves ovate acuminate
313 Leaves ovate acuminate repand, Corolla with a long tube white with a purple stain

314 Stemless, Leaves radical very smooth coarsely crenate, Flowers on one side

315 Leaves all pinnate: pinnæ toothed, of the lower leaves pinnatifid
316 Lower leaves pinnate: superior pinnatifid 3-lobed and simple
317 Leaves lanceolate very rugose with spreading teeth, Flowers terminal dichotomous
318 Leaves lanceolate toothed rugose, Flowers terminal dichotomous



and Miscellaneous Particulars.

are shewy; others are the commonest weeds of the tropics; all are readily propagated by cuttings in heat under a glass.

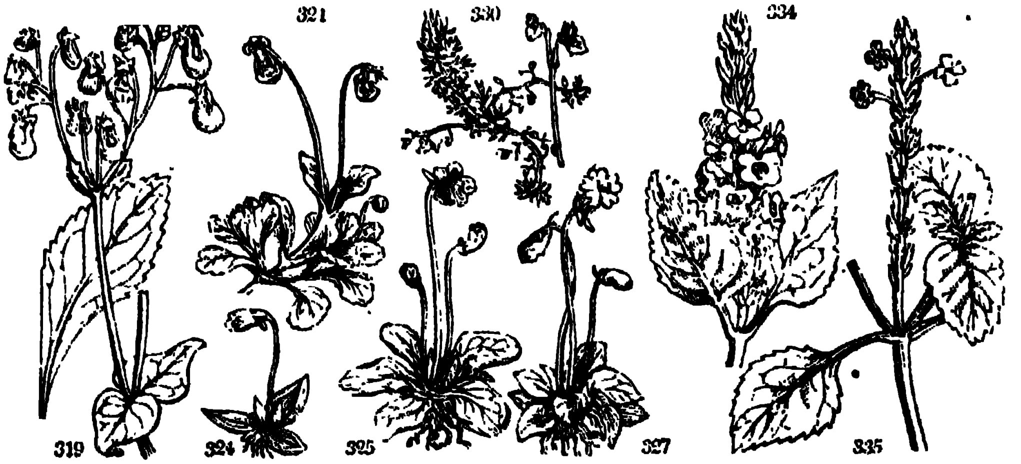
48. *Dicliptera;* δις, double, and κλειω, to shut. The fruit being compounded of two valves. This genus has been formed like Hypoestes out of the Linnæan Justicia, with which it agrees in habit.

49. *Eranthemum.* A name applied by the ancients to their Anthemis, from εαρ, spring, and ανθος, a flower The word has been applied to the present genus with no apparent reason. The species are very pretty ornaments of the stove.

50. *Wulfenia.* Named after F. X. Wulfen, a German botanist, and author of a work on the plants of Carinthia. A small and very beautiful herbaceous plant.

51. *Calceolaria.* From calceolus, a slipper, in allusion to the shape of the corolla. C. pinnata may be raised from seed in a hot-bed in spring, and transplanted to the borders with other tender annuals. The regions of Chili and Peru abound in many splendid species, some of which have lately been introduced to this country.

319 corymbósa *Cav.*	corymbose		⊡	or	1	my.jn	Y	Chili	1822.		co	Bot. reg. 723
320 parália *Cav.*	sea-side		⊡	or	1	my.jn	Y	Chili	1822.		co	Hook. fl. ex. 75?
321 Fothergillii *W*	Fothergill's ,	ħ	△	or	½	my.au	O	Falkl. I.	1777.		l.p	Bot. mag. 348
52. PINGUI'CULA. *W.*	BUTTERWORT.				*Lentibulariæ.*		*Sp.* 6—15.					
322 lusitánica *W.*	pale	♃	△	cu	¼	jn.jl	Li	Britain	bogs	D	m.s	Eng. bot. 145
323 vulgáris *W.*	common	♃	△	ec	¼	my	V	Britain	bogs	D	m.s	Eng. bot. 70
324 alpina *W.*	alpine	♃	△	cu	¼	ap	W	Germany	1794.	D	l.p	Fl. dan 453
325 grandiflóra *W.*	large-flowered	♃	△	el	¼	ap.my	B	Britain	Ir. bog.	D	m.s	Eng. bot. 2184
326 lútea *M.*	yellow		⊡	el	¼	jn.jl	Y	Carolina	1816.	S	p.l	Bot. reg. 126
327 edéntula *Hook.*	toothless	♃	△	el	¼	ap	Y	N. Amer.	1823.	D	s.p	Hook. ex. fl. 16
53. UTRICULA'RIA. *W.*	HOODED MILFOIL.				*Lentibulariæ.*		*Sp.* 3—63.					
328 vulgáris *W.*	common	♃	△	cu	¼	jn.jl	Y	Britain	sta.wa.	D	aq	Eng. bot. 253
329 minor *W.*	lesser	♃	△	cu	¼	jl	Y	Britain	bogs	D	aq	Eng. bot. 254
330 intermédia *P. S.*	intermediate	♃	△	cu	¼	my.jn	Y	Britain	bogs	D	aq	Eng. bot. 2489
54. STACHYTA'RPHETA. *Vahl.*	BASTARD VERVAIN.				*Verbenaceæ.*		*Sp.* 7—13.					
331 indica *Vahl.*	Indian		⊡	or		au.s	W	Ceylon	1732.	S	s.p	
332 jamaicénsis *Vahl.*	Jamaica		—			jn.s	B	W. Indies	1714.	C	p.l	Bot. mag. 1860
333 orúbica *Vahl.*	Orubian		⊡	or	3	jn.au	V	Panama	1699.	C	l.p	Ehr. pict. t.5. f. 1
334 mutábilis *Vahl.*	chang.-flower.	ħ	▭	or	3	mr.s	O	S. Amer.	1801.	C	p.l	Bot. mag. 976
335 prismática *Vahl.*	Germand.leav.		⊡	or	2	my.jn	B	W. Indies	1699.	C	p.l	Jac. ic. 2. t. 208
336 cayennènsis *Rich.*	Cayenne	ħ	▭	or	3	my.jn	B	Cayenne	1822.	C	p.l	
337 hirsutissima *Lk.*	hairy	ħ	⊠	or	1½	mr.ap	B	Brazil	1822.	D	p.l	
55. LYCO'PUS. *W.*	WATER HOREHOUND.				*Labiatæ.*		*Sp.* 4—6.					
338 europæus *W.*	common	♃	△	ro	3	jl.au	W	Britain	riv. ba.	D	m.s	Eng. bot. 1105
339 exaltátus *W.*	tall	♃	△	ro	6	jl.au	W	Italy	1730.	D	m.s	Fl. græc. 1. t. 12
340 virginicus *W.*	Virginian	♃	△	ro	3	au.s	W.p	Virginia	1760.	D	m.s	
341 intermédius *Sch.*	intermediate	♃	△	ro	3	jl.au	W	Europe	1820.	D	m.s	
56. AMETHYS'TEA. *W.*	AMETHYSTEA.				*Labiatæ.*							
342 cærùlea *W.*	blue-flowering		○	pr	1½	jn.jl		Siberia	1759.	S	p.l	Bot. mag. 2448
57. ZIZIPH'ORA. *W.*	ZIZIPHORA.				*Labiatæ.*		*Sp.* 8—12					
343 capitáta *W.*	oval-leaved		○	or	¼	jl.au	R	Syria	1752.		co	Fl. græc. 1. t. 13
344 hispánica *W.*	Spanish		○	or	¼	jn	R	Spain	1759.	S	co	Lam. ill. t.18. f.1
345 tenuior *W.*	spear-leaved		○	or	¼	jn.jl	Li	Levant	1752.	S	co	Lam. ill. t. 18. f.2
346 acinoídes *W.*	thyme-leaved	ħ	△	rk	¼	jl.au	R	Siberia	1786.	D	s.l	
347 serpylliácea *B. M.*	sweet-scented	ħ	△	rk	¼	jl.au	R	Caucasus	1803.	C	s.l	Bot. mag. 906
348 média *Lk.*	intermediate	ħ	△	rk	¼	jn.au	R	Caucasus	1822.	C	co	
349 dasyántha *W. en.* *Pouschkini* B. M.	hairyflowering	ħ	△	rk	¼	jn.au	R	Siberia	1803.	C	co	Bot. mag. 1093
350 taúrica *W. en.*	Taurian		○	or	¼	jl.s	R	Tauria	1816.	S	co	
58. CU'NILA. *P. S.*	CUNILA.				*Labiatæ.*		*Sp.* 2—5.					
351 mariána *Ph.*	mint-leaved	♃	△	or	1	jl.s	R	N. Amer.	1759.	D	co	Mor. h.3. t.19. f.7
352 capitáta *P. S.*	headed	♃	△	or	1	jl.au	R	Siberia	1799.	D	co	Mem. petr.2.t.11
59. HEDEO'MA *P. S.*	HEDEOMA.				*Labiatæ.*		*Sp.* 2—3.					
353 pulegioídes *Ph.*	pennyroy.-lvd.		○	or	¼	jn.au	B	N. Amer.	1777.	S	co	
354 thymoídes *P. S.*	thyme-leaved		○	or	¼		R	France	1699.	S	co	Mor. h. 3. t.19. f.6
60. MONAR'DA. *W.*	MONARDA.				*Labiatæ*		*Sp.* 13—16.					
355 fistulósa *Ph.*	hollow-stalked	♃	△	or	3	jn.au	P	N. Amer.	1656.	D	r.m	Mill. ic. t.183 f.2
356 média *W. en.*	purple-bracted	♃	△	or	2	jn.s	P	N. Amer.	1656.	D	r.m	
357 móllis *Ph.*	soft	♃	△	or	2	jn.s	Li	N. Amer.	1656.	D	r.m	



History, Use, Propagation, Culture,

C. corymbosa and paralia, are exceedingly beautiful herbaceous plants of difficult increase. The shrubby and branching herbaceous kinds are easily propagated by cuttings.

52. *Pinguicula.* From pinguis, fat, on account of the greasiness of its leaves. In P. vulgaris, the structure of the stigma, and its close application to the stamens is very remarkable. Linnæus says, that the warm milk of the rein-deer poured on the fresh leaves, and set aside for a day or two, becomes acescent; acquires consistence and tenacity, and neither the whey nor the cream separate. In this state it is considered a very grateful food in Sweden and Norway. On cows' milk it acts like common rennet. The plant eaten by sheep has been supposed to produce the liver-rot; but a flat apterous insect, the fasciola hepatica or fluke, found adhering to stones and plants in boggy grounds, as well as in the liver and biliary ducts of sheep affected by the rot, is a more likely cause, and the more especially as no animal whatever will feed on the plant. The species (except P. grandiflora) are cultivated with difficulty in artificial shaded morass. P. grandiflora will thrive well on a dry northern bed of bog-mould among North American shrubs.

53. *Utricularia.* From utricula, a little bottle, from the small inflated appendages to the root. The species are scarcely susceptible of cultivation: they are very numerous in hot countries, and there form the most elegant ornaments of rivulets and pools of water. The flowers are fugacious, and so delicate as not to be capable of preservation as dried specimens, in which state their naturally beautiful colors of purple, pink, violet, or yellow, all change to a dead and uniform black.

319 Leaves radical ovate and cordate stalked twice-crenate, Cauline cordate half embracing the stem
320 Leaves unequally toothed: the radical cuneate; upper oblong connate with the Capsules tomentose
321 Leaves spatulate entire hairy above, Flower-stalks like a scape 1-flowered

322 Nectarium conical thick at the end, obtuse shorter than the flowers, Scape villous, Capsules globose
323 Nectarium subulate nearly straight as long as the petals, Upper lip 2-lobed: lower 3-parted, Scape smooth
324 Nectarium conical recurved shorter than the petals [dilated
325 Nectarium subulate straight as long as the flower, Upper lip spreading emarg. very large: lower 3-lobed throat
326 Nectarium subulate recurved shorter than the campan. flower, Throat bearded, Lips toothed, Scape villous
327 Nectarium subulate recurved shorter than the campan. cor. 5-lobed: lobes emarg. entire, Palate prominent,
[Scape pubescent

328 Nectarium conical, Upper lip entire equal to the palate, Leaves very finely divided
329 Nectarium carinate, Upper lip emarg. equal to the palate, Lvs. dichotomously 3-part. Cor. with throat open
330 Nectarium conical, Upper lip entire twice as long as the palate, Leaves dichotomously 3-parted

331 Leaves lanceol. obl. narrower at the base remotely toothed with stem very smooth, Bract. lin. lanceolate
332 Leaves oblong ovate tooth-serrated smooth, Branches hairy, Bractes ovate shorter than calyx
333 Leaves ovate serrate rough rugose, Stem shrubby, Bractes ovate larger than the calyx
334 Leaves serrate ovate rugose with the stem hoary, Bractes lanceolate shorter than the calyx
335 Leaves ovate obtuse serrate, Spikes lax, Bractes subulate shorter than the calyx
336 Leaves ovate crenate serrate smooth very obtuse
337 Leaves ovate acutely crenate with the stem very hairy, Spike very long, Bract. appressd smaller than the cal.

338 Leaves ovate lanceolate villous sinuate serrate
339 Leaves pinnatifid hairy, Lobes oblong somewhat toothed
340 Leaves lanceolate: the lower pinnatifid at the base: the upper remotely serrated, Stem smooth
341 Leaves pubescent ovate pinnatifid, Segments lanceolate: lowest the shortest, deeply cut at the end

342 Leaves opposite stalked 3-parted coarsely serrated smooth

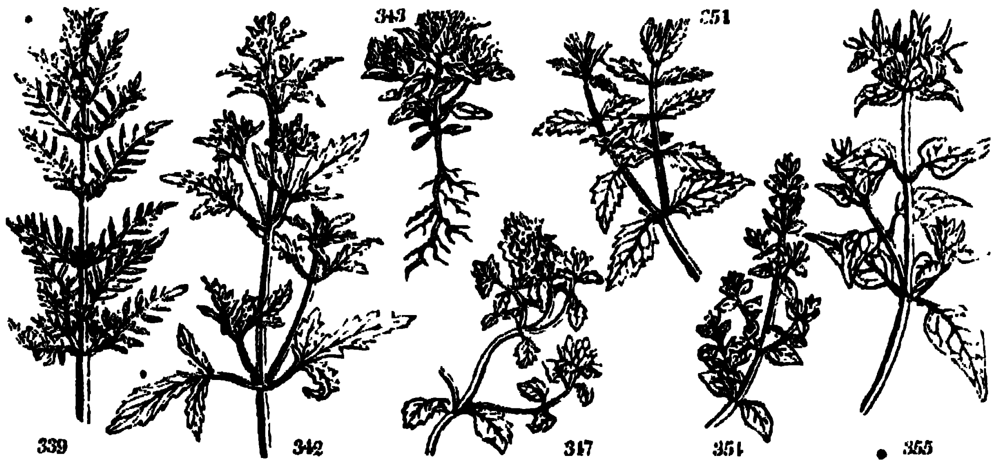
343 Bractes ovate acumin. ciliate, Leaves elliptic lanceolate
344 Flowers in spiked racemes, Bractes obovate nerved acute, Leaves ovate
345 Flowers lateral, Leaves lanceolate
346 Leaves lanceolate naked nerved of one shape entire hoary, Flowers in spikes
347 Heads term. oval, Leaves ovate sub-serrate: those of the flowers nearly of the same shape entire ciliated
348 Leaves ovate acuminate nearly entire nerved, Flowers in heads, Calyx hairy pubescent at base
349 Whorls terminal and axillary close hispid, Leaves ovate sub-ciliate, Stems procumbent hairy

350 Flowers lateral, Leaves lanceolate entire ciliated, Cor. with an inflated throat twice as long as calyx

351 Leaves ovate serrate sessile, Flowers axillary and terminal, Stems erect
352 Leaves ovate acuminate, Flowers in heads, Stem decumbent

353 Pubescent, Leaves oblong serrated, Flowers axillary whorled, Lower lip of calyx with 2 ciliated bristles
354 Leaves oval entire, Flowers whorled, Stem square

355 Leaves obl. lanc cord. pubesc. remotely and closely ser. Flowers in heads, Involucr purple stem swollen
356 Leaves ovate oblong cordate pubesc. coarsely serrated, Flowers in heads, Involucr. purple, Stem fistular
357 Leaves obl. cord. pub. remotely serrate: upper entire, Flow. in heads, Invol. pale, Upper lip of cor. bearded



and Miscellaneous Particulars.

54. *Stachytarpheta*, σταχυς, a spike, and ταχυς, dense. The name would be better changed, as it has been by Link, to Stachytarpha. This genus is partly composed of Verbena, *L.* S. mutabilis is a beautiful species, and nearly always in flower. All of them strike readily in heat under glass.

55. *Lycopus*. From λυκος, a wolf, and πους, a foot, on account of a fancied resemblance between the cut leaves and a wolf's foot. *Le Marrube aquatique*, Fr. *Der Wolfsfuss*, Ger., and *Licopo*, Ital. L. europæus is common in most parts of Europe in meadows, but is not eaten by cattle. It dyes black, and gives a permanent color to linen, wool, and silk. Withering says, gypsies stain their skin with it. According to Adamson, it has two barren filaments; and Pollich remarks, that there are sometimes 89 flowers in a whorl.

56. *Amethystea*. From αμεθυστος, the amethyst, alluding to the color of the flower. A pretty annual, not very common in gardens.

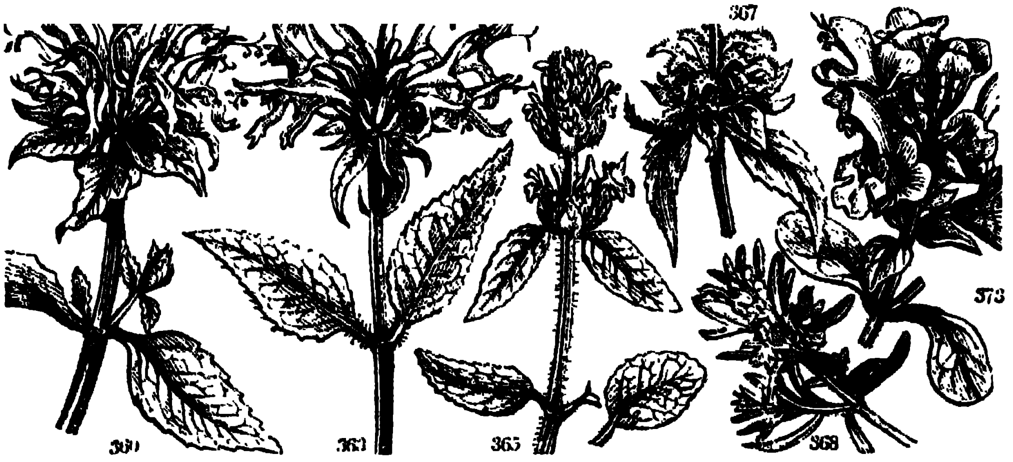
57. *Ziziphora*. Etymology uncertain. This genus, and the two following, consist of little herbaceous plants resembling thyme: they are generally pretty, and easily cultivated. It would, perhaps, have been better to unite, with some writers, Ziziphora, Cunila, and Hedeoma, in one genus.

58. *Cunila*. A Roman name applied by Linnæus to this genus. The plants of Pliny bore some resemblance to those which compose the Linnæan Cunila. (See No. 57.) The leaves of C. mariana are used in decoction for colds.

59. *Hedeoma*, ηδυσμα, a Greek name for mint. (See No. 57.)

60. *Monarda*. In honor of Nicolas Monardez, a physician of Seville in the 16th century. Most of the species

358 oblongáta *Ph.*	long-leaved	⚘	△	or	2	jl.s	P	N. Amer.	1761.	D	r.l	
359 clinopódia *Ph.*	wild-basil-leav.	⚘	△	or	2	jl	P.w	N. Amer.	1771.	D	r.l	
360 purpúrea *Ph.*	crimson	⚘	△	or	3	jn.au	P	N. Amer.	1789.	D	r.l	Bot. Cab. 1396
361 altíssima *W.*	tall	⚘	△	or	4	jn.au	Li	N. Amer.	1821.	D	r.l	
362 rugósa *Ph.*	white	⚘	△	or	1	jl.s	W	N. Amer.	1761.	D	r.l	
363 kalmiána *Ph.*	pub. flowered	⚘	△	or	4	jn.au	P	N. Amer.	1813.	D	p.l	Pursh. fl. am. t.1
364 didyma *W.*	Oswego tea	⚘	△	or	3	jn.au	R	N. Amer.	1752.	D	r.l	Bot. mag. 546
365 ciliáta *Ph.*	blue flowered	⚘	△	or	1	jl	B	N. Amer.	1798.	D	r.l	Pluk. al.t.164. f.3
366 hirsúta *Ph.*	hairy	⚘	△	or	1	jl.s	P	N. Amer.	1798.	D	r.l	
367 punctáta *Ph.*	spotted	⚘	△	or	2	jn.o	Br	N. Amer.	1714.	S	a.p	Bot. reg. 87
61. ROSMARI'NUS. *W.*	ROSEMARY.					*Labiatæ.*	*Sp.* 2.					
368 officinális *W.*	common	♣		or	4	ja.ap	P	S Europe	1548.	C	co	Fl. græc. 1. t. 14
β variegáta	*variegated*	♣		or	4							
369 chilénsis *W.*	Chile	♣		or	4	jl	P	Chile	1795.	C	s.l	
62. SA'LVIA. *W.*	SAGE.					*Labiatæ.*	*Sp.* 95—170.					
370 pomífera *W.*	apple-bearing	♣		or	2	jl.au	B	Candia	1699.	C	p.l	Fl. græc. 1. t. 15
371 calycina *Sm.*	large calyxed	♣		or	1	jl.au	Pk	Levant	1823.	C	co	
372 canariénsis *W.*	canary	♣	⊔	or	4	jn.s	P	Canaries	1697.	C	l.p	Tr. pl rar. 2. t.19
373 aúrea *W.*	gold.-flowered	♣	⊔	or	3	ap.n	Y	C. G. H.	1731.	C	p.l	Bot. mag. 182
374 dentáta *W.*	tooth-leaved	♣	⊔	or	½	d.ja		C. G. H.	1774.	C	p.l	
375 interrúpta *Va.*	ash-leaved	♣		or	4	ap.s	B	Barbary	1798.	C	s.l	Schousb. 6. t. 1
376 pilántha *Lk.*	hairy-flowered	♣		or	2	jl.au	B	......	1823.	C	co	
377 pinnáta *Vahl.*	winged-leaved		◑	or	1	jl	P	Levant	1731.	C	s.l	Boerh. 1. t. 167
378 hablitziána *W*	Siberian	♣		or	1½	au	B	Siberia	1795.	C	co	Bot. mag. 1429
379 lanceoláta *W. en*	lanceolate		○	or		my.s	B	......	1813.	S	co	Jac. ecl. 2. t. 13
380 hirsúta *W. en.*	hirsute		○	or		my.jn	B	......	1801.	S	co	Jac. sch. 3. t. 252
381 angustifólia *Ca.*	narrow-leaved		⌊△⌋	or		jn.jl	B	Mexico	1806.	C	co	Cav. ic. t. 317
382 azúrea *Ph.*	azure-flowered					au	B	Carolina	1806.	C	co	Bot. mag. 1728
383 pseúdo-coccinea *W.*	pale scarlet					jn au	P.R	S. Amer.	1797.	C	s.p	Jac. ic. 2. t. 209
384 bouiána *Jacq.*	blue Peruvian		⌊△⌋	or		mr.ap	B	Peru	1821.	C	co	Jac. ecl. 1. t. 47
S. amœna B. R. 446.												
385 mexicána *W.*	Mexican					my.jl		Mexico	1724.	C	p.l	Cav. ic. 1. t. 26
386 chamædryoides *Va.*	germander	♣	⊔	or	1½	jn s		Mexico	1795.	C	p.l	Bot. mag. 808
387 cæsia *W. en.*	grey	♣	⊔	or	2	jn.s		S. Amer.	1813.	C	p.l	
388 hispánica *W.*	Spanish		○	or	1½	jn.au		Spain	1739.	D	p.l	Bot. reg. 359
389 serotina *W.*	late-flowering	♣	⊔	or	1½	au		Ohio	1803.	C	s.l	Jac. ic. rar. 1. t 3
390 dominica *W.*	Dominica		[△]	or	¾	jl		W. Indies	1759.	C	s.p	Sw. ob. 18 t. 1. f 1
391 tiliæfólia *W*	lime-leaved		⌊△⌋	or	4	jn.au		S. Amer.	1793.	C	p.l	Jac. sch 3. t. 254
392 polystáchya *W.*	many-spiked		⌊△⌋	or	3	o.d		Mexico	1822.	C	co	Jac. sch. 3. t. 318
393 micrántha *Vahl.*	small-flowered		⌊△⌋	or	1	my.jn	B	Cuba	1823.	C	co	
394 formósa *W.*	shining-leaved	♣	⊔	or	4	ap.o	S	Peru	1783.	C	p l	Bot mag. 376
395 coccinea *W.*	scarlet-flower'd	♣	⊔	or	2	ap.o	S	S. Amer.	1774.	C	p l	Murr. 1778. t. 1
396 pulchélla *Dec.*	pretty		⌊△⌋	or		o.f	S	S. Amer.	1821.	C	co	
397 amarissima *H. K.*	bitter		⌊△⌋	or		jl.au	B	Mexico	1803.	C	s.p	Bot. reg. 347
398 glutinósa *W.*	glutinous		△	or		jn.s	Y	Germany	1796.	C	co	Mor. h. 3. t. 13. f. 8
399 lineatifólia *Lag.*	lime-leaved	♣	⊔	or			B	Mexico	1823.	C	co	
400 ægyptiaca *W.*	Egyptian		○	or	¼	jn.jl	W	Egypt	1770.	S	co	Jac. vind. 2. t. 108
401 crética *W.*	Cretan	♣		or	½	jn.au	V	Crete	1760.	C	co	Riv. mon. t. 128
402 paniculáta *W.*	panicled	♣	⊔	or	6	jn.au	V	C. G. H.	1758.	C	p.l	Mill. ic. t. 225. f. 1
403 africána *W.*	African	♣	⊔	or	2	ap jn	V	C. G. H.	1731.	C	p.l	Com. hort. 2. t. 91
404 coloráta *W.*	colored calyx	♣	⊔	or	6	jl.au	B	C. G. H.	1758.	C	s.p	Mill. ic. t. 225. f. 2
405 officinális *W.*	garden	♣		cul	2	jn.jl	R.c	S. Europe	1597.	C	co	Ger. herb. 623. f. 1



History, Use, Propagation, Culture,

are aromatic, and resemble mint in their habits and mode of culture. The leaves of M. didyma are sometimes used as tea in North America; its flowers are of a very brilliant scarlet.

61. *Rosmarinus.* Two Latin words signifying dew of the sea. The shrub grows in the southern parts of Europe in the vicinity of the sea. R. officinalis yields, by distillation, a light-pale essential oil of great fragrance, which is imparted to rectified spirit. It was formerly recommended for strengthening the nervous system, headaches, &c. as well as to strengthen the memory. Hence the allusion of the poet, "there's rosemary, that's for remembrance." Rue in former times signified grace; and rosemary, repentance. Rosemary was considered as an emblem of fidelity in lovers; it was worn at weddings and funerals, and on the latter occasions is still in some parts of Wales distributed among the company, who throw the sprigs in the grave along with the corpse. It is the principal ingredient in Hungary water, and is drunk as tea for headaches, and by nervous persons. It prefers a lean dry soil, or rubbish of old buildings; and when it has established itself on a wall, will resist the greatest cold of our winters. Its introduction is beyond record, and was probably by the monks in the dark ages.

62. *Salvia.* From salvere, to save, on account of its supposed healing qualities. This large and very natural

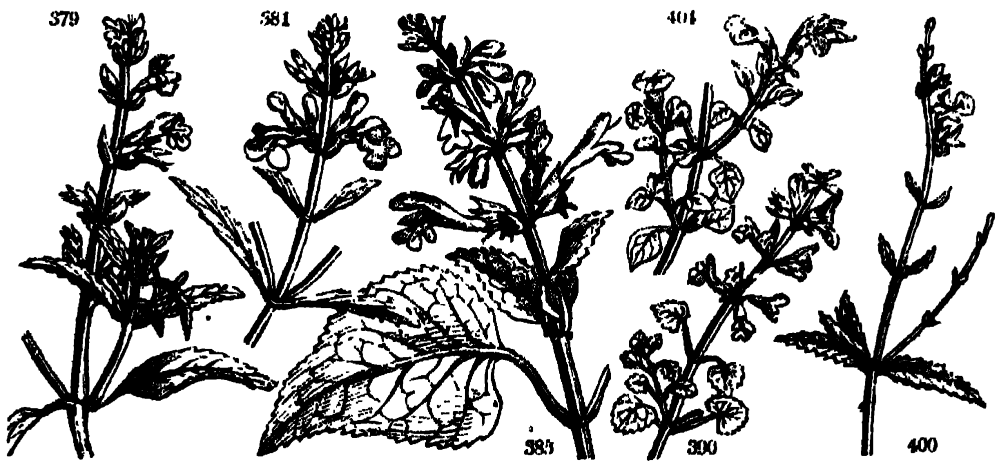
358 Leaves oblong lanceolate rounded and narrowed at the base villous flat, Cor. dotted
359 Leaves ovate lanc. rounded and unequal at the base pubesc. remotely serr. Flowers in heads, Bractes pale
360 Smooth, Heads large leafy, Calyx colour. bearded, Cor. long smooth, Lvs. ov. obl. coarsely serr. Stem smooth
361 Leaves ovate acuminate rounded at base and equal hairy coarsely serrated, Flowers in heads, Bractes pale
362 Leaves ovate lanceolate cordate smooth rugose [bright crimson
363 Leaves obl. pointed stalked ovate, Flowers in heads, Bract. small acute, Stem square pilose, Flowers very long
364 Leaves ovate acum. sub-cordate closely serrated smoothish, Flowers in headed whorls, Involucres purple
365 Leaves ovate attenuated, Stems and whorls hairy, Bractes ovate as long as the calyx
366 Very hairy all over, Flowers small in whorls, Leaves ovate acuminate serrate on long stalks, Stem square
367 Leaves lanceolate remotely serrated smooth, Flowers in whorls, Bractes pale

368 Leaves sessile

369 Leaves on stalks

Calyx 3-lobed, enlarged.
370 Leaves ovate lanceolate rugose crenulate undulate, Calyx blunt longer than ovate bracte
371 Leaves ovate crenate flat hoary netted with veins, Calyx 3-lobed dilated retuse with little lips
372 Leaves triangular hastate oblong crenated obtuse
373 Hoary, Lower leaves roundish truncate at base smooth: upper oblong entire, Calyx of fruit large
374 Leaves linear oblong serrate, Whorls 2-flowered, Calyx obtuse
375 Leaves interruptedly pinnate, Stem shrubby erect
376 Leaves pinnate in 2 or 3 pairs, Leaflets sess. lanceol. obtuse crenulate rugose, hoary beneath, Bract. cordate
377 Hairy viscid, Leaves interruptedly pinnate, Leaflets oblong eroded unequal-sided, Calyx inflated
378 Leaves pinnate entire, Leaflets lanceolate nearly equal: upper generally in pairs
Calyx 3-toothed, sub-cylindrical.
379 Leaves lanc. obt. remotely serrate stalked beneath pub. Spike racemose winged, whorls 2-fl. Bract. lanceolate
380 All hairy, Leaves oblong ovate crenate, Flowers in spiked whorls, Bractes roundish acute
381 Leaves lanceolate: the lower serrated outwards, with the stem hoary, Lower lip very broad, Calyx acute
382 Leaves linear lanceolate the lower serrated outwards with the stem smooth, Segments of calyx rounded
383 Leaves ovate acute serrated villous on each side, Stem hairy
384 Leaves obl. ov. rugose serr. smooth dotted, Flowers in spiked whorls on one side, Bract. decid. Helmet hairy

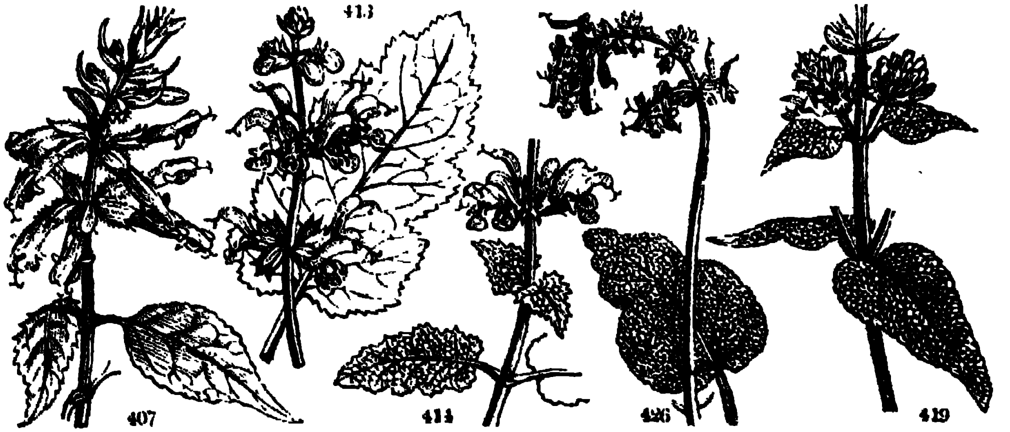
385 Lvs. somew. rhom. ov. acum. serr. at base and apex quite ent. beneath dev. above hoary, Bract. decid. hoary
386 Leaves ovate crenate rugulose hoary, Calyx with stellate hairs, Stem decumbent
387 Leaves ov. acum. serr. beneath hoary, Spikes term. Lower whorls remote, Bract. decid. shorter than calyx
388 Leaves ovate serrate, Leaf stalks with a point on each side, Spikes imbricate, Bract. ovate ciliated narrowed
389 Leaves sub-cordate obtuse unequally bluntly serrated, Calyx viscid villous as long as corolla
390 Leaves cordate obtuse rugose crenated hoary beneath, Calyx villous viscid as long as corolla
391 Leaves cordate rugose crenate equally serrate acute, Calyx smoothish
392 Leaves ov. serr. glaucous beneath, Racemes comp. Flowers on one side, Leaf stalks with 2 glands at base
393 Leaves cordate crenate blistered wavy at edge obtuse smooth, Bractes ovate shorter than calyx
394 Leaves cordate crenate, Flowers axillary whorled, Stem shrubby
395 Leaves cordate acute tomentose serrate, Corolla twice as long and narrower than the calyx
396 Leaves cord. acute smoothish cren.: the upper sess. whorls 6-10 fl Helmet hairy entire the length of stamens
397 Leaves cordate crenate: stalks with 2 calli, Stem and calyx clammy with hair, Bractes ovate ciliated
398 Villous viscid, Leaves cordate arrow-headed coarsely serrated acuminated, Helmet entire
399 Leaves cord. ovate acuminate lucid serrat. downy beneath, Spikes numerous axillary and term. very dense
Calyx 5-toothed, generally 3-2.
400 Leaves linear lanceolate toothed rugose, Bract. ovate mucronate
401 Leaves linear lanceolate, Flowers nearly digynous, Cal. 2-leaved
402 Leaves obovate wedge-shaped toothletted
403 Lower leaves spatulate serrate truncated at base toothed: upper oblong nearly entire, Cal. hairy
404 Leaves obl. nearly entire hoary, Cal. hairy: of the fruit enlarged veiny with a membranous coloured limb
405 Leaves lanceolate ovate crenulate, Whorls few-flowered, Cal. mucronate longer than bractes



and Miscellaneous Particulars

genus consists of herbs or under-shrubs, the leaves of which have generally a rugose appearance, the smell aromatic, and the flowers commonly in spikes, two or three together from a bracte or leaf. They are all of easy culture, and some of them are ornamental as greenhouse plants or border flowers. The Horminum, Salvia, and Sclarea of Tournefort are included in this genus. The Sclarea or clary is derived from σκληρος, stiff, and Horminum from ὁρμαω, quod ad veneream stimulat. Of S. officinalis there are many varieties, differing in the size, form, and color of the leaves. It was formerly in great repute in medicine as a sudorific, aromatic, astringent, and antiseptic. The Chinese use it as a tonic for debility of the stomach, and strengthening the nervous system, and prefer it for these purposes to their own tea. It is, however, discarded from our pharmacopeiæ, but still used by self-practitioners and herb doctors. In cookery it is used for sauces and stuffings for luscious meats. S. grandiflora is preferred for making tea. S. pomifera produces protuberances as big as oak galls, occasioned like them, by the puncture of an insect. In the isle of Crete, S. officinalis has the same sort of excrescences, and they carry them to market there under the name of sage-apples. S. verbenaca is a native of all the four continents, and very aromatic. A mucilage is produced from its seeds, which, put under the eyelids for a few moments, envelopes any sand or dust there, and brings it out, and hence the name of officinalis christi, clear

406 Spielmánni *W. en.*	Spielman's	♃	△	or	2	jn.jl	B	S. Europe	1813.	C	s.l	Scop. del. 3. t. 15
407 spléndens *Ker.*	splendid	♃	[△]	or	3	o.ja	Sc	Mexico	1822.	C	s.l	Bot. reg. 687
408 phlomoídes *W.*	mullein-like	♃	△	or	2	my.jn	L.B	Spain	1805.	C	co	R. pl. h. 1. t. 1. f. 1
409 urticifòlia *W.*	nettle-leaved	♃	△	or	3	jn.jl	B	N. Amer.	1799.	C	p.l	Mor. h. 3. t. 13. f. 31
410 bulláta *W. en.*	blistered	♃	△	or	2	jl.au	R	Portugal	1804.	D	co	
411 rugósa *W.*	wrinkle-leaved	⊥	⊔	or	2	jl.au	W	C. G. H.	1775.	C	co	
412 verticilláta *W.*	whorl-flower'd	♃	△	or	3	jn.n	B	Germany	1658.	D	s.l	Barr. ic. 199
413 índica *W.*	Indian	♃	△	or	3	my.jl	B	India	1731.	D	co	Bot. mag. 395
414 Tenórii *Spr.*	Tenore's	♃	△	or	2	my.jn	B	Italy	1821.	D	co	Sw. fl. gard. t. 26
415 verbascifólia *Bieb*	mullein-leaved	♃	△	or	3	my.jn	Y	Iberia	1823.	D	co	
416 odoráta *W. en.*	sweet-scented	⊥	⊔	or	3	jl	W	Bagdad	1804.	C	s.l	
417 compréssa *Vahl.*	compressed	♃	△	or	2	my.jn	W	East	1822.	D	co	
418 móllis *Donn.*	soft	♃	△	or	2	jn.jl	R	Siberia	1823.	D	co	Jacq. ecl. 4. t. 37
419 grandiflóra *W.*	great-flowered	♃	△	or	2	jn.s	L.B	S. Europe	1616.	D	co	Jacq. ecl. 4. t. 36
420 crassifólia *Desf.*	thick-leaved	♃	△	or	2	jn.jl		S. Europe	1804.	D	co	
421 praténsis *W.*	meadow	♃	△	or	4	my.n	V	England	dr. pa.	D	co	Eng. bot. 153
422 variegáta *W. en.*	variegated	♃	△	or	2	jn.au	P	Hungary	1814.	D	co	
423 hæmatódes *W.*	bloody-veined	♃	△	or	2	jl.au	P	Italy	1699.	D	co	Mor. h. 3. t. 14. f. 15
424 viscósa *W.*	clammy	♃	△	or	1½	my.jn	C	Italy	1773.	C	p.l	Jac. ic. 1. t. 5
425 disérmas *W.*	long-spiked	♃	△	or	2	jl	W	Syria	1773.	D	co	Ard. spec. 1. t. 1
426 nútans *W.*	nodding	♃	△	or	3	jn.au	V	Russia	1780.	C	co	Bot. mag. 2436
427 betonicæfólia *W.*	betony-leaved	♃	△	or	3	jn.au	V	Russia	1804.	C	co	
428 amplexicaúlis *W. en.*	stem-clasping	♃	△	or	1½	jl.s	B	Levant	1813.	D	co	
429 austriaca *W.*	Austrian	♃	△	or	1	jn.jl	L.Y	Austria	1776.	D	co	Jac. aust. 2. t. 112
430 syríaca *W.*	Syrian	⊥	⊔	or	1½	jl	W	Levant	1759.	C	co	Bauh. prod. t. 114
431 núbia *W.*	Nubian		[△]	or	2	jn.jl	B	Africa	1784.	C	p.l	Murray. 1778. t. 3
432 virgáta *W.*	long-branched	♃	△	or	4	jl.n	W	Armenia	1758.	D	co	Jac. schön. 1. t. 57
433 campéstris *W. en.*	field	♃	△	or	2	jn.jl	B	Tauria	1813.	D	co	
434 sylvéstris *W.*	spotted-stalk'd	♃	△	or	2	jn.o	B	Germany	1759	D	co	Jac. aus. 3. t. 212
435 nemorósa *W.*	spear-leaved	♃	△	or	3	jn.s	B	Germany	1728.	D	co	
436 pátula *W. en.*	spreading	♃	♂	or	3	my.jl	Pk	Portugal	1805.	C	s.l	
437 tingitána *W.*	Tangier	⊥	⊔	or	3	jl	W	Barbary	1796.	C	s.l	Riv. mon. t. 62
438 Sclárea *W.*	common Clary	♃	♂	cul	4	jl.s	L.B	Italy	1562.	S	s.l	Fl. græc. 1. t. 25
439 spinósa *W.*	thorny-calyx	♃	[♂]	or	1	jn	W	Egypt	1789.	C	s.l	Jac. ic. 1. t. 7
440 æthiopis *W.*	woolly	♃	♂	or	3	my.jn	W	Austria	1570.	C	s.l	Jac. aus. 3. t. 211
441 argéntea *W.*	silvery	♃	△	or	3	my.jl	W	Crete	1759.	D	s.l	Fl. græc. 1. t. 27
442 applanáta *W.*	flattened	♃	♂	or	1½	jn.jl	V	Crete	1821.	D	co	
443 Hormínum *W.*	annual clary		○	cul	1½	jn.jl		S. Europe	1596.	S	co	Fl. græc. 1. t. 20
α *violácea*	purple-topped		○	cul	1½	jn.jl	P	......	...	S	co	
β *rúbra*	red-topped		○	cul	1½	jn.jl	R	......	...	S	co	
444 víridis *W.*	green-topped		○	or	1½	jl.au	Pk	Italy	1759.	S	co	Fl. græc. 1. t. 19
445 truncáta *W. en.*	truncated		○	or	1½	jl.au	Pk	S. Europe	1800.	S	co	
446 pyramidális *Pet.*	pyramidal	♃	△	or	6	my.jn		Naples	1823.	D	co	
447 verbenáca *W.*	wild-clary	♃	△	w	2	jn.o	V	Britain	pas.	R	co	Eng. bot. 154
448 oblongáta *Vahl.*	oblongate		○	or	1½	jn.o	B	......	1820.	D	co	Jacq. ecl. 2. t. 14
449 tríloba *W.*	three-lobed	⊥	○	or	2	jn.jl	R	S. Europe	1596	C	co	Fl. græc. 1. t. 17
450 lyráta *W.*	lyre-leaved	♃	△	or	1	jn.jl	L.B	N. Amer.	1728.	C	co	Mor. 3. t. 13. f. 27
451 abyssínica *W.*	Abyssinian	♃	[△]	or	1½	jn.jl	P	Africa	1775.	S	s.p	Jac. ic. 1. t. 6
452 nilótica *W.*	Nile		○	or	1	jn.au	B	Egypt	1780.	C	l.p	Jac. vind. 3. t. 92
453 Forskóhlii *W.*	Forskóhl's	♃	△	or	1½	jn.au	Bk	Levant	1800.	C	co	Bot. mag. 988
454 napifólia *W.*	rape-leaved	♃	△	or	2	jn.jl	D.P	Italy	1776.	D	co	Jac. vind. 2. t. 152
455 auríta *W.*	eared-leaved	⊥	⊔	or	2	my.jn		C. G. H.	1795.	C	p.l	
456 bícolor *W.*	two-coloured	♃	△	or	2	jn.jl	V.W	Barbary	1793.	D	co	Bot. mag. 1774
457 Barrelièri *Ettl.*	Barrelier's	♃	△	or	3	ap.my	B	Spain	1821.	D	co	Ten. fl. nap. t. 2
458 laciniáta *W.*	torn	♃	△	or	2	ap.my	B	......	1822.	D	co	
459 runcináta *W.*	rough-leaved	⊥	⊔	or	2	ap.s	B	C. G. H.	1774.	C	p.l	Jac. schön. 1. t. 8
460 polymórpha *Lk.*	various	♃	♂	or	1	my.jl	B	Portugal	1821.	D	co	Barr. ic. 220
461 clandestína *W.*	cut-leaved	♃	♂	or	1½	ap.jl	B	Italy	1739.	S	co	Fl. gr. 1. p. 18. t. 24
462 ceratophýlla *W.*	horn-leaved	♃	♂	or	1½	jl.au	V	Persia	1699.	C	s.l	Pik. al. t. 124. f. 5
463 ceratophylloídes *W.*	branchy	♃	♂	or	½	jn.au	V	Egypt	1771.	C	s.l	Ard. spec. 2. t. 2
464 bracteáta *W.*	long-bracted	♃	△	or	3	jn.jl	P	Russia	1821.	D	co	Bot. mag. 2320
63 COLLINSO'NIA. *W.*	Collinsonia.					*Labiatæ, Sp.* 5—6.						
465 canadénsis *W.*	nettle-leaved	♃	△	or	3	au.o	L.B	N. Amer.	1735.	D	p.l	Hort. cliff. t. 5
β *cordáta*	*cordate*	♃	△	or	3	au.o	L.B	N. Amer.	...	D	p.l	
γ *ováta*	*ovate*	♃	△	or	3	au.o	L.B	N. Amer.	...	D	p.l	
466 scabriúscula *W.*	rough-stalked	♃	[△]	or	2	jl.s	R	E. Florida	1776.	D	p.l	



History, Use, Propagation, Culture,

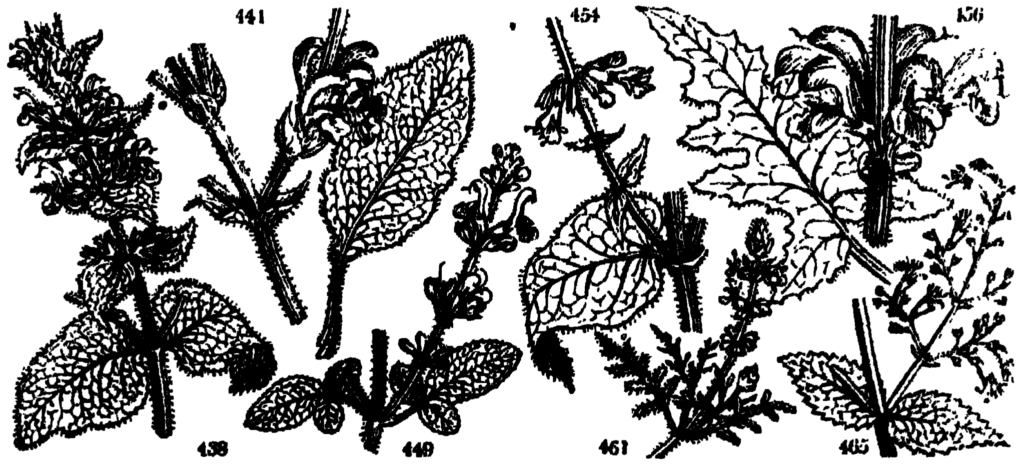
eye or clary. The flowers of S. glutinosa are used in Holland to give a flavor to the Rhenish wine. S. Sclarea has a very strong scent, and was formerly used in medicine. A wine is made from the herb or flower, boiled with sugar, which has a flavor not unlike Frontignac. S. indica is a magnificent species, but rather tender in

406 Leaves radical obl. sub-cord. bluntly tooth. : cauline tooth cren. Whorls 6-fl. Fl. horizon. a sing. fl.-st. term.
407 Leaves stalked ovate lanceolate flat smooth beneath, Corolla and coloured calyx downy, Style exserted
408 Leaves lanceolate nearly entire with the stem woolly clammy
409 Villous viscid, Leaves ovate oblong toothed running down the stalk
410 Leaves cordate oblong crenated toothed eroded, Stem twiggy, Whorls remote, Helmet linear
411 Leaves cordate oblong lanceolate eroded crenated rugose hairy, Stamens shorter than corolla
412 Leaves cordate crenate toothed, Whorls nearly naked, Style lying on the lip of the corolla
413 Leaves cordate rather lobed at the side : the upper sessile, Whorls nearly naked very distant
414 Leaves sub-cordate oblong crenate naked on each side, Helmet pilose
415 Leaves cord. ovate doubly serr. rugose woolly, Upper whorls sess. Bract. cord. mucronate shorter than calyx
416 Leaves hoary on each side rep. and uneq. tooth. : low. cord. upp. ov. Fl. in panic. Style twice as long as helmet
417 Rather woolly, Leaves toothed : radical cordate-oblong, Bract. roundish cordate unarmed : the upper sessile
418 Leaves cordate ovate acute rugose doubly crenate smooth above pubescent beneath, Branches in bundles
419 Leaves cordate oblong crenate, Whorls many-flowered, Cal. acute shorter than the bracte
420 Stem woolly, Leaves cord. crenulate hoary beneath, Upper whorls dense sessile, Upper lip of cor. abbreviate
421 Lvs. cord. obl. cren. or cut : the upper stem clasping, Bract. nearly as long as cal. Helm. visc. long. than lip
422 Lvs. cord. obl. rugose tooth cren. : cauline stalked, Spikes twiggy, Bract. short. than cal. Hairs of cal. gland.
423 Leaves cordate ovate rugose tomentose, Cal. hispid, Root tuberous
424 Villous viscid, Leaves cordate oblong rugose acutish crenulate, Bract. cordate roundish acuminate
425 Leaves cordate oblong eroded, Leaf-stalks edged, Stam. as long as corolla
426 Leaves obl. cordate, Stem simple without leaves, Racemes in flowers pendulous
427 Leaves cord. lanc. uneq. cren. Stem 4-corn. Rac. comp. term. nearly naked cernuous, Bract. coloured ciliate
428 Leaves cord. lanc. ½ stem embracing uneq. cren. Bract. cord. acum. shorter than the calyx, Flowers spiked
429 Leaves cordate oblong eroded sinuated, Stem nearly without leaves, Whorls very hairy, Stam. very long
430 Leaves cordate toothed lower repand, Bract. short acute, Cal. tomentose
431 Leaves oblong sub-cordate unequal-sided rugose crenated with a little auricle at the base
432 Leaves oblong cordate rugose crenated, Hairs of the calyx and stem glandular at the end
433 Leaves cord. obl. doubly cren. somewhat repand hairy, Rac. twiggy, Bract. shorter than cal. Fl.-sts. toment.
434 Leaves cord. rugose biserr. Bract. coloured pointed shorter than the flower, Hairs of stem and calyx simple
435 Leaves cordate lanceolate equally serrate, Bract. the length of calyx, Lower lip of corolla reflexed
436 Clammy, Radical leaves cordate toothed sinuated : cauline sessile oblong, Bract. as long as calyx
437 Leaves cordate oblong eroded toothed very rugose, Bract. cordate mucronate ciliated, Cal. spiny
438 Leaves rugose cordate obl. serrate villous, Bract. coloured longer than calyx
439 Leaves oblong repand, Cal. spiny, Bract. cordate mucronate concave
440 Leaves oblong eroded with the whorls woolly, Bract. recurved somewhat spiny
441 Leaves oblong toothed angular woolly, Upper whorls sterile, Bract. concave
442 Lvs. sub-cord. obl. obtuse with spread. teeth, Stem clammy with hairs, Bract. cord. entire equal to spiny cal.
443 Leaves obtuse crenated, Upper bract. sterile large and coloured

444 Lvs. obt. obl. equal. cren. stalk. : those next the fl. stem-embrac. the low. whorls dist. Cal. of the fruit reflex.
445 Leaves obl. obt. cren. stalk. Floral stem-emb. whorls 2 approxim. the term. one having 6 fl. Cal. of fruit reflexed
446 Lvs. cord. acum. plait. erod. cren. ben. white with hairs, Bract. col. cord. acute long. than cal. Sp. term. conic.
447 Leaves serrate sinuated smoothish, Corolla shorter than calyx
448 Leaves lanceolate oblong obtuse smooth, coarsely equally bluntly serrated, Cor. narrower than cal.
449 Tomentose, Lvs. stalked rugose sub 3-lobed : the intermediate lobe longer and obl. : the lateral obt. ovate
450 Radical leaves lyrate toothed, Helmet very short, Stem with very few leaves hairy downwards
451 Lower leaves lyrate : upper cordate, Flowers whorled, Cal. mucronate ciliated
452 Leaves sinuate angular crenate toothed, Cal. teeth spiny with the angles and edge of the orifice ciliated
453 Leaves lyrate auricled, Stem nearly without leaves, Helmet bifid
454 Lvs. cord. with spread. teeth ; the low. hastat. and lyr. Whorls nearly naked, Up. lip of cor. short. cord. edged
455 Villous, Leaves ovate toothed auricled, Flowers in spiked whorls
456 Radic. lvs. cord. palm. or ent. of the stem arrow-head. lanc. uneq. tooth. Bract. reflex. short. than nodd. cal.
457 Leaves hastate lanceolate unequally serrated, Stem leafy erect
458 Leaves pinnatifid rugose : Segm. lin. unequal crenated obt. Whorls many-fl. Bract. roundish cordate acute
459 Scabrous, Leaves pinnatifid backwards toothed, Flowers in spiked whorls
460 Lower lvs. stalked sinuated pinnatifid rugose smoothish : the upper sessile cord. Bract. short. than flowers
461 Leaves serrated pinnatifid very rugose smooth, Spike obtuse, Cor. twice as long as calyx
462 Leaves very rugose woolly : the radical bipinnatifid cauline pinnatifid, Upper whorls sterile
463 Leaves pinnatifid rugose stalked, Whorls all fertile and very hairy
464 Leaves pinnated hairy, Segments of calyx subulate, Bract. leafy longer than cal. Whorls many-flowered

465 Leaves ovate and stem smooth

466 Leaves sub-cordate a little hairy, Stem roughish

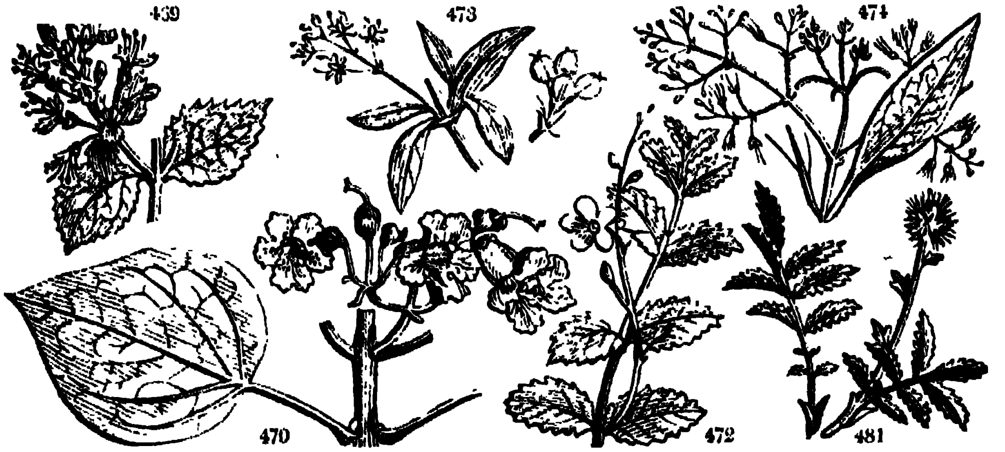


and Miscellaneous Particulars.

severe winters. S. formosa and S. splendens are very ornamental. All the species thrive in light soil, somewhat rich, and are readily propagated by seeds, cuttings, and dividing the roots.

63. *Collinsonia.* In honor of Peter Collinson, F.R.S., a most distinguished promoter of botany, and a cor-

467 ovális *Ph.*	oval-leaved	⚘	△ or	2	au	Y	Carolina	1812.	D	p.l	
468 tuberósa *Ph.*	tuberous	⚘	△ or	2	au	Y	Carolina	1806.	R	p.l	
469 anisáta *B. M.*	anise-scented	⚘	△ or	3	o	Y	Carolina	1806.	D	p.l	Bot. mag. 1213
64. CATAL'PA. *Juss.*	CATALPA.				*Bignoniaceæ.*		*Sp.* 2.				
470 syringifólia *H. K.*	common	🌳	or	20	jn.au	W	N. Amer.	1726.	S	p.l	Bot. mag. 1094
471 longíssima *H. K.*	wave-leaved	🌳	□ or	20			W. Indies	1777.	L	s.p	Plum. ic. t. 57
65. GHI'NIA. *W.*	GHINIA.				*Verbenaceæ.*		*Sp.* 1—2.				
472 spinósa *W.*	thorny-fruited		⊡ cu	2	au	Pl	W. Indies	1733.	S	s.l	Bnks. r. hous. t.2
66. FONTANE'SIA. *W.*	FONTANESIA.				*Jasmineæ.*		*Sp.* 1—2.				
473 phillyræoides *W.*	phillyrea-leav.	♣	⌴ or	12	au	Y	Syria	1787.	C	s.l	Lab. syr. 1. t. 1
67. LINOCIE'RA. *B.P.*	LINOCIERA.				*Oleinæ.*		*Sp.* 1—7.				
474 compácta *B. P.*	Caribean	♣	□ or			W	W. Indies	1793.	C	l.s.p	Jac. col. 2. t.6. f.1
68. ANCI'STRUM. *L.*	ANCISTRUM.				*Sanguisorbeæ.*		*Sp.* 8—15.				
475 latebrósum *Vahl.*	hairy	♃	⌴△ cu	1	ap.jn	G	C. G. H.	1774.	C	l.p.s	
476 pinnatifidum *Fl. per.*	pinnatifid	♃	⌴△ cu	¼	my.jn	G	Chile	1822.	D	l.p.s	Fl. per. 1. t. 104
477 ovalifólium *Vahl.*	creeping	♃	△ cu	1	my.jn	G	Peru	1802.	D	l.p.s	
478 adscéndens *Vahl.*	ascending	♃	△ cu	1	my.jn	G	Magellan	1822.	D	l.p.s	
479 sanguisórbæ *Vahl.*	Burnet-leaved	♃	△ cu		jn	G	N. Zeal.	1796.	D	l.p.s	Lam. ill. t. 12. f.1
480 lúcidum *Vahl.*	shining	♃	⌴△ cu		my.jn	G	Falkland I.	1777.	D	l.p.s	Lm. ill. 1. t. 22. f.3
481 argénteum *Fl. per.*	silky	♃	△ cu		my.jn	G	Chile	1822.	D	l.p.s	Fl. per. 1. t. 103
482 lævigátum *H. K.*	smooth	♃	△ cu	¼	jn.au	G	Magellan	1790.	D	l.p.s	
69. O'RNUS. *P. S.*	FLOWERING ASH.				*Oleinæ.*		*Sp.* 3.				
483 europæ'a *P. S.*	European	·		30	my.jn	W	Italy	1810.	G	co	Fl. græc. 1. t. 4
484 rotundifólia *P. S.*	manna	·		30	ap	W	Italy	1697.	G	co	Willd. bm. t.2. f.1
485 floribúnda *Wall.*	many-flowered		⌋ or	30		W	Nepal	1822.	G	co	
70. MORI'NA. *W.*	MORINA.				*Dipsaceæ.*		*Sp.* 1.				
486 pérsica *W.*	Persian	♃	⌴△ or	3	jl.au	R.w	Persia	1740.	C	s.p	Fl. græc. 1. t. 28
71. CIRCÆ'A. *W.*	ENCHANTER'S NIGHTSHADE.				*Onagrariæ.*		*Sp.* 3.				
487 lutetiána *W.*	common	⚘	△ or	1	jn.au	R	Britain	sha. pl.	D	co	Eng. bot. 1056
488 intermédia	intermediate	⚘	△ or	¼	jn.au	R	Europe	1821.	D	co	Fl. dan. t. 256
489 alpína *W.*	mountain	⚘	△ or	¼	jn s	R	Britain		D	co	Eng. bot. 1057
72. FE'DIA. *D. C.*	FEDIA.				*Valerianeæ.*		*Sp.* 1—2.				
490 cornucópiæ *D. C.*	red		○ or	1	jn.jl	R	S. Europe	1796.	S	co	Fl. græc. t. 32
73. PIMELE'A. *B. P.*	PIMELEA.				*Thymeleæ.*		*Sp.* 4—39.				
491 linifólia *B. P.*	flax-leaved	♣	⌴ or	2	f.au		N. S. W.	1793.	C	s.p	Bot. mag. 891
492 rósea *B. P.*	rose-coloured	♣	⌴ or	2	mr.s	Pk	N. Holl.	1800.	C	s.p	Bot. mag. 1458
493 drupácea *Br.*	fleshy-fruited	♣	⌴ or	2	my	W	N. Holl.	1817.	C	s.p	Bot. cab. 540
494 pauciflóra *B. P.*	few-flowered	♣	⌴ or	3	my	W	V. Di. L.	1812.	C	l.p	Bot. cab. 179
74. CLA'DIUM. *Schr.*	CLADIUM.				*Cyperaceæ.*		*Sp.* 1—14.				
495 germánicum	prickly-sedge	ψ	△ w	3	jl.au	Ap	Britain	mar.	D	m.s	Eng. bot. 950
75. GUNNE'RA. *W.*	GUNNERA.				*Urticeæ.*		*Sp.* 1—3.				
496 perpénsa *W.*	common	♃	⌴ cu	1¼	jl.au	`	C. G. H.	1688.	D	m.s	Bot. mag. 2376



History, Use, Propagation, Culture,

respondent of Linnæus: he died in 1768. *Horse-weed,* Amer. The species are American plants of easy cultivation.

64. *Catalpa.* The Indian name. *Die Trompetenblume,* Ger. C. syringifolia, *H.K.* is the Bignonia catalpa, *L.*; a low-spreading, rather singular looking tree, with succulent shoots easily injured by winds or severe frosts. It requires a sheltered situation and plenty of room. The leaves are large and come out late; the flowers are white, shewy, and are succeeded by long pods, but they seldom appear in this climate. One of the oldest catalpas in England is in Gray's Inn gardens, said to have been planted there by Lord Bacon. C. longissima is an elegant upright tree, known in the West Indies by the name of French oak, and the French call it *chêne-noir.*

65. *Ghinia.* In honor of an Italian botanist, named Ghini, who founded several botanic gardens.

66. *Fontanesia.* So named by Billardière, in honor of M. Desfontaines, the excellent professor of botany at the Jardin du roi at Paris. It is rather a tender shrub, requiring shelter in severe weather. It grows in common garden soil, and is increased by layers or by cuttings in sand under a hand-glass.

67. *Linociera.* Named after Geoffroi Linocier, a French physician. A tropical genus of shrubby plants, propagated by cuttings, and of little beauty in a cultivated state.

68. *Ancistrum.* From *αγκιστρον,* a hook. Its calyx is terminated by little hooks. These are small herbaceous plants with pretty foliage, but no beauty in their flowers. They are only cultivated as objects of curiosity, and are seldom seen.

69. *Ornus.* In Greek, *ορεινος,* from *ορος,* a mountain. The tree grows on mountains. *La Frene à fleurs,* Fr. *Die Blühende Esche,* Ger.; and *Frassino fiorido,* Ital. O. europæa, *P.S.* is the Fraxinus ornus, *L.* O. rotundifolia, or the manna ash, abounds in the skirts of the mountains in Calabria. From the middle of June to the end of July the manna gatherers make an incision across the bole of the tree, which they deepen the second day, inserting a maple leaf, so as to form a sort of cup to receive the gum as it distils from the incision. Sometimes bits of reed or twigs are applied, on which the manna oozes out, and drying with the sun, forms tubular

467 Leaves oblong acute at both ends, Stem smooth, Cal. teeth very short, Flowers terminal naked
468 Leaves sub-rhomboidal ovate, Cal. teeth bristly longer than the tube, Panicle leafy, Stem much branched
469 Leaves ovate cordate rugose, Flowers tetrandrous

470 Leaves cordate flat
471 Leaves oblong undulated

472 Fruit with 4 spines, Leaves smooth

473 Leaves ovate-oblong pointed at each end, Flowers racemose

474 Racemes compound and decompound, Flowers sessile in threes, Petals subulate

475 Leaflets oblong cut, Flower-stalks like scapes, Spikes elongated prickly, Stems half under ground
476 Leaves linear-lanceol. sub-pinnatifid hairy beneath, Spikes cylindrical, Stem erect
477 Leaves oblong and a little wedge-shaped serrated silky beneath, Spikes globose, Stems creeping
478 Leaflets oblong and obovate serrated smoothish, Spikes round, Stem decumbent
479 Leaves remote, Leaflets wedge-shaped serrated silky beneath, Spikes globose, Stem decumbent
480 Leaves 3-5-parted, Segments linear-villous beneath, Spikes oblong, Stem half under ground
481 Leaflets ovate-oblong serrated silky beneath, Spikes globose, Stem creeping
482 Leaflets oval crenate and cut smooth above hoary beneath, Spike terminal cylindrical, Stem decumbent

483 Leaves lanceolate attenuated stalked serrated
484 Leaves roundish acute doubly serrated nearly sessile
485 Leaflets oblong tapering acuminate acutely and unequally serrated, Male flowers with a corolla

486 A plant like the Acanthus. Flowers in whorls

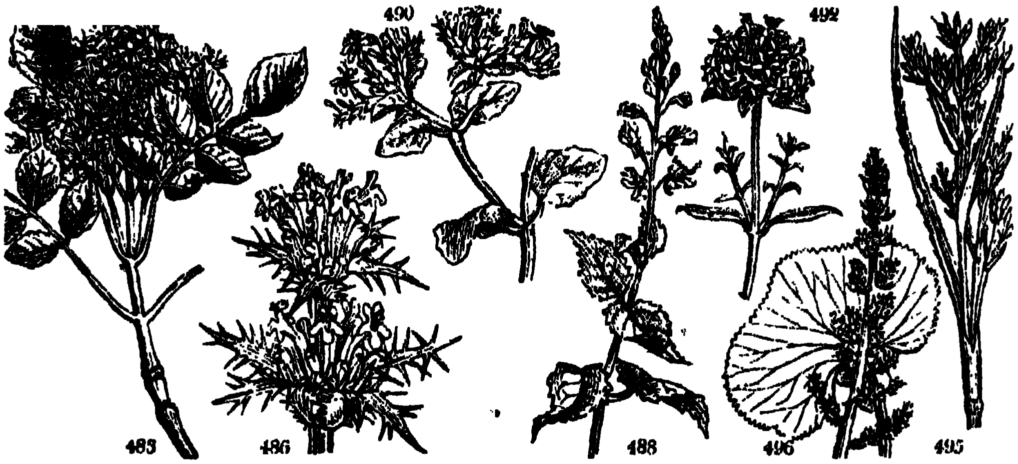
487 Stem pubescent erect, Leaves ovate acute denticulate sub-pubescent
488 Stem erect simple nearly smooth, Leaves cordate with spreading teeth acuminate
489 Stem much branched erect smooth, Leaves cordate smooth shining

490 Upper leaves toothed and angular, Flowers in heads

491 Invol. 4-lvd. leafl. broad ov. smth. on both sides much short. than the head, Lvs. lin.-stalk. 1-nerv. Cor. silky
492 Invol. 4-lvd. leafl. lanceol. ovate acute smooth on both sides, Leaves lanceol. lin. Cor. hairy on its lower half
493 Leaves oval-obl. flat pubesc. beneath, Floral lvs. longer than the head, Cor. cylind. deciduous, Fruit berried
494 Lvs. smooth on both sides lin. lanc. twice as narr. as the floral lvs. longer than the few-fl. head, Cor. smooth

495 Culm round, Corymbs dense, Panicle contracted, Flowers in bunches

496 Leaves uniform toothed shorter than the scape in seed, Scape and leafstalks smooth



and Miscellaneous Particulars.

pieces called manna in Cannali, which being reckoned more pure, sells higher by one-third than the manna in Tazzeti. Manna is a concrete mucilaginous juice, mild, and slightly nauseous. It seems to have no relation to that which nourished the Hebrews in the desert, being, as Rozier observes (Dict. d'Agr.), much more likely to have purged than nourished them. The Fraxinus virgata, *P.S.* also affords manna, but from no other species of ornus can it be procured. The Ornus floribunda has lately been discovered in Nepal, where it is called kanga and tahasce.

70. *Morina.* In memory of Lewis Morin, a French botanist, and son of Peter Morin, a florist celebrated in the 17th century. This plant is of very rare occurrence. It is not unlike the common acanthus, but more beautiful. Propagated by seeds.

71. *Circæa.* Poetically named after the enchantress Circe. The genus grows in damp shady places where shrubs fit for incantations may be supposed to be found. The Greeks had a plant named circæa. All the species are easily cultivated, and are curious on account of their singular flowers. C. lutetiana has been found in Nepal.

72. *Fedia.* A name of Adanson's, which, like many others of the same author, has probably no meaning. The genus has been very properly distinguished from Valeriana by Decandolle, as well as from Valerianella, with which it has recently been again confounded. A weed-like annual is the only species yet in our gardens.

73. *Pimelea.* From πιμελη, fat; but if so, it should be written Pimelæa. A real and extensive genus of plants, natives of the southern hemisphere. Many of the species are from N. Holland, and are chiefly known by the brief descriptions of Mr. R. Brown.

74. *Cladium.* From κλαδος, a branch or twig. A tall sedge-like plant, referred by Linnæus and his school to Schœnus. C. germanicum is the only European species; it is the Schœnus mariscus of English botany. The others are chiefly from N. Holland.

75. *Gunnera.* After Ernest Gunner, bishop of Norway, of which country he published a Flora. A singular plant, cultivated merely as an object of curiosity. It likes a moist peat soil, and the temperature of a cool greenhouse.

DIGYNIA.

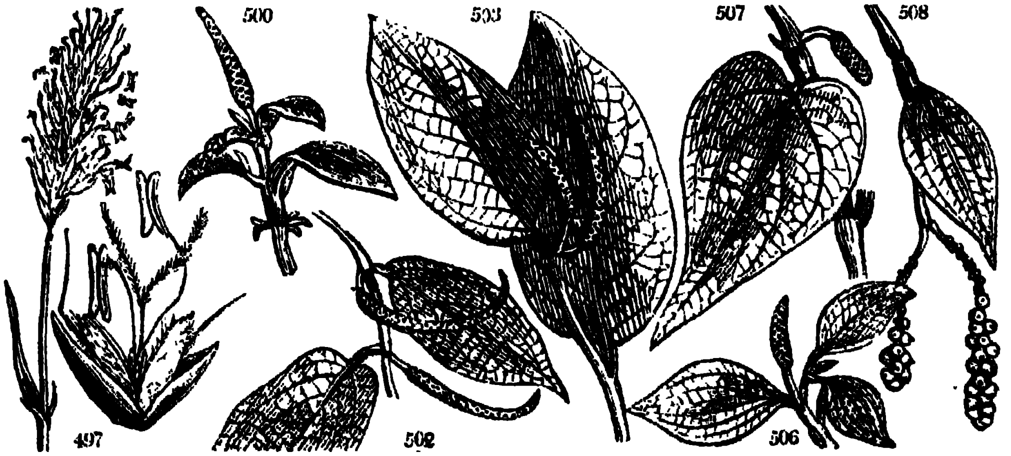
76. **ANTHOXANTHUM.** *W.* Spring-Grass. *Gramineæ.* *Sp.* 3—6.

497 odorátum *W.*	sweet-scented	⚘	△	ag	1	my	Ap	Britain	me. pa.	S	h.l	Eng. bot. 647
498 amárum *Brot.*	bitter	⚘	△	cu	1	jl	Ap	Morocco	1810.	S	co	
499 ovátum *Lag.*	ovate	⚘	○	cu	1	jl	Ap	Spain	1821.	S	co	

TRIGYNIA.

77. **PI'PER.** *W.* Pepper. *Piperaceæ.* *Sp.* 44—250.

500 coriáceum *Vahl.*	leathery	♣ :	ǀ cu	4	my.jn	Ap	E. Indies	1815.	C	r.m	Bot. cab. 128
501 nítidum *W.*	shining-leaved	♣ :	ǀ cu	3	my.jn	Ap	Jamaica	1793.			
502 adúncum *W.*	hooked	♣ :	ǀ cu	5	my	Ap	Jamaica	1748.			Jac. ic. 2. t. 210
503 mácrophýllum *W.*	broad-leaved	♣ :	ǀ cu	12	...	Ap	W. Indies	1800.			Slo. jam. 88. f. 1
504 geniculátum *W.*	swollen-joint'd	♣ :				Ap	Jamaica	1823.			
505 hispidum *W.*	hairy-leaved	♣ :			jl	Ap	Jamaica	1793.			
506 Amalágo *W.*	rough-leaved	♣ :			jl.au	Ap	Jamaica	1759.			Slo. hist. 1. t. 87. f. 1
507 Bétle *W.*	betle					Ap	E. Indies	1804.			Rheede. 7. t. 15
508 nigrum *W.*	black	:				Ap	E. Indies	1790.			Lam. ill. 79. t. 23
509 discolor *W.*	discoloured				jl.au	Ap	W. Indies	1821.			Bot. cab. 610
510 reticulátum *W.*	netted	.				Ap	W. Indies	1748.			Plumier. 57. t. 75
511 decumánum *W.*	the great	.				Ap	Carthag.	1768.			Jacq. ic. 2. t. 215
512 Siribóa *W.*	Siriboa	.				Ap	E. Indies	1768.			Rumph. 5. t. 117
513 lóngum *P. S.*	long		] clt	6		Ap	E. Indies	1788.			Rump. 5. t. 116. f. 2
514 peltátum *W.*	peltated	♣ .	] cu	2		Ap	W. Indies	1748.		—	Plumier. 56. t. 74
515 umbellátum *W.*	umbelled	♣	cu	3	my.jl	Ap	W. Indies	1748.		l.p	Plumier. 53. t. 73
516 laurifólium *Mill.*	laurel-leaved	♣	cu	10		Ap	W. Indies	1768.			
517 tomentósum *Mill.*	downy	♠	] cu	14	my.jn	Ap	W. Indies	1768.			
518 glábrum *Mill.*	smooth	♠	] cu	10		Ap	Campeac.	1768.			
519 racemósum *Mill.*	great racemose	♠	] cu	10		Ap	Campeac.	1768.			
520 brachyphýllum *W.*	short-leaved	¥		½		Ap	S. Amer.	1818.	C		
521 amplexicáule *W.*	stem-clasping	¥		1	jn.s	Ap	W. Indies	1793.	C	.m	
522 magnoliæfólium *Va.*	magnolia-lvd.	♠		1½	ja.mr	Ap	W. Indies	1793.	C	.m	Jac. ic. 2. t. 213
523 obtusifólium *W.*	obtuse-leaved	♠		1	ap.jl	Ap	W. Indies	1739.	C	.m	Tr. ehrt. 54. t. 96
524 cuneifólium *W. en.*	wedge-leaved	¥		1	jn.jl	Ap	Caraccas	1809.	C	.m	Jac. ic. 2. t. 214
525 alátum *P. S.*	winged	¥		1	mr.ap	Ap	S. Amer.	1812.	C	.m	Fl. per. 31. t. 48
526 acuminátum *W. en*	acuminate	¥	⊼ cu	1	jn.jl	Ap	W. Indies	1812.	C	.m	Bot. mag. 1882
527 distáchyon *P. S.*	two-rowed	¥	⊼ cu	1½	jn.jl	Ap	S. Amer.	1793.		.m	Plumier. 51. t. 67
528 maculósum *W.*	spot-stalked	¥	⊼ cu			Ap	St. Domin.	1790.	C	.m	Plumier. 60. t. 66
529 pellúcidum *W.*	pellucid			½	ap.s	Ap	S. Amer.	1748.		.m	Plumier. 54. t. 72
530 pubéscens *H. S.*	pubescent	¥		1	jl.o	Ap	S. Amer.	1809.		.m	
531 húmile *Vahl.*	low	¥		½	jn.jl	Ap	W. Indies	1768.	C	.m	
532 trifólium *P. S.*	three-leaved	¥		½	jn.au	Ap	S. Amer.	1802.		.m	Plumier. 52. t. 68
533 pulchéllum *W.*	small-leaved	¥		½	jl.o	Ap	Jamaica	1778.		.m	Bot. cab. 574
534 pereskiæfólium *W.*	cactus-leaved	¥		1	my.jn	Ap	S. Amer.	1820.		—	Hook. ex. fl. 67
535 blándum *W.*	villous	¥		1½	my.n	Ap	Caraccas	1802.			Hook. ex. fl. 21
536 rubricaúle *Nees.*	red-stemmed	¥		1	my.jn	Ap	......	1822.			Hor. phys. br. t. 8
537 polystáchion *W.*	many-spiked	¥		½	jn.jl	Ap	Jamaica	1775.		m	Hook. ex. fl. 23
538 quadrifólium *W.*	four-leaved	¥		½	jn.jl	Ap	S. Amer.	1818.		.m	Hook. ex. fl. 22
539 inæqualifólium	unequal-leav'd	¥		1	jl.au	Ap	Peru	1800.		.m	Fl. per. 1. t. 46. a
540 stellátum *P. S.*	starry	¥		1	my.jl	Ap	Jamaica	1802.		.m	Jac. vind. 2. t. 217
541 incánum *Haw.*	great-downy	¥		1	f	Ap	Brazil	181		—	Bot. cab. 503
542 subrotúndum *Haw.*	sm. clusia-lvd.	¥		1	f	Ap		1812.		.	
543 rubéllum *Haw.*	red	¥	⊼ cu	½	mr.ap	Ap	W. Indies	1820.	C	r.m	Hook. ex. fl. 59



History, Use, Propagation, Culture,

76. ***Anthoxanthum.*** From ανθος, a flower, and ξανθος, yellow, the spikes being yellow. This grass has the valves of the calyx sprinkled over with minute yellow dots, similar to those of black-currant berries; hence, possibly, its peculiar scent. It is this grass which gives the peculiar smell to meadow-hay; that made from ray-grass or other sown-grasses having no such odour. It is one of the earliest flowering grasses, grows on any soil, but prefers one moderately dry. Stillingfleet recommends its being sown with a view to improve the flavor of mutton. But its seeds are collected with so much difficulty that they are too costly to be sown in any great quantity.

77. ***Piper.*** Undoubtedly from pippul, the Bengalese name of the long-pepper, notwithstanding the learned derivations of authors from πεσσω, πεπτω, to digest. The plants of this genus are mostly succulent, perennial, herbaceous, or frutescent; often scandent as in that species which furnishes the pepper of commerce; dichotomous and jointed. P. nigrum furnishes the pepper of commerce. It grows wild in the East Indies, and in Cochin China, and is cultivated in Malacca, Java, and especially in Sumatra. The pepper or seed is distinguished in the shops as black or white; the former is the dried berry in its natural state; the latter, the berry deprived of its skin, by steeping about a fortnight in water, and then drying in the sun. Black pepper is the hottest and strongest. As a spice, pepper differs from most others by its pungency residing not in the volatile parts or essential oil, but in a fixed substance, which does not rise in the heat of boiling water. The culture of the plant in the pepper farms of the East very much resembles that of the hop in England. Holes are made in prepared ground at from six to twelve feet a-part every way; in these from two to six cuttings of the pepper vines are

DIGYNIA.

497 Spike ovate oblong, Flowers on short stalks longer than the beard spreading, Outer glumes ciliated
498 Panicle spike-shaped sub-lanceolate, Leaves smooth glaucous green, Nect. adnate to the seed, Cor. loose
499 Spike ovate dense, Sheaths smooth, Leaves ciliated

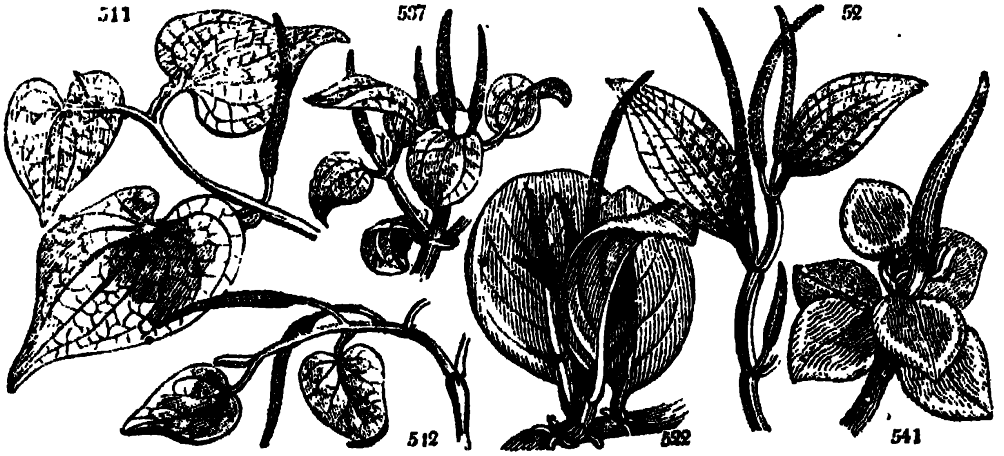
TRIGYNIA.

Shrubby.

500 Leaves broad-lanceolate pointed coriaceous, Berries stalked
501 Lvs. elliptic lanc. attenuated very smooth dotted shining above at the base unequal, Spikes recurved at tips
502 Leaves ovate oblong or elliptic acuminate unequal at the base rough on each side, Spikes axillary uncinate
503 Leaves ovate oblong many-nerved acuminate smooth unequal at base, Leaf stalks margined, Joints equal
504 Leaves elliptic oblong acuminate many-nerved unequal at the base, Joints knotty
505 Branches round hairy, Leaves ovate oblong above rough: veins beneath and stalks hispid
506 Leaves ovate oblong 5-nerved rugose on each side smooth equal at the base
507 Leaves ovate attenuated 7-nerved, Stalks 2-toothed
508 Leaves broad ovate acuminate 7-nerved coriaceous smooth, Joints knotted
509 Leaves broad cordate 5-nerved at the base unequal, beneath discoloured, Spikes lax with remote flowers
510 Leaves cordate acuminate 5-9-nerved very smooth equal to the leaf stalks
511 Leaves cordate acuminate 9-11-nerved veiny rather villous, Leaf stalks partly winged
512 Leaves cordate oblong acuminate about 7-nerved unequal at the base
513 Lower leaves cordate stalked 7-nerved: upper cordate oblong sessile 5-nerved
514 Leaves peltate round cordate many-nerved obtuse sub-repand, Spikes in umbels
515 Leaves roundish cordate acute many-nerved, Nerves and stalks villous, Spikes in umbels
516 Leaves lanceolate ovate nerved, Spikes short
517 Leaves ovate lanceolate tomentose, Stem arborescent
518 Leaves ovate lanceolate acuminate smooth 3-nerved
519 Leaves lanceolate ovate rugose, Nerves alternate

Stem fleshy.

520 Leaves ovate acute obsoletely 3-nerv. rather folded together at the base, Stalks ciliated, Spikes term. solitary
521 Leaves stem-clasping broad lanceolate narrowed downwards many-nerved, Stem simple erect
522 Leaves obovate very obtuse, Flower-stalks terminal branched, Stem and branches rooting
523 Leaves obovate nearly retuse edged with red, Spike terminal solitary, Stem decumbent rooting
524 Leaves wedge-shaped about 7-nerved, Spikes terminal conjugate, Stem rooting nearly erect
525 Leaves oblong lanceolate attenuated 5-nerved, Spikes axillary, solitary, the terminal in pairs, Stem winged
526 Leaves lanceolate ovate 5-nerved acute at each end, Spikes terminal 2 or 3 together, Stem nearly erect
527 Leaves ovate acuminate 5-nerved, Spikes conjugate erect, Stem branching rooting
528 Leaves peltate cordate ovate acute, Stem creeping
529 Leaves cordate acute, Spikes lateral and terminal, Stem procumbent
530 Leaves oblong nerveless opposite spikes axillary solitary, Stem pubescent upright
531 Leaves oblong acute nerveless opposite with the erect stem villous
532 Leaves ternate roundish, Stem creeping
533 Leaves 4 together sub-sessile oblong nerveless, Spikes terminal, Stem erect
534 Leaves 3 and 4 together oblong 3-nerved smooth coriaceous, Spikes terminal solitary
535 Leaves 3 and 4 together elliptic lanceolate 3-nerved with the upright stems villous
536 St. erect round smth. Lvs. 4-6 togeth. ses. lanc. atten. at base 3-nerv. very smth. Sp. ter. very long sol. or double
537 Leaves 3 and 4 together roundish rhomboidal stalked 3-nerved pubescent, Branches erect
538 Leaves 4 together wedge-shaped emarginate sub-sessile, Spikes solitary, Stem erect
539 Very fragrant, Leaves 4, 5, and 6 together sub-sessile reflexed sub-emarginate, Spikes terminal about 4
540 Leaves 3 and 5 together oblong acuminate 3-nerved smooth, Stem erect
541 Hoary with down, Leaves alternate thick round-ovate with a small blunt point, very cordate at the base
542 Leaves obovate rounded stalked very thick green naked
543 Leaves about 4 together roundish convex beneath and coloured, Spikes terminal and axillary sub-solitary



and Miscellaneous Particulars.

planted, and afterwards staked with any rough barked wood, on which the plants climb and attach themselves much in the manner of our five-leaved ivy (Ampelopsis). In Sumatra, Marsden informs us (*Hist.* 107.), a tree called the chinkareen is planted for the support of the pepper plant, as the common maple and flowering ash is for the vine in Italy. The shoots bear in the third year; the flowers appear in June, and the berries are ripe, and of a blood-red in September. The shoots are then cut down to the ground, and the berries gathered, dried in the sun, and sorted. In three or four years more the shoots have attained full growth, and another crop is ready.

P. amalago, longum, and various other species afford berries differing very little in quality from those of P. nigrum, and sometimes mixed with, or substituted for them.

P. betle affords the betel leaf of the southern Asiatics, which serves to enclose a few slices of the areca nut (thence commonly called the betle-nut), and a little shell lime. This, the inhabitants of those countries chew to sweeten the breath, strengthen the stomach, and ward off the calls of hunger, as the European working classes do tobacco. It is deemed the extreme of unpoliteness in the east to speak to a superior without a *quid* of betel in the mouth. The teeth of the men in Malabar are ruined by it; but the women preserve theirs to an old age, by staining them black with antimony. Such is the consumption of betel in the east, that it occasions a branch of commerce nearly as extensive as that of tobacco in the west.

All the species of pepper introduced in our stoves grow freely in loam and peat, require but little water, and are readily propagated by cuttings.

CLASS III. — TRIANDRIA. 3 STAMENS.

THIS class, which is larger than the two preceding, contains most of the genera of three considerable and very natural orders, the Irideæ, Cyperaceæ, and Gramineæ. The first are chiefly bulbous-rooted sword-leaved plants, with brilliant but transient flowers; the second, sedgy grass-like plants, more curious than useful; and the third, the proper grasses, an order which contributes more extensively and effectually to the support of man and domestic animals than any other, and, unless we except Lolium temulentum, containing no poisonous plant. The genera of the grasses, Sir J. E. Smith observes, are not easily defined. Schreber and Dr. Host among the Germans, and Stillingfleet and Curtis, and more recently, Mr. R. Brown, in this country, have paid much attention to the order; but it is among the French that the greatest improvements have been made in the arrangement and distribution of the genera. The principal graminologists in that country have been Messrs. Desvaux, Palisot de Beauvois, and Kunth, each of whom has divided the Linnæan genera into many others; the greater part of which have been admitted by other botanists, and are consequently adopted here. It must, however, be confessed, that if much has been done in remodelling the grasses, yet more remains to be effected; and that much more perspicuity and clearness of definition will be required before their arrangement can be said even to approach perfection. In describing the essential characters, the phraseology of the continental botanists has been adopted. This not being very familiar to readers in this country, the following explanation of terms may be useful.

The parts here called *Glumæ* are the *Calyx* of Linnæus.
Paleæ . . . *Corolla.*
Scale . . . *Nectary.*

The terms calyx and corolla applied to the floral envelopes of grasses are improper, as they are not analogous to those organs in other plants, but are rather to be considered as a form of Bracteæ, as are also the inner scales, called Nectarium by Linnæus. It has been considered by some writers, proper to place all the grasses in Triandria, without reference to the number of their stamens; but this is manifestly improper, as the whole merit of the artificial system depends upon its principles being closely followed. The grasses not in this class are to be found in Monandria, Diandria, Hexandria, and Polygamia. The grasses, in an œconominal point of view, have been scientifically experimented on by Sir H. Davy, and Mr. Sinclair, the duke of Bedford's gardener at Woburn.

Galaxia and Ferraria, which Persoon has placed in this class, we have, with Willdenow, placed in Monadelphia. Tigridia will also be found there. The following plants are Triandrous, but as they belong to very natural genera, botanists have deemed it better not to separate them.

MONOGYNIA. Narcissus triandrus. Juncus conglomeratus and effusus. Rivina brasiliensis, and some species of Amaranthus, &c. Galium trifidum, some Asperulas, Melothria, Laurus triandra, Fagara spinosa and acuminata, Hirtella triandra, Tradescantia multiflora.

DIGYNIA. Tripsacum hermaphroditum, some species of Ehrharta, &c.

TRIGYNIA. Tillæa muscosa, Elatine triandra, Stellaria media, some species of Xanthoxylum, Triplaris americana, &c.

Order 1. MONOGYNIA. 3 Stamens. 1 Style.

1. *Flowers with Calyx and Corolla distinct; or with a trifid Corolla only.*

78. ***Valeriana.*** Cal. very small, finally enlarged into a feathery pappus. Corolla monopetalous, 5-lobed, regular, gibbous at the base. Capsule 1-celled.

79. ***Patrinia.*** Cal. very small, finally enlarged into an irregularly and obsoletely toothed rim. Corolla monopetalous, 5-lobed, regular, gibbous at the base. Capsule 3-celled, supported on one side by an oval membranous bractea. Stamens variable. (3 or 5.)

80. ***Valerianella.*** Cal. very small, finally becoming a straight rim. Cor. monopetalous 5-fid, regular. Capsule 3-celled.

81 ***Calymenia.*** Cal. 5-fid campanulate. Cor. funnel-shaped. Nut 1-seeded, surrounded by the enlarged calyx.

82. ***Lœflingia.*** Cal. 5-leaved, the leaves 2-toothed at the base. Cor. of 5 petals, which are very minute and connivent Stigma 3-ple. Caps. 1-celled, 3-valved, many-seeded.

83. ***Hippocratea.*** Cal. 5-leaved, very small. Pet. 5 dilated at the base, hooded at the end. Nut fleshy, bearing the stamens. Caps. 3, compressed, 2-valved, opening in the middle, 1-celled, with 2-5 compressed winged seeds.

84. ***Cneorum.*** Cal. 3-4-toothed, persistent, small. Pet. 3-4 equal. Stigma 3-fid. Drupes 3 or 4 clustered, dry.

85. ***Comocladia.*** Cal. 3-parted. Pet. 3, larger than the calyx. Drupe with 3 spots at the end, and a membranous 1-seeded nut. (Stamens and petals vary to 4.)

86. ***Xyris.*** Cal. 3-valved, cartilaginous, clustered in a head. Cor. 3-petaled, equal. Caps. 1-3-celled, 3-valved. Stigma 3-fid.

87. ***Callisia.*** Calyx 3-leaved. Petals 3. Anthers double. Capsule superior, 2-celled, 2-seeded, compressed. Stigmas 3, finely divided.

88. ***Commelina.*** Cal. 3-leaved. Pet. 3. Filaments 3 or 4-sterile, furnished with crossing glands. Caps. 2-3-celled. Seeds fixed to the valves.

89. ***Aneilema.*** Like Commelina, but no involucrum. Stamens 6. Anthers 3, sometimes 2-4, dissimilar.

90. ***Cartonema.*** Cor. persistent: the 3 outer leaves calycine. Stamens persistent, beardless. Seeds 2.

2. *Flowers with a 5-parted Calyx, and no Corolla.*

91. ***Ortegia.*** Cal. 5-leaved. Stigma headed. Caps. 1-celled, 3-valved at the end. Seeds many, affixed to the bottom of the capsule. Stigma 1-3.

92. ***Polycnemum.*** Cal. 5-leaved. Seed 1, in an utriculus.

3. *Flowers 6-parted, coloured: the Calyx and Corolla not distinct.*

93 ***Crocus.*** Spatha usually 2-valved. Flower funnel-shaped, regular: the outer segments largest. Tube very long, partly under ground. Stigma deeply trifid, with convolute segments.

94. ***Witsenia.*** Flower tubular, with a 6-parted limb. Stigma slightly trifid or emarginate. Caps. 3-celled, many seeded.

95. ***Ixia.*** Spatha 2-valved. Flower with a slender tube and regular limb. Stigmas 3, narrow, recurved. Caps. globose, ovate.

96. ***Trichonema.*** Spatha 2-valved. Flower with a very short tube and an equal regular limb Filaments pubescent. Stigmas 3, 2-parted.

97. ***Geissorhiza.*** Spatha 2-valved. Flower tubular, with a 6-parted spreading regular limb. Style inclined. Caps. oval, 3-cornered.

98. ***Hesperantha.*** Spatha 2-valved. Flower tubular, with a 6-parted regular limb. Stigmas 3, divided as far down as the tube. Caps. oblong 3-cornered.

99. *Sparaxis.* Spatha 2-valved, scarious, membranous, torn at the end. Flower tubular. Stigmas 3, recurved. Caps. oblong, globose.

100. *Tritonia.* Spatha 2-valved. Flower tubular, with a 6-parted nearly regular limb. Stigmas 3, spreading. Seeds neither winged nor berried.

101. *Watsonia.* Spatha 2-valved. Flower tubular, with a 6-parted limb. Stigmas 3, filiform, 2-parted, with recurved segments. Caps. cartilaginous, many-seeded.

102. *Babiana.* Spatha 2-valved, the inner valve 2-parted. Flower tubular, with a 6-parted limb. Stigmas 3, spreading. Seeds berried.

103. *Lapeyrousia.* Flower hypocrateriform. Tube longer than the 6-parted limb. Stigmas 3, 2-parted. Caps. membranous, many-seeded.

104. *Melasphærula.* Spatha 2-valved. Flower nearly divided into 6 petals: the segments pointed equal. Stigmas 3, recurved. Caps. 3-lobed.

105. *Gladiolus.* Spatha 2-valved. Flower tubular, with a 6-parted irregular limb. Stamens ascending. Stigmas 3. Seeds winged.

106. *Anomatheca.* Spatha 2-valved. Flower hypocrateriform. Stigmas 3, 2-parted. Caps. frosted over with little warts.

107. *Antholyza.* Spatha 2-valved. Flower tubular, with a ringent differently formed limb. Stigmas 3, simple. Seeds nearly round.

108. *Xiphidium.* Flower inferior, 6-petaled, regular. Caps. 3-celled, many-seeded.

109. *Leptanthus.* Flower monopetalous, with a very long slender tube, a 6-parted limb, and nearly equal segments. Stigma simple.

110. *Wachendorfia.* Flower inferior, 6-parted, irregular. Caps. 3-celled. Seeds solitary.

111. *Hæmodorum.* Flower 6-parted, persistent, smooth. Stamens attached to the base of the inner segments of cor. Ovarium 3-celled. Cells 2-seeded. Stigma 1. Caps. ½-superior, 3-lobed, 3-celled. Seeds peltate, edged.

112. *Aristea.* Flower superior, 6-petaled, regular; after flowering twisted spirally and persistent. Caps. 3-celled, many seeded.

113. *Dilatris.* Flower superior, 6-petaled, regular. One filament shorter than the others, and with a larger anther. Stigma simple. Caps. 3-celled. Seeds solitary.

114. *Brodiæa.* Flower inferior, tubular, with a 6-cleft regular limb, and a 3-leaved corona in the orifice. Caps. 3-celled, many seeded.

115. *Iris.* Flower 6-parted: every other division reflexed. Stigmas shaped like petals.

116. *Moræa.* Flower 6-petaled; after flowering involute above, spirally twisted beneath, finally falling off. Caps. many-seeded.

117. *Marica.* Flower 6-parted, or of 6 petals: the 3 outer segments largest, the inner connivent and very much smaller. Stigma like a petal, 3-fid: its segments undivided. Caps. 3-celled.

118. *Pardanthus.* Flower 6-petaled, regular, equal. Caps. many-seeded. Seeds attached to a central loose receptacle.

4. *Flowers glumaceous.*

α. Leaves with an entire Sheath. *Sedges.*

119. *Schœnus.* Spikelets few-flowered, distichous: the lower scales empty, the upper enclosing flowers. No bristles under the ovarium.

120. *Rhynchospora.* Spikelets few-flowered, slender: the lower nearly empty, the upper enclosing flowers. Bristles under the ovarium.

121. *Fimbristylis.* Spikelets imbricated in all directions, many-flowered, none of the scales empty. Style jointed at the base, and deciduous. No bristles under the ovarium.

122. *Isolepis.* Spikelets imbricated in all directions, many-flowered, none of the scales empty. No bristles under the ovarium. Style not jointed at the base, and deciduous.

123. *Scirpus.* Spikelets imbricated in all directions, many-flowered, none of the scales empty. Bristles under the ovarium. Style not jointed at the base, and deciduous.

124. *Elæocharis.* Spikelets imbricated in all directions, many-flowered, none of the scales empty. Bristles under the ovarium. Style jointed at the base, and deciduous.

125. *Eriophorum.* Glumes chaffy imbricated in all directions. Seed surrounded by very long dense wool.

126. *Trichophorum.* Spikelets nearly ovate, imbricated in all directions. Bristles about the seed usually six, capillary, finally very much lengthened and exserted.

127. *Cyperus.* Spikelets in two ranks, imbricated; nearly all the scales enclosing flowers. No bristles under the ovarium. Style deciduous, not bulbous.

128. *Papyrus.* Spikelets many-flowered. Glumes imbricated in two rows, 1-flowered. Style 3-fid. Scales 2, membranous, contrary to the glumes. No bristles beneath the ovarium. Seed 3-cornered.

129. *Kyllinga.* Spikelets 1-flowered. Glumes 4, imbricated in two rows, compressed: the 2 lower which are smaller and the upper one empty; the intermediate similar to the upper, and including a naked hermaphrodite flower. Style bifid. No bristles under the ovarium. Seed lenticular.

130. *Mariscus.* Spikelets few-flowered. Glumes imbricated in two rows, the lower empty. Stamens sometimes 2. Style trifid. Neither scales nor bristles below the ovarium. Seed triangular.

β. Leaves with a split sheath, and a membranous ligule. *True grasses.*

131. *Remirea.* Spikelets 1-flowered, with imbricated scales; the outer ones nerved, the upper which bears the flower enclosed in them and unlike them. No bristles beneath the ovarium. Seed oblong, enclosed in the uppermost scale become thickened and corky.

132. *Lygeum.* Flowers 2 or 3 together, with two valved glumes, at the base united into a 2-celled villous pericarpium. Involucrum a convolute spatha.

133. *Cornucopiæ.* Involucre 1-leaved, cup-shaped or funnel-shaped, many-flowered. Glumes 2-valved, united at base, mitre-formed, equal. Palea 1, bladder-like, split on one side, with a beard below the middle. Stigmas long. Seed not furrowed. Flowers in a head.

134. *Cenchrus.* Involucrum 1-3-flowered, many parted, bristly without, finally hardened. Glume 2-flowered, 2-valved: the outer valve smallest. Florets dissimilar: the outer male or neuter, the inner hermaphrodite. No scales.

135. *Pennisetum.* Involucrum double, composed of many bristles: the outer unequal, the inner pinnated, bearded. Spikelets 2-3-5. Glume 2-valved, unequal. Lower floret male, upper hermaphrodite; both sessile. Paleæ nearly cartilaginous. Spike compound, with sessile spikelets.

136. *Spartina.* Glume 3-valved, 1-flowered, unequal, keeled, very acute. Paleæ 2, beardless, bifid, emarginate and toothed, shorter than the glumes. Scales fringed. Style very long. Seed loose, covered with the paleæ. Spikelets 1-sided, inserted in a double row. Spike compound.

137. *Nardus.* Glume 1-valved, 1-flowered. Palea 1. Stigma simple. Seed covered by the palea.

138. *Oryzopsis.* Glume 2-valved, 1-flowered, membranous, a little longer than the hardened paleæ. Paleæ 2, the lower villous at the end with a jointed beard, the upper entire. Scales 2, linear, the length of the ovarium. Panicle nearly simple and loose.

Order 2. DIGYNIA. 3 Stamens. 2 Styles.

e spiked or panicled. Spikelets either solitary, in pairs, or several together, one or more usually
, one of the flowers being sterile or of only one sex. Glumes usually of a thinner texture than the
æ, which are more or less cartilaginous, the lower one half enfolding the upper, and either beardless or oc-
y bearded; neither of them with a keel. (PANICEÆ.)

139. *Paspalum.* Glume 2-valved, 1-flowered, closely pressed to the two plano-convex paleæ. Seed coated with the paleæ. Flowers spiked, attached to one side of the toothed rachis.

140. *Axonopus.* The inflorescence digitate. Spikelets simple. Otherwise, as Paspalum.

141. *Milium.* Glume naked, beardless, 2-valved: the valves concave, larger than the paleæ, which are two, concave and equal. Seed coated with the indurated paleæ.

142. *Knappia.* Glume 1-flowered, 2-valved, truncate, beardless. Palea one, torn, the divisions setigerous and united at the base, enfolding the stamens and pistillum. Flowers alternate in a flexuose rachis. Seed loose.

143. *Digitaria.* Inflorescence digitate or fascicled. Spikelets 1-sided, flower-stalks 2-, or many-flowered. Glume 2-valved, the lower valve very minute. Of the lower neuter floret the paleæ membranous. Of the upper hermaphrodite floret the paleæ subcoriaceous, hardened. Seed slightly furrowed.

144. *Panicum.* Glume 3-valved: valves unequal, the outer being very small. Paleæ two, concave, equal, beardless. Seed coated with the hardened paleæ. Panicle scattered and loose.

145. *Setaria.* Has the same character as Panicum, except that the panicle is spiked.

146. *Echinochloa.* Has the character of Panicum, except that the panicle is composed of alternate spikelets, and the third valve of the glume is bearded.

147. *Orthopogon.* Has the character of Echinochloa, except that both the intermediate and third valves of the glume are bearded.

148. *Penicillaria.* Involucrum bristly: the bristles equal, pinnated, bearded. Glume 2-valved, very small, membranous. Lower floret male, upper hermaphrodite: the paleæ subcartilaginous and entire. Anthers villous at the end. Spike compound, cylindrical, with stalked involucrated spikelets.

149. *Lappago.* Glume 2-valved, valves unequal: the lower very minute, membranous, the upper cartilaginous, very large, with soft prickles. Paleæ 2-valved, membranous, shorter than the glume. Scales very small, fringed. Panicle simple spike-shaped; the branches 3-flowered.

2. *Inflorescence panicled. Spikelets solitary, 1-flowered. Glumes membranous, the lower Paleæ coriaceous, bearded, enfolding the upper, which has not two Keels.* (Stipaceæ.)

150. *Stipa.* Glume 2-valved, 1-flowered, membranous, longer than the two cartilaginous paleæ, of which the lower is convolute, with a long beard at the apex; upper entire. Beard jointed at the base, deciduous. Scales oblong, entire. Seed furrowed. Panicle almost simple, lax.

3. *Inflorescence panicled, sometimes contracted into the form of a spike. Spikelets solitary, 1-flowered. Glumes and Paleæ of nearly similar texture, most usually with a Keel. Lower Paleæ either bearded or beardless, the upper never with two Keels.* (Agrostideæ.)

151. *Muhlenbergia.* Glume 2-valved. valves very minute, fringed, three times as short as the paleæ, the lower of which has a bristle. Scales ovate, obliquely truncate, gibbous. Seed naked, not furrowed. Panicle nearly simple, contracted or spreading.

152. *Chæturus.* Lower valve of the gluma with a long bristle, upper acute. Paleæ membranous, the lower valve trifid, upper bifid. Flowers spiked, inserted into the elongated teeth of the rachis.

153. *Lagurus.* Glume 2-valved, 1-flowered, each valve ending in a villous beard. Outer paleæ with two terminal beards, and a third, which is dorsal and twisted back. Panicle spike-shaped, ovate, hairy.

154. *Polypogon.* Glume 2-valved, 1-flowered: valves nearly equal, obtuse at the end with a long bristle, much longer than the somewhat cartilaginous paleæ. Lower palea below its end, which is entire, with a straight short tender bristle, upper bifid, toothed. Panicle contracted, like a spike.

155. *Gastridium.* Glume 2-valved; valves ventricose at the base, 3 times as long as the hardened coriaceous paleæ. Paleæ 2, the lower 3-4-toothed with a bristle under the end, the upper bifid, toothed. Panicle compound, contracted like a spike.

156. *Agrostis.* Glume naked, beardless, 2-valved: valves concave, longer than the paleæ, which are 2, and enclose the seed.

157. *Trichodium.* Glume 2-valved, 1-flowered. Palea one, shorter than the glumes, bearded, and supported at the base by one or two fascicles of hairs. Seed loose, covered by the palea.

158. *Tristegis.* Glume naked, 3-valved: valves concave, the outer very small, the intermediate longer than the paleæ, the third bearded. Paleæ 2, concave, equal, obtuse, beardless. Seed inclosed in the paleæ.

159. *Sporobolus.* Glume naked, beardless, 2-valved: valves concave, much shorter than the paleæ, which are two, concave, nearly equal, beardless. Seed not inclosed in the paleæ.

160. *Airopsis.* Glume 2-flowered: valves nearly equal, navicular, longer than the florets. Lower paleæ trifid at the end, upper entire. Seed loose, not furrowed. Panicle contracted, compound.

161. *Cinna.* Glume naked, beardless, with 2 concave valves shorter than the paleæ, which are 2, nearly equal, concave, with long points: the outer one being bearded or beardless. Seed enclosed in the paleæ.

162. *Psamma.* Glumes nearly beardless. Paleæ under the end emarginate, mucronate, shorter than the glumes. Scales 2, subulate. Style 3-parted. Seed turbinate. Spike compound, erect, cylindrical.

163. *Crypsis.* Glume 2-valved, 1-flowered, compressed, unequal. Paleæ 2, unequal, longer than the glume. Seed loose, covered by the paleæ.

164 *Alopecurus.* Glume 2-valved, 1-flowered: valves somewhat equal, connate, distinct. Paleæ united into a bladder-like glume split on one side, below the middle (generally), bearded. Scales linear, entire. Spike compound, contracted, without involucrum, branches very small, branching.

165. *Phleum.* Glume 2-valved, naked, with a point or little beard out of the nerve at its back: valves navicular, including the paleæ, which are 2, navicular and beardless. Beard of the glume lengthened. Second floret sessile

166. *Achnodonton.* The character of Phleum, except that the beard of the glume is very minute.

167. *Chilochloa.* The character of Phleum, except that the second floret is stalked.

168. *Phalaris.* Glume 2-valved, naked, beardless: the valves navicular, inclosing the paleæ, which are two, and navicular also, beardless and naked at the base, but supported by hairs or accessory glumes.

4. *Inflorescence panicled. Spikelets solitary, 2 or many-flowered. Glumes with a keel. Paleæ of nearly the same texture as the glumes, the lower carinate or concave, always bearded, the upper with two keels.* (Bromeæ.)

169. *Corynephorus.* Glume 2-flowered. Valves membranous, longer than the florets. Lower palea entire, having at its base a beard, jointed in the middle, woolly, twisting and small below, clavate above; upper bifid-toothed. Panicle compound.

170. *Aira.* Spikelets slender. Glume 2-flowered, rarely 3 flowered, beardless, 2-valved, equal to the florets or shorter. One of the florets on a stalk. Paleæ 2, equal, enclosing the seed when ripe.

171. *Avena.* Glumes membranous, 2-7-flowered, longer than the florets. Lower palea twice torn, or, with the upper, bifid-toothed, sometimes eroded, having at the back a plaited twisted beard. Scales ovate. Seed coated, furrowed. Panicle compound, loose.

172. *Trisetum.* Lower palea with 2 bristles and a tender flexuose beard above the middle of its back. Scale lanceolate. Other characters of Avena.

173. *Danthonia.* Lower palea 2-toothed, with a plaited twisted beard from between the teeth, upper obtusely truncated. Seed loose, not furrowed. Panicle simple. Other characters of Avena.

174. *Gaudinia.* Glume unequal, obtuse. Lower palea bifid-toothed, bearded at the back above the middle: the beard twisted and plaited. Upper palea 2-4 toothed. Seed coated, furrowed. Spikelets sessile, alternate, with 9-11 2-ranked flowers.

175. *Arundo.* Glume naked, beardless, 2-valved: the valves wrapping up the paleæ which are 2-bearded and surrounded by bristles. Seed inclosed in the paleæ.

176. *Chrysurus.* — *Neuter spikelet.* Glume linear, subulate, with remote florets. Paleæ 1, sterile. *Hermaphrodite spikelet,* 1-flowered. Glumes subulate, linear. Floret stalked. Lower palea below its end, which is entire, setigerous, the upper entire. Seed with two beards, not furrowed. Panicle compound, branching.

177 *Scleria.* Common involucrum many-leaved: the leaflets sometimes deciduous. Glume 3-4-flowered.

Valves unequal, shorter than the stalked florets. Lower palea irregularly 2-toothed, setigerous. Scales longer than the ovarium, subulate. Spike compound.

178. *Cynosurus.* Involucrum 1-leaved, with pinnatifid divisions, containing two spikelets. Glume 4-5-flowered, shorter than the florets. Lower palea very acute, upper bifid-toothed. Scales hairy. Seed coated, furrowed. Spike compound.

179. *Köleria.* Spikelets compressed. Glume 2 or 3-flowered, beardless, 2-valved: the valves shorter than the lowest floret. Paleæ 2, the outer beardless or bearded under the point.

180. *Dactylis.* Many spikelets heaped in a head, 1-sided. Glume 2-7-flowered. Lower palea under the end, which is emarginate, setigerous, upper bifid, toothed. Scales hairy. Seed loose, not furrowed. Panicle compound with short branches.

181. *Glyceria.* Spikelet slender. Glume 5-7-flowered. Valves 2, truncate, with transparent membranous edges, shorter than the florets. Lower palea eroded or many-toothed, navicular, embracing the upper, which is bifid-toothed. Scales connate. Seed furrowed. Panicle nearly simple.

182. *Festuca.* Glume beardless, 2-valved: valves nearly equal, shorter than the lowest floret. Paleæ 2, the outer one bearded at the end. Seed inclosed in the paleæ.

183. *Mygalurus.* Glume 1 or 2-valved, many-flowered, shorter than the spikelet: one valve very small. Paleæ 2, one of them bearded near the end. Seed inclosed in the paleæ.

184. *Bromus.* Glume 3-20-flowered. Valves shorter than the florets, which are imbricated in two rows. Lower palea cordate, emarginate below the end, sometimes torn in two, with a straight beard. Scales ovate, smooth. Seed coated, furrowed. Panicle compound.

185. *Brachypodium.* Spikelets stalked, alternate in each tooth of the rachis. Stalks broad and thick. Glume 3-15-flowered. Valves shorter than the florets. Paleæ entire, lower setigerous at the end, upper bluntly truncated, generally edged with stiff reflexed hairs. Scales pilose. Seed coated, furrowed.

186. *Uniola.* Spikelets compressed. Florets imbricated in two rows, the lower only abortive. Glume 3-20-flowered, shorter than the florets. Lower palea navicular at the end, abruptly cut off and mucronate between the lobes, the upper subulate, somewhat bifid-toothed. Scales bifid. Seeds turbinate, with two horns, not furrowed. Panicle compound, loose.

187. *Tricuspis.* Glume 5-7-flowered. Valves navicular, shorter than the florets. Lower palea bifid-toothed, between the teeth and on each side mucronate: the upper truncate, almost emarginate. Seed 2-horned.

188. *Diplachne.* Glume 7-9-flowered: the upper valve mucronate at the end. Lower palea twice torn, with a bristle beneath the divisions, upper sub-truncate, emarginate. Seed not furrowed. Panicle simple, much branching. Branches alternate, filiform.

189. *Ceratochloa.* Glume 12-18-flowered. Valves shorter than the florets. Paleæ bifid-toothed: the lower mucronate between the teeth. Ovarium 3-horned. Seed coated, furrowed, 3-horned. Panicle nearly simple Spikelets compressed. Florets imbricated in two rows.

190. *Schismus.* Glume 3-6-flowered. Valves the length of the florets, or longer. Lower palea cordate, emarginate, its rib extended between the lobes into a filiform mucro, the upper entire. Seed obtuse, nearly furrowed. Panicle simple, contracted, spike-shaped.

191. *Triodia.* Glume 3-5-flowered. Valves navicular, longer than the florets. Paleæ bifid-toothed: lower with a thick tooth-shaped mucro between the teeth. Scales lanceolate, smooth. Ovarium with a bifid diverging beak.

192. *Beckmannia.* Spikelets 1-sided, 3-5-flowered. Glumes unequal, navicular, with a little stalk at the base, obtuse at the end, spatulate, nearly the length of the florets. Paleæ nearly equal. Scales lanceolate. Seed loose, not furrowed. Spike compound. 3 spikelets in each tooth of the rachis.

193. *Melica.* Glume unequal, 2-5-flowered, membranous, nearly the length of the florets, of which the upper are incomplete, abortive and stalked. Scales truncate, fringed. Seed loose, not furrowed. Panicle simple or compound.

194. *Molinia.* Glume 2-4-flowered, unequal. Paleæ conical, lanceolate, acute, much longer than the glume, the upper barren and abortive, or often in its place, a formless rudiment. Scales subtruncate. Seed with two points from the remains of the style, with a broad furrow. Panicle compound. Spikelets slender.

195. *Briza.* Glumes navicular, compressed, nearly cordate at the base, many-flowered (3-14), shorter than the florets which are imbricate in two rows. Lower palea cordate at the base, embracing the upper, which is nearly round and much shorter. Seed with two short filiform beaks. Panicle compound, loose, branches pendulous.

196. *Poa.* Glume 2-20-flowered. Valves shorter than the florets. Paleæ sometimes woolly at the base, the upper bifid-toothed. Scales smooth. Seed furrowed. Panicle more or less branching or scattered.

197. *Eragrostis.* Glume 4-10-flowered. Valves shorter than the paleæ, which are imbricated in two ranks. Upper palea reflexed, its edges folded back, shell-shaped, entire, fringed, persistent. Seed loose, 2-horned, not furrowed. Panicle compound, more or less scattered.

198. *Megastachya.* Spikelets elongated: the florets imbricated in two rows. Glume 5-20-flowered. Valves shorter than the florets. Lower palea emarginate, with a point between the divisions, upper bifid-toothed. Seed loose, not furrowed. Panicle compound.

5. *Inflorescence spiked. Spikelets solitary, seldom many-flowered, with the upper flower abortive and differently formed. Glumes with a keel, not opposite. Lower paleæ generally bearded, seldom beardless, the upper with two keels.* (CHLORIDEA.)

199. *Sclerochloa.* Glume 3-5-flowered. Valves obtuse, shorter than the florets. Lower palea cordate, emarginate, obtuse, upper entire. Scales emarginate. Seed with a bifid beak. Spike simple. Spikelets 1-sided or dichotomous.

200. *Eleusine.* Glume 5-7-flowered. Valves obtuse. Paleæ obtuse, upper bifid-toothed. Scales truncate, fimbriate. Seed inclosed in a separate membrane, broadly and deeply furrowed. Inflorescence digitate. Spikelets 4-5, erect, 1-sided.

201. *Dactyloctenium.* Spikelets 1-sided. Glume 5-7-flowered. Lower valve with a falcate spine-shaped mucro. Lower palea navicular, ventricose, subulate, upper bifid-toothed. Scales truncate, fringed. Seed square, warted, obtuse, loose. Spikelets digitate, 4-5, erect or horizontal.

202. *Leptochloa.* Glume 3-5-flowered. Valves lanceolate, acute, nearly as long as the florets. Lower palea navicular, acute, upper bifid-toothed. Seed loose, furrowed. Panicle simple. Branches alternate, simple, with nearly 1-sided spikelets.

203. *Cynodon.* Spikelets 1-sided in a simple row. Glumes membranous, persistent, shorter than the florets, and only embracing them at the base. Fertile floret with the upper palea bifid-toothed. A rudiment of an abortive floret, stalked, smooth, clavate. Scales truncate. Seed loose, not furrowed. Spike digitate. Spikelets 4-5 filiform, simple, slender.

204. *Dinebra.* Glume 2-5-flowered. Valves subulate. Paleæ bifid, emarginate, the lower setigerous under the end. Scales truncate, or somewhat lanceolate. Inflorescence spiked, acuminate, the point of the rachis protruding beyond. Spike simple or compound. Spikelets 1-sided, alternate, remote, pendulous.

205 *Echinaria.* Spikelets close together. Glume 2-4-flowered. Valves mucronate, shorter than the florets. Lower palea truncate, fringed, terminated by 5 lanceolate unequal bristles, upper cordate, emarginate, with two similar bristles. Scales truncate. Seed loose, gibbous, not furrowed, with two diverging beaks. Spike simple, capitate.

6. *Inflorescence spiked. Spikelets solitary, in pairs, or several together, 1-flowered, or many-flowered. Glumes opposite, equal. Lower palea bearded or beardless, upper with two keels.* (CEREALIA.)

206. *Triticum.* Glume 2-valved, many-flowered, shorter than the spikelet: the valves nearly equal, beardless, or with one beard enclosing the florets. Paleæ 2, one of them being bearded from the end. Seed inclosed in the paleæ, rarely otherwise.

207. *Lolium.* Spikelets sessile, to the lowest a glume of one valve, to the uppermost of two opposite valves. Lower palea with a mucro or bristle at the end, upper membranous, bifid-toothed. Scales with two unequal teeth. Seed furrowed.
208. *Elymus.* Spikelets in each tooth of the rachis two or more, 3-9-flowered. Glume 2-valved, nearly equal, rarely (as in E. Hystrix) absent or nearly so. Lower palea entire with a bristle which is sometimes very short, upper somewhat bifid-toothed. Scales ovate, hairy. Seed furrowed. Spike simple.
209. *Secale.* Spikelets in each tooth of the rachis solitary, 2-3-flowered, the two lower florets fertile, sessile, opposite, the upper abortive. Glumes subulate, opposite, entire, shorter than the florets. Lower palea entire, with a very long bristle, upper bifid-toothed. Scales obovate, hairy. Seed coated, furrowed.
210. *Hordeum.* Spikelets 1-flowered, three together, the two lateral often barren. Glumes 2, subulate. Paleæ 2, the lower bearded. Scales 2. Stigmas feathery. Seed coated with the paleæ.
211. *Microchloa.* Spikelets 1-flowered. Glumes 2, membranous, beardless. Paleæ 2, much shorter than the glumes, villous. Stigmas very finely divided.
212. *Ophiurus.* Glumes cartilaginous, half immersed in hollows of the rachis, longer than the floret. Paleæ membranous, transparent. Ovarium cordate. Spike simple.
213. *Monerma.* Spikelets half immersed in hollows of the rachis. Glume 1-valved, cartilaginous, furrowed. Paleæ membranous, transparent. Scales lanceolate, entire, smooth. Spike simple. Rachis jointed, toothed.

7. *Inflorescence spiked, or panicled, jointed. Spikelets generally in pairs, 1 or 2-flowered, the one sessile, the other stalked, and usually of one sex only. Glumes of a stouter texture than the paleæ, neither keeled nor opposite. Paleæ very delicate and membranous, not with a keel, the lower commonly bearded.* (Saccharina.)

214. *Perotis.* Glume 2-valved: valves with a long bristle at the end. Palea 1, nearly as long as the calyx. Spike nearly simple, involucrated at the base, with woolly hairs.
215. *Saccharum.* Glume 2-valved, 2-flowered, enveloped in long wool. Lower floret neuter with one palea, upper hermaphrodite with two paleæ, the upper of which is very small or obsolete.
216. *Imperata.* Glume 2-valved: valves herbaceous, at the lower part of the back clothed with very long hairs the length of the paleæ, which are two, and beardless, the lowest only half the size of the other. Scales none. Stamens 2-3.

MONOGYNIA.

78. VALERIA'NA. *W.*	Valerian.					*Valerianeæ.*	*Sp.* 12—47.					
544 dioica *W.*	diœcious	⚘	△	or	1	my.jl	F	Britain	mar.	D	co	Eng. bot. 628
545 officinális *W.*	great wild	⚘	△	m	3	jn.jl	F	Britain	mar.	D	co	Eng. bot. 698
546 Phu *W.*	garden	⚘	△	or	3	my.jl	W	Germany	1597.	D	co	Blackw. t. 250
547 trípteris *W.*	three-leaved	⚘	△	or	1	mr.my	W	Switzerl.	1752.	D	co	Jac. aus. 3. t. 268
548 montana *W.*	mountain	⚘	△	or	1	jn.jl	[illegible]	Switzerl.	1748.	D	co	Bot. cab. 317
549 céltica *W.*	celtic	⚘	△	or	½	jn	[illegible]	Switzerl.	1748.	D	co	Jac. coll. 1. t. 1
550 tuberósa *W.*	tuberous-root.	⚘	△	or	½	my.jn	[illegible]	S. Europe	1629.	D	co	Mor.h.7.t.15.f.20
551 saxátilis *W.*	rock	⚘	△	or	½	jl	W	Austria	1748.	D	co	Jac. aus. 3. t. 267
552 elongáta *Ja.*	elongated	⚘	△	or	½	jn.jl	Y	Austria	1812.	D	co	Jac. aus. 3. t. 219
553 pyrenáica *W.*	heart-leaved	⚘	△	or	3	my.jn	Pk	Scotland	sc.wo.	D	co	Eng. bot. 1591.
554 sambúcifolia *Mik.*	elder-leaved	⚘	△	or	1	my.jn	Pk	Germany	1819.	D	co	
555 supina *Vahl.*	prostrate	⚘	△	or	½	my.jn	Pk	S. Europe	1822.	D	co	Jac. mi.2.t.17.f 2
79. PATRI'NIA.	Patrinia.					*Valerianeæ.*	*Sp.* 2.					
556 sibírica *W.*	Siberian		○	or	1	my.jn	Y	Siberia	1759.	S	co	Bot. mag. 714
557 ruthénica *W.*	Russian	⚘	△	or	1	jn	Y	Siberia	1801.	D	co	Bot. mag. 2325
80. VALERIANE'LLA.	Lamb's Lettuce.	*				*Valerianeæ.*	*Sp.* 11—26.					
558 echináta *W.*	prickly capsul.			cul	1	jl.au	Pk	S. Europe	1807.	S	co	Col. ecph.1. t.206
559 olitória *W.*	common			cul	½	ap.my	Bk	Britain	cor. fi.	S	co	Eng. bot. 811.
560 dentáta *W.*	oval-fruited			w	1	ap.jn	B	Britain	cor. fi.	S	co	Eng. bot. 1370
561 vesicária *W.*	bladdery			w	½	ap.my	W	Candia	1739.	S	co	Fl. græc. 1. t. 34
562 coronáta *W.*	crowned			w	½	ap.jn	Pk	Portugal	1731.	S	co	Col. ecph. 1.t.209
563 discoidea *W.*	discoid			w	½	ap.jl.	B	Italy	1731.	S	co	Mor.h.7.t.16.f.29
564 carináta *D. C.*	keeled			w	½	ap.my	B	France	1819.	S	co	Mor.h.7.t.16.f.31
565 eriocárpa *D. C.*	woolly-fruited			w	1	ap.my	Li	France	1821.	S	co	Mor.h.7.t.16.f.33
566 rádiata *Vahl.*	radiate			w	1	ap.my	Pk	N. Amer.	1821.	S	co	
567 dasycárpa *M. B.*	thick-fruited			w	1	ap.my	Li	Crimea	1821.	S	co	
568 uncináta *M. B.*	hook-fruited			w	1	my.jn	Li	Tauria	1822.	S	co	

History, Use, Propagation, Culture,

78. *Valeriana.* A word of uncertain import. Linnæus derived it from a certain king Valerius. De Théis thinks it altered from the verb *valere*, on account of its medicinal qualities. The species are generally ornamental border plants, of easy culture in common earth, and preferring shady moist situations. V. dioica has usually the stamens and pistils in separate flowers, situated on different plants. This species and V. officinalis are considered medicinal, and prescribed in hysterical cases and habitual costiveness. Cats are delighted with the roots, which are said to smell like the true Teucrium marum, and rat-catchers employ them to draw the rats together, as they do oil of anise. V. Phu has something of the same qualities. V. tripteris derives its name from τρεῖς, three, and πτερόν, a wing, in allusion to the ternary position of its leaves.

8. *Inflo* *panicled. Spikelets solitary, 1-flowered. Lower paleæ cartilaginous, compressed, keeled. Stamens frequently more than 3.* (Oryza.)

217. *Leersia.* Spikelets 1-flowered. Glumes O. Paleæ 2, beardless, keeled, compressed. Scales 2. Stamens 3-6. Stigmas very finely cut. Seed loose, inclosed in the paleæ.

9. *Shrubby. Inflorescence panicled. Spikelets many-flowered. Upper palea with two keels.* (Bambusaceæ.)

218. *Diarrhena.* Glume 2-valved: valves navicular, rigid, the lower smaller, shorter than the florets. Lower palea navicular, rigid, upper membranous, the edges broad, folded back. Scales 2, ovate, entire. Ovarium with a hood. Seed furrowed, hardened, shining, loose.

219. *Arundinaria.* Glume 5-7-flowered. Valves unequal, with stalked florets. Lower palea very acute, upper bifid-toothed. Scales 3, smooth. Stigmas 3, feathery. Styles 3.

Order 3. TRIGYNIA. 3 Stamens. 3 Styles.

220. *Holosteum.* Cal. 5-leaved. Petals 5. Caps. sub-cylindrical, 1-celled, opening at the end, 6-valved, many-seeded.

221. *Polycarpon.* Cal. 5-leaved, 5-cornered. Petals 5, very small, ovate. Caps. 1-celled, 3-4-valved: valves lanceolate, twisted inwards. Seeds many.

222. *Lechea.* Cal. 3-leaved. Petals 3, linear. Caps. 3-celled, 3-valved, and as many inner valves. Seed 1.

223. *Eriocaulon.* Common calyx an imbricated head. Petals 3, equal. Stamens above the ovarium.

224. *Montia.* Cal. 2-3-leaved. Cor. monopetalous, irregular, 5-parted. Caps. 1-celled, 3-valved, 3-seeded.

225. *Mollugo.* Cal. 5-leaved. Cor. O. Caps. 3-celled, 3-valved.

226. *Minuartia.* Cal. 5-leaved. Cor. O. Caps. 3-celled, 3-valved. Seeds a few.

227. *Queria.* Cal. 5-leaved or 5-parted. Cor. O. Caps. 1-celled. Seed 1.

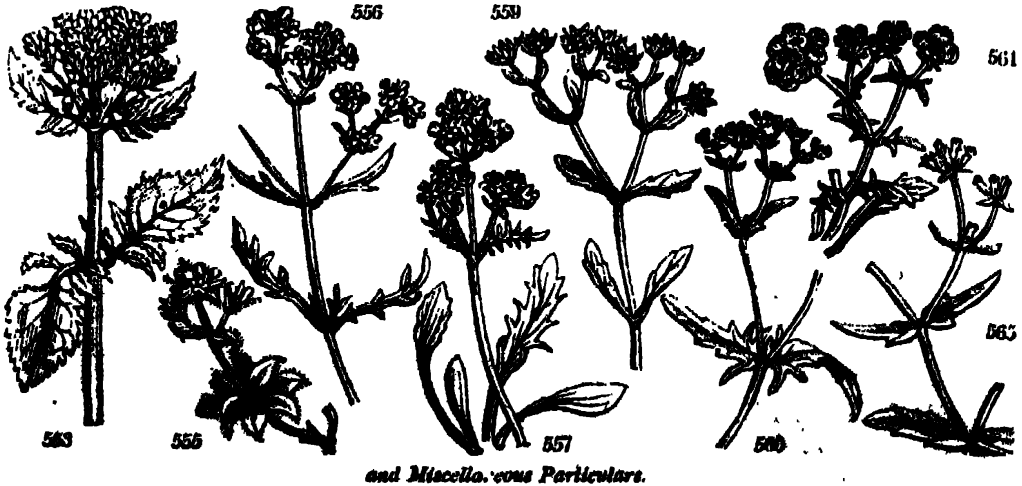
228. *Kœnigia.* Cal. 3-leaved. Cor. O. Seed 1, ovate, naked.

MONOGYNIA.

544 Radical leaves spatulate ovate undivided; cauline pinnatifid, Stem erect, Flowers panicled diœcious
545 Leaves all pinnate: pinnæ lanceolate-toothed, Stem hollow furrowed, Flowers corymbose
546 Cauline leaves pinnate, radical undivided, Stem smooth slender, Flowers corymbose
547 Leaves toothed radical cordate simple, cauline ternate ovate oblong, Leaflets lateral lanceol. Stem erect
548 Leaves oblong rather toothed; lower obtuse, upper acute, Stem erect, Flowers panicled
549 Leaves undivided entire obt. radical cuneate obl. cauline linear, Stem smooth ascending, Flowers racemose
550 Radical leaves lanceolate oblong entire, cauline pinnatifid, Stem smooth, Flowers pink corymbose
551 Leaves undivided, radical elliptical 3-nerv. entire and toothed, caul. linear, Stem erect, Corymbs racemose
552 Radical leaves ovate, cauline cordate sessile cut halbert shaped, Flowers racemose
553 Leaves cord. uneq. toothed: lower simple, upper ternate and pinnate, Stem striated, Flowers corymbose
554 Radical lvs. pinnated, Leaflets ovate coarsely toothed, caul. pinnated downwards, Segm. lanceol. toothed
555 Leaves simple ciliated, radical obovate, cauline lanceolate, Flowers panicled

556 Leaves membranous pinnatifid, Segm. lanceol.: the terminal very large, Stem smooth, Flowers corymbose
557 Leaves rather fleshy pinnatifid, Segm. entire obt. of nearly one shape, Stem hairy in 2 rows, Flowers corymb.

558 Caps. linear 3-toothed: the outer larger recurved, Stem smooth, Flowers in dichotomous spikes
559 Caps. naked globose compressed, Stem weak, Flowers in heads
560 Caps. polished ovate, Limb of the calyx short 3-5-toothed crowned, Stem smooth, Flowers corymbose
561 Caps. ovate villous, Limb of the calyx bladdered crowned, Stem a little villous, Flowers nearly in heads
562 Caps. villous, Limb of cal. 6-10-tooth. crowned, Crown camp. Teeth long straight, Stem pubesc. Fls. in heads
563 Caps. vill. Limb of cal. 10-12-rayed crowned, Crown rotate, Teeth long acute, Stem smooth, Flow. in heads
564 Caps. naked smooth cleft-keeled elongated, Stem weak, Flowers nearly in heads
565 Caps. ovate angular hairy irregularly toothed, Stem angular, Flowers corymbose
566 Caps. pubescent naked at the end, Leaves spatulate oblong nearly entire
567 Stem scabrous, Fruit ovate acute 1-toothed at the end pubescent
568 Caps. linear 6-toothed, Teeth hooked loose, Stem and radical leaves spatulate, cauline pinnatifid pubescent



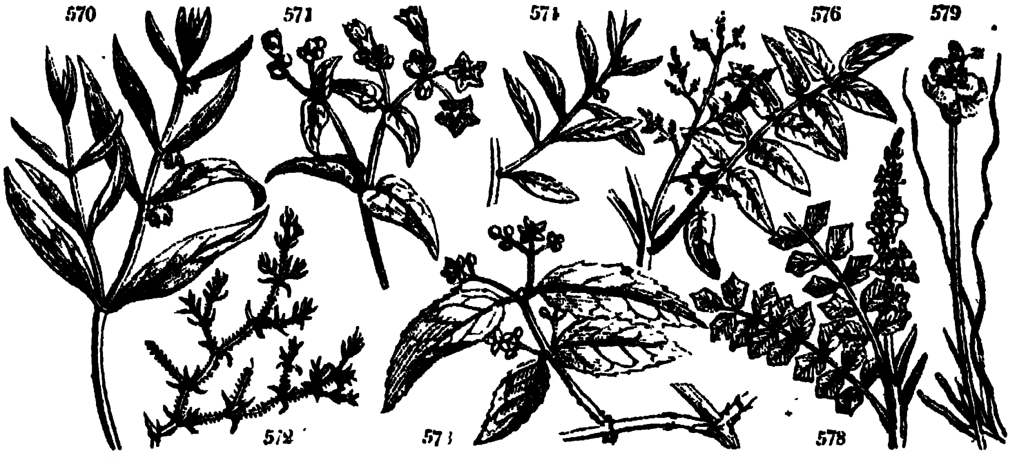
and Miscellaneous Particulars.

Phu is the Arabic name of the species so called.

79. *Patrinia.* Named by M. Jussieu in honor of M. Patrin, an assiduous French botanist, who travelled in Siberia, where all the species of the genus are found, and whence he sent home collections.

80. *Valerianella.* A diminutive of Valeriana, from which the genus has been divided. V. olitoria (Valeriana locusta, *L.*) *Mache, salade de prêtre*, Fr., corn salad or lamb's-lettuce, from its appearing in corn fields about the time when lambs are dropped; furnishes an agreeable salad, the leaves tasting little inferior to young lettuce. To have it early, it should be sown in autumn on a warm border. All the species are of as easy culture as those of Valeriana.

81. CALYME'NIA.	UMBRELLA-WORT.					*Nyctagineæ.*		*Sp.* 3—7.				
569 viscósa *W.*	viscid	£	[△]	cu	6	my.s	P	Peru	1793.	C	l.p	Bot. mag. 434
570 aggregáta *Cav.*	aggregate		[○]	cu	1	jl.au	Pk	N. Spain	1811.	S	a.l	Cav. ic. t. 437
571 glabrifólia *W. en.*	smooth-leaved	£	[△]	cu	3	jl.au	P	N. Spain	1811.	C	a.l	Cav. ic. t. 379
82. LŒFLI'NGIA. *W.*	LŒFLINGIA.					*Caryophylleæ.*		*Sp.* 1—3.				
572 hispánica *W.*	Spanish		○	w	½	jn	G	Spain	1770.	S	a.l	Cav. ic. 1. t. 94
83. HIPPOCRATE'A.	HIPPOCRATEA.					*Acerineæ.*		*Sp.* 1—10.				
573 volúbilis *W.*	climbing	♀	□	or	20		W	S. Amer.	1739.	C	p.l	Jac. amer. t. 9.
84. CNEO'RUM. *W.*	WIDOW-WAIL.					*Terebintaceæ.*		*Sp.* 2.				
574 tricóccum *W.*	smooth	♣	⊔	or	6	ap.s	Y	S. Europe	1793.	C	p.l	Lam. ill. t. 27
575 pulveruléntum *Ven.*	powdery	♣	⊔	or	6	ap.s	Y	Madeira	1822.	C	p.l	Vent. cels. 77
85. COMOCLA'DIA. *W.*	MAIDEN-PLUM.					*Terebintaceæ.*		*Sp.* 3—4.				
576 integrifólia *W.*	entire-leaved	†	□	tm	15		W	Jamaica	1778.	C	p.l	Slo. ja.2.t.222. f.1
577 dentáta *W.*	tooth-leaved	†	□	tm	30	jl	W	W. Indies	1790.	C	p.l	J. am.13.t.173.f.4
578 ilicifólia *W.*	holly-leaved	†	□	tm	15		W	Caribee Is.	1789.	C	p.l	Plum. t. 118. f. 1
86. XY'RIS. *L.*	XYRIS.											
579 operculáta *B. P.*	rush-leaved	♒	[△]	pr	1	jn.jl	Y	N. S. W.	1804.	S	s.p	Bot. mag. 1158
580 brevifólia *P. S.*	short-leaved	♒	△	pr	½	jn.au	Y	Carolina	1812.	S	s.p	
581 lævis *Br.*	smooth	♒	[△]	pr	1½	jn.au	Y	N. Holl.	1819.			
87. CALLI'SIA *W.*	CALLISIA.					*Commelineæ.*		*Sp.* 1—3.				
582 répens *W.*	creeping	♀~	[△]	pr	½	jn.jl	B	W. Indies	1776.	R	s.p	Jac. am. 11. t. 11
88. COMMELI'NA. *B. P.*	COMMELINA.					*Commelineæ.*		*Sp.* 10—60.				
583 commúnis *W.*	common	♀~	○	or	2	jn.jl	P.B	America	1732.	S	co	Red. lil. 206
584 caroliniána *W.*	Carolina	♀~	△	or	2	jn.jl	P.B	America	1732.	D	r.m	
585 africána *W.*	African	♀~	⌊△⌋		1	my.o	Y	C. G. H.	1759.	R	r.m	Bot. mag. 1431
586 bengalénsis *W.*	Bengal	♀~	[△]	or	3	jn	B	Bengal	1794.	R	s.p	Mur. got.p.18.t.5
587 erécta *W.*	upright	£	△	or	1	au.s	B	Virginia	1732.	R	s.p	Di. el.94.t.77.f.88
588 virgínica *W.*	Virginian	♀~	△	or	½	jn	B	Virginia	1779.	R	s.p	P.al.135.t.174.f.4
589 longicaúlis *W.*	long-stalked	♀~	[△]	or	3	au	B	Caraccas	1806.	R	s.p	Jac. ic. 2. t. 294
590 móllis *W.*	soft	♀~	[△]	or	2	au	B	Caraccas	1804.	R	s.p	Jac. ic. 2. t. 293
591 tuberósa *W. en.*	tuberous-root.	£	[△]	or	1	jn.jl	B	Mexico	1732.	R	r.m	Bot. rep. 399
592 cœléstis *W. en.*	sky-blue	£	[△]	or	1½	jn.jl	B		1813.	R	r.m	Bot. mag. 1695.
89. ANEILE'MA. *B. P.*	ANEILEMA.					*Commelineæ*		*Sp.* 3—12.				
593 biflórum *Br.*	creeping	♀~	⌊△⌋	or	1	jl.au	B	N. Holl.	1820.	R	co	
594 ambiguum *Beauv.*	doubtful	£	□	or	3		V	S. Leone	1822.	D	r.m	Beauv. Ow. t. 15
595 sinicum *Ker.*	Chinese	£	⌊△⌋	or	1	my	P.B	China	1820.	D	r.m	Bot. reg. 659
90. CARTONE'MA.	CARTONEMA.					*Commelineæ.*		*Sp.* 1.				
596 spicátum	spear-leaved		[○]	or	½	jl.au	B	E. Indies	1783.	S	s.p	
91. ORTE'GIA. *W.*	ORTEGIA.					*Caryophylleæ.*		*Sp.* 2.				
597 hispanica *W.*	Spanish	⚵	△	w	½	jn.jl	Ap	Spain	1768.	D	l.p	Cav. ic. 1. t. 47
598 dichótoma *W.*	forked	⚵	△	w	½	au.s	Ap	Italy	1781.	D	l.p	All.taur.3.t.4 f.1
92. POLYCNE'MUM. *W.*	POLYCNEMUM.					*Chenopodeæ.*		*Sp.* 2—12.				
599 arvénse *W.*	trailing	⚹	○	w	½	jl	Ap	S. Europe	1640.	S	s.l	Jac. aus. 4. t. 365
600 recúrvum *Lois.*	recurved	⚹	○	w	½	jl	Ap	France	1820.	S	s.l	
93. CRO'CUS. *Ker.*	CROCUS.					*Irideæ.*		*Sp.* 17.				
601 vérnus *E. B.*	spring	♉	△	or	½	f.ap	P	England	mea.	O	co	Eng. bot. 344
602 albiflórus *Kit.*	Austrian vern.	♉	△	or	½	f.mr	W	Austria	...	O	co	



History, Use, Propagation, Culture,

81. *Calymenia.* So named from *καλυξ*, a calyx, and *ὑμην*, a membrane, on account of the membranous calyx by which the genus is distinguished.

82. *Lœflingia.* In honor of P. Lœfling, a Swedish botanist, who published a volume of travels in Spain, &c. These are plants of no beauty, and are only cultivated in botanic gardens.

83. *Hippocratea.* In honor of the celebrated Hippocrates, the father of physicians, born in the island of Cos, who flourished 450 years before the vulgar æra. Plumier, who first fixed the genus, called it Coa, which Linnæus changed to its present name.

84. *Cneorum.* *Κνεωρον* is a plant described by Theophrastus, as resembling the olive. This is a low yellowish evergreen shrub, which like Veronica decussata, will endure our winters in the open air, with protection during frost. It grows naturally in hot dry barren and rocky soils; thrives well in an artificial state in any light earth; ripened cuttings will root in sand under a hand-glass, or it may be raised from seeds, which it produces in abundance.

85. *Comocladia.* *Κομη*, hair, and *κλαδος*, a branch. The branches are tufted at the top of the tree. C. integrifolia is a handsome tree with an erect trunk, dividing into few branches, adorned with pinnated smooth leaves, like a frond; flowers numerous, fruit a deep red, shining, eatable, but not inviting. The wood is hard, of a fine grain, and reddish color. If C. dentata be ever so slightly wounded, it emits a strong smell of dung: it grows in Cuba, where the natives have a notion that it is dangerous to sleep under its shade. This genus is not frequent in British collections: it thrives in loam and peat, and may be propagated by ripened cuttings placed under a hand-glass in moist heat.

569 Villous viscid, Leaves cordate, Flowers racemose, Stamens longer than the corolla
570 Leaves lanceolate, Peduncles aggregate axillary solitary, Calyxes 3-flowered, Stem ascending
571 Leaves cordate ovate smooth, Peduncles terminal heaped, Stamens shorter than the corolla

572 Flowers triandrous monogynous, Leaves very small: lower linear, upper subulate

573 Leaves oblong-ovate lanceolate or elliptical serrated, Capsules oval

574 Smooth, Flowers axillary
575 Hoary, Leaves flower-bearing powdery, Petals and stamens 4

576 Leaflets stalked ovate-lanceolate entire
577 Leaflets stalked ovate-lanceolate prickly-toothed
578 Leaflets sessile angular-spiny

579 Leaves linear-subulate, Head globose many-flowered, Petals alternate pencil-shaped
580 Scape slender, Head globose
581 Culm 2-edged and leaves smooth very narrow, Head subovate, Scales imbricate on each side, Keel of the glumes ciliate

582 Leaves ovate-lanceolate sessile, Stem procumbent, Flowers axillary sessile

583 Leaves ovate-lanc. nearly sessile acute with the creeping stem smooth, Involucr. cordate doubled together
584 Flowers uneq. Involucres cord. folded together at base with sheaths ciliated, Leaves lanc. sess. Stem decumb.
585 Leaves lanceolate sessile with the decumbent stem smooth, Involucr. cordate doubled together
586 Leaves ovate stalked obtuse, Involucres cordate hooded turbinate
587 Leaves ovate-lanceolate rough, Involucres hooded turbinate, Stem erect
588 Leaves lanceolate stalked rough above, Sheaths rusty, Stem erect simple
589 Leaves linear-lanceolate sessile rather hairy, Involucres ovate doubled together, Stem creeping
590 Villous, Leaves ovate stalked, Involucres half round folded in at the edge, Stem creeping
591 Leaves ovate-lanceolate sessile ciliated, Involucres cordate folded together, Stem erect
592 Involucres cord. acumin. folded together, Pedunc. pubesc. Pedicels smooth, Lvs. obl. lanc. Sheaths ciliated

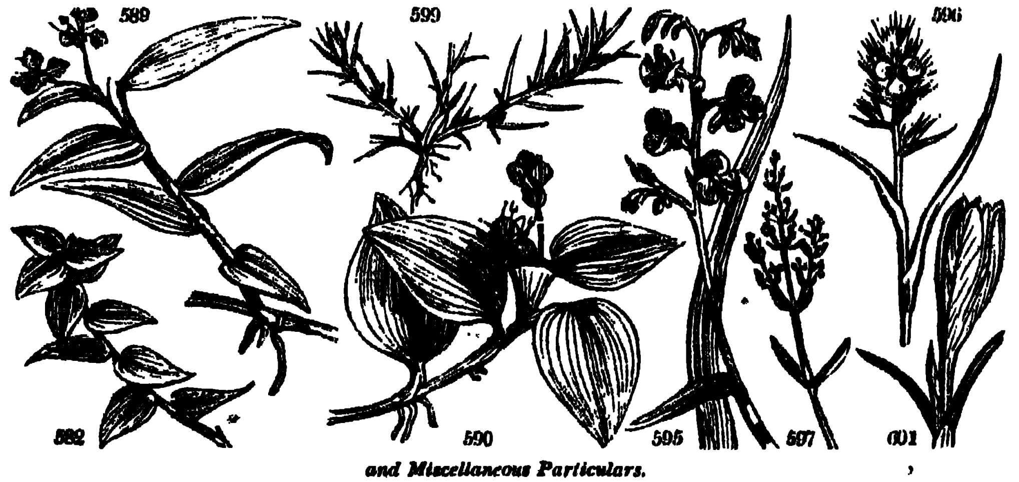
593 Smooth, Stem creeping, Leaves lanceolate, Flower-stalks 2-flowered
594 Stem solid woody with distant leafy knots, Leaves long ovate acuminate fascicled villous
595 Stem branched diffuse, Leaves ligulate acuminate, Racemes alternate about 7 placed in a panicle form, 3 Stamens bearded 3-naked

596 Leaves lanceolate, Flowers panicled

597 Stem branching, Branches and branchlets opposite, Flower-stalks many-flowered
598 Flower-bearing branches dichotomous, Flowers solitary

599 Leaves subulate prismatic, Spiny at the end
600 Leaves subulate, scattered spreading distinct somewhat recurved, Cal. nearly as long as capsules

601 Mouth of flower closed by hairs, Segments obtuse, Stigmas dilated, Flowers large early
602 Segments of flower quite entire obt. Anthers twice as long as the stigmas, Mouth of flower closed by hairs



and Miscellaneous Particulars.

86. *Xyris.* Ξυρος, acute. Its leaf terminates in a sharp point. Under this name a plant is described by Pliny, which resembles an iris. Pretty little rush-like plants with yellow flowers; uncommon in collections, but easily cultivated, though rarely flowering.

87. *Callisia.* From καλλος, pretty; a name aptly given to this plant, which is easily known by its shining leaves edged with purple.

88. *Commelina.* So named by Plumier, in honor of the brothers, John and Gaspar Commelin, botanists and Dutch merchants. *Some of the species, such as C. cœlestis and tuberosa, are very showy herbaceous plants*; others are mere weeds. They are all easily cultivated in wet places in the stove or greenhouse, and propagated by the rooting joints of their stem or by division of the roots, or by cuttings.

89. *Aneilema.* From ανειλεω, to evolve, the flowers being evolved, as it were, from the spatha. A genus resembling Commelina, from which it is chiefly distinguished by not having its flowers enclosed in a spatha.

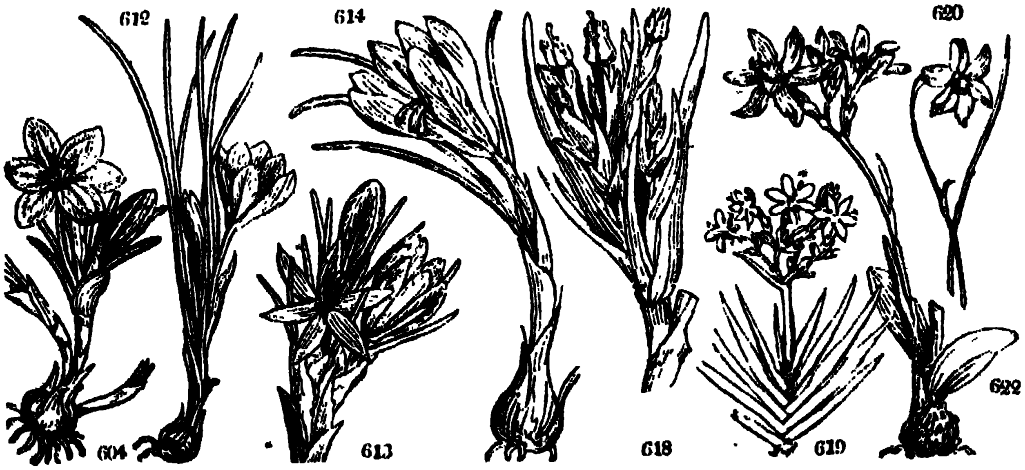
90. *Cartonema.* From καρτος, shorn, and νημα, a filament, in refer[illegible] A plant resembling Commelina.

Ortegia. In honor of Casimir Gomez de Ortega, a Spanish botanist, and professor of botany at [illegible]rid. An insignificant herbaceous plant.

92. *Polycnemum.* Πολυς, many, κνημη, knee, on account of the number of joints of the stem. A decumbent annual plant of no beauty.

93. *Crocus.* A name given by Theophrastus. The story of the youth Crocus being turned into this flower, may be read in Ovid's Metamorphoses. This is an ornamental genus of great value in the flower-garden, on

603 minimus *Red.*	least	♉	△	or	¼	f.mr	P	......	1629.	O	co	
604 versicolor *H. K.*	party-colored	♉	△	or	¼	f.mr	Li	S. Europe	1629.	O	co	Bot. mag. 1110
605 biflórus *H. K.*	Scotch	♉	△	or	¼	f.mr	W	Crimea	1629.	O	co	Bot. mag. 845
606 pusillus *Ten.*	Neapolitan	♉	△	or	¼	f.mr	W.br	Naples	1824.	O	co	Bot. Cab. 1454
607 susiánus *H. K.*	cloth of gold	♉	△	or	¼	f.mr	Y	Turkey	1605.	O	co	Bot. mag. 652
608 reticulátus *M. B.*	netted vernal	♉	△	or	¼	f.mr	B	Crimea	...	O	co	Bot Cab. 1822
609 striátus *Lk.*	striped vernal	♉	△	or	¼	f.mr	W	......	1820.	O	co	
610 sulphúreus *H. K.*	sulphur-colored	♉	△	or	¼	f.mr	Y	S. Europe	1629.	O	co	Bot. mag. 938
β flávus	*pale-yellow*	♉	△	or	¼	f.mr	P.Y	S. Europe	1629.	O	co	Bot. mag. 1384
611 lúteus *Lam.*	common-yell.	♉	△	or	¼	f.mr	Y	Turkey	1629.	O	co	Bot. mag. 45
612 lagenæflorus *Salisb.*	golden	♉	△	or	¼	f.mr	D.Y	Greece	...	O	co	Fl. græc.1. t.35
β flávus	*pale*	♉	△	or	¼	f.mr	P.Y	Greece	...	O	co	Bot. mag. 1111
γ penicillatus	*pencilled*	♉	△	or	¼	f.mr	P.Y	......	...	O	co	
613 stellaris *Haw.*	starry-yellow	♉	△	or	¼	f.mr	Y	......	...	O	co	Hor. trans 1 t.6
614 sativus *W.*	saffron	♉	△	or	¼	s.o	V	England	mea.	O	s.l	Eng. bot. 343
615 serotinus *H. K.*	late autumnal	♉	△	or	¼	s.n	V	S. Europe	1629.	O	co	Bot. mag. 1267
616 nudiflórus *H. K.*	naked autumn.	♉	△	or	¼	o.n	V	England	mea.	O	co	Eng. bot. 491
617 Pallásii *M. B.*	Russian autum.	♉	△	or	¼	s.o	Li	Crimea	1821.	O	co	
94. WITSE'NIA. *Ker.*	Witsenia.					*Irideæ.*	*Sp.* 2—4.					
618 maúra *H. K.*	downy-flowered	£	|△|	or	4	n.ja	Y.B	C. G. H.	1790.	C	s.p	Bot. reg. 5
619 corymbósa *H. K.*	corymbose	£	|△|	or	½	ap.s	P.B	C. G. H.	1803.	C	s.p	Bot. mag. 895
95. I'XIA. *Ker.*	Ixia.					*Irideæ.*	*Sp.* 20—30.					
620 lineáris *H. K.*	slender	♉	|△|	or	½	ap.my	W	C. G. H.	1796.	O	s.p.l	Bot. mag. 570
621 capilláris	capillary	♉	|△|	or	1½	ap.my	V	C. G. H.	1774.	O	s.p.l	Bot. mag. 617
622 aúlica *W.*	rose-colored	♉	|△|	or	2	ap.my	Pk	C. G. H.	1774.	O	s.p.l	Bot. mag. 1013
623 fucáta *Ker.*	painted	♉	|△|	or	½	jn.jl	Pk	C. G. H.	...	O	s.p.l	Bot. mag. 1379
624 pátens *W.*	spreading-flow.	♉	|△|	or	1	ap	P	C. G. H.	1779.	O	s.p.l	Bot. mag. 522
625 leucántha *P. S.*	white-flowered	♉	|△|	or	1½	my	W	C. G. H.	1779.	O	s.p.l	Jac. ic. 2. t. 278
626 flexuósa *H. K.*	bending-stalked	♉	|△|	or	2	ap.my	Pk	C. G. H.	1757.	O	s.p.l	Bot. mag. 624
627 hýbrida *Ker.*	spurious	♉	|△|	or	1	ap.my	W	C. G. H.	1757.	O	s.p.l	Bot. mag. 127
628 cónica *H. K.*	orange-colored	♉	|△|	or	1	ap.my	O	C. G. H.	1757.	O	s.p.l	Bot. mag. 539
629 monadélpha *H. K.*	monadelphous	♉	|△|	or	½	ap.my	B	C. G. H.	1792.	O	s.p.l	Bot. mag. 607
β cúrta Andr.	*short*	♉	|△|	or	½	ap.my	O	C. G. H.	1792.	O	s.p.l	Bot. mag. 1378
630 columelláris *H. K.*	variegated	♉	|△|	or	½	au	St	C. G. H.	1790.	O	s.p.l	Bot. mag. 630
631 amæna *Lk.*	pretty	♉	|△|	or	1	ap.my	R	C. G. H.	1822.	O	s.p.l	
632 maculáta *W.*	spotted	♉	|△|	or	1	my.jn	W.br	C. G. H.	1780.	O	s.p.l	Bot. rep. 196
β ochroleúca	*cream-colored*	♉	|△|	or	1	my.jn	P.Y	C. G. H.	1780.	O	s.p.l	Bot. mag. 1285
633 capitáta *P. S.*	headed	♉	|△|	or	2	my.jn	Lm	C. G. H.	1780.	O	s.p.l	Bot. rep. 159
634 viridiflóra *P. S.*	green-flowered	♉	|△|	or	1	my.jn	G	C. G. H.	1780.	O	s.p.l	Bot. mag. 549
635 erécta *H. K.*	upright	♉	|△|	or	1½	my.jn	Va	C. G. H.	1757.	O	s.p.l	Bot. m. 623. 1173
636 crateroídes *H. K.*	crimson	♉	|△|	or	½	my.jn	D.R	C. G. H.	1778.	O	s.p.l	Bot. mag. 594



History, Use, Propagation, Culture,

account of the early season of flowering, and the brilliancy of the flowers. Haworth, who has for thirty years paid particular attention to the Crocus, (*Hort. Trans.* i. 122.) and raised many varieties from seed, found that the blue, purple, and white flowered kinds, ripened their seeds much more readily than the yellow, and that the leaves of the latter were narrower through all the species and varieties. When this genus is in flower, the germen is situated underground almost close to the bulb, but some weeks after the decay of the flower, it emerges on a white peduncle, and ripens its seeds above ground. This extraordinary mode of semination is peculiarly conspicuous in C. nudiflorus, which flowers without leaves in autumn, and throws up its germen the following spring like the Colchicum. Though some species of Crocus are, or appear to be, naturalized in a few places, yet they cannot be considered as aboriginal natives. Allioni affirms the C. sativus (the saffron) is indigenous in Savoy; but Ray says nothing is certain as to its native country. Professor Martyn considers Asia as its native country, saffron having there first acquired that high reputation in medicine, which it has now almost lost in Europe. The Arabic name Z'afarân, and the Moorish and Spanish terms Azafran and Safra, seem to confirm this opinion. C. vernus, the *saffran printanier*, Fr., is a native of Switzerland and Italy, and is commonly found with white flowers and a purple base. Some botanists consider it and C. sativus as the only distinct species of the genus. Miller describes four, Willdenow four, Sir J. E. Smith three, as natives of Britain, and Haworth (*Hort. Trans.* i. 132.) no fewer than thirteen species. Parkinson certainly cultivated many varieties which are not now known in collections. Crocus vernus and versicolor, produce by cultivation varieties of singular beauty, both as to size, color, and marking. C. sativus, the saffron. *Saffran*, Fr. and Ger., and *Zafrano*, Ital., is said to have been first brought into England in the time of Edward III., and introduced to Walden in Essex, to which town it afterwards gave the prænomen. It was abundantly cultivated there, and in Cambridge, Suffolk, and Herefordshire, in the beginning of the 17th century; but the article is now so little in repute, or so much cheaper in foreign markets, that at present the culture of saffron is confined to a few parishes round Saffron Walden. The bulbs are planted in July in a well pulverised soil, not poor nor a very stiff clay; they are placed in rows six inches apart across the ridges, and three inches bulb from bulb in the row. The purple flowers are gathered in September and carried home, where their yellow stigmas and part of the style are picked out and dried on a kiln between layers of paper, and under the pressure of a thick

603 Segments of flower acute, Stigmas small, Flowers small late, Mouth of throat closed by hairs
604 Stigmas convolute hooded lobed as long as the anthers
605 Leaves longer than flowers, Stigmas but little longer than the anthers [membranous
606 Stigma inclosed trifid longer than stamens, Lobes filiform cucullate crisp, Lvs. setaceous, Tunic of the bulbs
607 The three outer segments of flower revolute
608 Stam. as long as the truncate torn stigmas, Leaves supporting the flowers, Bulbs coated with net-work
609 Leaves longer than the flowers, Spathes 2 inner narrowest, Limb of cor. funnel-shaped, Stigma length of
610 Stigmas unequal much longer than the anthers [anthers flattish jagged

611 Filaments hairy, Anthers longer than the stigma
612 Stigma enclosed trifid, Lobes somewhat linear toothed, Coat of the roots membranous
β Pale cream-coloured flowers
γ Pale cream-coloured flowers, with 3 sky-blue lines on the tube
613 Leaves upright-spreading: their keel blunt: sides nerveless, Flower in the sun campanulate stellate

2. *Autumnal.*

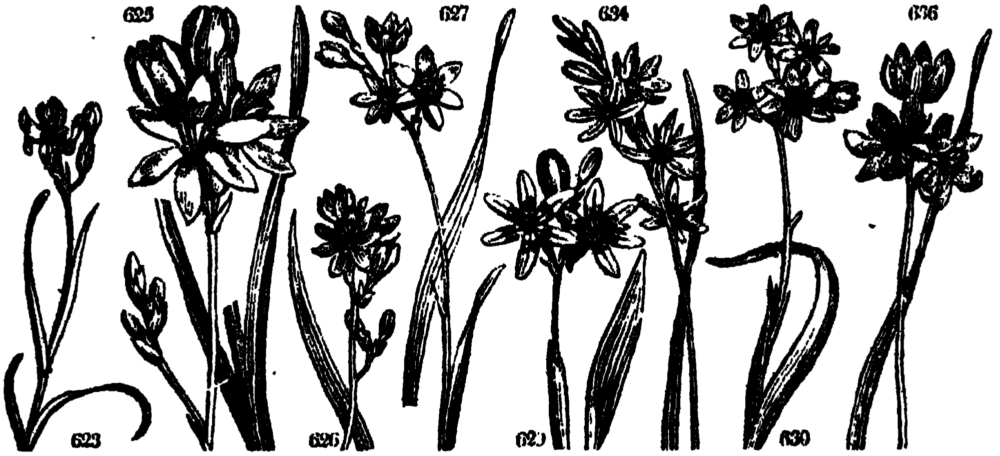
614 Stigmas very long reflexed crenate at the end
615 Stigmas erect much divided, Leaves coming out with the flowers
616 Stigmas erect much divided, Leaves later than the flowers
617 Bulbs with a thready skin, Leaves later than the fl. Stam. as long as the truncate stigmas, Flower large

618 Flowers spiked, Outer segments of flower downy without
619 Flowers corymbose smooth

620 Leaves linear very narrow convex, Scape simple erect
621 Leaves with a cartilaginous edge, Racemes 1-7-flowered
622 Leaves ensiform, Tube of the flower turbinate [Anthers diverging
623 Leaves grassy, Spike 1-2-flowered, Flower hypocrateriform, Tube clavate straight, Filaments columnar,
624 Tube filiform, Limb bell-shaped spreading, Stigmas longer than the anthers
625 Leaves linear ensiform, Flowers 1-sided, Spathes toothed shorter than the tube
626 Tube slender a little enlarged, Limb below bell-shaped contracted, Segments spreading
627 Leaves slender, Raceme flexuose many-flowered
628 Limb spreading spotted at base, Stigmas not divided lower than the base of the anthers
629 Filaments united in a tube

630 Filaments united at base
631 Leaves lanceolate, Spathe toothed much shorter than the filiform tube, Segments lanceolate
632 Limb campanulate spreading spotted at base, Stigmas divided as low as the tube

633 Smooth with stalked bulbs, Leaves linear ensiform, Flowers in spiked heads, Tube shorter than segments
634 Leaves linear ensiform edged, Scape many-spiked many-flowered, Flowers spotted at base
635 Limb spreading not spotted, Stigmas divided as low as the tube
636 Limb hemispherical campanulate, Stigmas longer than anthers



and Miscellaneous Particulars.

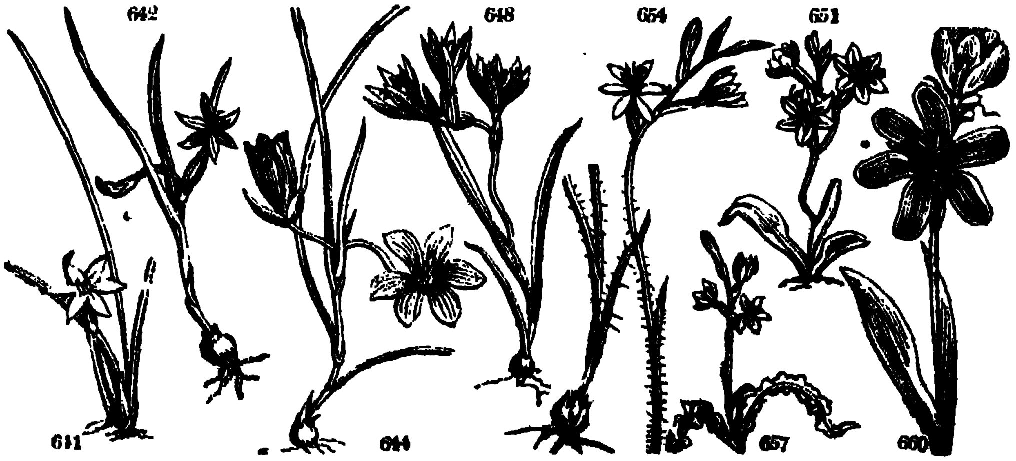
board to form the mass into cakes. Two pounds of dried cake is the average crop of an acre after the first planting, and twenty-four pounds for the two next years. After the third crop the roots are taken up, divided, and transplanted.

The uses of saffron in medicine, domestic economy, and the arts, were formerly very various. It is now employed by painters and dyers, and enters into sauces, creams, biscuits, conserves, liqueurs, &c.

As a garden-flower, the C. vernus is the parent of many varieties, and these may be increased at pleasure by propagating from seeds. Haworth directs to sow those immediately after being gathered in light earth, in a shady, but open situation. Sift over them half an inch of earth the first autumn, and the second take them up and immediately replant them. Add another half inch of earth the third autumn, and the following spring most of the plants will show flowers in the midst of their fourth crop of leaves. Afterwards they may be treated like old bulbs, and planted in the open borders or shrubbery, in patches, rows, or as fancy may direct. The bulbs of crocus being renewed every year, and the new bulb formed on the top of the old one, it follows, that at whatever depth they may have been planted, they will in a short time rise to the surface, unlike the tulip and the bulbous iris, whose new bulbs being formed under the old ones, soon sink the plants, unless growing on a hard subsoil. Crocus bulbs should be taken up every third year, after the leaves decay, dried in the shade, parted, and replanted three inches deep, and not later than michaelmas. The longer they are kept out of the ground after this period they become the weaker and flower the later. In this way, and by preserving them in an icehouse, they may be retarded so as to flower at midsummer or later; and they may be accelerated by heat or blown in water-glasses, or on fancy pots called cats, hedgehogs, &c. common in the seed-shops. The yellow-flowered species force better than the blue ones.

94. *Witsenia.* In honor of Mr. Witsen, a Dutch consul in India, a patron of botanical science, and of Thunberg. This genus and all the succeeding, as far as Pardanthus, consist of handsome herbaceous and bulbous plants, flowering for the most part in the spring, and not distinguished from each other by very distinct characters. The bulbous sorts are easily cultivated in pots, are nearly all natives of the sandy wastes of the Cape of Good Hope, and are capable of succeeding well in a warm open border. To make them flower well in pots, they should have no water while they are dormant.

637 retúsa *H. K.*	sweet-scented	♉	⌊Δ⌋ or	1	ja.f	Lv.	C. G. H.	1793.	O	s.p.l	Bot. mag. 629
638 scilláris *H. K.*	squill-flowered	♉	⌊Δ⌋ or	1	ja.f	Va	C. G. H.	1787.	O	s.p.l	Bot. mag. 548
639 críspa *H. K.*	curled-leaved	♉	⌊Δ⌋ or	1	ap.my	B	C. G. H.	1787.	O	s.p.l	Bot. mag. 599
96. TRICHONE'MA. *Ker.*	TRICHONEMA.				*Irideæ.*						
640 bulbocódium *H. K.*	channel-leaved	♉	Δ or	½	mr.ap		S. Europe	1739.	O	s.p.l	Bot. mag. 265
641 cruciátum *H. K.*	square-leaved	♉		½	my		C. G. H.	1758.	O	s.p.l	Bot. mag. 575
642 cauléscens *B. M.*	caulescent	♉	⌊Δ⌋ or	½	jn.jl		C. G. H.	1810.	O	s.p.l	Bot. mag. 1392
643 pudícum *B. M.*	blush	♉	⌊Δ⌋ or	½	au		C. G. H.	1808.	O	s.p.l	Bot. mag. 1244
644 speciósum *B. M.*	crimson	♉	⌊Δ⌋ or	½	mr.ap	R	C. G. H.	1808.	O	s.p.l	Bot. mag. 1476
645 róseum *B. M.*	rose-coloured	♉	⌊Δ⌋ or	½	jl	Pk	C. G. H.	1808.	O	s.p.l	Bot. mag. 1225
97. GEISSORHI'ZA. *Ker.*	TILE-ROOT.				*Irideæ.*	*Sp.* 7.					
646 rochénsis *H. K.*	plaid	♉	⌊Δ⌋ or	¾	my	V	C. G. H.	1790.	R	s.p.l	Bot. mag. 598
647 júncea *Lk.*	rushy	♉	⌊Δ⌋ or	1	jn.jl	W	C. G. H.	1822.	O	s.p.l	
648 setácea *B. M.*	bristle-leaved	♉	⌊Δ⌋ or	1	jn.jl	Su	C. G. H.	1809.	O	s.p.l	Bot. mag. 1255
649 obtusáta *H. K.*	yellow-flowered	♉	⌊Δ⌋ or	1	my	Y	C. G. H.	1801.	O	s.p.l	Bot. mag. 672
650 secúnda *H. K.*	one-sided	♉	⌊Δ⌋ or	1	my	W	C. G. H.	1795.	O	s.p.l	Bot. m. 597. 1105
651 excísa *H. K.*	short-leaved		⌊Δ⌋ or	½	ap.my	W	C. G. H.	1789.	O	s.p.l	Bot. mag. 584
652 ciliáris *Sal.*	ciliated		⌊Δ⌋ or	1	ap.my		C. G. H.	...	O	s.p.l	
98. HESPERA'NTHA. *Ker.*	EVENING-FLOWER.				*Irideæ.*	*Sp.* 5.					
653 radiáta *H. K.*	nodding-flower.	♉	⌊Δ⌋ or	½	ap.jn	V	C. G. H.	1794.	O	s.p.l	Bot. mag. 573
654 pilósa *B. M.*	hairy	♉	⌊Δ⌋ or	½	ap.my		C. G. H.	1811.	O	s.p.l	Bot. mag. 1475
655 graminifólia *Sweet.*	grass-leaved	♉	⌊Δ⌋ or	½	au.s.		C. G. H.	1808.	O	s.p.l	Bot. mag. 1254
656 falcáta *H. K.*	sickle-leaved	♉	⌊Δ⌋ or	½	ap.my		C. G. H.	1787.	O	s.p.l	Bot. mag. 566
657 cinnamómea *H. K.*	curled-leaved	♉	⌊Δ⌋ or	½	ap.my		C. G. H.	1787.	O	s.p.l	Bot. mag. 1054
99. SPARA'XIS. *Ker.*	SPARAXIS.				*Irideæ.*						
658 tricolor *H. K.*	three-coloured	♉	⌊Δ⌋ or	1	my		C. G. H.	1789.	O	s.p.l	Bot. mag. 381
β sanguineo-purpurea	*various-colored*	♉	⌊Δ⌋ or	1	ap.my	R.P	C. G. H.	1811.	O	s.p.l	Bot. mag. 1482
γ violaceo-purpurea	*dark-colored*	♉	⌊Δ⌋ or	1	ap.my	V.P	C. G. H.	1811.	O	s.p.l	Bot. m. 1482. f. 2
δ roseo-alba	*light-colored*	♉	⌊Δ⌋ or	1	ap.my	Pk	C. G. H.	1811.	O	s.p.l	Bot. m. 1482. f. 3
659 bicolor *H. K.*	two-colored	♉	⌊Δ⌋ or	½	mr.ap	B.Y	C. G. H.	1786.	O	s.p.l	Bot. mag. 548
660 grandiflóra *H. K.*	purple-flowered	♉	⌊Δ⌋ or	¾	ap	P	C. G. H.	1758.	O	s.p.l	Bot. mag. 541
β striata	*streak-flowered*	♉	⌊Δ⌋ or	¾	ap	St	C. G. H.	1758.	O	s.p.l	Bot. mag. 779
γ liliago	*lily-flowered*	♉	⌊Δ⌋ or	¾	ap	W	C. G. H.	1758.	O	s.p.l	Bot. reg. 252
661 bulbífera *H. K.*	bulb-bearing	♉	⌊Δ⌋ or	¾	my.jn	V	C. G. H.	1758.	O	s.p.l	Bot. mag. 545
100. TRITO'NIA. *Ker.*	TRITONIA.				*Irideæ.*	*Sp.* 1					
662 críspa *H. K.*	curled-leaved	♉	⌊Δ⌋ or	½	ap.my	F	C. G. H.	1787.	O		
663 víridis *H. K.*	green-flowered	♉	⌊Δ⌋ or	¾	jl	G	C. G. H.	1788.	O	s.p.l	Bot. mag. 1275
664 rósea *H. K.*	rosy	♉	⌊Δ⌋ or	1½	jn.jl	Pk	C. G. H.	1793.	O	s.p.l	Bot. mag. 618
665 capénsis *B. M.*	Cape	♉	⌊Δ⌋ or	1	au.o	W	C. G. H.	1811.	O	s.p.l	Bot. mag. 1531
666 longiflóra *H. K.*	long-flowered	♉	⌊Δ⌋ or	1	ap.jn	Y	C. G. H.	1774.	O	s.p.l	Bot. mag. 256
667 tenuiflóra *Vahl.*	slender-tubed	♉	⌊Δ⌋ or	1	ap.jn	Y	C. G. H.	1811.	O	s.p.l	B.m. 1502. f. maj.
β cóncolor Sweet.	*self-colored*	♉	⌊Δ⌋ or	1	ap.jn	Y	C. G. H.	1811.	O	s.p.l	B.m. 1502. f. min.
γ rochénsis B. M.	*bending-flower.*	♉	⌊Δ⌋ or			Y	C. G. H.	1811.	O	s.p.l	Bot. mag. 1503
δ pállida Ker.	*pale-flowered*	♉	⌊Δ⌋ or	1	au	Y	C. G. H.	1806.	O	s.p.l	Jac. ic. r. 2. t. 262
668 lineáta *H. K.*	pencilled	♉	⌊Δ⌋ or	2	my	Str	C. G. H.	1774.	O	s.p.l	Bot. mag. 487
669 securígera *H. K.*	copper-colored	♉	⌊Δ⌋ or	½	my	Br	C. G. H.	1774.	O	s.p.l	Bot. mag. 583
670 fláva *H. K.*	yellow	♉	⌊Δ⌋ or	½	f.mr	Y	C. G. H.	1780.	O	s.p.l	Bot. reg. 147
671 squálida *H. K.*	sweet-scented	♉	⌊Δ⌋ or	½	my	Ru	C. G. H.	1774.	O	s.p.l	Bot. mag. 581
672 fenestráta *H. K.*	open-flowered	♉	⌊Δ⌋ or	1½	my.jn	Y	C. G. H.	1801.	O	s.p.l	Bot. mag. 704
673 crocáta *H. K.*	crocus-flowered	♉	⌊Δ⌋ or	½	my.jn	O	C. G. H.	1758.	O	s.p.l	Bot. mag. 184
674 deústa *H. K.*	spotted	♉	⌊Δ⌋ or	½	my	Ful	C. G. H.	1774.	O	s.p.l	Bot. mag. 622
675 miniáta *H. K.*	late-flowered	♉	⌊Δ⌋ or	½	au	Ful	C. G. H.	1795.	O	s.p.l	Bot. mag. 609
676 refrácta *Ker.*	reflexed	♉	⌊Δ⌋ or	1	my.jn	Y	C. G. H.	1815.	O	s.p.l	Bot. reg. 135
101. WATSO'NIA. *Ker.*	WATSONIA.				*Irideæ.*	*Sp.* 12.					
677 spicáta *H. K.*	hollow-leaved	♉	⌊Δ⌋ or	½	my	Pk	C. G. H.	1791.	O	s.p.l	Bot. mag. 523
678 plantagínea *H. K.*	fox-tail	♉	⌊Δ⌋ or	2	jn.jl	W	C. G. H.	1774.	O	s.p.l	Bot. mag. 553
679 punctáta *H. K.*	dotted-flowered	♉	⌊Δ⌋ or	1	ap.my	P	C. G. H.	1800.	O	s.p.l	Bot. rep. 177
680 róseo-álba *B. M.*	two-colored	♉	⌊Δ⌋ or	1	jl.au	Pk	C. G. H.	...	O	s.p.l	Bot. mag. 537
β variegata	*variegated*	♉	⌊Δ⌋ or	1	jl.au	St	C. G. H.	...	O	s.p.l	Bot. mag. 1193
681 margináta *H. K.*	broad-leaved	♉	⌊Δ⌋ or	3	jn	Pk	C. G. H.	1774.	O	s.p.l	Bot. mag. 608
β minor	*shining-leaved*	♉	⌊Δ⌋ or	3	o	Pk	C. G. H.	1812.	O	s.p.l	Bot. mag. 1530



History, Use, Propagation, Culture,

95. *Ixia.* Derived from ιχω, to fix, in allusion to the viscid nature of the roots of some species.
96. *Trichonema.* From θριξ, hair, and νημα, a filament; the filaments being hairy.
97. *Geissorhiza.* From γεισσοω, to shape like the tiles or eaves of a house, and ῥιζα, a root.
98. *Hesperantha.* From ἑσπερος, evening, and ανθος, a flower, in reference to the time the flowers expand.

637 Tube twice as long as spathe, Segments oblong, Stigmas split gaping
638 Tube the length of the spathe, Segments spatulate concave, Stigmas funnel-shaped
639 Leaves curled

640 Leaves linear channelled
641 Leaves linear nerved thickened at the edge
642 Radical leaves with 4 furrows, Outer valve of spathe convolute rigid, Flower turbinate, Segments lanc.
643 Leaves twisted, inflated at base, Flower very large spreading, Segm. with a black mark at the base, Stamens bearded at base, Anthers connate
644 Leaves linear, very long, Flowers veiny, spreading on long stalks, Edge of spathe membranous
645 Leaves filiform, Scapes 1-flowered, shorter than the campanulate flower

646 Leaves radical linear acute, Stem smooth, a little honey-pore at the base of the divisions of the flower
647 Leaves filiform, Stem few-flow. smooth, spathes scarious much longer than tube, Segments of flower obl.
648 Stem simple few-flowered, Radical leaves bristly
649 Radical leaves ensiform-linear obtuse
650 Radical leaves linear-acute, Stem villous
651 Radical leaves ovate oblong
652 A doubtful species, known only by name

653 Leaves fistulous
654 Leaves linear hairy, Stem smooth
655 Leaves linear with stem smooth
656 Radical leaves falcate smooth
657 Radical leaves falcate curled

658 Spathes spotted, Limb of flower regular

659 Spathes spotted, Limb of flower bilabiate
660 Spathes lined, Limb of flower regular: segments ovate-oblong

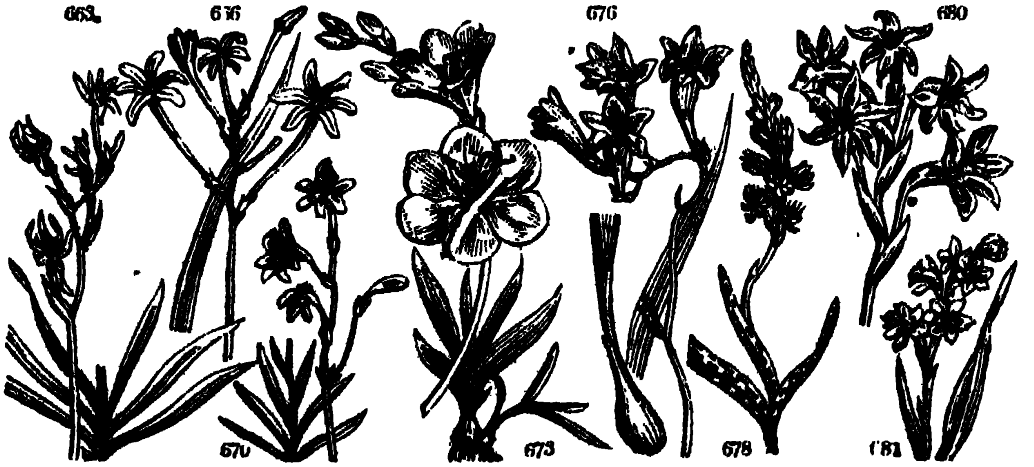
661 Spathes lined, Limb of flower regular: segments elliptical

662 Leaves waved-curled, Segments of flower flat
663 Scape 3-cornered: angles membranous
664 Outer valve of the spathe cuspidate, Tube of the flower very long, Upper segment largest
665 Spathe lanceolate pointed, Flower striped: Upper segment erect largest, the rest linear oblong
666 Outer valve of the spathe obtuse 3-toothed, Tube very long, Segments of the limb equal
667 Leaves ensiform, Flowers in two rows, Spathes membranous shorter than tube, Segm. of the limb linear

668 Upper segment of flower largest, outer retuse
669 Outer valve of spathe obtuse 3-toothed at end, Three lower segments of the limb with a stalked perpendicular callus at base
670 Outer valve of spathe cuspidate, Three lower segments of limb with a stalked perpendicular callus at base
671 Limb campanulate: segments approximated, transparent at the edge towards the base
672 Limb infundibuliform; segments distant, transparent at the edge towards the base
673 Limb campanulate transparent at the base
674 Three outer segments gibbous within, at the base spotted and carinate
675 Leaves ensiform, Scape many spiked, Base of the flower lined not transparent
676 Spikes reflexed one-sided, Flowers infundibuliform, Spathes very short, Leaves linear ensiform

677 Leaves fistular slender
678 Upper leaves linear ensiform; lower fistular compressed
679 Leaves linear very narrow
680 Leaves linear ensiform, Anthers as long as throat, Corolla funnel-shaped with elliptical pointed segments

681 Leaves ensiform thickened at the edge, Spikelets several appressed, Flower funnel-shaped



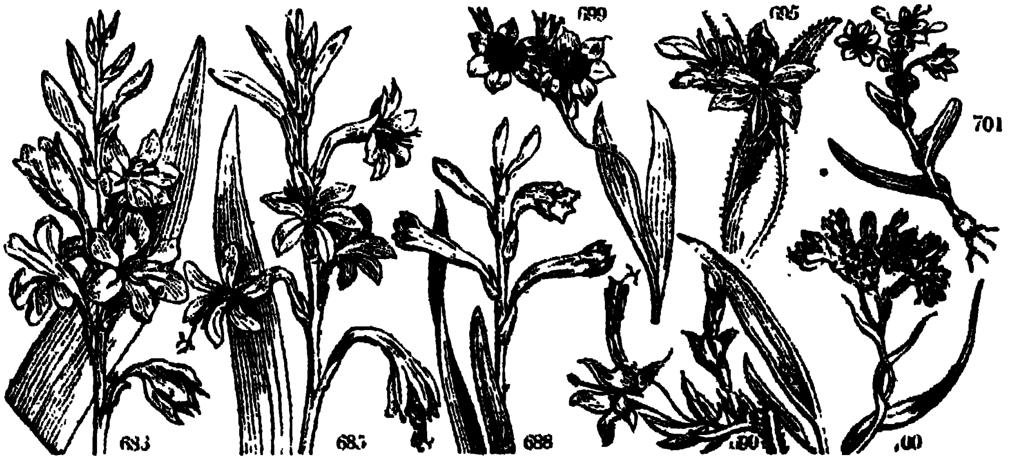
and Miscellaneous Particulars.

99. *Sparaxis.* From *σπαρασσω*, to tear. The generic distinction consists in the lacerated spathes.

100. *Tritonia.* Named by Mr. Bellenden Ker, from Triton, understood, as he informs us, in the sense of a vane or weathercock, in allusion to the variable direction of the stamens in different species.

101. *Watsonia.* Named by Miller in honor of Dr. Wm. Watson, his friend. W. brevifolia has its blossoms

682 strictiflóra *B. M.*	upright-flower.	♉	⌊△⌋ or	1	jn		C. G. H.	1810.	O	s.p.l	Bot. mag. 1406
683 rósea *H. K.*	pyramidal	♉	⌊△⌋ or	2	jl.au		C. G. H.	1803.	O	s.p.l	Bot. mag. 1072
684 brevifólia *H. K.*	short-leaved	♉	⌊△⌋ or	1	my		C. G. H.	1794.	O	s.p.l	Bot. mag. 601
685 iridifólia *Jacq.*	iris-leaved	♉	⌊△⌋ or	2½	my		C. G. H.	1795.	O	s.p.l	Jac. ic. 2. t. 234
β *fúlgida* Sal.	*scarlet*	♉	⌊△⌋ or	4	my		C. G. H.	1795.	O	s.p.l	Bot. mag. 600
686 meriána *H. K.*	red-flowered	♉	⌊△⌋ or	1½	my.jn		C. G. H.	1750.	O	s.p.l	Bot. m. 418.1194
687 húmilis *H. K.*	lake-colored	♉	⌊△⌋ or	2	my.jl		C. G. H.	1754.	O	s.p.l	Bot. m. 631.1195
688 aletroídes *H. K.*	aletris-like	♉	⌊△⌋ or	1½	my.jl		C. G. H.	1774.	O	s.p.l	Bot. mag. 441
β *variegata* .	*variegated-flow.*	♉	⌊△⌋ or	1½	my.jl		C. G. H.	1774.	O	s.p.l	Bot. mag. 533
102. BABIA'NA. *Ker.*	BABIANA.				*Irideæ.*	*Sp.* 11.					
689 Thunbérgii *H. K.*	many-spiked	♉	⌊△⌋ or	1	ap	P	C. G. H.	1774.	O	s.p.l	
690 ringens *H. K.*	gaping-flowered	♉	⌊△⌋ or	½	my.jn	P	C. G. H.	1752.	O	s.p	Com. hor. 1. t. 41
691 tubiflóra *W*	tube-flowered	♉	⌊△⌋ or	½	jn	Y.r	C. G. H.	1774.	O	s.p	Bot. mag. 847
β *tubáta* W.	*long-tubed*	♉	⌊△⌋ or	½	jn	Y.w	C. G. H.	1774.	O	s.p	Bot. mag. 680
692 spathácea *H. K.*	stiff-leaved	♉	⌊△⌋ or	½	jn	L.b	C. G. H.	1801.	O	s.p	Bot. mag. 638
693 sambucina *H. K.*	elder-scented	♉	⌊△⌋ or	½	ap.my	B	C. G. H.	1799.	O	s.p	Bot. mag. 1019
694 dísticha *B. M.*	two-ranked	♉	⌊△⌋ or	½	jn.jl	B	C. G. H.	1774.	O	s.p	Bot. mag. 626
695 plicáta *H. K.*	sweet-scented	♉	⌊△⌋ or	½	my.jn	P	C. G. H.	1774.	O	s.p	Bot. mag. 576
696 stricta *H. K.*	upright	♉	⌊△⌋ or	1	my.jn	B.w	C. G. H.	1757.	O	s.p	Bot. m. 621
697 sulphúrea *H. K.*	pale-flowered	♉	⌊△⌋ or	½	my.jn	Y	C. G. H.	1795.	O	s.p	Bot. mag. 1053
698 villósa *H. K.*	dark-red	♉	⌊△⌋ or	½	au	D.r	C. G. H.	1778.	O	s.p	Bot. mag. 583
699 rubro-cyánea *H. K.*	red and blue	♉	⌊△⌋ or	½	ap.jn	B.r	C. G. H.	1794.	O	s.p	Bot. mag. 410
103. LAPEYRO'USIA. *Ker.*	LAPEYROUSIA.				*Irideæ.*	*Sp.* 2.					
700 corymbósa *H. K.*	level-topped	♉	⌊△⌋ or	½	my.jn	B	C. G. H.	1791.	O	s.p	Bot. mag. 595
701 fissifólia *B. M.*	leafy-spiked	♉	⌊△⌋ or	½	au.s	V	C. G. H.	1809.	O	s.p	Bot. mag. 1246
104. MELASPHÆ'RULA. *Ker.*	MELASPHÆRULA.				*Irideæ.*	*Sp.* 2.					
702 gramínea *D. C.*	grass-leaved	♉	⌊△⌋ or	1	ap au	G	C. G. H.	1787.	O	s.p	Red. lil. 163
703 iridifólia *D. C.*	iris-leaved	♉	⌊△⌋ or	1	ap.au	Y.G	C. G. H.	1787.	O	s.p	Bot. mag. 615
105. GLADI'OLUS. *Ker.*	CORN-FLAG.				*Irideæ.*	*Sp.* 28—35.					
704 Cunónia *H. K.*	scarlet-flowered	♉	⌊△⌋ or	2	my.jn	S	C. G. H.	1756.	O	s.p.l	Bot. mag. 343
705 Watsónius *H. K.*	Watson's	♉	⌊△⌋ or	1	f.ap	D.r	C. G. H.	1791.	O	s.p.l	Bot. m. 450. 569
706 quadranguláris *H. K.*	four-channelled	♉	⌊△⌋ or	2	mr.ap	Y	C. G. H.	1799.	O	s.p.l	Bot. mag. 567
707 viperátus *H. K.*	perfumed	♉	⌊△⌋ or	½	ap.my	Br.y	C. G. H.	1787.	O	s.p.l	Bot. mag. 688
708 elátus *H. K.*	winged-flower.	♉	⌊△⌋ or	½	my.jn	O.G	C. G. H.	1795.	O	s.p.l	Bot. mag. 586
709 namaquénsis *H. K.*	helmet-flower.	♉	⌊△⌋ or	½	my.jn	O.G	C. G. H.	1800.	O	s.p.l	Bot. mag. 592
710 brevifólius *H. K.*	short-leaved	♉	⌊△⌋ or	1½	d.ja	P	C. G. H.	1802.	O	s.p.l	Bot. m. 727. 992
711 hirsútus *H. K.*	hairy	♉	⌊△⌋ or	1½	ap.jn	I	C. G. H.	1795.	O	s.p.l	Bot. mag. 574
712 versicolor *H. K.*	various-colored	♉	⌊△⌋ or	1½	my.jn	Br	C. G. H.	1794.	O	s.p.l	Bot. mag. a 1042
β *binérvis* B. M.	*two-nerved*		⌊△⌋ or	1½	my.jn	Pk	C. G. H.	1806.	O	s.p.l	Bot. mag. b 1042
713 édulis *Ker.*	eatable	♉	⌊△⌋ cul	1½	my.jn	W	C. G. H.	1816.	O	s.p.l	Bot. reg. 169
714 hastátus *B. M.*	spade-spotted	♉	⌊△⌋ or	1	ap.my	F	C. G. H.	1816.	O	s.p.l	Bot. mag. 1564
715 tristis *B. M.*	square-leaved	♉	⌊△⌋ or	1	my.jn	Br.y	C. G. H.	1745.	O	s.p.l	Bot. mag. 272
β *cóncolor* Sal.	*self-colored*	♉	⌊△⌋ or	1	my.jn	Y	C. G. H.	1790.	O	s.p.l	Par. lond. 8
716 trichonémifolius *B. M.*	violet-scented	♉	⌊△⌋ or	1½	my.jn	Y	C. G. H.	1810.	O	s.p.l	Bot. mag. 1483
717 grácilis *H. K.*	slender	♉	⌊△⌋ or	2	mr.ap	F.w	C. G. H.	1800.	O	s.p.l	Bot. mag. 562
718 recúrvus *H. K.*	spotted-sheath.	♉	⌊△⌋ or	2	ap.my	Sl	C. G. H.	1758.	O	s.p.l	Bot. mag. 578
719 cárneus *H. K.*	flesh-colored	♉	⌊△⌋ or	2	my.jn	F	C. G. H.	1796.	O	s.p.l	Bot. mag. 591
720 cuspidátus *H. K.*	tall	♉	⌊△⌋ or	1½	ap.my	W.Br	C. G. H.	1795.	O	s.p.l	Bot. mag. 582
721 blándus *H. K.*	blush	♉	⌊△⌋ or	1½	jn	I.r	C. G. H.	1774.	O	s.p.l	Bot. mag. 625
722 campanulátus *P. S.*	bell-flowered	♉	⌊△⌋ or	1½	my	I	C. G. H.	1794.	O	s.p.l	Bot. rep. 188
723 angústus *H. K.*	narrow-leaved	♉	⌊△⌋ or	2	my.jn	I.y	C. G. H.	1757.	O	s.p.l	Bot. mag. 602
724 involútus *Ker.*	involute	♉	⌊△⌋ or	1½	my.jn	Pk	C. G. H.	1757.	O	s.p.l	Roche. diss. 2. t. 3
725 undulátus *H. K.*	wave-flowered	♉	⌊△⌋ or	1	ap.my	Pk	C. G. H.	1760.	O	s.p.l	Bot. mag. 538
726 floribúndus *H. K.*	large-flowered	♉	⌊△⌋ or	1	my.jl	Ci	C. G. H.	1788.	O	s.p.l	Bot. mag 610
727 Milléri *H. K.*	Miller's	♉	⌊△⌋ or	1½	ap.my	V	C. G. H.	1751.	O	s.p.l	Bot. mag. 632
728 cardinális *H. K.*	superb	♉	⌊△⌋ or	2	jl.au	D.s	C. G. H.	1789.	O	s.p.l	Bot. mag. 135
729 byzantínus *H. K.*	Turkish	♉	⌊△⌋ or	2	jn.jl	R	Turkey	1629.	O	s.p	Bot. mag. 874
730 commúnis *H. K.*	common	♉	⌊△⌋ or	2	jn.jl	R	S. Europe	1596.	O	s.p.l	Bot. mag. 86
731 ségetum *H. K.*	round-seeded	♉	⌊△⌋ or	2	jn.jl	P	S. Europe	1596.	O	s.p.l	Bot. mag. 719
106. ANOMATHE'CA. *Ker.*	ANOMATHECA.				*Irideæ.*	*Sp.* 1.					
732 júncea *H. K.*	cut-leaved	♉	⌊△⌋ or	½	ap.my	Li	C. G. H.	1791.	O	s.p.l	Bot. mag. 606



History, Use, Propagation, Culture,

of a micacious hue, glittering in the sun, and not to be represented by art. W. iridifolia is a shewy border flower of a month's duration. W. mexicana is also very shewy, and has kidney-shaped bulbs.

102. *Babiana.* A name barbarously derived by Mr. J. B. Ker from the name *babianer*, which the Dutch colonists at the Cape have given to the plant, because its roots are the favourite food of baboons. B. ringens has dark-red bulbs.

103. *Lapeyrousia.* So named by Mr. J. B. Ker, in honour of Lapeyrouse the celebrated and unfortunate French navigator.

682 Stem upright many spiked, Leaves linear-lanceolate smooth edged with red
683 Leaves ensiform thickened at the edge, Spikelets several close together, Limb campanulate, Throat naked
684 Leaves ensiform very short, Limb spreading; inner segments widest
685 Flowers recurved, Tube the length of the spathe, Segments of limb acute

686 Flowers recurved, Tube longer than the spathe, Limb with obtuse segments
687 Flowers recurved, Tube the length of the spathe, Limb with acute segments
688 Flowers recurved, Throat nearly 4 times as long as the segments of the limb

689 Leaves villous, Flowers ringent
690 Leaves smooth, Flowers ringent
691 Tube filiform clavate three times as long as the irregular limb: Upper segment divaricating

692 Tube filiform twice as long as the regular limb; Segments obtuse alternate with a point
693 Segments longer than the throat marked with a darker linear longitudinal spot
694 Leaves stiffish subvillous plaited, Flowers distichous, Segments alternately curled
695 Segments length of the tube nearly equal, the alternate ones wavy: the upper convolute at the end
696 Flowers funnel-shaped, regular; Segments scarcely longer than the tube, flat
697 Segments of flower thrice as long as the tube
698 Tube filiform the length of the regular campanulate limb: alternate segments obtuse with a point
699 Limb much spreading, Segments rhomboidal spotted at the base

700 Flowers corymbose, Stamens much spreading
701 Flowers solitary

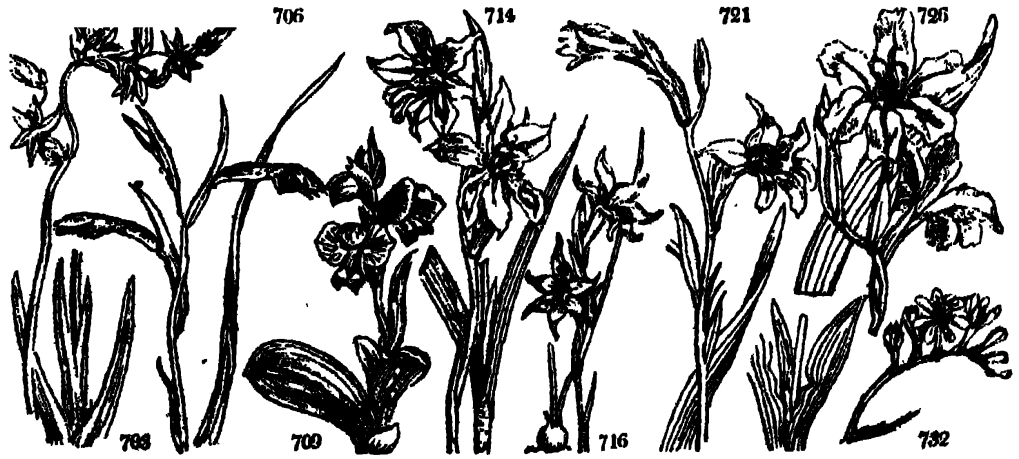
702 Tube very short, Segm. nearly equal aristate, Scape panicled, Leaves linear rather shorter than the scape
703 Many spiked, Scape weak, Spikes capil. flexuose, Leaves sword-shaped smooth dist. shorter than scape

704 Leaves linear ensiform, Upper segment of flower very long, lower very small
705 Leaves linear ensiform with 3 ribs on each side, Throat of the flower cylindrical, longer than segm. of limb
706 Leaves 4-cornered 4-furrowed, Upper segment of flower very long, lower very small subulate
707 Upper segm. of flower spat. divar. incurv. lat. rhomb-shaped ovate spread. lower spat. acute hanging down
708 Upper segm. of fl. obov. recurved, lateral rhomb-shaped ovate spread. lower spat. acumin. hanging down
709 Upper segm. of fl. vaulted, lat. rhomb-shaped ovate spread. lower hanging down spat. obtuse with a point
710 Sterile bulb with a single linear pubescent leaf, Flowering bulb leafless, Flowers subringent
711 Leaves linear-ensiform pubescent, Flowers nearly regular
712 Leaves linear-ensiform 3-ribbed on each side, Segments of flower longer than the throat

713 Leaves very long linear glaucous: nerves prominent on both sides, Segments of flower cordate
714 Tube of the campan. fl. shorter than the spatha, Segments ovate obtuse: the 3 lower with a hastate spot
715 Leaves 4-cornered 4-furrowed, Segments of flower nearly equal

716 Leaves 3 slender upright 4-cornered, Spike 2-3 fld. 1-sided, Fl. funnel-shaped nearly equal somewhat nodd.
717 Leaves linear the edge on each side ribbed, middle nerve nearly obsolete
718 Leaves linear with a rib on each side in the middle, Sheaths radical spotted
719 Tube lngr. than spathe, Up. seg. wider than rest, convol. and recurv. at end; lowest very narrow hang. down
720 Tube twice as long as the segments of the limb which are acuminate wavy and reflexed
721 Tube shorter than the spatha, Limb campan. subringent: upper segm. concave; the lower narr. spotted
722 Leaves lanceolate smooth, Scape about 3-flowered longer than the leaves, Flower nearly campanulate
723 Leaves linear with a rib on each side in the middle, Tube longer than the spatha, the lower segments with a stalked 3-angular spot
724 Flowers ringent remote in two rows, Tube shorter than spatha, Segm. lanc. the lat. rolled inwards at edge
725 Flowers erect funnel-shaped, Segments wavy, three lower nearly half as short as the others
726 Flowers erect turbinate campanulate, Segments equal in length, upper widest
727 Flowers erect campanulate, Segments equal in length: upper narrower than the lateral ones
728 Spikes several one-sided, three lower segments marked with a white lanceolate spot
729 Spike 2-rowed, Upper seg. covered by lateral ones; the 3 lower marked by a white edged linear lanc. spot
730 Spike 1-sided, Upper seg. covered by lat. ones; 3 lower marked by a white lin.-lanc. spot, lowest very large
731 Spike 1-sided, Upper segm. divaricating, 3 lower nearly equal, marked with a white edged lin. lanc. spot

732 Leaves broad lanceolate rather wavy



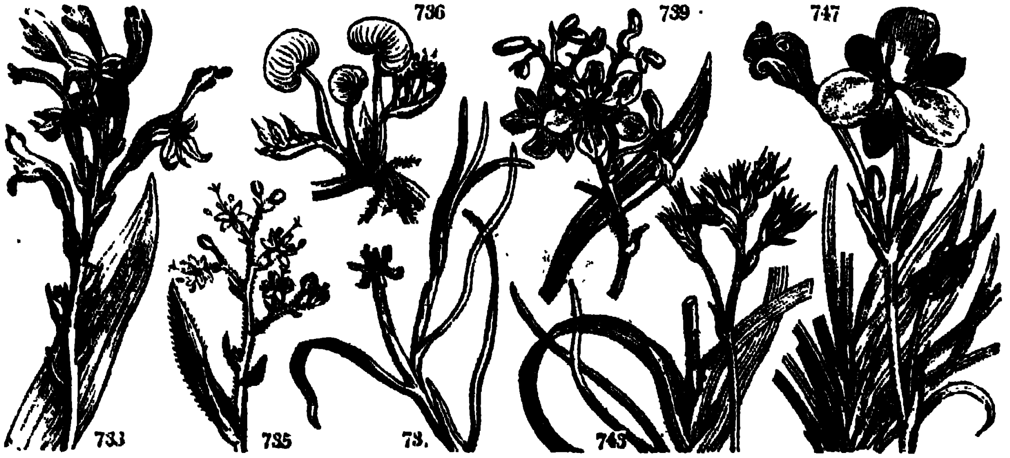
and Miscellaneous Particulars.

104. *Melasphærula.* From *μελας*, black, and *σφαιρα*, a globule. In allusion to the colour and figure of the bulblets figured by Jacquin in his representation of the plant.

105. *Gladiolus.* From the Latin *gladius*, a sword, in allusion to the shape of the leaves. G. communis is a f which there are several varieties in general cultivation. G. cardinalis is a splendid white.

106. *Anomatheca.* From two Greek words (*ανομος* and *θηκα*) signifying a singular capsule. The capsule of the genus is remarkable for being, as it were, frosted.

107. ANTHOLY'ZA. *Ker*	ANTHOLYZA.			*Irideæ.*	*Sp.* 1—4.					
733 æthiópica *H. K.*	flag-leaved	ɣ ⌊△⌋ or	3	my.jn	O	C. G. H.	1759.	O	s.p.l	Bot. mag. 561
β *vittigera*	*ribband*	ɣ ⌊△⌋ or	2	ja.f	O	C. G. H.	...	O	s.p.l	Bot. mag. 1172
108. XIPHI'DIUM. *W*	XIPHIDIUM.			*Hæmodoraceæ.*	*Sp.* 2.					
734 álbum *W.*	white	♃ [△]	1½	...	W	W. Indies	1787.	R	s.p	
735 cærúleum *W.*	blue	♃ [△]	1½	...	B	Guiana	1793.	R	s.p	Aub. gui. 1. t. 11
109. LEPTAN'THUS. *Mich.*	LEPTANTHUS.			*Fluviales.*	*Sp.* 2—3.					
736 renifórmis *M.*	kidney-leaved	♃ △	½	jn.jl	G	N. Amer.	1812.	D	aq	Fl. per. 1. t. 71
737 gramíneus *Vahl.*	grassy	♃ △	1	jn.au	Y	N. Amer.	1823.	D	aq	Hook. ex. fl. t.94
110. WACHENDOR'FIA. *Ker.*	WACHENDORFIA.			*Hæmodoraceæ.*	*Sp.* 5—6.					
738 thyrsiflóra *W.*	tall-flowered	♃ ⌊△⌋ or	2	my.jn	Y	C. G. H.	1759.	D	r.m	Bot. mag. 1060
739 paniculáta *W.*	panicled	♃ ⌊△⌋ or	2	f	Y	C. G. H.	1700.	D	r.m	Bot. mag. 616
740 gramínea *W.*	grass-leaved	♃ ⌊△⌋ or	1	jn	Y	C. G. H.		D	r.m	
741 hirsúta *W.*	hairy	♃ ⌊△⌋ or	1½	jn	V	C. G. H.	1687.	D	r.m	Bot. mag. 614
742 brevifólia *H K.*	short-leaved	♃ ⌊△⌋ or	1	mr.ap	P	C. G. H.	1795.	D	r.m	Bot. mag. 1166
111. HÆMODO'RUM. *Sm.*	HÆMODORUM.			*Hæmodoraceæ.*	*Sp.* 1—6.					
743 planifólium *B. P.*	plain-leaved	♃ ⌊△⌋ or	1½	jl.n	O	N. S. W.	1810.	S	s.p	Bot. mag. 1610
112. ARISTE'A. *Ker.*	ARISTEA.			*Iridea.*	*Sp.* 5.					
744 cyánea *H. K.*	woolly-headed	♃ ⌊△⌋ or	½	ap.jn	B	C. G. H.	1759.	S	s.p	Bot. mag. 458
745 capitáta *H. K.*	tallest	♃ ⌊△⌋ or	3	jl.au	B	C. G. H.	1790.	C	s.p	Bot. mag. 605
746 spirális *H. K.*	spiral-flowered	♃ ⌊△⌋ or	1	ap.my	P.Bl	C. G. H.	1795.	C	s.p	Bot. mag. 520
747 melaleúca *H. K.*	three-colored	♃ ⌊△⌋ or	1	my.jn	P.Bl	C. G. H.	1786.	C	s.p	Bot. mag. 1277
748 pusílla *B. M.*	flat-stemmed	♃ ⌊△⌋ or	½	jn.jl	B	C. G. H.	1806.	C	s.p	Bot. mag. 1231
113. DILA'TRIS. *Ker.*	DILATRIS.			*Hæmodoraceæ.*	*Sp.* 3—4.					
749 corymbósa *W.*	broad-petalled	♃ ⌊△⌋ or	1	my	P	C. G. H.	1790.	S	s.p	Ex. bot. 1. t. 16
750 viscósa *W.*	clammy	♃ ⌊△⌋ or	½	...	B	C. G. H.	1795.	S	s.p	Lam. ill. t. 34
751 Heritiéra *Pers.*	dyers	♃ ⌊△⌋ dy	1½	jl.au	Pk	N. Amer.	1812.	S	s.p	Mich. am. 4
114. BRODIÆ'A. *Sm.*	BRODIÆA.			*Irideæ.*	*Sp.* 1—4.					
752 ixioídes *Sims.*	Ixia-like	ɣ ⌊△⌋ or	1	o	Li	Chili	1822.	O	s.p	Bot. mag. 2382
115. I'RIS. *Ker.*	IRIS.			*Irideæ.*	*Sp.* 63—92.					
753 susiána *W.*	Chalcedonian		2	mr.ap	St	Levant	1596.	R	s.l	Bot. mag. 91
754 florentína *W.*	Florentine		2	my.jn	W	S. Europe	1596.	R	p.l	Bot. mag. 671
755 germánica *W.*	German		3	my.jn	B	Germany	1573.	R	co	Bot. mag. 670
756 pállida *W.*	pale Turkey		1½	my.jn	L.B	Turkey	1596.	R	co	Bot. mag. 685
757 flavéscens *Red.*	yellowish		2	my.jn	Y	....	1818.	R	co	Red. lil. 375
758 orientális *W.*	red-leaved		1	my.jn	L.B	China	1790.	R	co	Bot. mag. 1604
759 sambucína *W.*	elder-scented		4	jn	L.B	S. Europe	1658.	R	co	Bot. mag. 187
760 lúrida *W.*	dingy		2	ap	Br	S. Europe	1758.	R	co	Bot. mag. 669. 906
761 squálens *W.*	brown-flowered	}	2	jn	St	S. Europe	1768.	R	co	Bot. mag. 787
762 variegáta *W.*	variegated		2	my.jn	St	Hungary	1597.	R	s.l	Bot. mag. 16
763 neglécta *Horn.*	neglected		2	my.jn	P.Bl	......	...	R	co	Bot. mag. 2435
764 Swértii *Lam.* *aphýlla* B. M.	Swert's		1½	ap.my	W	......	1819.	R	co	Bot. mag. 870
765 biflóra *W.*	two-flowered		½	ap.my	P	S. Europe	1596.	R	co	
766 sub-biflóra *H. K.*	double-bearing	:	½	ap.my	V	Portugal	1596.	R	p.l	Bot. mag. 1130
767 cristáta *W.*	crested		¼	my	St	N. Amer.	1756.	R	p.l	Bot. mag. 412
768 chinénsis *W.*	Chinese		½	my.jn	P.B	China	1792.	R	co	Bot. mag. 373
769 arenária *W. en.*	sand		½	jn	Br	Hungary	1802.	R	co	Bot. reg. 549
770 lutéscens *W.*	pale-yellow		½	ap.my	Y	Germany	1748.	R	p.l	Red. lil. t. 263
771 flavíssima *W.*	bright-yellow		¼	my.jn	Y	Siberia	1814.	R	co	Jac. ic. 3. t. 220
772 púmila *H. K.*	dwarf		½	ap.my	P	Austria	1596.	R	p.l	Bot. mag. 6. 1209
773 dichotoma *W.*	forked		¼	au	L.P	Dauria	1784.	R	p.l	Bot. reg. 246
774 hungárica *W. en.*	Hungarian		1	my	V	Hungary	1815.	R	co	W. et K. h.3. t.226
775 ibérica *St.*	reflexed		½	ap.my	Br	Iberia	1821.	R	co	
776 pseud-ácorus *W.*	yellow-water	♃ △ or	3	jn	Y	Britain	moi. pl.	R	p.l	Eng. bot. 578
777 fœtidíssima *W.*	Gladwyn	♃ △ or	1½	jn	Ld	Britain	sha. pl.	R	p.l	Eng. bot. 596
778 versícolor *W.*	various-colored	♃ △ or	1	my.jn	St	N. Amer.	1732.	D	a.l	Bot. mag. 21



History, Use, Propagation, Culture,

107. *Antholyza.* From ανθος, a flower, and λυσσα, rage. A metaphorical name. The flower has some resemblance to the mouth of an animal, which by the aid of a little imagination, may be supposed ready to bite.

108. *Xiphidium.* A name of a similar import with Gladiolus, being derived from ξιφος, a sword, in allusion to its stiff and sword-shaped leaves.

109. *Leptanthus.* Λεπτος, slender, and ανθος, a flower. The tube of the flower is long and slender. These are aquatic floating plants of little beauty.

110. *Wachendorfia.* In memory of E. J. Wachendorf, a Dutchman, and professor of botany at Utrecht.

111. *Hæmodorum.* 'Αιμα, blood, and δωρον, a gift; that is to say, a plant which produces a red flower.

733 Leaves ensiform nerved, Upper segment longest stretched forward, the others recurved.

734 Leaves smooth, Petals linear-lanceolate
735 Leaves hairy, Petals ovate

736 Leaves roundish reniform, Spathes oblong acuminate many-flowered
737 Leaves all linear

738 Scape nearly simple, Panicle contracted, Leaves ensiform 5-nerved perennial plaited smooth
739 Scape many spiked, Panicle spreading, Leaves sword-shaped 3-nerved annual plaited smooth
740 Scape many-spiked, Panicle spreading, Leaves sword-shaped channelled smooth
741 Scape many spiked, Panicle spreading, Leaves linear sword-shaped 3-nerved plaited villous
742 Leaves elliptic sword-shaped hairy

743 Corymbs compound, Branches spreading, Leaves flat

744 Flowers headed, Spathes many-parted torn
745 Heads of flowers alternate, Spathes entire
746 Flowers alternate, Segments of flower equal
747 Flowers alternate, three of the segments less than the rest
748 Scape about 1-flowered, Leaves linear-lanceolate a little falcate

749 Petals ovate oblong, Corymb level-topped hairy
750 Petals linear, Corymb level-topped villous viscid
751 Leaves ensiform, Scape villous above, Flowers spiked one-sided

752 Leaflets of the crown subulate

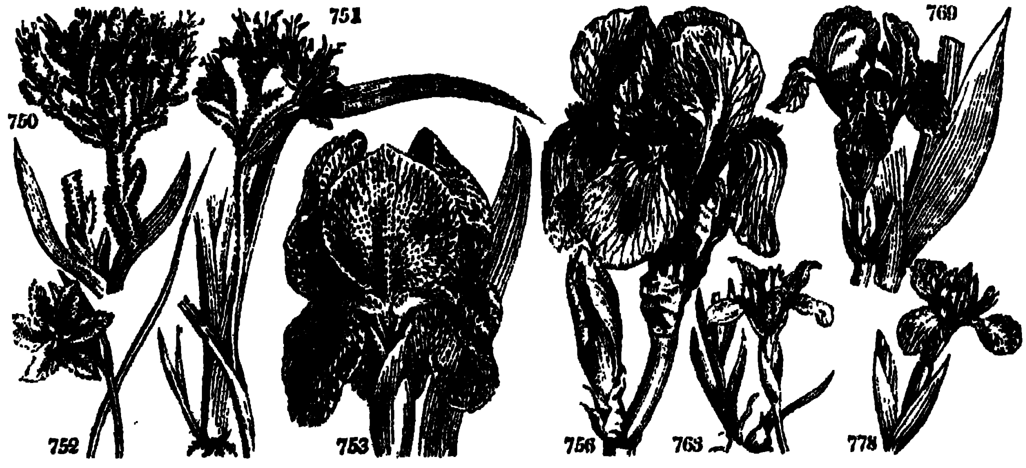
1. *Flowers bearded.*

753 Stem 1-flowered longer than the leaves, Smaller petals deflexed
754 Stem 2-flowered longer than the leaves, Flowers sessile
755 Stem many-flowered longer than the leaves, lower flowers stalked, Spathes colored
756 Stem many-flowered longer than the leaves, Flowers sessile, Spathes white
757 Leaves lanc. rather plaited, half as short again as the branching stem, Spathes leafy, Tube length of germen
758 Stem about 2-flowered the length of the leaves, Germens 3-cornered
759 Stem many-flowered longer than the leaves, Petals emarginate: the outer flat
760 Stem many-flow. longer than the leaves, Outer petals revolute, inner nearly upright, wavy and inflexed
761 Stem many-flowered longer than the leaves, Deflexed petals folded back upright emarginate
762 Stem many-flowered as long as the leaves, Deflexed petals emarginate, erect oblong
763 Stem many-flowered longer than the leaves, Erect petals entire, deflexed rather emarginate
764 Leaves shorter than the 3-flowered stem, Larger petals undulate reflexed, smaller emarginate

765 Scape round about 3-flowered longer than the leaves, Deflexed petals narrower than the erect ones
766 Scape about 1-fl. scarcely shorter than ensiform leaves, Tube of corolla about equal to the 6-streaked germen
767 Stem compressed about 1-fl. the length of leaves, Petals about equal, Beard crested, Germens 3-cornered
768 Scape compressed many-flowered, Stigmas jagged
769 Scape 2-flowered shorter than the ensiform leaves, Upper flower abortive
770 Scape very short about 1-flowered, Spathe erect the length of the tube
•771 Scape 2-flowered longer than the leaves, Spathes the length of the tube
772 Scape very short 1-flowered, Spathes shorter than the tube, Reflexed petals narrower than the erect ones
773 Nearly stemless, Scape panicled round, Branches 2-4-flowered
774 Leaves ensiform smooth somewhat falcate nearly equal to the many-flowered scape, Spathes inflated
775 Leaves ensiform falcate smooth, Scape 1-flowered, Petals obovate

2. *Flowers beardless.*

776 Leaves flat, Inner petals less than the stigma
777 Stem one-angled many-flowered longer than the leaves
778 Stem round flexuose equal to the leaves, Germens nearly 3-cornered



and Miscellaneous Particulars.

112. *Aristea.* From *arista*, a point or beard. The leaves are bearded.

113. *Dilatris.* A name not satisfactorily explained.

114. *Brodiæa.* Named in honor of Mr. Brodie, of Brodie House, a Scotch gentleman, who paid great attention to the botany, especially Cryptogamia, of his own country.

115. *Iris.* The name given by Theophrastus, Dioscorides, and Pliny, from the variety of its colors. According to Plutarch, the word iris signified, in the ancient Egyptian tongue, *eye*: the eye of heaven. This beautiful genus abounds in Europe, but is rare in America. Some are bulbous, but the greater part tuberous rooted, of easy culture, and propagation by seed or division of the root. The roots of I florentina, ger-

779 cúprea *Ph.*	copper-colored	♃	△	or	2	jn.jl	O	N. Amer.	1812.	R	p.l	Bot. mag. 1496
780 virgínica *W.*	Virginian	♃	△	or	1	jn.jl	B	N. Amer.	1758.	R	s.l	Bot. mag. 703
781 spúria *W.*	spurious	♃	△	or	1¾	jl	St	Siberia	1759.	R	co	Bot. mag. 875
782 ochroleúca *W.* *stenogyna* B. Mag.	sulphur-colored	♃	△	or	4	jl	L.y	Levant	1757.	R	co	Bot. mag. 1515
783 Guldenstádtii *W. en.*	Guldenstadt's	♃	△	or	4	ap.my	Y	Siberia	1757.	R	co	Bot. mag. t. 61
784 halóphila *W.*	long-leaved	♃	△	or	3	jl.s	B	Siberia	1780.	R	co	Bot. mag. 1131
785 aláta *Lam.*	long-tubed	♉	△	or	½	jn	B	Algiers	1801.	O	co	Desf. atl. 1. t. 6
786 xiphium *W.*	small-bulbous	♉	△	or	1½	jn	B.y	Spain	1596.	O	co	Bot. mag. 686
787 xiphioídes *W.*	great-bulbous	♉	△	or	1½	jn	B.y	Spain	1571.	O	co	Bot. mag. 687
788 lusitánica *H. K.*	Portuguese	♉	△	or	2	ap	B	Portugal	1796.	O	co	Bot. mag. 679
789 tenuifólia *W.*	slender-leaved	♉	△	or	2	my	L.s	Dauria	1796.	D	co	Pall. it. 3. t. c. f. 2
790 pérsica *W.*	Persian	♉	△	or	½	mr	B.y	Persia	1629.	O	co	Bot. mag. 1
791 vérna *W.*	spring	♃	△	or	1	ap.my	P	Virginia	1748.	D	co	Pl. alta. t. 106. f. 6
792 ventricósa *W.*	bellied	♃	△	or	1	jn	P.s	Dauria	1800.	D	co	Pall. it. 3. t. h. f. 1
793 sibírica *W.*	Siberian	♃	△	or	2	my.jn	L.s	Siberia	1596.	R	co	Bot. mag. 1163
794 prismática *Ph.*	New-Jersey	♃	△	or	1	my.jn	P	N. Amer.	1812.	R	p.l	Bot. mag. 1504
795 graminea *W.*	grass-leaved	♃	△	or	¾	jn	St	Austria	1597.	R	co	Bot. mag. 681
796 húmilis *Bieb.*	low	♃	△	or	1	ap.my	B	Caucasus	1812.	R	co	Bot. mag. 1123
797 ruthénica *Ker.*	pigmy	♃	△	or	¼	my	B	Siberia	1804.	D	co	Bot. mag. 1393
798 tuberósa *W.*	snake's-head	♉	△	or	¾	mr.ap	G.s	Levant	1597.	O	s.p	Bot. mag. 531
799 reticuláta *Ad.*	netted	♃	△	or	¼	mr.ap	B	Iberia	1821.	R	co	Bot. Cab. 1829
800 spathuláta	spathulate-flow.	♃	△	or	1	jl.au	P.s	Germany	1759.	R	co	Bot. mag. 88
801 caucásica *Hoffm.*	Caucasian	♃	△	or	½	mr	Y	Caucasus	1821.	R	co	
802 furcáta *Bieb.*	forked	♃	△	or	½	mr	B	Tauria	1822.	R	co	Bot. mag. 2361
803 triflóra *W.*	three-flowered	♃	△	or	1	jn.jl	B	Italy	1821.	R	co	
804 brachycúspis *B. M.*	short-petalled	♃	△	or	1½	jn.jl	P	Siberia	1819.	R	co	Bot. mag. 2326
805 Pallásii *B. M.*	Pallas's	♃	△	or	2	jn.jl	B	Tartary	1820.	R	co	Bot. mag. 2331
116. MORÆ'A. *Ker.*	Moræa.					*Irideæ.*	*Sp.* 23—26.					
806 flexuósa *H. K.*	flexuose	♉	⌊△⌋	or	1	ap.my	Y	C. G. H.	1803.	D	s.p	Bot. mag. 695
807 collina *H. K.*	equal-flowered	♉	⌊△⌋	or	2	my	P	C. G. H.	1768.	D	s.p	Bot. mag. 1033
β miniata B. R.	*spot-flowered*	♉	⌊△⌋	or	2	my.jn	P	C. G. H.	1768.	D	s.p	Bot. rep. 404
808 pavónia *H. K.*	Peacock	♉	⌊△⌋	or	1	my.jn	R.s	C. G. H.	1790.	D	s.p	Bot. mag. 1247
809 tripétala *H. K.*	three-petalled	♉	⌊△⌋	or	1	ap.my	V	C. G. H.	1802.	D	s.p	Bot. mag. 702
810 angústa *B. M.*	narrow-leaved	♉	⌊△⌋	or	¾	my.jn	Fu	C. G. H.	1790.	D	s.p	Bot. mag. 1276
811 tricúspis *H. K.*	trident-petalled	♉	⌊△⌋	or	1	jn	G	C. G. H.	1776.	D	s.p	Bot. mag. 696
812 ténuis *H. K.*	brown-flowered	♉	⌊△⌋	or	1	my.jn	P	C. G. H.	1807.	D	s.p	Bot. mag. 1047
813 unguiculáta *H. K.*	long-clawed	♉	⌊△⌋	or	1	my.jn	Va	C. G. H.	1802.	D	s.p	Bot. mag. 593
814 édulis *H. K.*	long-leaved	♉	⌊△⌋	cul	4	my.jn	Li	C. G. H.	1792.	D	s.p	B. mag. 613, 1238
815 longiflóra *H. K.*	long-flowered	♉	⌊△⌋	or	½	my.jn	Y	C. G. H.	1801.	D	s.p	Bot. mag. 712
816 spicáta *B. M.*	spiked	♉	⌊△⌋	or	1½	my.jn	Y	C. G. H.	1785.	D	s.p	Bot. mag. 1283
817 tristis *H. K.*	dull-colored	♉	⌊△⌋	or	1	my.jn	Br	C. G. H.	1768.	D	s.p	Bot. mag. 577
818 crispa *H. K.*	short-spathed	♉	⌊△⌋	or	½	my.jn	B	C. G. H.	1803.	D	s.p	Bot. mag. 1284
819 bituminósa *H. K.*	clammy	♉	⌊△⌋	or	1	ap.my	Y	C. G. H.	1787.	D	s.p	Bot. mag. 1046
820 viscária *H. K.*	bird-limed	♉	⌊△⌋	or	1	jn	Li	C. G. H.	1800.	D	s.p	Bot. mag. 587
821 ramósa *H. K.*	branching	♉	⌊△⌋	or	3	my.jn	Y	C. G. H.	1789.	D	s.p	Bot. mag. 771
822 villósa *H. K.*	villous	♉	⌊△⌋	or	1	ap.my	P	C. G. H.	1789.	D	s.p	Bot. mag. 571
823 ciliáta *H. K.*	fringed-leaved	♉	⌊△⌋	or	¼	ap.jn	P	C. G. H.	1587.	D	s.p	Bot. mag. 1061
β barbigera Sal.	*bearded*	♉	⌊△⌋	or	¼	ap.my	Y	C. G. H.	...	D	s.p	Bot. mag. 1012
824 sisyrinchium *H. K.*	Spanish-nut	♉	△	cul	½	my.jn	B	S. Europe	1597.	D	s.p	Bot. mag. 1407
825 papilionácea *H. K.*	butterfly	♉	⌊△⌋	or	¼	my.jn	Va	C. G. H.	1795.	D	s.p	Bot. mag. 750
826 spathácea *W.*	sheathed	♉	⌊△⌋	or	¾	jl	Y	C. G. H.	1798.	D	s.p	Thunb. diss. t. 1
827 iridioídes *H. K.*	sword-leaved	♉	⌊△⌋	or	½	my.jn	W	C. G. H.	1758.	D	s.p	Bot. mag. 693
828 lúrida *B. R.*	lurid	♉	⌊△⌋	or	½	jn	Cr	C. G. H.	1817.	D	s.p	Bot. reg. 312
117. MA'RICA. *Ker.*	Marica.					*Irideæ.*	*Sp.* 14.					
829 Northiána *H. K.*	broad-stemmed	£	[△]	or	4	ap.au	Y.s	Brazil	1789.	D	s.p	Bot. mag. 654

History, Use, Propagation, Culture,

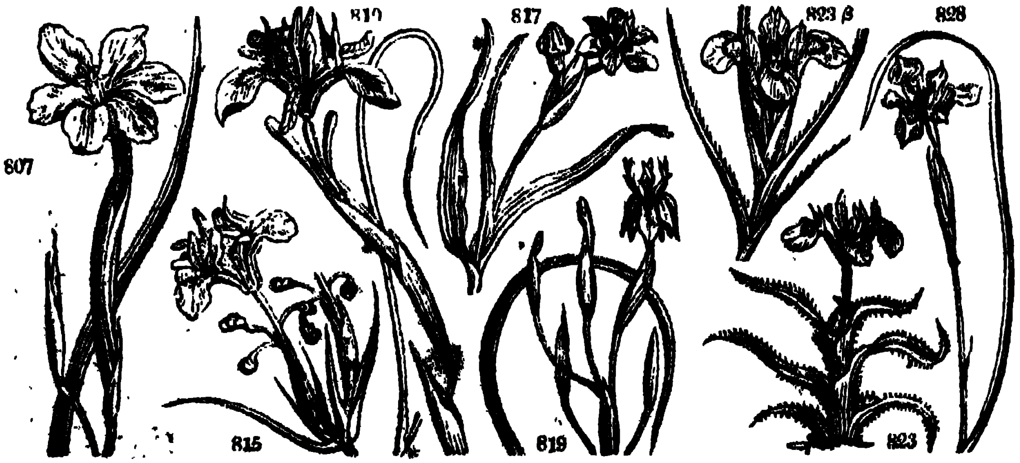
manica, and pseud-acorus are used in medicine; those of the first are remarkable for communicating an odor like that of violets, and are the orrice-root (iris root) of the shops. The root of I. pseud-acorus, in powder, used as snuff, produces a [illegible] ge from the nostrils: it is astringent, and used ins[illegible] one of the most powerful cathartics, [illegible] qualities, and the root of either species suspended in wine or beer, keeps the latter from growing stale, and communicates a pleasant taste and smell to the former. The leaves and roots of I. fœtidissima are steeped in beer by the country people in some places as a purge. I. susiana flowers well in a warm border and loamy soil. I. fimbriata is rather tender; it requires a rich light soil, and to make it flower freely, it must be planted in a large pot, and have the suckers removed from the roots as soon as they appear. I. orientalis requires a similar treatment, and with the two preceding species requires the protection of a green-house to make it flower in perfection. Of I. xiphioides there are numerous varieties procured from seeds, which are treated much in the same way as those of crocus. This species, and I. tuberosa are very ornamental; they thrive best in a light

779 Stem round flexuose as long as leaves, Petals all emarginate obovate, the inner shortest, Capsules very large
780 Stem 2-edged many-flowered longer than the leaves
781 Leaves linear, Scape round, Germens 6-cornered, Stigmas acute, Petals rounded
782 Leaves linear, Scape about 3-flowered round, Germens hexagonal, Petals ovate longer than their claw

783 Leaves ensiform, Scape nearly round, Germens hexagonal, Petals erect oblong
784 Radical leaves very long, Stem higher than the leaves, Germens hexagonal
785 Stemless, leaves channelled, Three erect petals very small, Tube very long
786 Leaves channelled subulate, Stem 2-flowered, Petals nearly as narrow as stigmas, Germen round
787 Leaves channelled subulate, Stem 2-flowered, Petals much wider than stigmas, Germen acutely angular
788 Leaves channelled, Scape 2-flowered, Inner petals emarginate
789 Stemless, Leaves filiform very long, Scape very short 2-flowered, Tube of the corolla filiform
790 Leaves linear subul. channelled longer than the very short 1-flow. scape, Inner petals very short spreading
791 Leaves flat, Scape 1-flowered shorter than the leaves, Petals nearly equal
792 A little caulescent, Stem about 2-flowered shorter than the leaves, Spathes ventricose, Germens 3-angular
793 Stem about 3-flowered fistulous longer than the leaves, Germens 3-angular
794 Stem solid round as long as the leaves, Leaves very narrow long, Capsules long pointed at each end
795 Stem about 2-flowered 2-edged shorter than the leaves, Germens hexangular
796 Leaves linear-ensiform very much longer than the 2-flowered very short scape, Petals acuminate
797 Leaves linear longer than the 1-flowered scape, Alternate petals smaller
798 Leaves 4-cornered
799 Scape 1-flowered shorter than the 4-cornered leaves, Tube filiform, Root bulbous
800 Outer petals spatulate, Stem branched at the base shorter than the leaves
801 Leaves lanceolate falcate edged, Stem about 2-flowered
802 Leaves ensiform shorter than the 3-flowered 2-forked scape, Germen 3-angular 3-cornered
803 Leaves linear acute length of the 3-fl. scape, Spathes withered with a long point, Flowers close together
804 Leaves linear-lanceolate very long, Inner petals very short, Stigmas spirally revolute
805 Leaves ensiform doubled together striated incurved at end, Ovaries very long cylindrical, Stigmas keeled serrated at end

806 Segments of the flower nearly equal oblong spreading, Filaments united at base
807 Segments nearly equal obovate very spreading, Filaments united in a cylinder

808 Segments spotted and dotted at base, The three inner half as short as the others and much narrower erect
809 Inner segments linear, sometimes absent
810 Leaf filiform erect with 1-flowered scape smooth, Spathes obtuse
811 Outer segments very spreading bearded, Inner small 3-toothed at the end: the middle tooth the longest
812 Outer segm. deflexed bearded, Inner very small 3-toothed at end: the middle tooth longest and involute
813 Outer segments beardless; Inner very small 3-toothed at the end
814 Lower leaf longest of all, All the segments of the flower very spreading: the alternate ones small
815 Tube filiform very long: All the segments reflexed
816 Beardless, Flower uniform nearly equal, Stigmas petal shaped
817 Leaves very smooth, Stem branches and peduncles villous
818 Leaves about the length of the scape, All the segments of the flower spreading; the alternate ones smaller
819 Lower leaf spirally twisted, Stem smooth, Branches viscid
820 Leaves straightish, Stem and branches viscid
821 Stem panicled much branching, Segments nearly equal deflexed
822 Bearded, Leaves on the inside villous in lines, Stem pubescent, Invol. very smooth, Alternate segments of flower very small 3-toothed
823 Leaves ciliated, Inner segments erect
824 Tube filiform very long, Segments alternate erect
825 Leaves pubescent, all the segments spreading
826 Leaves slender dependent, Flowers terminal in close heads
827 Leaves perennial equitant, Segments of flower spreading: alternate ones much the largest
828 One-flowered a little bearded, Leaves about 3 linear, Stem simple, Outer segments of flowers rounded: inner very narrow entire
829 Scape winged sword-shaped, Common spathe 2-leaved, partial 2-flowered, Flower stalks simple



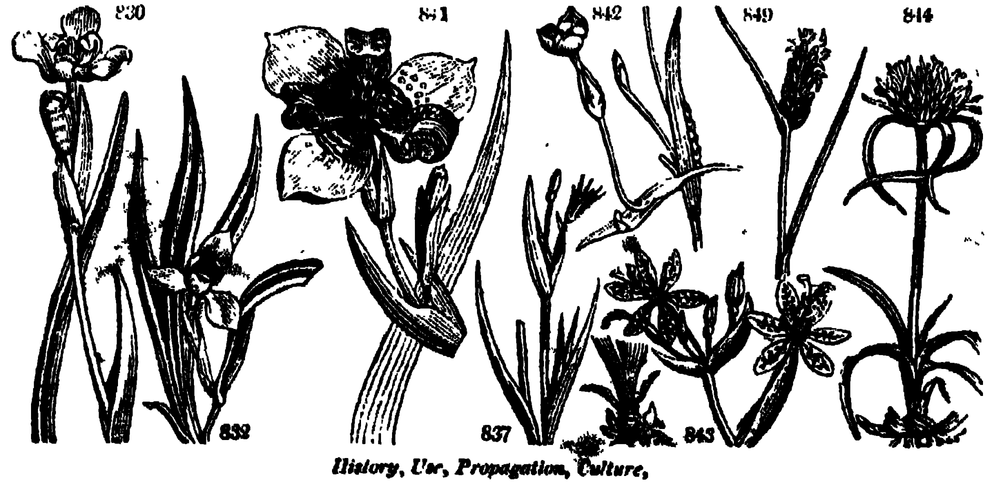
and Miscellaneous Particulars.

sandy soil and eastern exposure; the bulbs are taken up every other year, but must not be kept longer out of ground than a month. I. persica is highly odoriferous; it is propagated by separating the bulbs, or from seeds; but by the latter mode no new varieties have hitherto been obtained. I. susiana and persica bear forcing well: supplies of them, and of I. xiphioides are annually imported from Holland. In a deep and loose soil the roots of the tuberous and bulbous species of this genus are apt to run down when they cease to flower, and getting gradually weaker and weaker, are at last lost. To prevent this, Miller advises to form a stratum of rubbish about a foot and a half under the surface.

116. *Moræa.* So named by Miller, in honor of Robert Moore, of Shrewsbury, a distinguished botanist, of whom there exists a memoir in the Philosophical Transactions. M. pavonia is one of the most elegant species s. The bulbs of M. edulis are eaten at the Cape of Good Hope, both by men and monkeys; and in Spain. Sweet recommends, as the best soil for these plants, a mixture

A name perhaps obtained from *μωραινω*, to become flaccid, in allusion to the nature of the

830 martinicénsis *H. K.*	Martinico	¥	[Δ]	or	2	jn	Y	Martinico	1782.	D	s.p	Bot. mag. 416
831 gladiáta *B. Reg.*	Cape	¥	⌞Δ⌟	or	2	jn.jl	Y	C. G. H.	1816.	D	s.p	Bot. reg. 229
832 paludósa *H. K.*	marsh	≛	[Δ]	or	1	jl.au	W	Guiana	1792.	Sk	s.p	Bot. mag. 646
833 califórnica *B. M.*	yellow	≛	Δ	or	1	my.s	Y	California	1796.	Sk	s.p	Bot. mag. 983
834 palmifólia *W.* *M. plicáta* B. M.	palm-leaved	≛	[Δ]	or	2	f.mr	W	Brazil	1779.	Sk	s.p	Bot. mag. 655
835 striáta *B. M.*	streaked	⚘	Δ	or	2	ap.s	Y		1788.	Sk	s.p	Bot. mag. 701
836 ánceps *W.*	two-edged	⚘	Δ	or	1	jn.jl	B		1803.	D	co	Bot. mag. 464
837 micrántha *Cav.*	small-flowered	¥	⌞Δ⌟	or	1	jn.jl	Y	S. Amer.	1815.	D	co	Cv. diss. t.191. f.2
838 Bermudiána *W.*	Iris-leaved	¥	⌞Δ⌟	or	1	jn.jl	B	Bermudas	1732.	D	co	Bot. mag. 94
839 convolúta *W.*	convolute	¥	⌞Δ⌟	or	½	my.jn	Y	S. Amer.	1816.	D	co	Red. lil. t. 47
840 tenuifólia *Red.*	slender-leaved	¥	⌞Δ⌟	or	½	my.jn	Y	S. Amer.	1816.	D	co	Bot. mag. 2313
841 cærúlea *Ker.*	blue	¥	⌞Δ⌟	or	2	my.jn	B	Brazils	1818.	D	co	Bot. reg. 713
842 semi-apérta *Lodd.*	half-open	¥	⌞Δ⌟	or	1½	my.jn	Y	Brazils	1820.	D	co	Bot. cab. 685
118. PARDAN'THUS. *Ker.*	PARDANTHUS.					*Irideæ.*		*Sp.* ..				
843 chinénsis *H. K.*	Chinese	¥	Δ		2	jn.jl	O	China	1759.	R	p.l	Bot. mag. 171
119. SCHŒ'NUS. *Vahl.*	BOG-RUSH.					*Cyperaceæ.*		*Sp.* 7—79.				
844 mucronátus *W.*	clustered	ɯ	Δ	w	1	ap.my	Ap	S. Europe	1781.	D	co	Fl græc. 1. t. 43
845 nigricans *W.*	black	ɯ	Δ	w	1	jl	Ap	Britain	sp. bo.	D	co	Eng. bot. 1121
846 rúfus *E. B.*	brown	ɯ	Δ	w	½	jl	Ap	Scotland	sc. bog.	D	co	Eng. bot. 1010
847 monoicus *E. B.*	monœcious	ɯ	Δ	w	1	jl.au	Ap	England	bogs.	D	co	Eng. bot. 1410
848 ferrugineus *Schr.*	rusty	ɯ	Δ	w	½	sp.my	Ap	Europe	1781.	D	co	Sch. gm.1. t.1. f.4
849 compréssus *Sm.*	compressed	ɯ	Δ	w	1	ap.my	Ap	Britain	bogs.	D	co	Eng. bot. 791
850 stellátus *W.*	star-headed	ɯ	⌞Δ⌟	pr	¾	s.d	Ap	W. Indies	1822.	D	co	Slo. jam t.78. f. 1
120. RHYNCHOS'PORA. *Va.*	RHYNCHOSPORA.					*Cyperaceæ.*		*Sp.* 3—26.				
851 álba *H. K.*	white-headed	ɯ	Δ		1	au	Ap	Britain	bogs.	D	co	Eng. bot. 985
852 fúsca *H. K.*	brown-headed	ɯ	Δ	w	1	au	Ap	Britain	bogs.	D	co	Eng. bot. 1575
853 comáta *Lk.*	leafy-headed	ɯ	[Δ]	cu	1½		Ap	Brazil	1820.	D	co	
121. FIMBRIS'TYLIS. *Vahl.*	FIMBRISTYLIS.					*Cyperaceæ.*		*Sp.* 1—65.				
854 dichótoma *V.*	dichotomous	ɯ	[○]	w	1	jn.jl	Ap	E. Indies	1819.	D	co	Rottb.gr. t.13. f.1
122. ISOLE'PIS. *R. Br.*	ISOLEPIS.					*Cyperaceæ.*		*Sp.* 3—46.				
855 flúitans *R. Br.*	floating	±	Δ		flt.	jl.au	Ap	Britain	dit.	D	co	Eng. bot. 216
856 setácea *R. Br.*	bristle-like	ɯ	○		¼	jl.au	Ap	Britain	bogs.	S	co	Eng. bot. 1693
857 Holoschœ'nus *Sm.*	cluster-headed	ɯ	Δ		3	jl	Ap	England	sea sh.	Sk	co	Eng. bot. 1612
β románus W.	*Roman*	ɯ	Δ		3	jl		Austria	...	Sk	co	Jacq. aust. 5. 448
γ austrális L.	*southern*	ɯ	Δ		3	jl		S. Europe	...	Sk	co	Plk. pht. t.40. f.5
123. SCIR'PUS. *R. Br.*	CLUB-RUSH.					*Cyperaceæ.*		*Sp.* 11—96.				
858 multicaúlis *E. B.*	many-stalked	ɯ	Δ		¼	jl	Ap	Britain	tur. bo.	Sk	co	Eng. bot. 1187
859 cæspitósus *W.*	scaly-stalked	ɯ	Δ		½	jl	Ap	Britain	tur. he.	Sk	co	Eng. bot. 1029
860 pauciflórus *E. B.*	chocolate-head.	ɯ	Δ		¼	au	Ap	Britain	bgs. m.	Sk	co	Eng. bot. 1122
861 lacústris *W.*	tall		Δ		6	jl.au	Ap	Britain	rivers.	Sk	co	Eng. bot. 666
862 glaúcus *E. B.*	glaucous	ɯ	Δ		2	jl.au	Ap	England	sal. m.	Sk	co	Eng. bot. 2321
863 triqueter *W.*	triangular	ɯ	Δ		3	au	Ap	England	mar.	Sk	co	Eng. bot. 1694
864 mucronátus *W.*	sharp-pointed	ɯ	Δ		2	au	Ap	Eur. Asia		Sk	co	
865 carinátus *E. B.*	blunt-edged	ɯ	Δ		3	jl.au	Ap	England	riv. ba.	Sk	co	Eng. bot. 1983
866 marítimus *W.*	salt-marsh				2	jl.s	Ap	Britain	sal. m.	Sk	co	Eng. bot. 542
867 Lúzulæ *W.*	clustered	ɯ	[Δ]		1½	jl.s	Ap	E. Indies	1776.	Sk	co	P. m.27. t.417. f.3
868 sylváticus *W.*	wood	ɯ	Δ		1½	jl.s	Ap	Britain	m. s. p.	Sk	co	Eng. bot. 919
124. ELEO'CHARIS. *R. Br.*	SPIKE-RUSH.					*Cyperaceæ.*		*Sp.* 3—24.				
869 palústris *R. Br.*	marsh	ɯ	Δ		½	jl	Ap	Britain	mar.	Sk	co	Eng. bot. 131
870 aciculáris *R. Br.*	needle	ɯ	Δ		¼	jl	Ap	Britain	mar.	Sk	co	Eng. bot. 749
871 ováta *W.*	ovate	ɯ	Δ		½	jn.jl	Ap	Germany	1818.	Sk	co	



History, Use, Propagation, Culture,

flowers. M. northiana has beautiful and transient flowers, like the rest of the species, all of which grow freely in a rich light soil, and are readily increased by parting the roots or from seeds.

118. *Pardanthus.* Named by Mr. J. B. Ker, from *παρδος*, a leopard, and *ανθος*, a flower, on account of the spotted flower.

119. *Schœnus.* From *χοινος* or *σχοινος*, a cord, in Greek. From plants of this kind the first cordage is supposed to have been made. All the plants from this genus to Mariscus, No. 130, are sedgy plants of similar habit, of value in an œconomical point of view, but not cultivated for ornamental purposes.

120. *Rhynchospora,* (*ῥυγχος*, a snout or rostrum, and *σπορα*, a seed.) The seeds are beaked.

121. *Fimbristylis.* So named by Vahl. The word is constructed from the Latin *fimbria*, a fringe, and *stylus*, the style.

122. *Isolepis* From *ισος*, equal, and *λεπις*, a scale, on account of the relative size of the scales which constitute the inflorescence.

830 Beardless, leaves linear, Petals with glandular spots, Ovaries 3-cornered
831 Flower-stalks lateral nearly equal to the one-leaved involucrum
832 Leaves linear-lanceolate, Scape round shorter than the plaited leaves
833 Leaves linear-ensate flat, Scape simple leaf-like winged, Flowers opened out, Fil. united at base
834 Scape 2-edged, Flowers in spikes, Leaves sword-shaped nerved-plaited

835 Scape 2-edged leafy, Flowers in spikes, Petals roundish ovate acute, Leaves linear sword-shaped
836 Scape 2-edged simple nearly leafless, Spathe about 4-flowered unequal longer than the flowers, Pet. muc.
837 Scape 2-edged branchy leafy, Spathe about 3-flow. unequal, Pet linear acuminate, Leaves grassy channelled
838 Scape 2-edged branched leafy, Spathe about 4-flow shorter than the flowers, Pet muc. Leaves sword-shaped
839 Scape 2-edged branched leafy, Spathe 3-flowered shorter that the flower, Leaves sword-shaped
840 Scape 2-edged ascending leafy, Spathe 3-flowered, Caps. hairy, Leaves capillary
841 Stigmas united petal shaped, Scape many-flowered erect, Spathe not viviparous
842 Leaves linear-lanc. nerved a little wavy at back, Fl.-stalks nearly as long as spathe, Flowers campanul.

843 Flowers spotted with orange

844 Culm round naked, Spikelets bundled in a roundish head, Involucr. 3, 6-leaved very long reflexed
845 Culm naked round, Spikelets in headed bundles, Invol. 2-leaved longer than the valves, Setæ none
846 Culm round leafy, Leaves channelled, Spike compound 2-ranked longer than the bractea
847 Culm round naked, Spike compound, Flower monœcious, Leaves channelled rough
848 Culm round, Spikelets 2-3, Outer valve of involucrum as long as spikelets, Setæ several
849 Spike distichous, Spikelets many-flowered, Involucre 1-leaved, Culm roundish
850 Involucres very long white. (Dichromena, *Vahl.*)

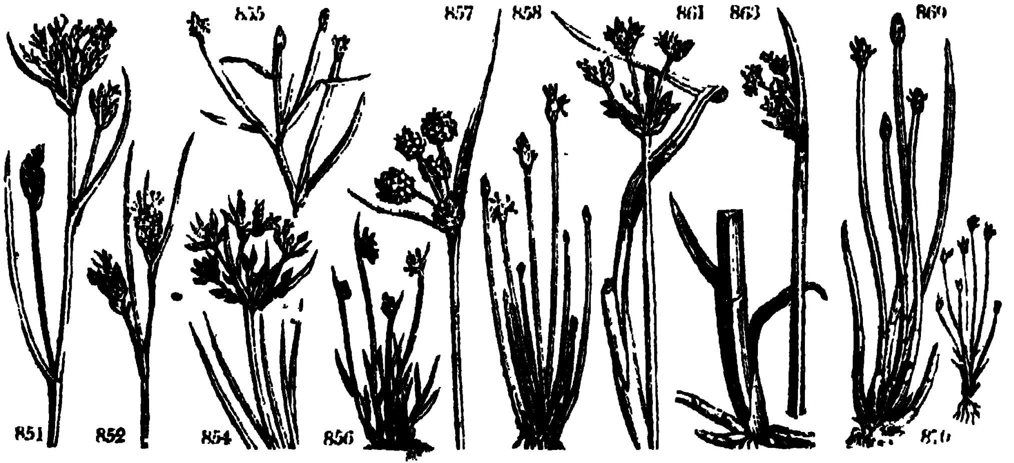
851 Culm leafy 3-angular, Leaves linear keeled, Root creeping
852 Culm 3-angular, Leaves bristly channelled, Root creeping
853 Leaves flat glaucous with hairy sheaths, Invol. longer than the contracted panicle, Spikelets oblong, Scales oblong carinate mucronate

854 Spikes ovate oblong, Involucre about 3-leaved decompound longer than the umbel

855 Culms branched leafy flaccid, Spikelets few-flowered, Floating
856 Culm bristle-shaped, Spikelets lateral sessile
857 Culm round naked, Heads terminal globose clustered, Leaves channelled

858 Stem round sheathing at the base, Spike ovate terminal, Glumes obtuse equal, Root fibrous
859 Stigmas 3, Spike enclosed in a 2-leaved involucrum, Lower glumes very large as big as the spike, Culm round, Sheaths bearded
860 Glumes unequal obt. ovate, one larger but shorter than the 2-valved spike, Culm round, Sheaths not bearded
861 Culm round, Inner sheaths ending in a short leaf, Cyme terminal decompound with 2-4-leaved involucrum Spikelets ovate smooth
862 Top of the 3-angular stem straight, Upper sheaths leafy, Panic. lateral under the end, Spikel. sess. & stalked
863 Culm straight naked pointed, Lateral spikes sessile or stalked, Stigma bifid
864 Top of the 3-cornered culm bent down at end, Sheaths leafless, Spikel. lateral sess. clustered naked, Stigmas 3
865 Culm naked, upwards 3-cornered, Panicle cymose terminal, Bract. pungent, Stigma bifid
866 Panicle globose terminal, Glumes mucronate torn bifid
867 Spikes roundish headed, Heads umbelled globose proliferous, Invol many-leaved, Culm 3-angular
868 Culm 3-cornered leafy, Cyme term. supra-decompound surrounded with a many-leaved invol. Gl. mucronate

869 Spike oval naked, Scales lanceol. acute, Culms roundish, Sheaths leafless beardless lanceol. acute, Stigmas 2
870 Spike ovate naked, Two lower scales scarcely larger than the rest, Culms 4-cornered setaceous
871 Spike ovate naked, Scales oblong obtuse, Stigmas 2, Culms sub-compressed, Sheaths leafless, Root fibrous

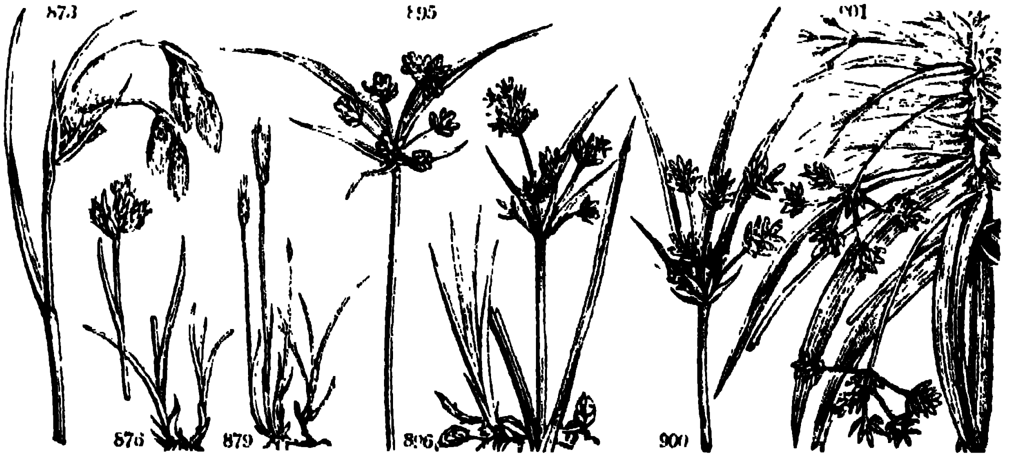


and Miscellaneous Particulars.

123. *Scirpus.* From *cirs*, a Celtic word for rushes, which is, in the singular, *cors*, whence the Latin *chorda.* S. cæspitosus is the principal food of cattle and sheep in the Highlands of Scotland in March and till the end of May. S. lacustris, the bull-rush, is used to bottom chairs: cut at one year old, it makes the finest bottoms; at two years, a coarser sort; still older, and mixed with the leaves of Iris pseud-acorus, it makes the coarsest bottoms. Cottages are sometimes thatched, and pack-saddles stuffed with it, and in severe seasons cattle will eat it. Of S. maritimus there are several varieties, natives of the salt marshes of Europe, Barbary, and Siberia, greedily eaten by cattle; and the roots, which are large, Withering says, have been ground and used instead of flour in times of scarcity. The Pi-tsi or water-chestnut of the Chinese, is a species of this genus (Scirpus tuberosus). It has not yet been introduced to our gardens. In China it is cultivated in tanks, the bottoms of which are manured and exposed for a time to dry in the sun. The tubers are eaten either boiled or raw, and are esteemed both as food and medicine.

124 *Eleocharis.* From *Elos*, a marsh, and *chairo*, to delight.

125. ERIO'PHORUM *P. S.*	COTTON-GRASS.			*Cyperaceæ.*		*Sp.* 6—7.				
872 vaginátum *W.*	Hare's-tail	ɯ △	½	mr.ap	Ap	Britain	moors.	D	co	Eng. bot. 873
873 polystáchion *W.*	broad-leaved	ɯ △	1	jn jl	Ap	Britain	bogs.	D	co	Eng. bot. 563
874 angustifólium *W.*	narrow-leaved	ɯ △	½	ap	Ap	Britain	bogs.	D	co	Eng. bot. 564
875 virgínicum *W.*	Virginian	ɯ △	1	my.au	Ap	N. Amer.	1802.	D	co	Pk. alm. t.299.f.4
876 grácile *P. S.*	slender	ɯ △	1	jl.au	Ap	Scotland	sc. mo.	D	co	Eng bot. 2402
877 capitátum *E. B.*	round-headed	ɯ △	¾	au.s	Ap	Scotland	sc. mo.	D	co	Eng. bot. 2387
126. TRICHO'PHORUM. *P. S.*	TRICHOPHORU			*Cyperaceæ.*		*Sp* 2.				
878 cyperínum *P. S.*	cyperine	ɯ △	6	my.s	Ap	N. Amer.	1802.	D	co	Plk.mt. t 419. f.3
879 alpínum *P. S.*	Alpine	ɯ △	¼	jl	Ap	Scotland	bogs.	D	co	Eng. bot. 311
127 CYPE'RUS. *W.*	CYPERUS.			*Cyperaceæ.*		*Sp.* 22—230.				
880 dúbius *W.*	bulbous-rooted	⁎ [△] c	½	jl	Ap	E. Indies	1802.	S	co	Rot. gr 20
881 tenéllus *Vahl.*	slender	ɯ [○] c	½	my.jn	Ap	C. G. H.	1819.	S	co	Pk.al. t.300 f.4. 5
882 conglomerátus *Rotb.*	many-flowered	ɯ [△] cu	1	my.s	Ap	Arabia	1820.	D	co	Rot. gr t.15.f.7.
883 pannónicus *W.*	dwarf	ɯ ○ c	1	jl.au	Ap	Hungary	1781.	Sk	co	Host. gr. 3. t. 20
884 Lúzulæ *W.*	compact-flower.	ɯ [△] c	2	my.s	Ap	W. Indies	...	Sk	co	Rott. gr. t. 13. f. 3
885 distans *Vahl.*	distant	ɯ [△] c	2	jl.au	Ap	W. Indies	1820.	D	co	Jacq. ic. t 299
886 viscósus *W.*	clammy	ɯ [△] c	2	my.au	Ap	Jamaica	1781.	Sk	co	Jac. ic. 2. t. 295
887 fastigiátus *W.*	lofty	ɯ [△] c	1	my au	Ap	E. Indies	1800.	Sk	co	Rt. gm.32. t.7.f.2
888 erubes'cens *Lk*	pink	ɯ ⌊△⌋ c	1	my jn	Ap	......	1820.	D	co	
889 paniculátus *Vahl.*	panicled	ɯ [△] c	1	my jl	Ap	E. Indies	1804.	D	co	
890 glomerátus *W. en.*	round-headed	ɯ ○ c	2	my.au	Ap	Italy	1804.	S	co	
891 élegans *W.*	elegant	ɯ ⌊○⌋ c	1½	my.s	Ap	Jamaica	1801.	S	co	Slo ja. 1. t. 75. f 1
892 flavéscens *W.*	yellow	ɯ ○) c	1	jn.s	Ap	Germany	1776.	S	co	Host. gra. 3 t.72
893 fúscus *W.*	brown	ɯ ○ c	1½	jl s	Ap	Europe	1777.	S	co	Host gra 3 t 73
894 strigósus *W.*	bristle-spiked	ɯ [△] c	1½	jl.s	Ap	W. Indies	1786.	Sk	co	Rt g. 40. t.11. f3
895 vegétus *W.*	smooth	ɯ △ c	1½	my.s	Ap	America	1790.	Sk	co	Jac vind. 3. t 12
896 esculéntus *W.*	Rush-nut	⁎ △ c	1	jl	Ap	S Europe	1597.	Sk	co	Host grm.3 t 75
897 lóngus *W.*	sweet	ɯ △ c	3	jl	Ap	England	mar.	Sk	co	Eng. bot 1309
898 I'ria *W.*	tall	ɯ [△] c	1½	jl	Ap	E. Indies	1802.	Sk	co	Rheede 12. t.56
899 alopecuroídes *P. S.*	fox-tail	ɯ ⌊△⌋ c	2	my.au	Ap	C. G. H.	1804	Sk	co	Rott g.38 t 8. f 2
900 bádius *P. S.*	brown	ɯ ⌊△⌋ c	2½	jl	Ap	Algiers	1800	Sk	co	Desf. at 1 t 7 f.2
901 alternifólius *W.*	alternate-leav'd	ɯ [△] cu	2	f mr	Ap	Madagasc.	1781.	Sk	co	Jac. ic. 2 t. 298
128. PAPY'RUS. *Lk*	PAPYRUS.			*Cyperaceæ.*		*Sp* 1—3.				
902 antiquórum *Lk.*	ancient	≚ [△] or	10	jl.s	Ap	Egypt	1803.	D	co	Mic. gen.44. t.19
129. KYLLIN'GA *W*	KYLLINGA			*Cyperaceæ.*		*Sp.* 4—12.				
903 monocéphala *W.*	one-headed	ɯ [△] w	½	jn jl	Ap	India	1793.	Sk	co	Rott gr. t. 4 f. 4
904 polycéphala *Lk.*	many-headed	ɯ [△] w	1	jl.au	Ap	Brazil	1820	D	co	
905 uncináta *Lk.*	hooked	ɯ [△] w	¾	jl.au	Ap	Brazil	1820	D	co	
906 triceps *W.*	three-headed	ɯ [△] w	½	s.n	Ap	India	1776.	Sk	co	Rott. gr. t 4. f. 6
130. MARIS'CUS. *Vahl.*	MARISCUS			*Cyperaceæ.*		*Sp.* 4—28.				
907 umbellátus *W. en.*	umbelled	ɯ [△] cu	1½	jn.au	Ap	E. Indies	1780	Sk	co	Rott. gr. t.4 f. 2
908 elátus *W. en.*	tall	ɯ [△] cu	3	jn.au	Ap	E. Indies	1805	Sk	co	Jac. ic. 2. t 300
909 confléxus *Lk.*	contracted	ɯ [△] cu	1½	jl	Ap	Brazil	1819.	D	co	
910 aggregatus *W.*	aggregated	ɯ [△] cu	1	jn jl	Ap	......	1822.	D	co	
131. REMIRE'A *Aub*	REMIREA			*Gramineæ*		*Sp.* 1—2.				
911 maritima *Aub*	sea	ɯ △ cu	½	jl.au	Ap	Florida	1822.	D	co	Aub. gui. t 16



History, Use, Propagation, Culture.

125. *Eriophorum.* From εριον, wool, and φερω, to bear. Its seeds are covered with silky tufts of a wool-like substance. For the same reason it is called in English cotton-grass.

126. *Trichophorum.* From θριξ τριχος, hair, and φερω, to bear. Its inflorescence resembles a bunch of hair. This genus and Eriophorum grow in peat bogs, and have their seeds clothed at the base with a white or brown silky down or cotton-like substance, from which specimens of cloth have been made, paper, and wicks for candles; and in Sweden, pillows stuffed. Of these genera, and of the Cyperaceæ in general, it has been observed by Villars, that being mostly natives of bogs, marshes, and watery places, they have a tendency to raise and dry such spots. The roots and base of the stems rot and become peat, and thus are useful as firing or manure.

127. *Cyperus.* The roots of some species of this genus have eatable roots, and are considered aphrodisiacal in a high degree. It is, therefore, probable that the word derived its origin from Cypris, a name of Venus. This is a genus of sub-aquatic or marsh sedgy plants, more injurious than useful, and of little or no beauty. The root of C. longus is agreeably aromatic, warm, and bitter: those of C. esculentus (*souchet comestible*, Fr.) produce round tubercles about the size of peas, which are eaten in some places in France and Spain; and when boiled, taste something like chestnuts.

128. *Papyrus.* A word of obscure origin. P. antiquorum yields the substance used as paper by the ancient Egyptians. In Syria it is called *babeer*, and hence, probably, the words papyrus and paper. The flower-stalk rises about ten feet from a long horizontal thick root, the lower part clothed with long hollow sword-shaped leaves

872 Spike solitary, Culm very smooth, Sheaths inflated
873 Spikes several, Culms 3-cornered, Leaves broadish keeled
874 Spikes several, Culms 3-cornered, Leaves very narrow setaceous
875 Spikes several, Culms round leafy, Spikes sessile clustered shorter than the involucrum
876 Spikes several, Culms 3-cornered, Leaves nearly filiform 3-cornered, Peduncles rough, Flowers erect
877 Spike solitary, Culms round spongy soft, Sheaths not inflated

878 Umbel compound, Culm branched
879 Spike solitary, Culms simple 3-cornered roughish

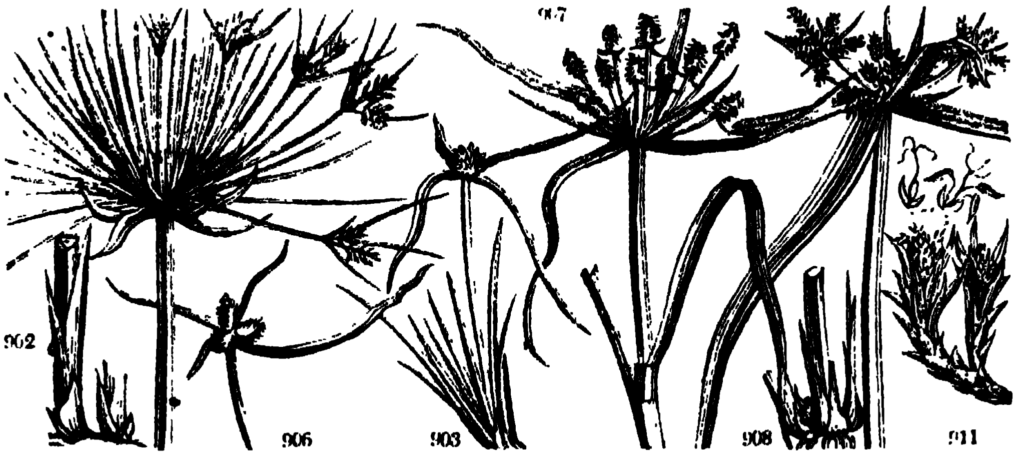
880 Head globose, Spikelets oblong convex about 8-flowered, Involucr. 4-leaved, Leaves channelled lax
881 Spikelets solitary and in pairs sessile, Involucr. 1-leaved, Culm setaceous
882 Spikelets ovate much clustered, Culm rather 3-cornered, Leaves channelled
883 Stem 3-cornered leafless ascending or decumbent, Spikelets about 5 oblong obtuse very shortly stalked
884 Heads simple and clustered ovate, Spikelets oblong, Involucr. very long
885 Spikes distichous, Spikelets spreading filiform, Florets distant, Umbel upright
886 Spikelets aggregate ovate rather squarrose in heads, Involucr longer than umbel, Lvs. and involucr rough
887 Umbels many rayed compound, Spikes elongate, Spikelets linear-lanceolate, Involucr. 4-leaved long
888 Lvs. linear shorter than the 3-cornered culm, Invol. 3-leaved, outer leaf very long, Spikel. lanc. Scales obtuse
889 Spikelets linear-lanceolate, Umbels corymbose fascicled, Involucr about 6-leaved
890 Culm 3-cornered naked, Umbel 3-leaved supra-decompound, Spikes clustered rounded, Spikelets subulate
891 Spikelets about 3 linear, Valves obcordate mucronate distinct spreading, Umbel loose
892 Spikelets linear-lanc alternate clustered, Glumes obtuse, Involucr. 3-leaved longer than the trifid umbel
893 Spikelets linear-lanc. alternate very close, Valves acute, Invol. about 3 or 5-leaved very long, Umbel 3-5-fid.
894 Spikes oblong loose, Spikelets subulate alternate capitate, Invol very long spreading, Rays of umbel altern.
895 Spikelets lanceolate roundish headed compact, Valves ovate 1-nerved, Involucr. longer than the umbel
896 Spikelets lin.-lanc. distant acute, Rays of the umbel about 7 terminal shorter than the 3-5-leaved involucrum
897 Spikes corymb. Spikel. lin.-lanc. flattened, Invol. and rays of umbel very long corymbose with leafy stem
898 Spikes corymbose, Spikelets linear, Valves remote obtuse obovate spreading in fruit, Umbels loose
899 Spikes nearly sessile imbricated round, Spikelets ovate oblong spreading
900 Spikelets in corymbose fascicles, Spikelets linear-lanceolate dense, Invol 3-leaved, Leaves very rough
901 Umb. 6-7-rayed compound, Heads many-spiked, Spikel lin. many-flowered, Invol. 3-leaved reflexed rough

902 Stem tall terminated by a reflexed involucrum of many very long narrow leaves

903 Head globose sessile solitary, Involucr very long
904 Umbel rather contracted, Invol very long, Spikelets clustered, Valves ovate carinate acute
905 Head 1 or 3 sessile round, Invol many leaved long, Valves carinate hooked
906 Heads about 3 sessile clustered, Spikelets very dense rather imbricated

907 Umbel compound, Spikes cylindrical imbricated backwards, Involucres many-leaved
908 Umbel compound, Spike cylindrical, Spikelets very spreading, Bractes longer than the spikelets
909 Leaves shorter than the 3-cornered culm rough at edge, Umb. contracted, Invol. many-leaved, Spikel. sub-
reflexed, Scales keeled striated
910 Spikes cylindrical sessile, Spikelets oblong, Bract setaceous longer than spikelets, Invol. many-leaved

911 Common peduncle shorter than the spikes



and Miscellaneous Particulars

of a brown color. The ancients made their paper from the pellicle found between the flesh and bark of the thick part of the stalk; ribbons of which were united till they formed the size required, and then pressed and dried in the sun. The top of the stalk, with the umbel of flowers, adorned the temples, and crowned the statues of the gods. Antigonus used the stalks for ropes and cables to his fleets, before the use of spartum (*Lygeum spartum*, still used on the coast of Provence for small vessels, and also in Spain) was known. Pliny says, the whole plant was used for making boats; and Bruce says, they have no other boat in Abyssinia. That traveller found it growing in the rapid course of the river Jordan, and he there remarked that it constantly opposed one of the angles of its stem to the current, as if to elude the violence of the waves. Perhaps, if the observation were applied to similar plants in our own rivers, the same result would be obtained. The root was chewed for its juice, which is also practised in Abyssinia with various species of cyperus, and with those of maize. The papyrus is indigenous in Calabria as well as in Ethiopia and Egypt, in stagnant water, but only in the calishes or swamps of the Nile, and never in the stream as has been supposed. To thrive in our stoves, it requires to be placed in a cistern of water with rich mud at the bottom. Plants so treated, at White Knights, near Reading, have attained a large size, and flower freely.

129. *Kyllinga* In memory of P. Kylling, a Danish botanist, who died in 1696.

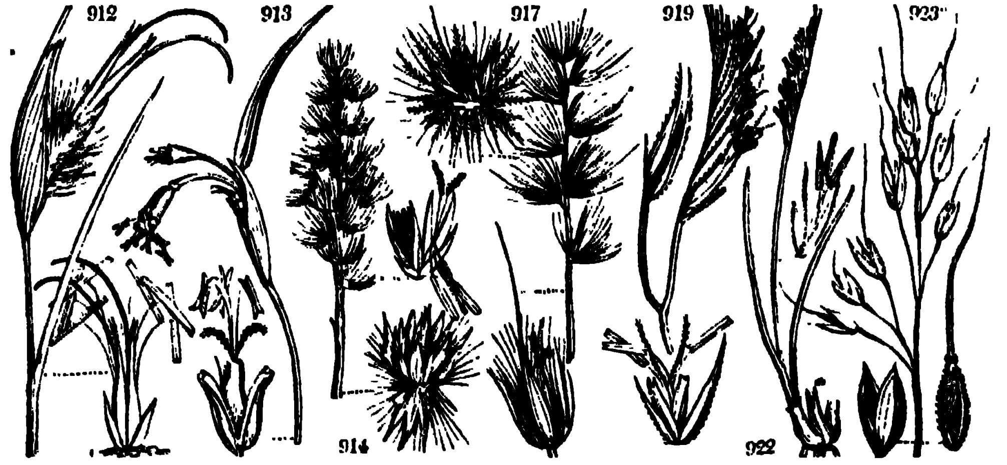
130. *Mariscus.* A word derived from the Celtic *mar*, a marsh, in allusion to the situations in which it is found.

131 *Remirea.* The Guiana name of the plant.

132. LYGE'UM. *W.*	Lygeum.					*Gramineæ.*		*Sp.* 1.				
912 Spártum *W.*	rush-leaved	ɯ	△	cu	1½	my jn	Ap	Spain	1776.	D	co	Clus. hist. 2. f. 2
133. CORNUCO'PIÆ. *L.*	Cornucopiæ.					*Gramineæ.*		*Sp.* 1.				
913 cucullátum *W.*	hooded	ɯ	○	cu	½	au	Ap	Levant	1788.	S	co	Fl. græc. 1. t. 51
134. CEN'CHRUS. *P. S.*	Cenchrus.					*Gramineæ.*		*Sp.* 3—21.				
914 lappáceus *W.*	Bur	ɯ	○	cu	1	jl	Ap	India	1773.	S	co	Beauv. t. 14. f. 7
915 echinátus *W.*	rough-spiked	ɯ	[○]	cu	2	au.d	Ap	W. Indies	1691.	S	co	C. ic. 5. p. 39 t. 462
916 tribuloides	spinous	ɯ	○	cu	1	my.au	Ap	N. Amer.	1818.	S	co	C. ic. 5. t. 461
135. PENNISE'TUM. *Rich.*	Pennisetum					*Gramineæ.*		*Sp.* 1—8.				
917 cenchroides *Rich.*	ciliated	ɯ	[○]	cu	1½	my.au	Ap	C. G. H	1777.	S	co	
136. SPARTI'NA. *W.*	Spartina.					*Gramineæ.*		*Sp.* 4—8.				
918 stricta *W.*	upright	ɯ	△	cu	1	au	Ap	Britain	sal. m	D	co	Eng. bot. 380
919 cynosuroides *Rich*	Dog's-tail	ɯ	△	cu	3	au.s	Ap	N Amer.	1781.	D	co	L. fil. fa. 1. p. 17. t. 9
920 polystáchya *Ph.*	many-spiked	ɯ	△	cu	6	au.s	Ap	N Amer	1781.	D	co	
921 júncea *Ph.*	spreading	ɯ	△	cu	1½	jl.au	Ap	N Amer.	1781.	D	co	
137. NAR'DUS. *W.*	Mat-grass.					*Gramineæ.*		*Sp.* 1—2.				
922 stricta *W.*	upright	ɯ	△	cu	1	jn.jl	Ap	Britain	moi. h	D	m.s	Eng. bot. 290
138. ORYZOP'SIS. *Mich.*	Oryzopsis.					*Gramineæ.*		*Sp.* 1.				
923 asperifolia *M.*	rough-leaved	ɯ	△	cu	3	jl.au	Ap	N. Amer.	1822.	D	co	Mic. am. 1. t. 9.

DIGYNIA.

139. PAS'PALUM. *W.*	Paspalum.					*Gramineæ.*		*Sp.* 5—82.				
924 scrobiculátum *W.*	punctured	ɯ	[△]	c	1½	jl s	Ap	E. Indies	1778.	S		H n h 13 t 89 f 3
925 paniculátum *W.*	panicled	ɯ	[○]	c	3	jl	Ap	Jamaica	1782.			Sl. hist. 1. t 72. f 2
926 stoloniferum *W.*	purple	ɯ	[△]	c	2	jl.s	Ap	Peru	1794.			Jacq ic. 2. t 302
927 distichum *W.*	two-spiked	ɯ	[○]	c	1½	jl	Ap	Jamaica	1776.			Sw. obs. 35 t 2. f. 1
928 serotinum *Fl.*	decumbent	ɯ	○	c	1½	jl au	Ap	N Amer.	1804.			
140. AXO'NOPUS *P. de B.*	Axonopus.					*Gramineæ.*		*Sp.* 1—4.				
929 cimicinus *P. de B.*	spotted	ɯ	○	c		jl s	Ap	India	1788.			
141. MI'LIUM *W.*	Millet-grass.					*Gramineæ.*		*Sp* 5—14.				
930 effúsum *W.*	common	ɯ	△	c	3	jn.jl		Britain	m. s. p.			Eng bot 1106
931 paradóxum *W.*	black-seeded	ɯ	○	c	3	jn jl	Ap	France	1771			Host gr. 3. t 23
932 multiflórum *W. en.*	many-flowered	ɯ	△	c	1½	jn.jl	Ap	S Europe	1778			Host gr 2 t 45
933 cærulescens *Desf.*	bluish	ɯ	△	c	1½	jn jl	Ap	Barbary	1819			Desf atl 1. t. 12
934 frutéscens *Lk*	shrubby	ɯ	△	c	1	...	Ap	Crimea	1822.			
142. KNAP'PIA *E. B.*	Knappia.					*Gramineæ*		*Sp.* 1.				
935 agrostidea *E. B.*	small	ɯ	○	c	¼	mr ap	Ap	Wales	san pl.	S	s	Eng bot. 1127
143. DIGITA'RIA *P. S*	Finger-grass.					*Gramineæ.*		*Sp.* 5—25.				
936 sanguinális *P. S.*	slender-spiked	ɯ	○	c	2	au	Ap	Britain	fields.			Eng. bot. 849
937 villósa *P. S*	villous	ɯ	○	c	1½	jl.s	Ap	N Amer	1781.			
938 ægyptiaca *W. en.*	Egyptian	ɯ	○		1½	jl	Ap	Egypt	1798			Jac obs 3 t 70
939 ciliáris *P. S.*	ciliated	ɯ	○		1½	jl.au	Ap	China	1804			Host. gr. 4. t 15
940 marginàta *Lk.*	divaricate	ɯ	○		½	jl	Ap	Brazil	1822			
144 PAN'ICUM. *B. P.*	Panic-grass					*Gramineæ.*		*Sp* 18—185.				
941 colónum *W.*	purple	ɯ	○		½	jl.au	Ap	E. Indies	16			Ehr. pic t 3. f 3
942 brizoides *W.*	Briza-like	ɯ	[○]	c	1	jn jl	Ap	E. Indies	1801.			Pl. alm. t. 191 f. 1
943 fasciculátum *W*	fascicled	ɯ	○	c	2	jn jl	Ap	Jamaica	1801.			
944 proliferum *Lam*	proliferous	ɯ	△	c	¾	jn.au	Ap	N. Amer.	1820			



History, Use, Propagation, Culture,

132. *Lygeum.* From λυγοω, to bend, in allusion to its flexibility. This plant is used in Spain, Provence, and other places for making ropes, baskets, nets, and for filling their paillasses or lower mattrasses. Ropes were made of it by the Romans. *Esparto* (spartum) is the Spanish appellation of this and other grasses used for similar purposes.

133. *Cornucopiæ.* The spike inclosed in the involucrum peculiar to the genus, resembles the "Horn of Plenty." The leaves and flower of C. cucullatum, Sir J. E. Smith observes, are perhaps of all grasses the most singular and uncommon. It is a native of the vales about Smyrna, whence it was sent to England by Sherard, and is preserved in the Chelsea garden and at Kew.

134. *Cenchrus* Κεγχρος is the Greek name of the millet; by which, it is probable, that Setaria italica was intended. C. echinatus is the most common grass in the pastures of Jamaica, and is looked on as a wholesome and pleasant food for horses and cattle.

135. *Pennisetum.* From *penna*, a pen, and *seta*, a bristle; a feathery bristle, referring to the nature of the involucrum.

136. *Spartina.* A word altered from spartum, the specific appellation of Lygeum; the plants being similar to the latter in habit The origin of the word spartum has not been satisfactorily explained. The Spaniards call this, and similar tough grasses, useful to them in making ropes, esparto.

137. *Nardus.* The term ναρδος was applied by the Greeks to a substance possessing a peculiar per-

912 The only species

913 The only species

914 Branches of the panicle simple, Paleæ hispid backwards, Glumes 3-valved 2-flowered (*Centotheca*. Desv.)
915 Spikelets approximated, Involucres 10-parted villous
916 Spike with alternate spikelets, Involucres entire spiny

917 Culm jointed, Invol. altern. twice as long as flowers, one of the setæ bristle-chaffy longer than the others

918 Spikes term. about 2, Spikelets one-sided loosely imbricated Paleæ longer than glume, Leaves involute
919 Spikes altern. remote, Rachis ang. wavy, Glumes twice as long as paleæ, Leaves very long glaucous flat
920 Leaves broad flat, Spikes many turned all ways linear, Keels aculeate
921 Leaves distichous shortish bristly convol. Spikes few remote spreading, Glumes acuminate, Keels rough

922 Spike bristly straight one-sided

923 The only species

DIGYNIA.

924 Spikes few altern. Rachis flat straight as long as spikel. Glumes roundish obtuse smooth, Upper lvs. naked
925 Spikes very num. Rachis 3-sided smooth twice as narr. as spikel. Glumes roundish obv. blunt pub. 3-nerv.
926 Spikes numerous scattered, Rachis undulated broader than spikelets, Glumes oblong corrugated, Leaves lanceolate rough at edge
927 Spikes 2 close together, Rachis flat narrower than spikelets, Glumes ovate obtuse polished length of paleæ
928 Spikes 5 close together, Rachis flat rather broader than spikelets, Glumes elliptic lanc. acute pubescent

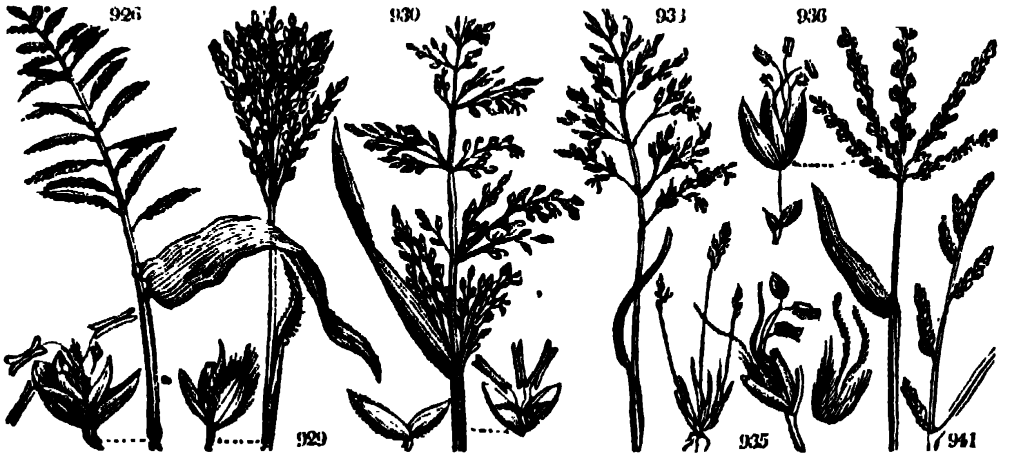
929 Panicles umbelled, Racemes about 4, One glume fringed

930 Panicles diffuse, Florets beardless ovate dispersed
931 Pan. spreading lax few-flowered, Flowers bearded, Each glume at least 3-nerved (*Piptatherum*. P. de B.)
932 Panicles spreading many-flowered, Flowers bearded, Outer glume 3-5-nerved
933 Flowers panicled bearded, Beard shorter than glume
934 Stem shrubby at base, Panicle whorled, Lower rays sterile

935 The only species. The least of grasses

936 Spikes digitate erect spreading 4, Leaves and sheaths pilose, Florets oblong pubescent at edge
937 Spikes many setaceous, Leaves and sheaths very hairy
938 Spikes digitate erect 7, Leaves and sheaths hairy, Florets oblong acute smooth
939 Spikes digitate erect spreading 8, Leaves and sheaths hairy, Florets lanceolate ciliated
940 Stem decumbent, Sheaths hairy at end, Spikes divaricate, Paleæ fringed at end

941 Spikes alternate one-sided beardless ovate rough, Rachis roundish
942 Spikes alternate sessile one-sided, Glumes two much shorter than paleæ retuse, The third as long as they
943 Spikes panicled alternate erect in bunches, Spikelets one-sided roundish
944 Very smooth, Panicles oblong erect, Glumes striated largish, Stem branching



and Miscellaneous Particulars.

fume. It is difficult to assign a reason for the name having been applied to this insignificant genus of grasses.

138. *Oryzopsis*. Oryza, rice, and ὄψις, appearance. The plant resembles rice.

139. *Paspalum*. One of the Greek names for millet, πασπαλος.

140. *Axonopus*. From ἄξων, axis, and πους, a foot, because the chief difference between this genus and Paspalum consists in the spikes being separately placed, as it were, upon little stalks or feet.

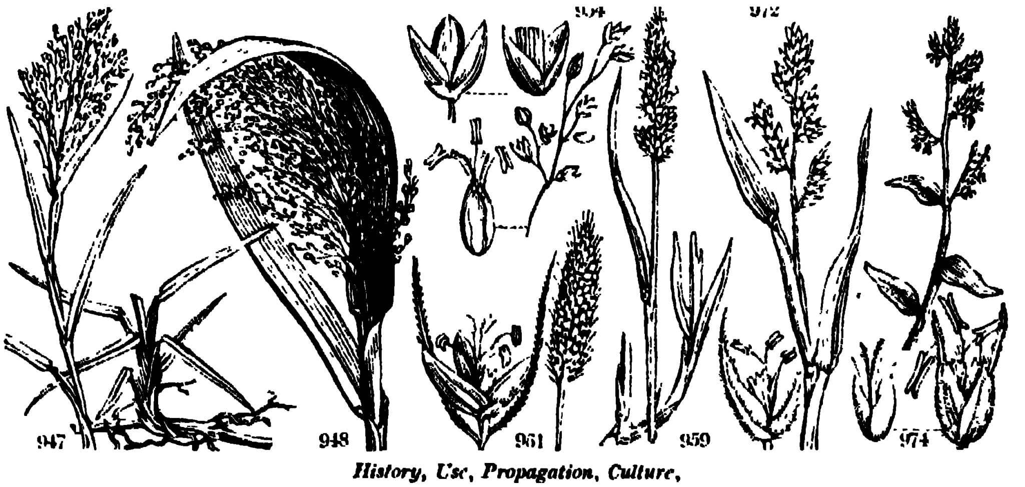
141. *Milium*. Derived by some from *mille*, a thousand, on account of its numerous grains; by others, from *mil*, the Celtic for a pebble, in reference to the hard shining nature of the grains. M. effusum is admired for the elegance of its panicle. M. paradoxum resembles the Arundo

142. *Knappia*. Named after Mr. Knapp, an author of an illustrated work upon British *grasses*,&c., much esteemed. A minute plant, resembling an agrostis.

143. *Digitaria*. From *digitus*, a finger, on account of the singular manner in which the heads are divided; or, as the botanists express it, fingered. D. sanguinalis has its specific name, not from the color as might be supposed, but from an idle trick which the boys in some parts of Germany have of pricking one another's nostrils with its spikelets till they bleed. It abounds by the road sides in Poland and Lithuania, where its seeds are collected and boiled whole like rice, with milk, and highly esteemed

144. *Panicum*. Pliny says, so called, from its flowers being in a panicle, but others derive the name from

945 hispídulum *W.*	hispid	⚘	○	w	2	jl.au	Ap	E. Indies	1804.	S	co	
946 colorátum *W.*	coloured	⚘	○	w	2	jl s	Ap	Egypt	1771.	S	co	Jac. ic. 1. t. 58
947 répens *W.*	slender	⚘	○	w	1	jl.s	Ap	S Europe	1777.	S	co	Fl græc. 1. t. 61
948 miliáceum *W*	millet	⚘	○	ag	1½	jl s	Ap	E. Indies	1596.	S	co	Host. gr. 2. t. 20
949 muricátum *W.*	prickly	⚘	○	cu	1½	jl.s	Ap	E. Indies	1805.	S	co	
950 capilláre *W.*	hair-panicled	⚘	○	w	2	jn au	Ap	America	1758.	S	co	Host. gr. 4. t. 16
951 latifólium *W.*	broad-leaved	⚘	△	w	5	au.s	Ap	N. Amer.	1765.	S	co	Mor. h 8. t. 5. f 4
952 clandestínum *W*	hidden-flower'd	⚘	△	w	1½	jl	Ap	N. Amer.	1802.	S	co	
953 arboréscens *W.*	tree	♣	▭	w	50	mr ap	Ap	E. Indies	1776	S	co	
954 virgátum *W*	long-panicled	⚘	△	w	1	au.s	Ap	N. Amer.	1781.	S	co	
955 pátens *P. S.*	spreading	✱	⌼!	w	1	jl.au	Ap	India	1804	S	co	
956 brevifólium *W.*	short-leaved	⚘	○	w	1½	jl.au	Ap	E. Indies	1800.	S	co	Pl. al. 176. t. 189
957 divaricátum *W*	straddling	⚘	⍍	w	5	jl.au	Ap	Jamaica	1800.	S	co	Jac. schœn 1. t. 25
958 palmifólium	Palm-leaved	⚘	⍍	w	6	jl au	Ap	E Indies	1804.	S	co	
145. SETA'RIA. *P. de B*	Setaria						*Gramineæ*	*Sp.* 11—24.				
959 verticilláta *P. de B.*	rough	⚘	○	w	1½	jl au	Ap	England	moi. fi.	S	co	Eng bot. 874
960 glaúca *P. de B.*	glaucous	⚘	○	w	1½	jl au	Ap	S Europe	1771	S	co	Host gr. 2. t. 16
961 víridis *P de B.*	green	⚘	○	w	1½	jl.au	Ap	England	san fi.	S	co	Eng. bot. 875
962 itálica *P. de B.*	Italian	⚘	○	ec	1½	jl au	Ap		1816.	S	co	
963 setósa *P. de B*	setose	⚘	○	w	2½	jl au	Ap	W. Indies	1804	S	co	
964 serícea *P de B*	silky	⚘	○	w	1½	my s	Ap	W. Indies	1780.	S	co	
965 germánica *P de B.*	German	⚘	○	ag	1½	jl	Ap	S. Europe	1548.	S	co	Host. gr. 2. t. 15
966 geniculáta *Horn.*	knee-jointed	⚘	○	w	1½	jl au	Ap	......	1805.	S	co	
967 púmila *Lk.*	dwarf	⚘	○	w	1	jl au	Ap	......	1819.	S	co	
968 macrochæ'ta *Lk.*	long-spiked	⚘	○	w	2	jl.au	Ap	......	1819.	S	co	
969 áspera *Lk.*	rough	⚘	△	w	2	jl au	Ap	C. G. H	1820.	S	co	
146. ECHINOCHLO'A *P. de B*	Prickly-grass.						*Gramineæ.*	*Sp* 3—15.				
970 stagnína *P. de B.*	pond	⚘	○	w	3	jl au	Ap	E. Indies	1802.	S	co	Host. gr. 3. t 51
971 crus córvi *P. de B*	crow's-foot	⚘	○	w	1	jl au	Ap	E Indies	1781	S	co	
972 crus gálli *P. de B.* *Pánicum* E. B	loose	⚘	○	w	1½	jl.au	Ap	Britain	moi. fi	S	co	Eng bot. 876
147 ORTHOPO'GON *B P.*	Orthopogon.						*Gramineæ.*	*Sp* 2—6.				
973 hirtéllus *B P.*	hairy	⚘	⌼	ag	1	jn jl	Ap	W. Indies	1795.	S	co	
974 undulatifólius *R. & S*	wavy-leaved	⚘	○	w	1	jn.jl	Ap	S. Europe	1795.	S	co	Host. gr. 3 t. 52
148 PENICILLA'RIA *P de B*	Penicillaria.						*Gramineæ*	*Sp.* 2.				
975 ciliáta *W.*	fox-tail	⚘	○	w	2	jl s		Jamaica	1748	S	co	Pl al t 92. f. 5
976 spicáta *W.*	Bull-rush	⚘	○	w	2	jn jl		India	1592	S	co	Pl al. t. 32. f 4
149. LAPPA'GO. *W.*	Lappago						*Gramineæ*	*Sp.* 1				
977 racemósa *W.*	branching	⚘	○	cu	1½	jl.au	Ap	S. Europe	1771.	S	co	Host. gr 1. t. 36
150 STI'PA. *W.*	Feather-grass.						*Gramineæ*	*Sp* 6—37				
978 pennáta *W.*	common	⚘	△	or	2	jl au	Ap	Britain	al. roc.	D	s.l	Eng. bot. 1356
979 húmilis *Cav*	low	⚘	○	cu	½	jl au	Ap	S. Amer.	1802.	S	co	C ic. 5. t 466. f 1
980 júncea *W*	rush-leaved	⚘	△	cu	3	jl	Ap	France	1772	D	co	Fl græc. 1 t. 85
981 sibírica *P. S.*	Siberian	⚘	△	cu	3	jl.au	Ap	Siberia	1777	D	co	Gmel. sib 1. t. 22
982 capilláta *W*	capillary	⚘	△	cu	2	jl au	Ap	Europe	1815.	D	co	Host. gr 3 t 5
983 tenacíssima *W*	tough	⚘	△	cu	2½	jl au	Ap	Spain	1817.	D	co	Desf atl. 1 t 30
151 MUHLENBER'GIA *Schr.*	Muhlenbergia.						*Gramineæ*	*Sp* 1				
984 diffúsa *Schr.*	spreading	⚘	△	w	½	my.jn	Ap	N Amer	1816.	S	co	Schr gram t. 51
152. CHÆTU'RUS. *Lk*	Chæturus.						*Gramineæ.*	*Sp* 1—2				
985 fasciculátus *Lk.*	bundled	⚘	○	w	½	jl s	Ap	Spain	1816.	S	co	
153 LAGU'RUS *W*	Hare's-tail-grass.						*Gramineæ.*	*Sp* 1				
986 ovátus *W*	oval-spiked	⚘	○	cu	1	jn	Ap	Guernsey	bor fi.	S	co	Eng bot. 1384



History, Use, Propagation, Culture,

panis, bread, because of its uses as such. Of P. miliaceum there are two varieties, the brown and yellow. They are sometimes sown in this country for feeding poultry, and for having the husk taken off, to be used as rice; but the ample supplies received from the shores of the Mediterranean, render the culture of the plant unnecessary P arborescens, is said, by Linnæus, to contend for height with the loftiest trees in the East Indies, though the culm is scarcely thicker than a goose quill. This culm resembles that of Commelina, and shoots up through the branches of trees in woods and jungles.

145. *Setaria* From *seta*, a bristle, on account of the bristles of the involucrum. S. italica is frequently called millet, and its seeds are used for the same purposes. S. germanica is cultivated in Hungary as food for horses, for which it is preferred before all other grasses. The seeds may be used as millet. Sparrows are remarkably fond of the seeds of S. viridis; and, according to Curtis, this and the two preceding genera, when cultivated in gardens, require to be protected from them from the time they come into flower.

146. *Echinochloa* From εχινος, a hedge-hog, and χλοη, a grass, on account of the prickly appearance of the heads of flowers. E. crus-galli is a coarse grass which grows thick and close, and stands dry weather better than most others.

945 Spikes 2-3 together erect, Glumes hispid with two beards
946 Panicles spreading, Stamens and pistils coloured, Stem branching
947 Panicles twiggy, Leaves divaricating
948 Panicles lax nodding, Spikelets beardless, Leaves lanceolate pilose, Sheaths hirsute, Valves mucronate
949 Panicles spreading, Flowers solitary muricated, Stem rooting ascending
950 Panicles capillary erect spreading, Pedunc. straight, Glumes acuminate smooth, Sheaths very hairy
951 Panicles with simple lateral racemes, Leaves ovate lanceolate hairy at the neck.
952 Panicles few axillary, Stem dichotomous, Sheaths dotted
953 Panicle much branched, Leaves ovate oblong acuminate, Shrubby
954 Panicles branched diffuse, Glumes acuminate smooth gaping, Leaves reedy
955 Panicles oblong flexuose capillary spreading, Glumes two-flowered, Leaves linear-lanc. Stem creeping
956 Panicled, Sheaths of the leaves ciliated lengthwise
957 Pan. short beardless, Stem much branched divaricating, Flower-stalks 2-flow. one shorter than the other
958 Panicles simple upright, Spikelets appressed, Leaves oblong lined plaited, Sheaths pubescent

959 Pan. spiked whorl. Invol. 1-fl. with hairs in bundles toothed hispid, teeth reversed, Herm. paleæ smoothish
960 Raceme spiked cylind. Invol. 2-fl. with hairs in bundles, hispid above, Herm. paleæ wavy crosswise
961 Pan. spiked cylind. Invol. 2-fl. with hairs in bundles, hispid above, Herm. paleæ smoothish, Sheaths downy
962 Spike comp. interrupted at base nodding, Spikelets heaped, Invol. setaceous much longer than flower
963 Spike comp. Spikelets panicled in bundles, Bristles mixed with the florets very long, Pedunc. smoothish
964 Spike round, Involucres setaceous villous 1-flowered as long as florets, Leaves flat
965 Spike compound contracted, Spikelets heaped, Invol. setaceous longer than the flowers, Rachis hairy
966 Spike elongated cylind. Invol. 2-fl. bristly, Herm. paleæ smoothish, Stem ascending, Sheaths smooth
967 Stem branched, Sheaths pubescent, Spike dense short, Setæ none, Paleæ smooth
968 Spike compound erect, Clusters remote, the lowest sessile, Setæ 8 times as big as florets
969 Sheaths very rough, Spike simple with naked setæ longer than florets

970 Spikes one-sided alternate, Glumes 2-fl. bearded hispid
971 Spikes alternate one-sided, Spikelets subdivided, Glumes bearded hispid, Rachis triangular
972 Spikes alternate and in pairs, Spikelets subdivided, Glumes bearded hispid, Rachis 5-angular

973 Spike compound, Spikelets appressed alternate, Glumes torn, All the valves bearded outer largest
974 Bundles about ten, Rachis very hairy, Glumes bearded smooth a little fringed, Leaves ovate acum. wavy

975 Joints of the stem smooth, Involucres ciliated
976 Joints of the stem villous, Involucres rough

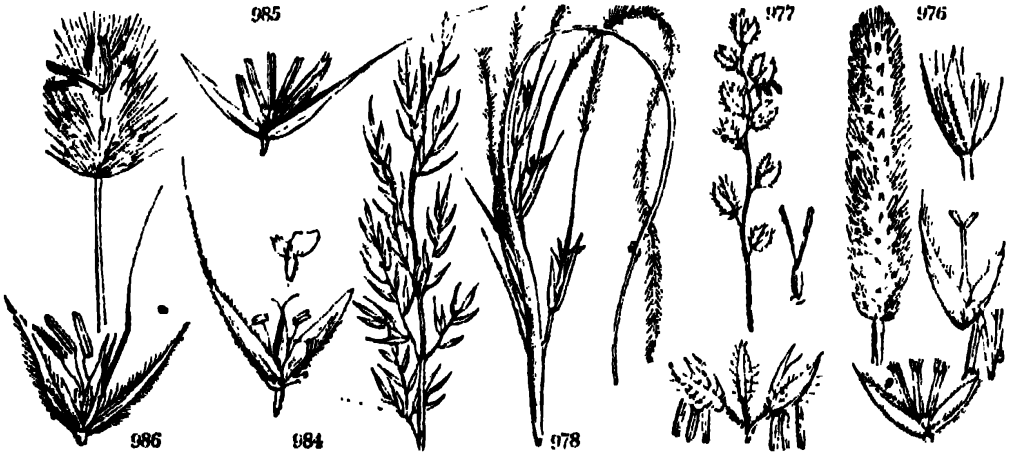
977 The only species

978 Beard feathered
979 Flowers panicled spiked nearly included in the sheaths, Beard feathered
980 Beard naked straight, Glumes longer than the seed, Leaves smooth inside
981 Panicled, Beards naked twice as long as glumes, Seeds woolly
982 Beard naked rough twisted in various directions
983 Beard hairy at base, Panicle spiked, Leaves filiform

984 Panicles branched compressed, Leaves linear smooth, Stem diffuse

985 The only species A plant looking like a Polypogon

986 The only species



and Miscellaneous Particulars.

147. *Orthopogon.* Ορθος, straight, and πωγων, a beard, because the beards of the flower are straight, and not jointed. This plant is cultivated in the low and marshy lands of Jamaica as fodder.

148. *Penicillaria.* From *penicillus*, a pencil, in allusion to the soft hairy appearance of the spikes.

149. *Lappago.* The flowers are rough, with little prickles like Lappa or Burdock.

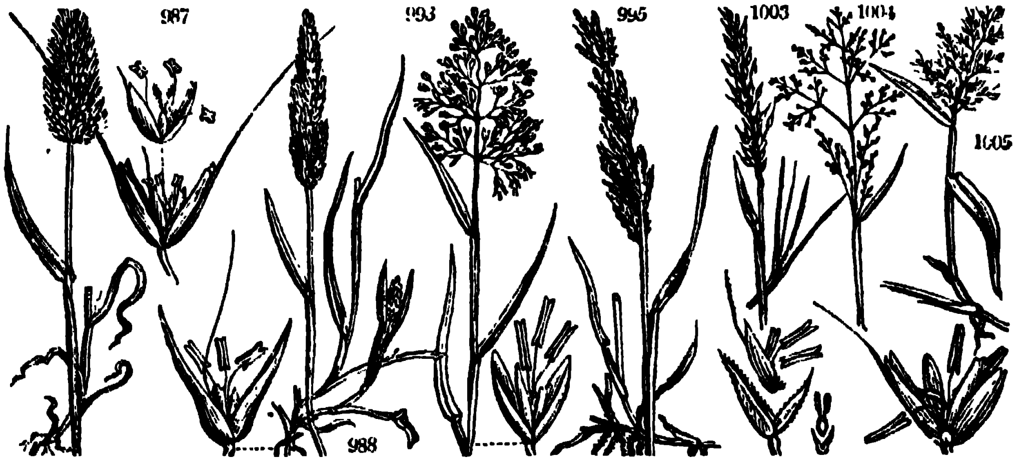
150. *Stipa.* From στυπη, silky or feathery material. S. pennata has beautifully feathered beards which distinguish it from all other grasses. Gerarde says, they were worn in his time by "sundry ladies instead of feathers." S. tenacissima is used in Spain for the same purposes as Lygeum spartum, and like it, is called Esparto. It is supposed by some to be the plant so called by the ancients.

151. *Muhlenbergia.* Named in honor of Dr. Muhlenberg, an eminent North American botanist. A North American genus of grasses.

152. *Chæturus.* From χαιτη, a head of hair, and ουρα, a tail. So named by Link, from the silky appearance of the panicles.

153. *Lagurus*; λαγος, a hare, and ουρα, a tail; hare's-tail, which its heads resemble.

154. POLYPO'GON. *W en.*	POLYPOGON.					*Gramineæ.*		*Sp.* 1—8.				
987 monspeliénsis *Desf.*	panic-grass-like	ѡ	△	w	1	jl.au	Ap	Britain	ways.	S	co	Eng. bot. 1704
155. GASTRI'DIUM. *P. de B.*	GASTRIDIUM.					*Gramineæ.*		*Sp.* 2.				
988 lendígerum *Milium* E. B.	yellow	ѡ	○	ag	½	jl au	Ap	Britain	san. fi.	S	co	Eng. bot. 1107
989 múticum *Spr.*	beardless	ѡ	○	w	1in	jl.au	Ap	Sicily	1819.	S	co	
156. AGROS'TIS. *W.*	BENT-GRASS.					*Gramineæ.*		*Sp.* 10—110.				
990 Spica-vénti *W.*	silky	ѡ	○	w	4	jn.jl	Ap	England	san. fi.	S	s.l	Eng. bot. 951
991 retrofrácta *W en.*	broad-leaved	ѡ	△	w	2	jl.au	Ap	N. Holl.	1806.	S	s.l	
992 littorális *E. B.*	sea-side	✱	△	w	1	au	Ap	England	sal. m.	S	l	Eng. bot. 1251
993 vulgáris *E. B.*	fine	ѡ	△	w	1½	jl.au	Ap	Britain	me. pa.	S	l	Eng. bot. 1671
994 híspida *W.*	hispid	ѡ	△	w	1	jl.au	Ap	Europe	1805.	S	co	Lers. hrb. t.4. f.3
995 stolonífera *W.*	Fiorin	✱	△	ag	1	jl	Ap	Britain	moi. m.	C	h.l	Eng. bot. 1532
996 álba *W*	marsh	✱	△	w	1½	jl	Ap	Britain	mar.	S	m.s	Eng. bot. 1189
997 verticilláta *W*	whorl-flowered	ѡ	○	w	1	jn.jl	Ap	S. Europe	1800.	S	co	
998 sylvática *L.*	wood	ѡ	△	w	½	jn jl	Ap	Britain	woods	S	m.s	Lers. hrb. t.4. f.3
999 calamagróstis *W.*	reedy	ѡ	△	w	2	jl	Ap	Britain	dit.	S	co	
157. TRICHO'DIUM. *Mi.*	TRICHODIUM.					*Gramineæ.*		*Sp.* 2—16.				
1000 decúmbens *Mi.*	decumbent	ѡ	△	ag	2	jn jl	Ap	N. Amer.	1786	S	co	Fras. mo. cu ic.
1001 canínum *W. en.*	brown	ѡ	△	w	1½	jl.au	Ap	Britain	pas.	S	co	Eng. bot. 1856
1002 rupéstre *Schr*	rock	ѡ	△	w	1	jl	Ap	S. Europe	1815	S	co	Schr.ger 1.t 3.f.5
1003 setáceum *R. & S.*	bristly	ѡ	△	w	1	jl.au	Ap	Britain	dr. he.	S	co	Eng. bot. 1188
1004 laxiflórum *Mich.*	loose-flowered	ѡ	⦶	w	2	jl.au	Ap	N. Amer.	1818.	S	co	Mich. am. i. t. 8
158. TRIS'TEGIS. *Nees.*	TRISTEGIS.					*Gramineæ.*		*Sp.* 1.				
1005 glutinósa *Nees*	clammy	ѡ	△	cu	½	jn.jl	Ap	......	1822.	S	co	Hor. ber. t. 7
159. SPORO'BOLUS. *B. P.*	SPOROBOLUS.					*Gramineæ.*		*Sp* 2—10.				
1006 índicus *B. P.*	Indian	ѡ	○	cu	2	au.o	Ap	India	1773.	S	co	Slo.jam.1.t.73.f.1
1007 tenacíssimus *W.*	tough	ѡ	[△]	cu	½	au.s	Ap	E. Indies	1801.	S	co	Jacq ic. rar. t.16
160. AIROP'SIS. *Desv.*	AIROPSIS.					*Gramineæ.*		*Sp.* 1—6.				
1008 involucráta *Cav.*	involucred	ѡ	○	w	1	jn	Ap	Spain	1820	S	co	Cav. ic. t. 44. f. 1
161. CIN'NA. *P. de B.*	CINNA.					*Gramineæ.*		*Sp.* 2.				
1009 mexicána *W.*	Mexican		△		1	jn.s	Ap	America	1780.		l p	
1010 arundinácea *L.*	reedy		△		3	jn s	Ap	Canada	1799.		m.s	Schrb.gram. t.49
162. PSAM'MA. *P. de B.*	MAT-GRASS.					*Gramineæ*		*Sp* 1—2				
1011 arenárium *Arundo* E. B.	sea	ѡ	△	w	2	jn jl	Ap	Britain	sea co	S	s	Eng. bot. 520
163. CRYP'SIS. *W.*	CRYPSIS.					*Gramineæ.*		*Sp* 2—8.				
1012 aculeáta *W.*	prickly	ѡ	○	w	½	au	Ap	S Europe	1783.	S	co	Host gra.1. t.31
1013 schœnoídes *Lam.*	rush-like	ѡ	○	w	½	au	Ap	S. Europe	1783	S	co	Host. gra.1. t.30
164. ALOPECU'RUS. *W*	FOX-TAIL-GRASS					*Gramineæ.*		*Sp.* 8—21.				
1014 bulbósus *W.*	bulbous	ѡ	△	w	1	jl	Ap	England	sal. m.	S	m.s	Eng. bot. 1249
1015 pratensis *W.*	meadow	ѡ	△	ag	2	my	Ap	Britain	mea.	S	h l	Eng. bot. 759
1016 alpinus *E. B.*	Alpine		△		½	my.jn	Ap	Scotland	sc mo.	S	s l	Eng. bot. 1126
1017 agréstis *W*	slender		○	w	1½	jl.au	Ap	Britain	ro. sid.	S	s.l	Eng. bot. 848.



History, Use, Propagation, Culture,

154. *Polypogon.* Named by M. Desfontaines from πολυ, much, and πωγων, beard, in allusion to its bearded heads.

155. *Gastridium.* From γαστριδιον, a little swelling: the glumes are ventricose at the base. A very small grass, formerly referred to Milium.

156. *Agrostis.* Derived from ἀγρος, a field. Agrostis was the name given by the Greeks to all grasses. Of this genus the most remarkable species is the A. stolonifera or fiorin, so much recommended by Dr. Richardson; but respecting which the opinion of practical men is still unsettled, and, on the whole, rather unfavorable than otherwise. It seems to suit the climate and soil of Ireland, and to be more productive and nutritive there than any where else. In the account of the Woburn experiments on grasses, it is observed of fiorin, that it appears to possess "merits well worthy of attention, though, perhaps, not so great as has been supposed, if the natural place of its growth and habits be impartially taken into the account." It is called squitch, quick, &c. like the common couch-grass, from the length of time it retains its vital power. Like other plants, which propagate themselves abundantly by extension of their parts, it rarely bears seeds, and is therefore propagated by cuttings of the stems laid along drills an inch deep, and slightly covered with soil. A. vulgaris, which in dry arable land is called the black quitch, is the most common and earliest of the bents, but inferior to several in produce, and the quantity of nutritive matter it affords. The bents are generally rejected by the agriculturist on account of their lateness of flowering; but this circumstance, as Sinclair observes (*Davy's Agr. Chem.* App lxxv) does not always imply a proportional lateness of foliage. A. vulgaris is in leaf by the middle of April. A. stolonifera is two weeks later, and A. nivea, and repens, three weeks later. In the south of France and Italy, the poor people collect the stolons of different species of agrostis by the roadsides and hedges, and expose them for sale in the market places in small bundles, as food for horses.

987 Panicle contracted, somewhat spiked, Glumes somewhat pubescent with a smooth edge

988 Panicle spiked ventricose at base, Glumes acuminate shining, Flowers bearded

989 Flowers beardless

990 Panicle whorled spreading, Beard very long below the end of the outer paleæ (*Apera* P. de B.)
991 Panicle much spreading, Beard bent inwards, Paleæ hairy, Culm ascending branched at the base
992 Glumes linear-lanc. bearded, Paleæ naked, Beard nearly term. straight, Culm decumbent (*Vilfa* P. de B.
993 Branches of pan. smoothish, Branchlets at the time of flow. divar. Ligula very short trunc. (*Vilfa* P. de B.
994 Branches of pan. hispid, Fl. purple, Branchlets much spreading rather lax, Ligula oblong (*Vilfa* P. de B.
995 Pan. contracted, Culm branched creeping, Flowers clustered, Glumes equal lanc. pubesc. (*Vilfa* P. de B.
996 Branches of pan. hispid, Fl. white, Branchl. much spreading rather lax, Ligula oblong (*Vilfa* P. de B.
997 Whorls of the pan. approxim. closely covered all over with flowers, Florets beardless (*Vilfa* P. de B.)
998 Panicle contracted beardless, Glumes equal, Flowers viviparous (*Vilfa* P. de B)
999 Beard term. curved, Hairs longer than paleæ, Panicle diffused, Glumes acumin. (*Achnatherum* P. de B)

1000 Pan. very branching, Branches trichot. much sprdg. hispid, Glumes acute, Paleæ beardless, Stem decumb.
1001 Branches of panicle di-trichotomous roughish, Glumes acute, Leaves of stem wider than those of root
1002 Branches of panicle nearly 3-chotomous roughish, Glumes acuminate, Paleæ with two short beards at end
1003 Glumes lanceolate, Paleæ with a jointed beard at their base, Radical leaves setaceous
1004 Culms erect, Leaves narrow short, Sheaths roughish, Panicle very capillary and loose

1005 A little agrostis-like plant. The only species

1006 Panicle contracted beardless, Racemes lateral erect alternate
1007 Pan. elong. contr. nearly spiked, Florets beardless, Glumes uneq. twice as short as paleæ which are uneq.

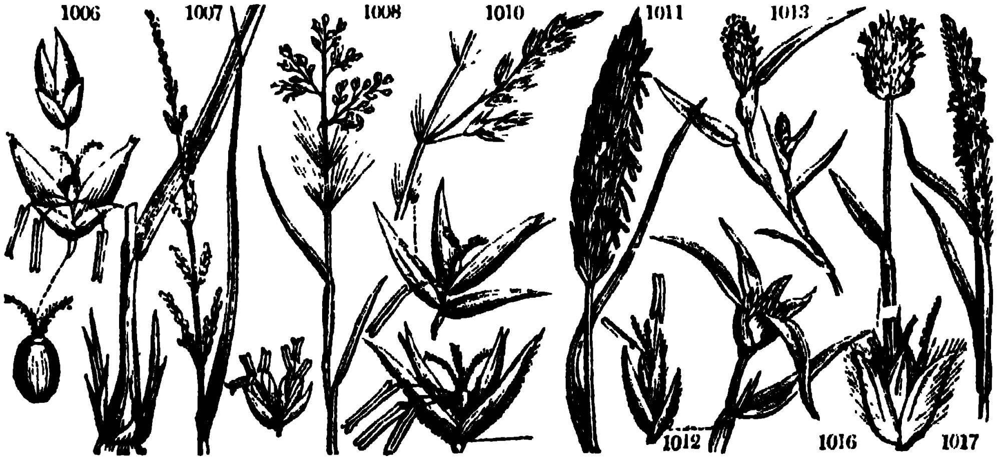
1008 Panicle spreading, with a setaceous involucre, Florets beardless

1009 Panicle contracted beardless, Flowers acuminate often monandrous, Leaves flat rough
1010 Panicle much branched oblong close, Branches erect, Paleæ beardletted, Ligula torn

1011 Panicle spiked, Glumes acute, Hairs 3 times as short as paleæ, Leaves involute

1012 Stems branched compressed, Panicle spiked hemisphærical surrounded by a leafy involucre, Diandrous
1013 Stems branched compressed, Panicle spiked oblong sheathed at base, Triandrous

1014 Stem erect, Spike very simple attenuated, Glumes distinct villous, Root bulbous
1015 Stem erect smooth, Pan. subspiked cylindrical obtuse thick, Glumes fringed connate below the middle
1016 Stem erect smooth, Spike ovate, Glumes villous bearded nearly as long as the beard of the paleæ
1017 Stem generally erect roughish upwards, Panicle spiked cylind. acute, Glumes connate below the middle



and Miscellaneous Particulars.

157. *Trichodium.* Named from θριξ τριχος, hair, on account of its capillary inflorescence. T. decumbens is the famous Agrostis cornucopiæ of Frazer, respecting which so much was said some years ago; but which upon trial did not prove so valuable an agricultural grass as it was represented to be.

158. *Tristegis.* From τρεις, three, and στεγη, a covering, on account of the three glumes or valves of the calyx.

159. *Sporobolus.* From σπορος, a seed, and βαλλω, to cast forth. Its grains are loose, and easily fall out of their husks.

160. *Airopsis.* A word formed by M. Desvaux, from Aira, and οψις, like. The genus resembles Aira in appearance.

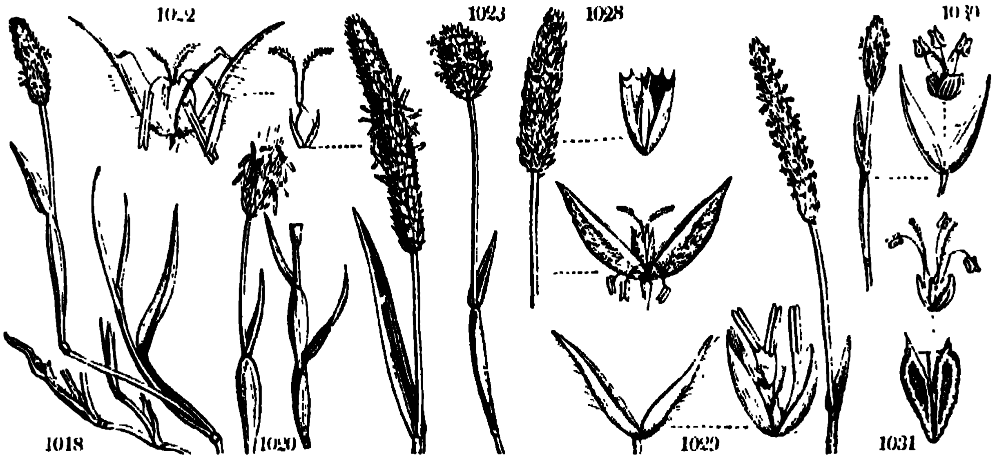
161. *Cinna.* An ancient name used by Dioscorides, who ascribes heating and stimulating qualities to this grass when eaten by cattle, whence the name (from κιω, to heat). Linnæus applied it to this genus of American grasses.

162. *Psamma.* From ψαμμα, sand, in which this grass grows in vast abundance on the sea-coasts of Europe. P. arenarium has a strong creeping perennial root with many tubers at the joints, the size of a pea It is planted and encouraged on the coast of Norfolk to aid in fixing the sand against the action of the wind and tides, which it effects in a surprising manner. The marrum, as it is called, is considered of so much importance that there are severe laws to prohibit its being destroyed. Mats are made of it, and it is used as thatch.

163. *Crypsis.* From κρυπτω, to conceal; the heads of flowers being at one time concealed in the sheaths of the leaves.

164. *Alopecurus.* Αλωπηξ, a fox, and ουρα, a tail: fox-tail. A. pratensis is one of the best of meadow-grasses, possessing the three great requisites of quantity, quality, and earliness, in a superior degree to any other. It is

1018	geniculátus *W.*	floating	≛	△	w	1	my.au	Ap	Britain	mea.	S	m s	Eng. bot. 1250
1019	fúlvus *E. B.*	orange-spiked	ш	△	w	1	jn	Ap	England	ponds.	S	m.s	Eng. bot. 1467
1020	utriculátus *Pers.*	bladdered	ш	○	w	1	jl.au	Ap	Italy	1777	S	co	Host. gram.3. t 7
1021	nigricans *Horn.*	blackish	ш	△	w	4	jn.jl	Ap	Europe	1815.	S	co	Jac. ecl. gra. t.13
165	PHLE'UM. *W.*	CAT'S-TAIL-GRASS.					*Gramineæ.*		*Sp.* 5—8.				
1022	praténse *W.*	common	ш	△	ag	2	jl	Ap	Britain	me. pa.	S	m s	Eng. bot. 1076
1023	alpinum *W.*	Alpine	ш	△	w	1	jl	Ap	Scotland	sc. alp.	S	h.l	Eng. bot. 519
1024	nodósum *W*	knotted	ш	△	w	1½	jl.s	Ap	Britain	Wales.	S	co	Flor. dan. t 380
1025	felinum *Sm.*	smooth-spiked	ш	○	w	1	jl	Ap	Greece	1819	S	co	
1026	Michélii *W. en.*	slender-spiked	ш	△	w	1	jn.jl	Ap	Scotland	al. roc.	S	co	Eng. bot. 2265
166.	ACHNODON'TON. *P de B.*	ACHNODONTON.					*Gramineæ.*		*Sp.* 2.				
1027	Bellárdi *P. de B.*	bulbous	ш	△	w	½	jn jl	Ap	Spain	1798.		co	
1028	ténue *R. & S.*	slender	ш	○	w	1	jn.jl	Ap	Mesopot.,	1804.		co	Barr. ic. t.14. f.1
167.	CHILOCHLO'A. *P. de B*	CHILOCHLOA.					*Gramineæ.*		*Sp.* 3—6.				
1029	Bœhméri *Schr.*	Phalaris-like	ш	○	w	1½	jl.s	Ap	England	plains	S	co	Eng. bot. 459
	Phleum E. B.												
1030	arenária *Schr.*	sea	ш	○	w	½	jl.au	Ap	England	sea co.	S	co	Eng. bot. 222
	Phalaris E. B.												
1031	áspera *Schr.*	rough	ш	○	w	1	jl.au	Ap	England	hea.	S	co	Eng. bot. 1077
	Phleum paniculatum E. B.												
168.	PHA'LARIS. *W. en.*	CANARY-GRASS.					*Gramineæ.*		*Sp.* 8—23.				
1032	arundinácea *P. S.*	reed-like	ш	△	w	4	jl	Ap	Britain	dit.	S	co	Eng. bot. 402
1033	canariénsis *W.*	common	ш	○	ag	2	jn.au	Ap	Britain	unc. pl	S	r.m	Eng. bot. 1310
1034	aquática *W*	water	≛	○	w	1½	jn.jl	Ap	Egypt	1778.	S	co	Host. gra. 2 t 39
1035	capénsis *W*	cape	ш	○	w	1	jn jl	Ap	C. G. H.	1804.	S	co	
1036	cærulèscens *Desf.*	blue	ш	○	w	1	jn jl	Ap	Spain	1818.	S	s.l	Buxb.cent.4.t.53
1037	paradóxa *W.*	bristle-spiked	ш	○	w	½	jn jl	Ap	Levant	1687.	S	co	Host. gra. 2. t.40
1038	semineútra *R. & S.*	half-barren	ш	△	w	2	jn jl	Ap	Hungary	1813.	S	co	
1039	bulbósa *W.*	bulbou	ш	△	w	1	jn jl	Ap	Spain	1798.	S	co	Cav. ic. 1. t. 64
169.	CORYNE'PHORUS. *P. de B.*	CLUB-GRASS.					*Gramineæ.*		*Sp.* 1—2.				
1040	canéscens *P. de B.*	grey	ш	△	w	½	jl.au	Ap	England	san.sh.	S	s.l	Eng. bot. 1190
	Aira E. B.												
170.	AI'RA. *W.*	HAIR-GRASS.					*Gramineæ.*		*Sp* 8—25.				
1041	aquática *W*	water	≛	△	w	1½	my jn	Ap	Britain	pools.	S	m.s	Eng. bot. 1557
1042	cæspitósa *W.*	turfy	ш	△	w	3	au	Ap	Britain	m.s.p	S	m.s	Eng. bot. 1453
1043	lævigáta *L. T.*	smooth-sheath.	ш	△	w	1	jn jl	Ap	Scotland	sc alp.	S	s	Eng bot. 2102
1044	truncáta *W.*	Pennsylvanian	ш	△	w	1	jn.jl	Ap	N Amer.	1819	S	s	Act. petr. 11. t.7
1045	média *Gouan.*	intermediate	ш	△	w	1	jn.jl	Ap	S Europe	1820.	S	s	
1046	pulchélla *W.*	pretty	ш	○	w	½	jn	Ap	Spain	1820	S	s	
1047	flexuósa *W.*	waved	ш	△	w	1	jl au	Ap	Britain	hea.	S	s l	Eng. bot. 1519
1048	caryophýllea *W.*	silver	ш	○	w	¼	jl	Ap	Britain	sa pas.	S	s.l	Eng. bot. 812
171.	AVE'NA. *P. S.*	OAT-GRASS.					*Gramineæ*		*Sp* 9—34				
1049	brévis *W*	short	ш	○	w	3	jn jl	Ap	Germany	1804.	S	co	Host. gra. 3. t 42
1050	orientális *W.*	Tartarian	ш	○	ag	3	jn jl	Ap	......	1798	S	co	Host. gra. 3. t.44



History, Use, Propagation, Culture,

often fit for the scythe by the middle of May; it flowers twice a-year, and gives more bulk and weight of hay than any other grass. At Woburn the produce was nearly three-fourths greater from a clayey loam than from a sandy soil, and the grass from the latter was of comparatively less value in the proportion of four to six. What is almost peculiar to this grass, Poa pratensis and Anthoxanthum odoratum, the value of the grass of the latter math considerably exceeds that of the crop at the time of first flowering. A. geniculatus, and most of the other species of this genus (A. agrestis excepted) are valuable grasses both for hay and pasture.

165. *Phleum.* We have no information as to what the φλεος of the Greeks was The name being unoccupied has been applied by Linnæus to this plant. Some think the plant of the ancients was our Typha. P. pratense, the timothy-grass (so named from Timothy Hanson, who brought it from New York and Carolina about 1780), varies much in size according to soil and situation, and the root becomes bulbous in very dry grounds. Opinions are different as to its merits. Dr Walker (*Rural Econ. Hebrides*, ii. 27.) thinks it may be introduced into the Highlands with good effect. W. Salisbury says, it is coarse and late. At Woburn, its "comparative merits were considered very great. It produces abundance of fine foliage early in spring, which, as it flowers late, may be cropped till an advanced period of the season without injury to the crop of hay." Unlike the Alopecurus pratensis, the value of the grass as hay when the seed is ripe is to that when it is in flower as 10 to 25. P nodosum has gibbous joints, which might have been expected to be sugary like those of Fiorin, which, however, is not the case, as Sir H. Davy found them to be less nutritive than those of P. pratense, in the proportion of 8 to 28.

166. *Achnodonton.* From αχνη, a chaff or husk, and οδους, a tooth, in allusion to the toothed paleæ or inner valves of the flower.

167. *Chilochloa* A genus formed by M de Beauvois, to contain certain grasses referable to both Phalaris and Phleum, as formerly constituted. The name is derived from χιλος, fodder, and χλοη, grass; but none of the species are remarkable for their qualities as grasses useful in husbandry.

1018 Stem ascending knee-jointed, Panicle spiked cylindrical obtuse, Glumes connate at base obtuse
1019 Stem ascending knee-jointed, Spike compound cylindrical, Glumes obtuse fringed, Anthers orange col.
1020 Stem ascend. Raceme spiked ov. Glumes with a hairy keel beyond the mid. dilated, Upper sheath inflated
1021 Stem erect, Pan. spiked cylind. atten. at base, Glumes vill. fringed, Beards of paleæ twice as long as glumes

1022 Raceme spiked cylindrical, Glumes truncate mucronate with a fringed keel, Beard shorter than glume
1023 Raceme spiked ovate oblong, Glumes truncate mucronate with a fringed keel, Beard as long as glume
1024 Like P. pratense, but stems lower, Raceme shorter, Root knotty. A mere variety
1025 Spike ovate, Beard longer than glume divaricate angular rough, Root fibrous
1026 Panicle hairy spiked cylindrical, Glumes lanceolate acuminate with a fringed keel

1027 Glumes keeled smooth membranous at edge
1028 Outer glume a little prickly at the back

1029 Panicle spiked cylindrical smooth, Glumes lanceolate mucronate obtuse roughish

1030 Panicle spiked oblong ovate, Glumes lanceolate acute with a fringed keel, Stems ascending

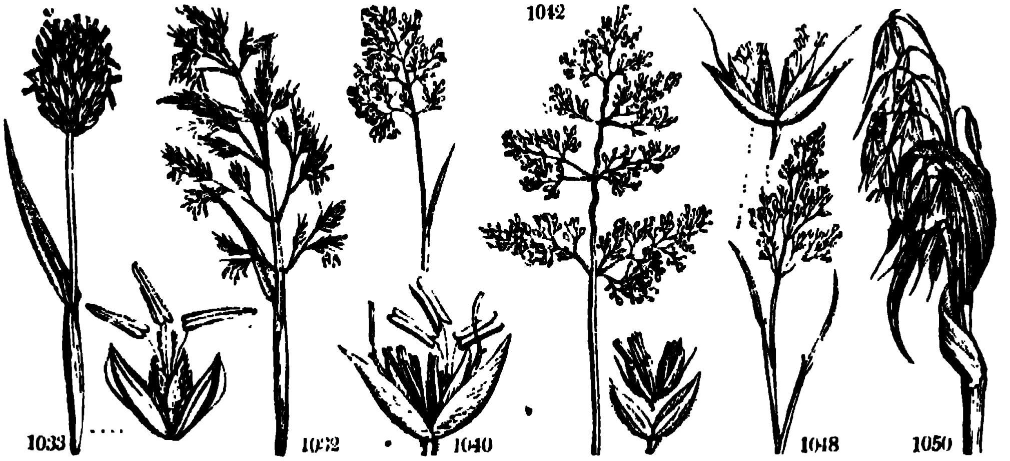
1031 Panicle spiked cylindrical, Glumes wedge-shaped mucronate rough

1032 Panicle spreading heaped, Outer paleæ pencilform, inner shining
1033 Panicle spiked ovate, Glumes navicular entire at the end, Outer paleæ 2
1034 Panicle spiked oblong ovate, Glumes navicular toothed at end, Outer palea 1
1035 Panicle spiked oblong, Glumes navicular nearly entire, Outer palea 1, Stem knee-jointed
1036 Stem naked upwards, Spike slender lax, Glumes keeled acute
1037 Pan. spiked cylindrical, Intermediate floret hermaphrodite acuminate, the rest imperfect bitten off
1038 Panicle diffuse, Glumes acute shorter than florets, One floret hermaphrodite, one neuter
1039 Panicle beardless cylindrical spiked, Paleæ 2 smooth, Root bulbous

1040 Pan. spreading afterwards contracted, Florets less than glume, Beard clavate less than glume

1041 Pan. diffuse, Glumes obtuse, Florets longer than glumes (*Catabrosa* P. de B)
1042 Panicle diffuse, Florets as long as glumes, Beard straight short, Leaves flat (*Deschampsia* P. de B.)
1043 Pan. contr. Glumes bearded villous at base, Rachis smooth very short, Leaves flat (*Deschampsia* P de B.)
1044 Beardless, Panicle lanceolate lax erect, One floret stalked the other sessile, Leaves pubescent
1045 Leaves bristly, Stem naked, Panicle lax, Florets hairy at base, Beard nearly terminal shorter
1046 Pan. divar. Branches trichot. Flor. 3-fl. larger than glumes, Beard jointed longer than glumes, Leaves set
1047 Bearded, Pan. spreading trichot. Pedunc wavy, Florets scarcely longer than glume, Leaves setaceous
1048 Bearded, Pan. trichot. divar. Florets less than glume, Beard dorsal jointed longer than glume

1049 Pan one-sided, Spikelets short 2-flowered, Florets as long as glume obtuse 2-toothed at end, Root fibrous
1050 Pan. 1-sided contracted, Spikelets 2-fl. less than glumes, One floret beardless, Root fibrous



and Miscellaneous Particulars.

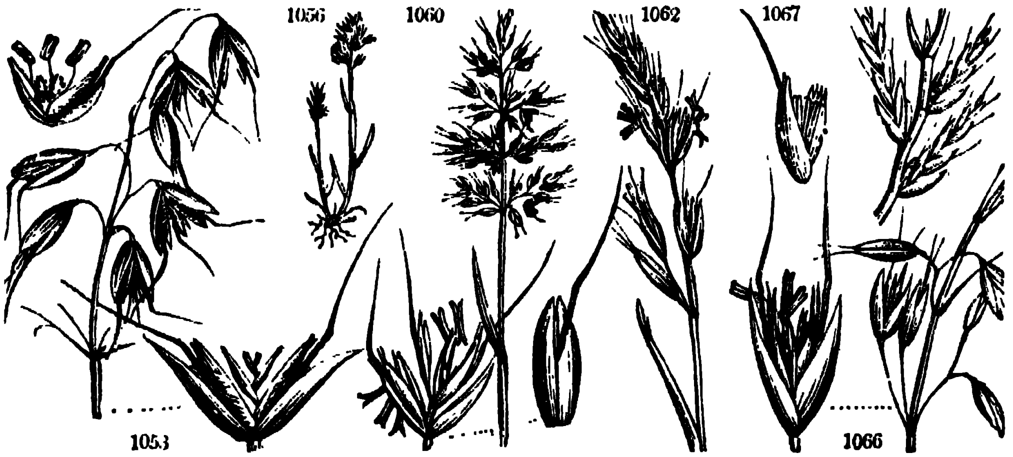
168. *Phalaris.* An ancient name said to have arisen out of φαλος, brilliant, because the plant had shining grains. P. canariensis is cultivated for the seeds, which are given to singing birds, and more especially the canary. It requires a loamy soil, well manured, clean, and in good tilth. The grain is sown in February, in drills, six inches apart, and the plants are thinned to two inches distance in the rows. The growth of canary grass is slower than that of the common weeds, with which it is in consequence liable to be overrun, if they are not kept under by hoeing and hand-weeding. The culture of this grass is chiefly carried on in the isle of Thanet, where the chaff is esteemed as a horse food; but the straw being short, it produces little fodder or manure.

169. *Corynephorus.* From κορυνη, a club, and φερω, to bear. The beard is jointed, and the last articulation is club-shaped.

170. *Aira,* is the name applied by the Greeks to the Lolium of the Romans, our *Lolium* temulentum. It signifies "something deadly," in allusion to the dangerous effects of that plant, but the name has no reference to any species of the genus to which it has been applied by Linnæus. A. aquatica is relished by cattle, and water-fowl are fond of the young shoots and seeds. It is introduced in decoys, by throwing plants in the water with a weight tied to them. A. cæspitosa is common in marsh-meadows, and occasions those excrescences called tussocks or hassocks which interrupt the progress of the scythe. Though cows eat the grass, horses will not. The stiff erect stalks frequently bear viviparous flowers

171. *Avena.* A name of obscure origin. De Théis thinks it has been derived from the Celtic word *aten*, which comes from *etan*, to eat; and whence our common word ait, oat, has been obtained. A. sativa is the common cultivated oat, and A. nuda and tartarica are also sometimes cultivated. Of the first species there are numerous varieties, some more permanent, as the white and black; others temporary, as the potatoe oat, Angus oat, &c. No botanist has been able to ascertain satisfactorily the native place of this or any other of our cultivated grains. A. fatua is accounted a distinct species; but some think the naked, tartarian, common,

1051 sativa *W.*	common	ɯ	○	ag	3	jn.jl	Ap	......	...	S	r.m	Host. gra. 2. t. 59
1052 núda *W.*	naked	ɯ	○	ag	2	jn.jl	Ap	......	...	S	r.m	Host. gra. 3. t. 43
1053 fátua *W.*	wild	ɯ	○	w	4	au	Ap	Britain	cor. fi.	S	co	Host. gra. 2. t. 58
1054 stérilis *W.*	Animal-oat	ɯ	○	cu	4	jl.au	Ap	Barbary	1640.	S	co	Host. gra. 2. t. 57
1055 praténsis *W.*	meadow	ɯ	△	ag	1	jn.jl	Ap	Britain	me. pa.	S	h.l	Eng. bot. 1204
1056 præ'cox *P. de B.*	early	ɯ	○	w	½	my jn	Ap	Britain	hea.	S	co	Eng. bot. 1296
Aira E. B.												
1057 hirsúta *Roth.*	hirsute	ɯ	○	w	3	jn.s	Ap	Barbary	1798.	S		
172. TRISE'TUM. *P. S.*	TRISETUM.					*Gramineæ.*		*Sp.* 8—30.				
1058 striátum *P. S.*	striated	ɯ	○	w	1½	jl.au	Ap	S. Europe	1804.	S	co	Lrs. herb. t.9. f.3
1059 Lœflingiánum *W.*	Lœfling's	ɯ	○	w	1	jn.jl	Ap	Spain	1770.	S	co	Cav. ic.1. t.45. f.1
1060 flavéscens *R. & S.*	yellowish	ɯ	△	w	1½	jn.jl	Ap	Britain	...	S	co	Eng. bot. 952
Avéna E B.												
1061 pensylvánic. *P de B.*	Pennsylvanian	ɯ	○	w	6	jl	Ap	N. Amer.	1785.	S		
1062 pubéscens *R. & S.*	downy	ɯ	△	w	1½	jl.au	Ap	Britain	ch. pa.	D	s.l	Eng. bot. 1640
Avena E B.												
1063 planicólme	flat-stalked	ɯ	△	w	1½	jn.s	Ap	Britain	sc.alp.	D	co	Eng. bot. 2141
Avena E. B.												
1064 distichophýllum *Sc.*	fan-leaved	ɯ	△	w	1½	jn.s	Ap	Switzerl.	1796.	D	co	Host. gra. 2. t.53
1065 airoides *P. de B*	Aira-like	ɯ	○	w	½	jn jl	Ap	Switzerl.	1800.	S	co	Host. gra. 2. t.45
173. DANTHO'NIA *P. de B.*	DANTHONIA.					*Gramineæ.*		*Sp* 1—15.				
1066 strigósa *P de B.*	meagre	ɯ	○	w	3	jn.jl	Ap	Britain	hed.	S	co	Eng. bot. 1266
Avena E. B.												
174 GAUDI'NIA. *P. de B.*	GAUDINIA.					*Gramineæ.*		*Sp.* 1.				
1067 frágilis *P de B.*	brittle	ɯ	△	w	1½	jn au	Ap	Spain	1778.	D	co	Host. gra. 2. t. 54
175 ARUN'DO *With.*	REED.					*Gramineæ.*		*Sp.* 5—33.				
1068 epigéjos *W.*	wood	ɯ	△	w		jl	Ap	Britain	moi.w.	S	m.s	Eng. bot. 403
1069 stricta *E. B.*	upright	ɯ	△	w	1½	jl.au	Ap	Scotland	sc. ma.	S	m.s	Eng. bot. 2160
1070 sylvática *Schr.*	wild	ɯ	△	w	3	jl.au	Ap	Germany	1813.	S	m.s	Host. gra. 4. t.49
1071 Dónax *W.*	cultivated	ɯ	△	ec	10	jl au	Ap	S. Europe	1648.	S	co	Host. gra. 4. t.38
β *versicolor*	*striped*	ɯ	△	or	3	jl.au	Ap	S. Europe	1648.	S	co	Mor. h. 3. t. 8. f.9
1072 phragmites *W.*	common	ɯ	△	ec	6	jl.s	Ap	Britain	dit.	S	m.s	Eng. bot. 401
176. CHRYSU'RUS *P. S.*	CHRYSURUS					*Gramineæ.*		*Sp* 2—4.				
1073 aúreus *P. de B.*	golden-spiked	ɯ	○	w	½	jl	Ap	Levant	1770	S	co	Host. gra. 3. t. 4
1074 echinátus *P. de B.*	rough	ɯ	○	w	2	au	Ap	England	san. fi.	S	s.l	Eng. bot. 1333
177. SESLE'RIA *P. de B.*	SESLERIA.					*Gramineæ.*		*Sp* 4—11.				
1075 elongáta *Host.*	long-spiked	ɯ	△	w	1½	[illegible]	Ap	Germany	1805.	S	co	Host. gra. 2. t 97
1076 cærulea *Schr*	blue	ɯ	△	w	1	[illegible]y.jn	Ap	Britain	fields.	S	co	Eng. bot. 1613
Cynosurus E. B.												
1077 tenélla *Host.*	weak	ɯ	△	pr	½	ap.my	Ap	Switzerl.	1819.	S	co	Host. gra.2.t.100
1078 sphærocéphala *Ard*	round-headed	ɯ	△	pr	¼	ap my	Ap	Switzerl.	1819.	S	co	Host. gra. 2. t.99



History, Use, Propagation, Culture,

and wild oat originally the same. The wild oat is remarkable for the length of time the grain will lie in the soil, and retain its vegetative powers; its awns are sometimes used as hygrometers, and its seeds as artificial flies in fishing. Where it abounds naturally it is an inveterate weed.

The oat, in an agricultural point of view, is a grain only calculated for cold climates. In Italy and France, and even in the southern counties of England, the ears are small and husky, and afford little meal; the panicle is open, and the foot-stalks of the ears small; and in July and August the heat dries them up, and obstructs the progress of the sap to the grain. On the other hand, this naked airy panicle is better for drying after rains and dews than the close spikes of wheat and barley, which, while they serve to guard the ears from the extremes of heat in warm climates, are apt to rot or become mouldy (covered with fungi) in cold moist countries or seasons. The grain of the oat, though chiefly used as food for horses, is also more or less a bread corn in every country where it is generally cultivated. Fourteen pounds of grain yield eight pounds of meal; in some places, as Yorkshire and Aberdeenshire, this meal is ground nearly as fine as flour; in others, as at Edinburgh, it is made of a coarser quality. The kernel freed from the husk, and entire, is used for gruels, and forms an article of commerce with Embden, Bremen, and some towns where the grains are grown to a large size on the variety known as the Friesland oat. The fine powder which is produced by the operation of husking the corn, or making grist, forms a jelly, the sowens of the Scotch, and furmerty of the Irish, an agreeable and wholesome food. Water gruel from a coarse oatmeal, is esteemed a cooling laxative drink.

A. nuda, the naked, or hill-oat, or peel-corn, when ripe drops the grains from the husks. It was generally cultivated in Worlige's time "in the north of England, Scotland, and Wales, because the kernel threshes clean out of the husk, and need not be carried to the mill to be made into meal or grist." It was made into meal by the lower classes, by drying on the hearth, and bruising in a stone mortar, as still practised in the Highlands of Scotland, in Lapland, Ceylon, China, and in every country under certain circumstances of civilization. In the low country of Scotland, the quern mills, as they were called, now no longer in use, may be seen neglected or dilapidated, by the doors or about the gardens of cottages and villages, where they were formerly in use.

Avena sterilis is sometimes grown as an object of curiosity, under the name of the animal oat, on account of its singular hygrometrical properties. After the seeds have fallen off, the strong beard is so sensible of alter-

1051 Pan. equal, Spikelets 2-fl. Florets smaller than glumes at the base naked 1-bearded, Root fibrous
1052 Pan. equal, Spikelets 3-fl. longer than glumes, Florets naked at base, Root fibrous
1053 Pan. equal, Spikelets 3-fl. Florets less than glumes, hairy at base, all bearded, Root fibrous
1054 Pan. 1-sid. Spikel. 5-fl. Florets less than glumes lower bearded and hairy upper beardless and smooth, Root fibrous
1055 Rac. simp. Spikel. 5-fl. Flor. long. than glms. Lvs. rough in tufts very narrow and complicated, Root fibrous
1056 Pan. sub-spiked, Florets nearly equal to the glume, Beard jointed longer than glume, Leaves setaceous

1057 Pan. spread. Glumes 3-fl. Florets linear 2-bearded at end very hairy below the middle, Beard dorsal jointed

1058 Pan. equal, Spikelets about 3-fl. Florets longer than the glume the lower with a beard under the end
1059 Pan. contracted 1-sided, Spikelets 2-fl. Outer glume bifid 2-bearded, Dorsal beard reflexed
1060 Pan. lax, Outer glume bifid, Spikelets 3-fl. Ligula truncate obsolete, Lower sheaths pubesc. Root creeping

1061 Pan. slender, Glumes 2-fl. Seeds villous, Beard twice as long as glume
1062 Pan. sub-spik. equal, Spikelets about 3-fl. Florets longer than cal. hairy at base, Lvs. pubesc. Root creeping

1063 Pan. erect nearly simp. Glumes about 5-fl. Recept. bearded at end, Leaves serrulate naked, Sheaths rough

1064 Pan. equal, Spikel. 3-fl. Flor. as long as glume, Lvs. distichous smth. Mouth of sheaths hairy, Root creeping
1065 Panicle nearly spiked, Beard at length reflexed longer than glume

1066 Panicle one-sided, Spikelets 3-flowered, Florets 3-bearded as long as glume, Root fibrous

1067 Spike jointed brittle 3 or 4 inches long, Leaves flat slightly hairy

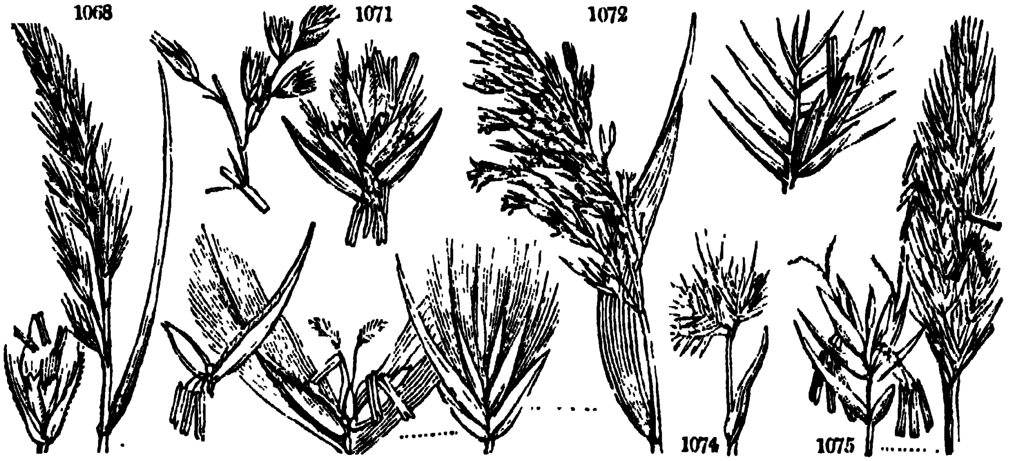
1068 Pan. upright sprdg. Glumes acum. Dorsal beard straight shorter than the hairs which are as long as glume
1069 Pan. upright spreading, Glumes acute, Dorsal beard straight as long as palea which is longer than hairs
1070 Panicle spreading, Glumes acute, Hairs very short, Dorsal beard jointed longer than glume
1071 Glumes about 3-5-flowered, Florets as long as the glume, Stem woody at base (*Donax.* P. de B.)

1072 Glumes 5-flowered, Florets very little longer than glumes

1073 Stems erect, Sheaths very smooth, Ligulas large elongated, Panicle close many-flowered
1074 Pan. contr. ovate, Spikelets bearded, Leaves lanceolate, Bractes pinnate scarious with very long beards

1075 Raceme spiked cylindrical, Spikelets 3-flowered, Outer palea 3-5-bearded, Root stoloniferous
1076 Raceme spiked subovate oblong, Bractes entire, Spikelets 2-3-flow. Outer palea 3-5-bearded, Leaves flat

1077 Raceme spiked ovate nearly naked, Spikelets 2-flowered, Bractes toothletted, Outer palea 5-bearded
1078 Raceme in a round head, Outer palea with one beard, Leaves fine keeled



and Miscellaneous Particulars.

ation in the atmosphere as to keep them in an apparently spontaneous motion, when they resemble some grotesque insect crawling on the ground.

172. *Trisetum.* (Three bristles), on account of the three beards or awns of the flower. Trisetum pubescens, according to the Woburn experiments (vii.), possesses several good qualities, which recommend it to particular notice. It is hardy, early, and more productive than many others which affect similar soils and situations. It appears well calculated for permanent pasture on rich light soils. Trisetum flavescens is also a useful grass; but the most valuable as a grass is the Avena elatior, *L.* the Holcus avenaceus of Eng. Bot., which will be noticed hereafter in its proper place. (In Polygamia monœcia, under *Arrhenatherum*).

173. *Danthonia.* A genus containing some incongruous species of Avena, and named after M. Danthoine, a French botanist.

174. *Gaudinia.* Named in honor of M. Gaudin, a Swiss botanist, who paid great attention to the study of grasses, and who published an Agrostographia Helvetica in 1811, still a work of reputation.

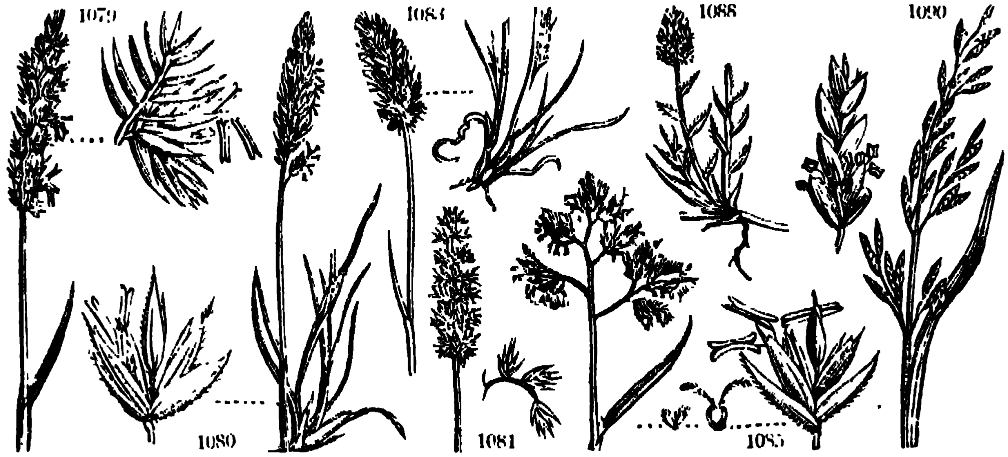
175. *Arundo.* An ancient name of doubtful origin; perhaps, as a recent author conjectures, from *aru*, the Celtic word for water. Phragmites is derived from *φραγμος*, a hedge or separation. A. donax, *Canne*, Fr., *Rohr*, Ger., and *Canni di Giardini*, Ital. is common in the south of France and Italy, where it is cultivated as fence-wood, for supporting the vine, for fishing-rods, and a great variety of purposes. In Spain and Portugal it forms an article of commerce, and supplies materials for the looms, fishing-rods, &c. of this country. The striped-leaved variety (gardener's garters) used formerly to be a common inhabitant of gardens.

A. phragmites, *Roseau de Marais*, Fr. *Gemeine Rohr*, Ger.; and *Canna palustre*, Ital. is used for thatching, for protecting embankments or sea-dykes, for ceilings to cottages, verandahs, and rustic buildings; to lay across the frame of wood work as the foundation for plaister floors, and for screens and hot-bed covers in kitchen gardens. The panicles will dye wool green; and the roots, it is said, are good in liver complaints, like those of Triticum repens.

176. *Chrysurus.* From *χρυσος*, gold, and *ὐρὰ*, a tail; the compact heads of flowers are of a bright yellow color.

177. *Sesleria.* A genus named by Scopoli, after Leonard Sesler, a physician and botanist, who contributed to

178. CYNOSU'RUS. *P. S.*	Dog's-tail-grass.					*Gramineæ*		*Sp.* 1—8.				
1079 cristátus *W.*	crested	ɯ	△	ag	2	au	Ap	Britain	pas.	S	s.l	Eng. bot. 316
179. KŒLE'RIA. *P. S.*	Kœleria.					*Gramineæ.*		*Sp.* 5—13.				
1080 cristáta *P. S.*	crested	ɯ	△		1	jn.au	Ap	Britain	pas.	S	co	Eng. bot. 648
1081 tuberósa *P. S.*	tuberous	ɯ	△		1	jl.au	Ap	Europe	1802.	S	co	Lam. ill. t 45. f.4
1082 pubéscens *P. de B.*	pubescent				1	jn.jl	Ap	S. Europe	1800.	S	co	Ger. prov. t. 1
1083 phleoídes *P. S.*	cat's-tail	ɯ	○		1	jl.au	Ap	Portugal	1802.	S	co	Desf. atl. 1. t. 23
1084 híspida *D. C.*	hispid	ɯ	○		¼	jl.au	Ap	Mediterr.	1819.	S	co	Savi. pis. t. 1. f. 5
180. DAC'TYLIS *W. en*	Cock's-foot-grass.					*Gramineæ.*		*Sp.* 5—19.				
1085 glomeráta *W.*	rough	ɯ	△		2	jn.jl	Ap	Britain	mea.	S	h.l	Eng. bot. 335
1086 hispánica *W. en.*	Spanish	ɯ	△		2	jn.jl	Ap	Spain	1814.	S		
1087 glaúca *Rth.*	glaucous	ɯ	△		2	jn.jl	Ap	Saxony	1800.	S		
1088 répens *Desf.*	creeping	⁎	△		¾	jn.jl	Ap	Barbary	1821.	S		Desf. atl. 1. t. 15
1089 pátens *H. K.*	spreading	ɯ	△		2	au.s	Ap	N. Amer.	1781.	S		
181. GLYCE'RIA. *R. Br.*	Glyceria.					*Gramineæ.*		*Sp.* 1.				
1090 flúitans *B. P.*	floating	≛	△	w	1½	my.au	Ap	Britain	ponds.	S	m.s	Eng. bot. 1520
182. FESTU'CA *W.*	Fescue-grass.					*Gramineæ.*		*Sp.* 27—66.				
1091 tenélla *Ph.*	slender	ɯ	○		½	jl.au	Ap	N. Amer.	1804.	S	co	
1092 ovína *W.*	sheep's	ɯ	△		½	jn	Ap	Britain	dr. pa.	S	s.l	Eng. bot. 585
1093 vivípara *E. B.*	viviparous	ɯ	△		½	jl	Ap	Britain	sc. mo.	S	s.l	Eng. bot. 1355
1094 rúbra *W.*	creeping	ɯ	△		1	jl	Ap	Britain	me. pa.	S	h.l	Eng. bot. 2056
1095 duriúscula *W.*	hard	ɯ	△		1	jn	Ap	Britain	me. pa.	S	s.l	Eng. bot. 470
1096 amethýstina *W.*	blue	ɯ	△		1½	jn.jl	Ap	S. Europe	1804.	S	co	Host. gra. 2. t. 89
1097 cæ'sia *E. B.*	grey		△		1	jn.jl	Ap	England	bar. he.	S	co	Eng. bot. 1917
1098 dumetórum *W.*	bushy		△		1	jn.jl	Ap	Europe	...	S	co	Fl. dan. t. 700
1099 calamária *E. B.*	reed-like		△			jl.au	Ap	Scotland	m. wo.	S	m.s	Eng. bot. 1005
1100 triflóra *E. B.*	three-flowered	ɯ	△	w	2	jl.au	Ap	Britain	woods.	S	m.s	Eng. bot. 1373
1101 spadícea *W.*	brown	ɯ	○		2	ap.my	Ap	Italy	1775.	S		Host. gra. 3. t. 20
1102 praténsis *E. B.*	meadow	ɯ	△		1½	jn.jl	Ap	Britain	me. pa.	S	h.l	Eng. bot. 1592
1103 vagináta *W. en.*	sheathed	ɯ	△			jn.jl		Hungary	1804.	S		
1104 mexicána *Donn.*	Mexican	ɯ	○		1½	jl		Mexico	1805.	S		
1105 pubéscens *W. en.*	downy	ɯ	△		1	jn.jl		Hungary	1822.	S		
1106 flavéscens *Bell.*	yellowish	ɯ	△		¾	jn.jl		Savoy	1804.	S		
1107 pannónica *Wulf.*	Hungarian	ɯ	△		1	jn.jl		Hungary	1804.	S	co	Host. gra. 4. t. 62
1108 decídua *E. B.*	deciduous	ɯ	△		2	jn.jl		England	m. wo.	S	m.s	Eng. bot. 2266
1109 elátior *W.*	tall	ɯ	△		½	jn.jl		Britain	m. me.	S	m.s	Eng. bot. 1593
1110 diándra *Ph.*	diandrous	ɯ	△		2	jn		N. Amer.	1810.	S	co	Mich. amer. t. 10
1111 loliácea *W.*	spiked	ɯ	△		3	jn		England	moi. p.	S	m.s	Eng. bot. 1281
1112 grandiflóra *Ph.*	large-flowered	ɯ	△		3	jn		N. Amer.	1812.	S		
1113 rúbens *P. S.*	Spanish	ɯ	○		1	jn		S. Europe	1776.			Fl. græc. t. 83
1114 glaúca *P. S.*	glaucous	ɯ	△	ag	1	jn.jl		S. Europe		S	co	Lam. ill. 1. t. 46. f. 3
1115 ciliáta *P. S.*	ciliated	ɯ	△	w	½	jl.au		Portugal	1802.	S	co	Host. gra. 4. t. 65
1116 nútans *Ph.*	nodding	ɯ	△	w	3	jn.jl	Ap	N. Amer.	1805.	S	co	Host. gra. 4. 61
1117 heterophýlla *P. S.*	various-leaved	ɯ	△	w	3	jn.jl	Ap	France	1812.	S	co	Vaill. par. t. 19. f. 6



History, Use, Propagation, Culture,

Vitaliano Donati's Natural History of the Adriatic sea, published in 1750. The species were formerly part of Cynosurus.

178. *Cynosurus.* Κυων κυνος, a dog, and ουρα, a tail: dog's-tail.

179. *Kœleria.* Named after M. Kohler, a professor of natural history at Mayence, and author of some works upon grasses. A pretty genus of grasses, with elegant silky heads.

180. *Dactýlis.* (Δακτυλος, a finger: finger grass). The divisions of its heads may be fancied to resemble the fingers, and the large cluster at the bottom the thumb of an animal. D. glomerata is a coarse grass of early and rapid growth, and considered valuable as a pasture grass on light soils from the quantity of herbage it affords. It comes in from the time turnips are over, till the meadows are fit for grazing; but old and dry, or made into hay, neither horses nor cattle are fond of it. To reap the full benefit of this grass, it must be kept closely cropt. It has been of late strongly recommended by Mr. Coke of Holkham.

181. *Glyceria.* (From γλυκυς, sweet, in allusion to the herbage). This is the Festuca fluitans of L.: it is found in stagnant water, and its long narrow leaves float on the surface. Horses, cattle, and swine are fond of this grass, which produces abundance of seeds, which are eaten greedily by geese, ducks, and fish, especially the trout (*Salmo fario*). These seeds are very nourishing, and are collected in some parts of Germany and Poland, under the name of manna seeds, and used in soups and gruels. The plant will not thrive unless on land that is constantly under water.

182. *Festuca.* In Celtic, the word *fest* signifies pasture, food. We may be satisfied with this explanation in want of a better. This genus affords some valuable hay and pasture grasses. F. ovina has a fine short sweet foliage, well adapted to the masticating organs of sheep, and for producing delicate mutton: it is totally unfit for hay, and according to Sir H. Davy's experiments, it does not possess the nutritive powers generally ascribed to it. It is an excellent grass for lawns, requiring little mowing, and forming so thick a turf as to suffer few intruding plants. It should be sown about the middle of August, on ground nicely prepared, open, and not too light or dry. The same remarks will apply to F. rubra and amethystina.

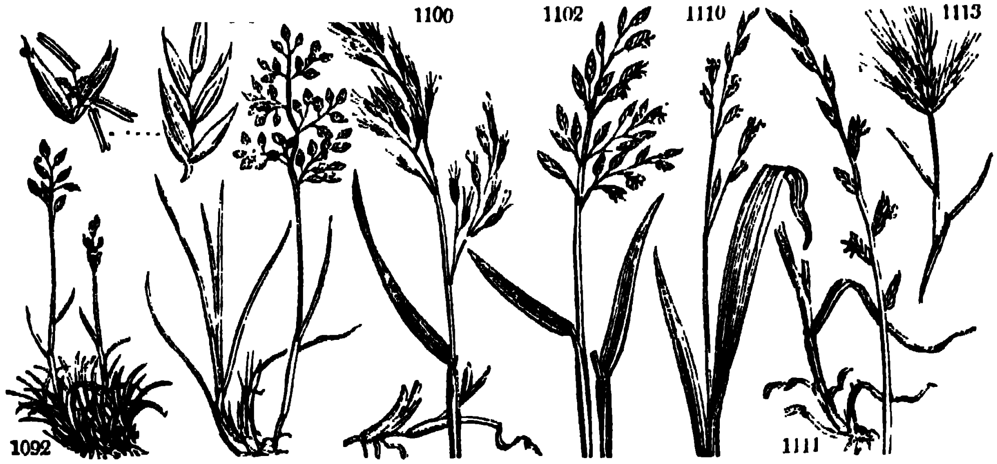
1079 Raceme spiked linear, Spikelets beardless, Bractes pinnatifid, Leaves linear

1080 Pan. spikeshaped at the base interrupted and smoothish, Spikelets 3-4-flow. nearly beardless very acute
1081 Pan. closely spiked, Spikel. 2-3-fl. acum. beardless, Glumes fringed at back, Lower leaves conv. setaceous
1082 Pan. spiked oval cylind. Spikelets 2-flowered villous at back acumin. Outer glume bearded under the end
1083 Panicle spiked cylind. Spikel. 2-5-8-flowered, Outer glume rough outside, with a soft beard under the end
1084 Panicle spiked ovate cylind. Spikelets 3-4-flowered, Outer glume hairy with a stiff beard under the end

1085 Panicle one-sided heaped, Leaves keeled
1086 Panicle one-sided headed spiked, Spikelets 3-flowered, Leaves keeled glaucous
1087 Panicle equal before and after flowering contr. spiked, Spikelets 4-fl. beardless, Glumes with a rough keel
1088 Stem creeping, Branches in bundles, Leaves villous subulate stiff, Flowers in spiked one-sided heads
1089 Spikes scattered one-sided few, Flowers closely imbricated, Leaves much spreading, Stem decumbent

1090 The only species is a floating creeping plant very common in ponds

1091 Panicle simple one-sided, Spikelets about 9-flow bearded, Leaves setaceous, Culm upwards 4-cornered
1092 Panicle contracted, Spikelets ovate 4-flowered, Paleæ roundish, Leaves very narrow rough
1093 Panicle one-sided contracted, Florets compressed beardless pubescent, Leaves setaceous smooth
1094 Pan. one-sided erect spreading, Florets roundish longer than beard, Leaves pubes. above, Root creeping
1095 Panicle erect spreading, Florets longer than beard, Root fibrous
1096 Pan. sprdg. Spikel. obl. nearly beardl. Outer valve of glume and paleæ ciliated, Lvs. setac. rigid, Lig. 2-eared
1097 Glaucous, Pan. 1-sided contracted, Florets cylind. bearded, Stem square, Leaves compound channelled
1098 Panicle spike-shaped pubescent, Leaves filiform
1099 Panicle one-sided erect branching contracted, Florets oblong angular beardless, Leaves ensiform striated
1100 Panicle spreading, Spikelets 3-flowered with long beards
1101 Panicle erect, Spikelets ovate 4-5-flowered, Glumes acum. beardless, Leaves setaceous smooth pungent
1102 Panicle spreading branched, Spikelets linear beardless many-flowered, Leaves linear, Root fibrous
1103 Pan. sprdg. one-sided, Spikel. about 6-fl. Florets blunt beardless, Leaves lin. conv. glauc. Stem round erect
1104 Panicle spike-shaped, Spikelets slender 11-flowered bearded, Sheaths rough
1105 Culm ascending angular, Leaves rolled together smooth, Pan. nodding close, Spikelets 9-10-flow. pilose
1106 Pan. erect contracted, Spikelets 4-5-fl. very smooth, Paleæ margined membranous, Leaves setaceous
1107 Pan. one-sided oblong, Spikel. 7-fl bearded, Outer glume and paleæ fringed, Leaves setac. Root fibrous
1108 Panicle one-sided erect branching, Florets ternate oblong angular beardless, Leaves linear striated
1109 Pan spreading much branched, Spikelets ovate lanc. somewhat bearded 4-5-fl. Leaves linear lanceolate
1110 Pan. close, Branches simple scattered, Spikelets linear 5-fl. Flowers acum. 2-androus, Stem very rough
1111 Raceme spiked elongated, Spikelets remote beardless afterwards spreading, Root fibrous
1112 Panicle simple erect, Spikelets very few about 7-flowered, Florets acute distant
1113 Panicle fascicled, Spikelets subsessile villous, Beard erect
1114 Panicle one-sided spike-shaped, Spikelets 5-fl. smooth somewhat bearded, Leaves glaucous rigid subulate
1115 Culm ascending, Leaves subconvolute, Spike racemose, One glume very small, Outer paleæ fringed
1116 Panicle one-sided erect nodding at the end, Spikelets 5-flowered obtuse beardless
1117 Panicle loose spreading nodding, Radical leaves very slender and long, Root creeping



and Miscellaneous Particulars.

F. duriuscula, is a good grass either for hay or permanent pasture: hares are remarkably fond of it; its produce in the spring is not very great, but the quality is fine, and the quantity is considerable at the time of flowering. F. calamaria is subject to the disease in the grain called clavus, in which the seed swells to three times the usual size, and the kernel is wanting.

F. pratensis is one of the six grasses (Anthoxanthum odoratum, Alopecurus pratensis, Poa pratensis and trivialis, Cynosurus cristatus, and the F. pratensis) which Curtis recommends before all others for laying down meadows or pastures, on soil either moist or moderately dry. According to the Woburn experiments, the value of this grass cut at the time the seed is ripe, is to that of the grass cut at the time of flowering as 6 to 18; one proof, among many others, of the advantage of cutting almost all grasses when in flower rather than later. W. Salisbury says, "if land intended for meadow could be laid down with one bushel of F. pratensis, one of Alopecurus pratensis, three pounds of Anthoxanthum, a little Bromus mollis, with white clover, the farmer will seek no farther."

F. elatior differs little from F. pratensis, but in being larger in every respect. According to the Woburn experiments (xl.) "the produce is nearly that of the former, and the nutritive powers superior in the proportion of 8 to 6."

F. loliacea greatly resembles the rye-grass in habit and place of growth: "it has excellencies which make it greatly superior to that grass, for the purposes either of hay or of permanent pasture. It improves in proportion to its age, which is directly the reverse of rye-grass." (*Wob. exp.* xxxiii.)

F. glauca, cut at the time of flowering, exceeds in value the same grass cut when the seeds are ripe in the proportion of 6 to 12, a strong proof of the value of the leaves and culm in grasses intended for the scythe, and the loss, as we have before observed, of leaving them for the sake of the seed when they become dry and wiry. After this grass, and indeed most others, are in flower, "the root leaves neither increase in number nor in size, but a total suspension of increase appears in every part of the plant, the roots and seed-vessels excepted." (*Wob exper.* xii.)

183. MYGALU'RUS. *Lk.* Mouse-tail. *Gramineæ.* *Sp* 5.

1118	caudátus *Lk.* *Festuca Myurus* E. B.	wall	ш	○	w	½	jn	Ap	Britain	ways.	S	co	Eng. bot. 1412
1119	bromoides *Lk.* *Festuca* E. B.	barren	ш	○	w	½	my.jn	Ap	Britain	walls.	S	co	Eng. bot. 1411
1120	stipoides *Lk.*	fine-leaved		○	w	1	jn jl	Ap	Majorca	1793.	S	co	Barr. ic. t. 76. f.1
1121	delicátulus *Lk.*	delicate		○	w	½	jn.jl	Ap	Spain	181'	S	co	
1122	uniglúmis *Lk.* *Festuca* E. B.	single-husked	ш	○	w	½	jn	Ap	Britain	sea co.	S	co	Eng. bot. 1430

184. BRO'MUS. *W.* Brome-grass. *Gramineæ.* *Sp* 19—66.

1123	secalinus *W.*	smooth-rye	ш	○	w	2	jn.au	Ap	England	cor. fi.	S	co	Eng. bot. 1171
1124	multiflórus *W en.*	downy-rye	ш	○	w	2	jn.au	Ap	Britain	...	S	co	Eng. bot. 1884
1125	móllis *W.*	soft	ш	○	w	2	jn.au	Ap	Britain	walls.	S	co	Eng. bot. 1078
1126	lanceolátus *W.*	spear-leaved	ш	○	w	3	jn.au	Ap	Crimea	1798.	S	co	
1127	squarrósus *W.*	corn	ш	△	w	3	jn au	Ap	England	cor. fi.	S	co	Eng. bot. 1885
1128	Alopecúrus *W.*	Fox-tail	ш	○	w	2	jn.au	Ap	Barbary	1799.	S	co	Desf. atl. 1. t. 25
1129	púrgans *W.*	purging	ш	△	w	1½	jn au	Ap	Canada	1793.	S	co	
1130	inermis *W.*	awnless	ш	△	w	2	jn.au	Ap ^	Germany	1794.	S	co	Host. gra. 1. t. 9
1131	ásper *W.*	hairy wood	ш	○	w	4	jn.au	Ap	England	m. s. p	S	co	Eng. bot. 1172
1132	pratensis *E. B.*	meadow	ш	△	w	2	jn.au	Ap	England	cor. fi.	S	co	Eng. bot. 920
1133	stérilis *W.*	barren	ш	○	w	2	jn.au	Ap	Britain	rub.	S	co	Eng. bot. 1030
1134	arvénsis *E. B.*	field	ш	△	w	3	jn.au	Ap	Britain	cor. fi.	S	co	Eng. bot. 1984
1135	eréctus *E. B.*	upright	ш	△	w	3	jn.au	Ap	England	ch. pa.	S	co	Eng. bot. 471
1136	tectórum *W.*	nodding	ш	○)	w	1	jn.au	Ap	Europe	1776.	S	co	Host. gra. 1. t.15
1137	altíssimus *Ph.*	tallest	ш	△	w	8	jn.au	Ap	N. Amer.	1812.	S	co	
1138	racemósus *W.*	smooth	ш	○	w	2	jn.au	Ap	England	me. pa.	S	h.l	Eng. bot. 1079
1139	máximus *Roth.*	great	ш	○	w	3	jn.au	Ap	Morocco	1804.	S	h.l	Desf. atl. 1. t 26
1140	madriténsis *W.*	wall	ш	○	w	1½	jn.au	Ap	Britain	walls.	S	h.l	Eng. bot. 1006
1141	gigantéus *Schr.* *Festuca* E. B.	giant	ш	△	w	3	jl.au	Ap	Britain	mea.	D	co	Eng. bot. 1820

185. BRACHYPO'DIUM. *P. de B.* Brachypodium. *Gramineæ.* *Sp.* 9—25.

1142	ciliátum *W.*	ciliated	ш	△		2	jn au	Ap	Canada	1802	S	co	
1143	sylváticum *R. & S.* *Bromus* E. B.	wood	ш	△	w	2	jn.au	Ap	Britain	hed.	S	co	Eng. bot. 729
1144	pinnátum *P. de B.* * *Bromus* E. B.	spiked heath	ш	△	w	3	jn au	Ap	Britain	hea.	S	co	Eng. bot. 730
1145	distáchyon *R. & S.*	two-spiked	ш	△	w	1	jl.au	Ap	S. Europe	1772.	S	co	Host. gra 1. t.20
1146	tenéllum *W.*	slender	ш	○	w	½	jl.au	Ap	S. Europe	1781.	S	co	Vi. fragm t.26 f.1
1147	loliáceum *R. & S.* *Triticum* E. B.	Darnel-like	ш	○	w			Ap	Britain	sea co.	S	co	Eng bot. 221
1148	unioloides *Lk.*	Uniola-like	ш	○	w	½	jl au	Ap	Italy	1758.	S	co	Jacq. ic. 2. t. 303
1149	obtusifólium *Lk*	blunt-leaved	ш	△	w	1½	jl au	Ap	Spain	1818.	S	co	
1150	unilaterále *R. & S.*	one-sided	ш	○	w	½	jn jl	Ap	S. Europe	1800.	S	co	

186. UNI'OLA. *W.* Sea-side-oat. *Gramineæ.* *Sp.* 4—7.

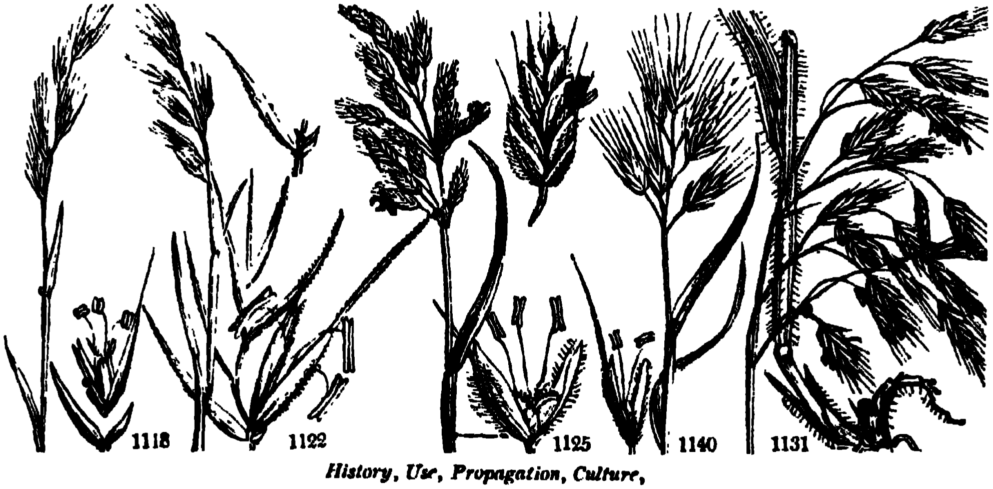
1151	latifólia *Ph*	broad-leaved	ш	△		4	jn.jl	Ap	N. Amer.	1809.	S		
1152	paniculáta *Ph.*	panicled	ш	△		4	jn jl	Ap	N. Amer	1793.	S		Cates. car. 1. t.32
1153	spicáta *W.*	spiked	ш	△	w	½	jl	Ap	N. Amer.	1790.	S	co	
1154	distichophýlla *R. & S.*	two-ranked	ш	△	w	¾	jn.jl	Ap	N. Holl.	1789.	S	co	Lab. N. Holl. t 24

187. TRICUS'PIS. *P. de B.* Tricuspis. *Gramineæ.* *Sp.* 1—3.

1155	quinquéfida *P. de B.*	five cleft		△	ag	2	jn jl	Ap	N. Amer.	1820.	S	r.m	Jac gr. ecl. t 16

188. DIPLACH'NE. *P. de B.* Diplachne. *Gramineæ.* *Sp.* 1—2.

1156	fasciculária *P. de B.*	bundled	ш	○	w	2	jl.au	Ap	N. Amer.	1823.	S	co	



History, Use, Propagation, Culture,

183. ***Mygalurus.*** Named by Link, from μυγαλη, a mouse, and ὀυρα, a tail. An alteration of the previous specific name of one of the species, Festuca myurus, L. A natural genus, better distinguished by natural than by artificial characters.

184. *Bromus.* Βρωμος is the name given by the Greeks to a sort of wild oat. Most of the species of this genus are of a coarse quality, and being strictly annuals are of little value as pasture, and as hay produce no after math. Sir H. Davy found that the nutritive powers of the straws and leaves of most of the species were greatest when the plant is coming into flower; because, like all other plants strictly annual, or which do not shoot up again from the root the same season, when left till the seed is ripe, the leaves and straws become dried up. B. secalinus is often found among rye and wheat crops; the seeds when ground among the flour are said to impart a bitter taste to bread, and to have similar narcotic qualities as Lolium temulentum. In Scania, the panicles are used to dye green; and there, as formerly in Britain, rye was supposed to degenerate into this grass. The seeds of B. mollis are said to bring on giddiness in the human species and quadrupeds, and to be fatal to poultry. B. asper is the tallest of British grasses; it has had many names, but is distinguished from all

1118 Panicle one-sided nodding elongated, Florets rough at end, Leaves setaceous keeled very short

1119 Panicle one-sided erect, Florets rough at the end, Leaves setaceous shorter than their sheath

1120 Panicle nearly erect, Flower-stalks ensiform dilated
1121 Panicle one-sided spiked lanceolate, Spikelets spreading 5-flowered, Leaves linear setaceous
1122 Panicle one-sided erect nearly simple, Florets subulate compressed, One glume very short

1123 Panicle in seed nodding at end, Spikelets ovate oblong compressed naked, Florets at last distinct, Beard wavy shorter than glume, Leaves nearly smooth
1124 Pan. nodding at end, Spikelets lanc. compr. naked, Beard straight longer than glume, Leaves villous
1125 Pan. erect contr. Spikelets oblong ovate roundish pubes. Outer paleæ bifid, Beard straight, Leaves soft
1126 Pan. nearly erect, Spikelet lanc. somew. compr. Flor. closely imbr smooth, Beard straight afterwards sprdg.
1127 Pan. lax nodd at end, Spikel. lanc somewhat compr Florets closely imbr. Beard at length very much sprdg.
1128 Panicle close erect, Spikelets oblong pubescent 12-15-flow. nearly sessile, Beards below spirally twisted
1129 Pan. nodd. Spikelets lanc. slender, Florets bearded hairy, Beards straight, Leaves smooth, Sheaths hairy
1130 Pan. erect, Spikes lin. slenderish naked, Florets imbr. nearly beardless, Leaves smoothish, Root creeping
1131 Pan nodd. one-sided, Spikel. lin. lanc. compr pubesc. Beard straight shorter than glume, Leaves vill. rough
1132 Panicle spreading branching, Spikelets ovate turgid 10-flowered, Florets elliptical 3-nerved on each side
1133 Pan. spreading nodding at end, Spikelets rough lin. lanc. Beard straight longer than glume, Leaves pubesc.
1134 Pan. at length nodding, Spikelets lanc. compr. naked, Beards straight as long as glume, Leaves villous
1135 Pan. erect, Spikel. lin. lanc. compr. Florets imbr. Beard shorter than glume, Leaves tufted very narrow cil.
1136 Pan nodding at end, Spikelets compressed and leaves pubescent, Beard straight about length of glume
1137 Pan. nodd. Spikelets oblong 6-fl. pubesc. Outer glume with a short beard, Leaves sheaths and stem smooth
1138 Pan. erect, Spk. obl. ov. compr nak. Flor. imbr. Outer pal. undiv. Beard straight as long as glume, Lvs. pub.
1139 Leaves villous, Panicle spreading erect, Beards long straight, Rachis pubescent
1140 Pan. erect, Spikel. rough lin. lanc. Flor. diandr. Beards straight about length of glume, Lvs nearly smooth
1141 Pan. nodd. at end one-sided, Spikel. lanc. compr. naked, Florets imbr. Beard flexuose longer than glume

1142 Panicle loose capillary pendulous, Spikelets 6-fl. compr. Outer palea with a short beard villous at edge
1143 Raceme spiked distich. simple somew. nodd. Spikel. rem. erect, Upper beards longer than glume, Root fibr.

1144 Spike sim. distich. erect, Spikel. altern. pub. bearded, Beard shorter than its valve, Lvs. pub. Root creeping

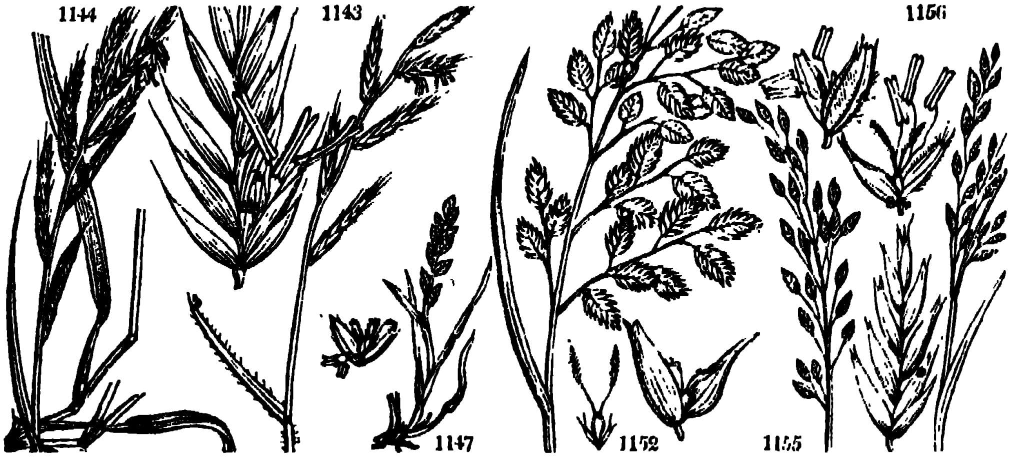
1145 Spikes in pairs terminal oblong, Florets lanceolate distichous bearded, Culm 2-knotted smooth equal
1146 Spikelets many-flowered 5-9-flowered beardless, Glumes and paleæ obtuse, Leaves setaceous
1147 Glume many-fl. Spike simple compressed, Spikelets ovate unilateral, Glumes 3-nerved, Florets beardless

1148 Spike distichous compressed, Spikelets lanceolate oblong sessile
1149 Stem branching creeping rough, Leaves convol. obtuse rigid smooth, Alternate spikel. bearded smooth
1150 Glumes one-sided alternate beardless

1151 Panicle lax, Spikelets ovate with long stalks, Glumes 3-valved, Florets 1-androus, Keel pubescent
1152 Panicle long, Spikelets subsessile, Glume many-valved, Florets 3-androus, Keel smooth, Leaves convol.
1153 Nearly spiked, Leaves involute rigid
1154 Raceme spiked branching erect, Spikelets 5-9-flowered beardless smooth, Leaves involute subulate

1155 Panicle large, Stem firm, Spikelets lanceolate 6-8-flowered, Leaves and stem smooth

1156 Panicle erect contracted oblong, Branches chiefly simple numerous setaceous, Spikelets appressed oblong slender 8-10-flowered, Leaves very long smooth



others by the hairyness of its stalks. It is found in copsewood in clayey moist soils. *Bromus giganteus* partly resembles it.

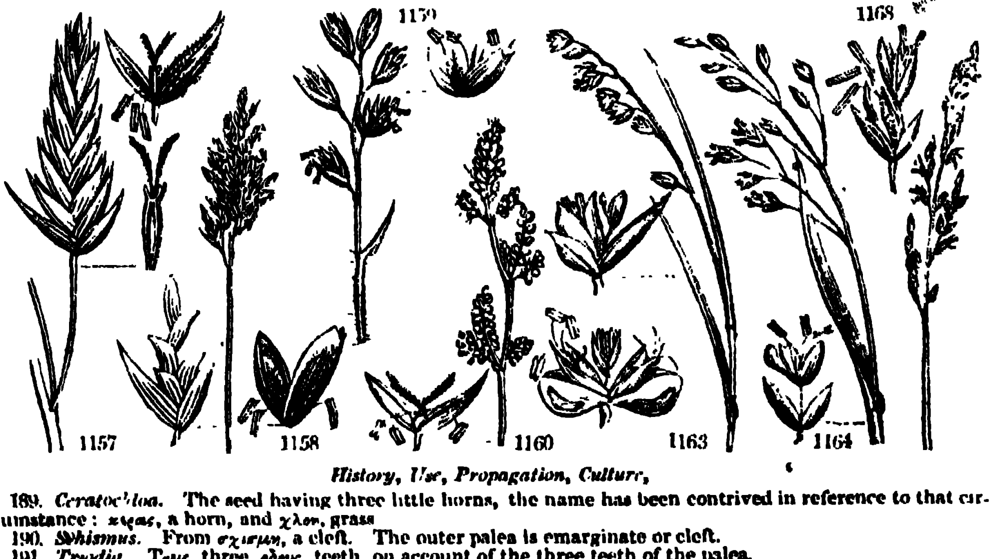
185. ***Brachypodium.*** From βραχυς, short, and πους, a foot, in allusion to the short stalks of the spikelets. An artificial genus, made up of various species of Bromus, Festuca, and Triticum of former writers.

186. ***Uniola.*** Named by Linnæus, on account of the union of the glumes. A fine N. American genus, resembling a gigantic Bromus or Festuca. It is chiefly found upon the sands of the sea coast.

187. ***Tricuspis.*** A word signifying three points, in allusion to the structure of its flower. This grass is called ***Red-top*** in the southern states of N. America. Pursh says, "a most excellent grass I have seen mountain-meadows in Pennsylvania where they mow this grass twice a-year, producing most excellent crops each time without manure or any other trouble than the mowing, lasting for the space of sixteen years without the least decline in the crops, the soil at the same time being a very indifferent one."

188. ***Diplachne.*** Διπλος, divided, αχνη, chaff. The outer palea is divided at the end, and bearded between the divisions.

189. CERATOCHLO'A. *P. de B.*	HORN-GRASS.					*Gramineæ.*		*Sp.* 1—2.				
1157 unioloìdes *P. de B.*	large-spiked	⸙	○	w	1½	jl	Ap	N. Amer.	1788.	S	co	Hort. ber. 1. t. 3
190. SCHIS'MUS. *P. de B.*	SCHISMUS.					*Gramineæ.*		*Sp.* 1.				
1158 marginátus *P. de B.*	margined	⸙	○	w	½	jn.jl	Ap	Spain		S	co	Lam ill. t. 46. f. 1
191 TRIO'DIA. *R. Br.*	TRIODIA.					*Gramineæ.*		*Sp.* 1—10.				
1159 decúmbens *R. Br.*	decumbent	⸙	△	w	1	jl.au	Ap	Britain		S	co	Eng. bot. 792
192 BECKMAN'NIA. *Host.*	BECKMANNIA.					*Gramineæ.*		*Sp.* 1.				
1160 erucæfórmis *W. en.*	linear-spiked	⸙	○	w	2	jl	Ap	Europe	1773.	S	co	Host. gra. 3. t. 6
193. ME'LICA. *W.*	MELIC-GRASS.					*Gramineæ.*		*Sp* 7—24.				
1161 ciliáta *W.*	ciliated	⸙	△	or	3	jl	Ap	Europe	1771.	S	s.l	Host. gra. 2. t. 12
1162 Bauhíni *W. en.*	Italian	⸙	△	w	2	jn jl	Ap	Italy	1806.	S	co	Host. gra. 4. t. 23
1163 nútans *W.*	mountain	⸙	△	or	1½	jn jl	Ap	Britain	moun.	S	s.l	Eng. bot. 1059
1164 uniflóra *W.*	wood	⸙	△	w	1½	my jn	Ap	Britain	groves.	S	m.s	Eng. bot. 1058
1165 pyramidális *P. S.*	pyramidal	⸙	△	w	3	jn.jl	Ap	Barbary	1804.	S	co	Barr. ic. t. 96. f. 1.
1166 glábra *Ph.*	smooth	⸙	△	w	3	jn.jl	Ap	N. Amer.	1812.	S	co	Mor. h. 3. t. 7. f. 31
1167 altíssima *W.*	tallest	⸙	△	or	4	jl au	Ap	Siberia	1770.	S	co	Host. gra. 2. t. 9
194 MOLI'NIA. *P. de B.*	MOLINIA.					*Gramineæ.*		*Sp.* 1.				
1168 cærúlea *P. de B.* *Melica* E. B.	purple	⸙	△	w	1	au	Ap	Britain	bogs.	S	p.m	Eng bot 750
195 BRI'ZA *W.*	QUAKING-GRASS.					*Gramineæ.*		*Sp.* 4—9.				
1169 minor *W.*	small	⸙	○	or	½	jl.au	Ap	England	cor fi.	S		Eng. bot. 1316
1170 virens *W.*	green	⸙	○	or	1½	jl.au	Ap	Spain	1800	S		Hay. trm t. 25 f 6
1171 média *W.*	common	⸙	△	or	1½	my jn	Ap	Britain	pas.	S		Eng. bot. 340
1172 máxima *W.*	greatest	⸙	○	or	1½	jn jl	Ap	S. Europe	1633.	S		Host gra. 2. t 30
196. PO'A. *W.*	MEADOW-GRASS.					*Gramineæ.*		*Sp.* 34—142.				
1173 aquática *W.*	water	*	△	w	6	jl	Ap	Britain	dit.	S		Eng. bot. 1315
1174 alpìna *W.*	Alpine	⸙	△	w	½	jn jl	Ap	Scotland	sc alp.	S		Eng. bot 1003
1175 flexuósa *E. B.*	zigzag	⸙	△	w	½	jn jl	Ap	Scotland	sc alp.	S		Eng bot. 1123
1176 láxa *W.*	loose-spiked	⸙	△	w	¾	jn jl	Ap	Germany	1800.	S		Host gra 3 t 1
1177 cæ'sia *E. B.*	sea-green	⸙	△	w	½	jn jl	Ap	Scotland	sc.mo	S		Eng. bot 1719
1178 vivípara *W. en.*	viviparous	⸙	△	w	½	jn jl	Ap	Switzerl.	1800	S		Fl. dan. t 807
1179 triviális *W.*	common	⸙	△	ag	2	jn au	Ap	Britain	me pa.	S		Eng. bot. 1072
1180 praténsis *W.*	smooth-stalked	⸙	△	ag	1½	my jn	Ap	Britain	me. pa	S		Eng bot 1073
β *angustifolia* W.	*narrow leaved*	⸙	△	ag	2	jn au		Germany	...	S		Leers, t 6. f 5
1181 húmilis *E. B.*	short-bluish	⸙	△	w	½	my.jn		Britain	me. pa	S		Eng bot. 1004
1182 ánnua *W.*	annual	⸙	○	w	½	mr.o		Britain	pas.	S		Eng. bot 1141
1183 badénsis *W.*	turfy	⸙	△	w	½	jl	Ap	Baden	1800	S		Host gra. 2. t. 66
1184 sudética *W.*	broad-leaved	⸙	△	w	3	jl.au	Ap	Germany	1802	S		Host gra 3 t. 13
1185 cenísia *W. en.*	soft	⸙	△	w	½	jl.au	Ap	Mt Cenis	1791	S		Host gra 3. t 16
1186 fláva *W.*	pale-yellow	⸙	△	w	1½	jl.au	Ap	N. Amer	1804.	S		
1187 serótina *W.*	late-flowering	⸙	△	w	2	jl s	Ap	Germany	1800.	S		Leers her t. 6 f 4.
1188 festucæfórmis *W. en.*	Festuca-like	⸙	△	ag	2	jl s	Ap	Dalmatia	1800.	S		Host gra. 3. t 17
1189 abyssínica *W.*	smooth-upright	⸙	○	w	1½	au o	Ap	Abyssinia	1775.	S		Jac. ic. 1 t. 17
1190 capilláris *W.*	hair-panicled	⸙	○	w	1½	o n	Ap	N. Amer.	1781	S		Mor h 3. t. 6. f. 33
1191 Molinéri *Balb.*	dwarf-glaucous	⸙	△	w	1	jn.jl	Ap	Italy	1807.	S		Bal. mis. t. [illegible] f. 1



History, Use, Propagation, Culture,

189. *Ceratochloa.* The seed having three little horns, the name has been contrived in reference to that circumstance: κεϱας, a horn, and χλοη, grass

190. *Schismus.* From σχισμη, a cleft. The outer palea is emarginate or cleft.

191. *Triodia.* Τϱεις, three, οδους, teeth, on account of the three teeth of the palea.

192. *Beckmannia.* In honor of M. Beckmann, the celebrated author of the History of Inventions, and of a Lexicon Botanicum, published in 1801, besides other works.

193. *Melica.* A name applied in Italy to the Holcus sorghum, *L.*, the pith of which is like *mel*, honey. M. ciliata and nutans are curious grasses, deserving a place in botanic parterres.

194. *Molinia.* In honor of Giovanni Ignatio Molina, who wrote an account of the plants of Chili, published in 1782. Of M. cærulea, the fishermen of the isle of Sky make ropes for their nets, which they find will bear the water well without rotting None of the species are cultivated.

195. *Briza.* From βϱιθω, to balance, the spikelets being continually in a state of balance or suspension in the air. This is an ornamental or curious genus, of little value in agriculture. The perennial species indicate a poor soil, and are bitter in taste. B. maxima is sometimes sown as a border annual.

196. *Poa.* Ποα is the Greek name of herb. This genus affords several valuable pasture, and some good hay grasses. P. aquatica is one of the tallest of British grasses, with a powerful creeping root, a native of most parts of Europe, and very common in the fens of Cambridgeshire and Lincolnshire, where it not only affords rich pasturage in summer, but forms the chief winter's fodder. It is sometimes cut thrice in one season. It grows not only in very moist ground, but in deep water; and with cat's tail, burr-reed, &c. soon fills up ditches, and occasions them to require frequent cleansing. In this respect it is a formidable plant even in slow rivers. In the isle of Ely they cleanse these by an instrument called a bear, which is an iron roller with a number of pieces of iron like small spades fixed in it; this is drawn up and down the river by horses walking along the bank,

1157 Panicle nodding spreading, Spikelets compressed 6-8-flowered, Sheaths of leaves bearded at end

1158 Panicle contracted, Spikelets linear, Glume longer than florets, Leaves bearded at base

1159 Panicle nearly simple contracted few-flowered, Spikelets oblong ovate 3-4-flow. Glume as long as florets

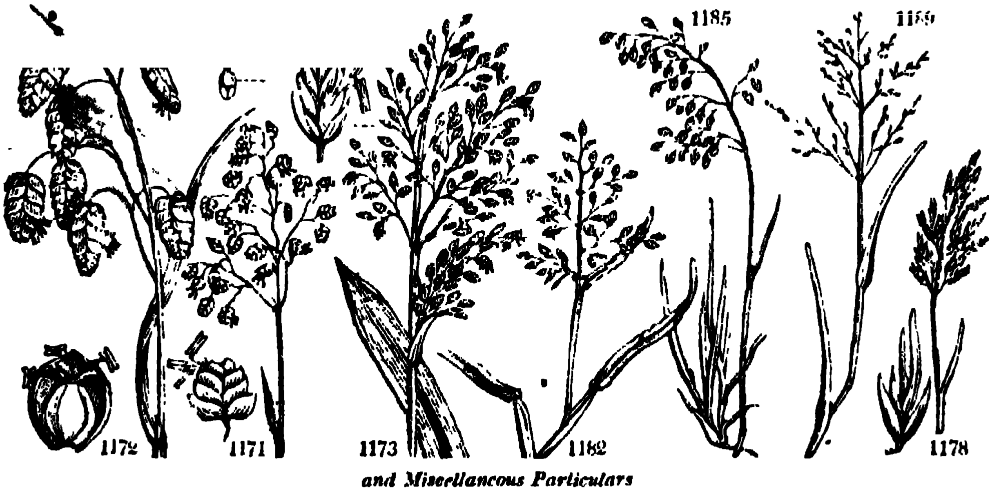
1160 The only species

1161 Outer paleæ of lower floret fringed, Panicle subspicate equal, Spikelets erect at length spreading
1162 Branches of panicle erect or spreading, Spikelets 3-flowered, Outer glume of lower floret hairy at edge
1163 Ligula nearly none, Panicle almost simple, Spikelets nodding beardless, Glumes obtuse
1164 Paleæ beardless, Panicle branching one-sided, Spikelets ovate erect 2-flowered one imperfect
1165 Ligula half-linear, Panicle branching, Spikelets nodding smooth, Glumes acute
1166 Panicle lax few-flowered, Branchlets simple, Flowers obtuse naked, Stem erect smooth
1167 Paleæ smooth, Panicle spiked branching, Spikelets 3-flowered third flower imperfect

1168 A small purplish grass common on moors with a very narrow smooth spikelike panicle

1169 Panicle erect, Spikelet 3-angular 5-7-flowered, Glume larger than florets
1170 Spikelets ovate, Glume equal to florets, Upper leaf involute
1171 Panicle erect, Spikelets finally cordate, about 7-flowered, Glume less than florets
1172 Panicle nodding at end, Spikelets oblong cordate 15-17-flowered

1173 Pan. equal erect diffuse much branched, Spikel. lin. 5-9-fl. Florets obtuse smooth 7-nerved, Root creeping
1174 Panicle diffuse, Spikelets ovate 5-fl. Ligule of the stem-leaves lanceolate acute, of the rest obtuse
1175 Panicle zigzag, Spikelets 3-flowered, Glumes ovate villous at base, Ligules lanceolate
1176 Panicle contracted erect or nodding, Leaves and stems lax, Ligule oblong
1177 Panicle diffuse, Spikelets ovate 5-flowered, Glumes lanceolate rather silky loose, Ligules very short
1178 Panicle equal diffuse, Spikelets ovate 2-4-flowered at length viviparous
1179 Pan. equal diffuse, Spik obl. ov. about 3-fl Flor. vill. at base 5-nerved, Stem and sheaths roughish, Lig obl.
1180 Panicle diffuse, Root creeping, Upper leaves much shorter than their sheaths, Ligule short truncated
β Panicle divaricating, Radical leaves very narrow and long
1181 Panicle diffuse, Spikelets ovate about 3-flowered, Glumes acute villous at base, Ligule very short obtuse
1182 Panicle one-sided divaricating, Spikelets oblong ovate 5-7-flowered, Stem subcompressed
1183 Panicle spreading, Spikelets ovate compressed acute, Outer paleæ pubescent at back
1184 Panicle equal diffuse, Spikel ovate lanc. 3-fl. Flor few, Sheaths loose 2-edged, Ligule short, Root creep.
1185 Panicle diffuse nodding, Spikelets oblong 5-7-fl. Florets villous at base, Ligule short
1186 Panicle diffuse, Spikelets ovate oblong shining
1187 Panicle equal diffuse narrowed one-sided spreading when in seed, Root nodose
1188 Pan. equal sprdg. Spikel lanc. 9-fl. Flor. vill. at base obtuse 5-nerved, Lvs rough, Ligule obl. Root creep
1189 Pan. equal capill. lax erect sprdg. Spikel. 4-5-fl. smooth lin lanc Lvs. smooth convol. at end, Stem procumb.
1190 Panicle lax much spreading capillary, Leaves hairy, Stem much branching
1191 Panicle contracted, Spikelets 7-9-fl cordate lanceolate shining, Glumes green lax



and Miscellaneous Particulars

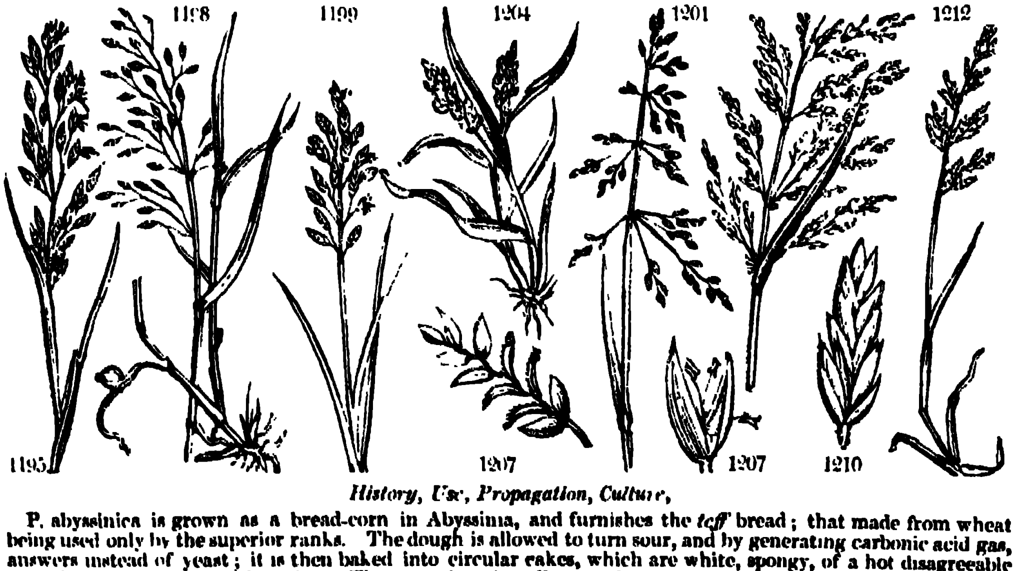
and tears up the plants by the roots, which float, and are carried down the stream. (*Curtis.*) W. Salisbury says, " it is highly ornamental, and might be introduced into ponds for the same purposes as Arundo phragmites, or planted with Festuca elatior, Poa sudetica, and Phalaris arundinacea in pits and water-holding excavations, where it would be useful as fodder, and form excellent shelter for game." (*Bot Comp.* ii. 78.)

P. alpina, in common with many alpine grasses which live almost constantly in a moist vapour, is frequently viviparous. Linnæus says, it is the rudiment of the germen which grows and forms the young plant; Sir J. E. Smith, that the glumes change into leaves, and at length the fructification into a bud.

P. trivialis Curtis considers one of our best meadow and pasture grasses, especially for moist soils and sheltered situations; on dry exposed situations it is not productive, and, as Sinclair observes, dies off in the space of four or five years. Contrary to what is the case in almost all other grasses, the hay of this species is of most value cut when the seed is ripe. It and P. annua are almost the only grasses that will thrive in grass plats in towns and small confined situations.

P. angustifolia is a valuable grass for permanent pasture, being of rapid and early growth; but the stalks and leaves being subject to the rust, it is obviously unfit for hay. P. pratensis assumes a beautiful verdure very early in spring, but as it sends up flower-stalks only once in a *season*, it is less adapted for hay than for early and permanent pasture. Cultivated by itself, it becomes so much matted by its creeping roots as to be unproductive, unless on water meadows, for which it is one of the best of grasses. P. annua is a diminutive plant, the most common in all temperate climates, and perhaps in the world. P. sudetica is a tall aquatic. P glauca is ornamental from its glaucous hue. P. maritima Sir H. Davy found to be one of the best grasses for producing latter-math. P. fertilis (P. serotina) ranks as one of the most valuable of grasses. According to the Woburn experiments it produces the greatest abundance of early foliage next to P angustifolia. It prefers a clayey soil, and flowers late.

1192	stérilis *M. B.*	barren	ɯ	△	w	1	jn jl	Ap	Tauria	1821.	S	co	
1193	angustáta *R. Br.*	narrow-spiked	ɯ	△	w	½	ja.f	Ap	Melv. Isld.	1823.	S	co	
1194	ténax *Lk.*	tough		△		2	jl.au	Ap	......	1817.	S	co	
1195	marítima *W.*	sea	ɯ	△	w	1	jn.jl	Ap	Britain	sal. m.	S	m.s	Eng. bot. 1140
1196	compréssa *W.*	flat-stalked	ɯ	○	w	1	jn.au	Ap	Britain	walls.	S	s.t	Eng. bot. 365
1197	glaúca *E. B*	glaucous	ɯ	△	w		jn.au	Ap	Britain	moun.	S	s l	Eng. bot. 1720
1198	nemorális *W.*	wood	ɯ	△	w	2	jn	Ap	Britain	woods.	S	h.l	Eng. bot. 1265
1199	amboinénsis *W.*	upright	ɯ	△	w	1	jn.jl	Ap	E. Indie	1800.	S	co	Rumph.6. t.7. f.3
1200	bulbósa *W.*	bulbous	ɯ	△	w	1	jl	Ap	England	pas.	S	h l	Eng. bot. 1071
1201	dístans *W.*	distant	ɯ	△	w	1½	jl.au	Ap	Britain	pas.	S	h l	Eng. bot. 986
1202	retrofléxa *E. B*	reflexed	ɯ	△	w	1	jl au	Ap	Britain	pas.	S	co	Eng. bot. 1532
1203	ægyptiaca *W. en*	Egyptian	ɯ	○	w	1½	jl.au	Ap	Egypt	1812.	S	co	
1204	peruviána *W.*	Peruvian	ɯ	○	w	½	jl.au	Ap	Peru	1802.	S	co	Jac. ic. 1. t. 18
1205	nerváta *W.*	nerved	ɯ	△	w	1½	jl.au	Ap	N. Amer.	1812.	S	co	
1206	digitáta *R. Br.*	fingered	ɯ	○	w	1½	jl.au	Ap	N. S. W.	1800.	S	co	
197.	ERAGROS'TIS. *P. de B*	Love-grass.					*Gramineæ.*		*Sp.* 3—10.				
1207	pilósa *P. de B.*	pilose	ɯ	○	w	1½	jl au	Ap	Italy	1804.	S	co	Host. gra. 2. t 68
1208	tenélla *P. de B.*	small	ɯ	[○]	w	1	jl.au	Ap	E. Indies	1781.	S	co	Bur. zey. t.47. f.3
1209	purpurásc *Spr.*	purple	ɯ	○	w	1½	jl.au	Ap	......	1817.	S	co	
198.	MEGASTA'CHYA. *P. de B.*	Megastachya.					*Gramineæ.*		*Sp.* 5—29.				
1210	Eragróstis *P. de B*	Love-grass		○		2	jl	Ap	Italy	1699.	S	co	Host. gra. 2. t. 69
1211	amábilis *P. de B*	purple		○		1	jl	Ap	E. Indies	1802.	S	co	Lam. ill. t.45. f.2
1212	rígida *P. de B.* *Poa* E. B	hard	ɯ	○	w	½	jn jl	Ap	England	san. pl.	S	s.l	Eng. bot. 1371
1213	elongáta *P. de B*	long-panicled	ɯ	[△]	w	2	jl au	Ap	E. Indies	1812.	S	s l	Jac ecl. gra. t. 3
1214	ciliáris *P. de B.*	ciliated	ɯ	○	w	1½	jl.au	Ap	Jamaica	1776.	S	s.l	Jacq. ic. 2. t. 304
199.	SCLEROCHLO'A. *P. de B.*	Hard-grass.					*Gramineæ.*		*Sp.* 3.				
1215	divaricáta *P. de B*	divaricate	ɯ	○	w	½	jl au	Ap	S. Europe	1802.	S	co	Gou. ill.4. t.2. f 1
1216	procúmbens *P. de B* *Poa* E. B.	procumbent	ɯ	○	w	½	jl.au	Ap	Britain	sea co.	S	h.s	Eng. bot. 532
1217	dúra *P. de B.*	coarse	ɯ	○	w	½	jn jl	Ap	Europe	1822.	S	co	Host. gra. 2 t.73
200	ELEUSI'NE. *R. Br.*	Eleusine.					*Gramineæ.*		*Sp.* 2—4.				
1218	coracána *P. S.*	thick-spiked	ɯ	○	w	1	jl s	Ap	India	1714	S	co	Schrb. gra 2 t.35
1219	indica *P. S.*	Indian	ɯ	○	w	2	jl s	Ap	India	1714.	S	co	Rheede 12. t. 69
201.	DACTYLOCTE'NIUM. *P. de B*	Dactyloctenium.					*Gramineæ.*		*Sp.* 1—2.				
1220	ægyptiacum *P. de B*	creeping	♣	○	w	1½	jl s	Ap	Egypt	1770.	S	co	
202.	LEPTOCHLO'A *P. de B.*	Le					*Gra* [illegible]*eæ.*		*Sp.* 4—5.				
1221	virgata *P. de B.*	slender-spiked	ɯ	[△]	w	3	jl au	Ap	W. Indies	1727.	S	co	Sloane.1. t.70. f 2
1222	tenerrima *R. & S.*	very-slender	ɯ	○	w	1½	jn	Ap	China	1820	S	co	
1223	domingensis *Lk.*	close-spiked		△		3	jn	Ap	W. Indies	1820.	S	co	Jacq ic t 22
1224	filifórmis *P. de B* *Poa chinénsis*	Chi	ɯ	○	w	2	jl.au	Ap	China	1820.	S	co	Jacq ecl. gra. t.4
203.	CY'NODON *P. S.*	Cynodon.					*Gramineæ*		*Sp* 2—10				
1225	Dáctylon *P. S.*	creeping	♣	△	w	1	jl	Ap	England		S	co	Eng. bot. 850
1226	lineáris *W. en.*	linear-leaved	ɯ	[△]	w	½	jl.au	Ap	E. Indies	1796.	S		
204.	DINE'BRA *P. de B*	Dinebra.					*Gramineæ.*		*Sp* 2—5.				
1227	arábica *Jacq.*	reflexed	ɯ	○	w	½	jn jl	Ap	E. Indies	1804.	S	co	Jac. frag t.121. f.1
1228	Líma *P. de B.*	imbricated	ɯ	○	w	½	jl.au	Ap	Spain	1776.	S	co	Cav. ic. 1. t. 91
205.	ECHINA'RIA *Desv.*	Ec					*Gramineæ.*		*Sp* 1.				
1229	capitata *Desv.*	headed	ɯ	○	w	½	my au	Ap	S Europe	1771.	S	co	Host. gra. 3. t. 8
206	TRI'TICUM. *W.*	Wheat.					*Gramineæ.*		*Sp* 16—28.				
1230	æstivum *W.*	summer	ɯ	○	ag	4	jn jl	Ap	Baschkiros	...	S	r.m	Host. gra. 3 t 26
1231	hybérnum *W.*	Lammas	ɯ	○	ag	4	jn.jl	Ap	......	...	S	r.m	Host. gra. 3. t.20



History, Use, Propagation, Culture,

P. abyssinica is grown as a bread-corn in Abyssinia, and furnishes the *teff* bread; that made from wheat being used only by the superior ranks. The dough is allowed to turn sour, and by generating carbonic acid gas, answers instead of yeast; it is then baked into circular cakes, which are white, spongy, of a hot disagreeable sourish taste, but light of digestion. The same bread, well toasted, and infused in water for some days, furnishes the *bouza* or common beer of the country, like the quas (*sour*, Rus) of Russia.

197 *Eragrostis.* An elegant appellation derived from ερος and αγρωστις, Love-grass. The pretty dancing spikelets are the delight of children, and remembered by men long after many of their other innocent pleasures have ceased to retain their charm. The plants resemble the Briza or quaking-grass.

1192 Pan. attenuated, Branches very short, Spikel. 3-fl. acute smooth, Leaves short, of the stem distich sprdg.
1193 Pan. simple contracted linear lanceolate, Spikelets 4-5-fl. Lower glume shortest, Paleæ eroded at end
1194 Lvs. flat striat rough, Lig. short, Branches of pan. quite sim. Spik. obl with distant flor. Pal. acute smooth
1195 Pan. branching contr. Spikelets about 5-flow. Spikel. obtuse slenderish obsoletely 5-nerved, Root creeping
1196 Pan. one-sided diffuse, Spikel. obl. ovate 5-7-fl. Florets villous at base, Stem oblique compr. Root creeping
1197 Pan. attenuate erect, Spikelets ovate 3-flowered, Paleæ retuse villous at base, Stipule very short
1198 Ligules nearly none, Leaves plaited at base broader and longer than sheath, Panicle elong. Paleæ nerved
1199 Panicle contracted one-sided, Stem round
1200 Panicle equal diffuse, Spikelets ovate 4-5-fl. Florets villous at base, Stem and bundles of leaves bulbous
1201 Pan. equal at length divar. Branches in seed bent down, Spikel. linear about 5-fl. Florets smooth obtuse
1202 Same as Poa distans
1203 Pan. equal diffuse, Spikel lin. 9-15-fl. Florets smooth, Ligule trunc. ciliated, Stem much branched ascend.
1204 Pan. spiked, Spikel. 5-fl. ovate, Flor. smooth acute, Inner paleæ cil. at back, Stem procumb. and lvs. hairy
1205 Pan. equal diffuse, Spikelets ovate 5-fl. Florets smooth 7-nerved obtuse, Stem furr. ang. Root somew. creep.
1206 Spikes fingered numerous, Spikelets imbricated 7-flow. Outer glume obtuse 3-nerved rather silky at base

1207 Pan. equal, in fl. contr. in seed diffuse, Low bran. at base and rami. hairy, Sp. lin. 7-9-fl. Flor. sharpish smth.
1208 Panicle oblong capillary whorled, Florets 6-flowered very minute nodding
1209 Panicle erect, Flower-stalks stiff, Leaves smooth about the mouth of the sheaths

1210 Panicle equal spreading, Lower branches at base and ramifications hairy, Spikelets 15-25-flowered
1211 Panicle spreading, Spikelets 18-flowered linear
1212 Pan. distichous one-sided contr hard, Spikelets linear acute 5-11-fl. Florets smooth obsoletely 5-nerved

1213 Pan. elong. Branc. sprdg distant abbrev Spik. lin. 7-11-fl. close press. Flor. smooth acute 5-nerv. Lvs. glauc.
1214 Panicle closely spiked, Spikelets ovate oblong 6-10-flowered, Florets smooth acute, Inner paleæ fringed

1215 Panicle divaricating, Flower-stalks thickened, Spikelets 4 flowered, Leaves filiform
1216 Panicle lanceolate contracted one-sided rough, Rachis round, Florets obtuse nerved

1217 Panicle one-sided broad contracted stiff, Spikelets lanceolate obtuse 3-5-flowered

1218 Spikes about 7 digitate at length incurv. Rachis membranac. Stem compr. erect, Leaves close together
1219 Spikes digitate erect 5-9 on a linear rachis, Stem compressed declining branching at bottom

1220 Spikes fingered 4-5 obtuse much spreading mucronate, Stem ascending, Leaves opposite

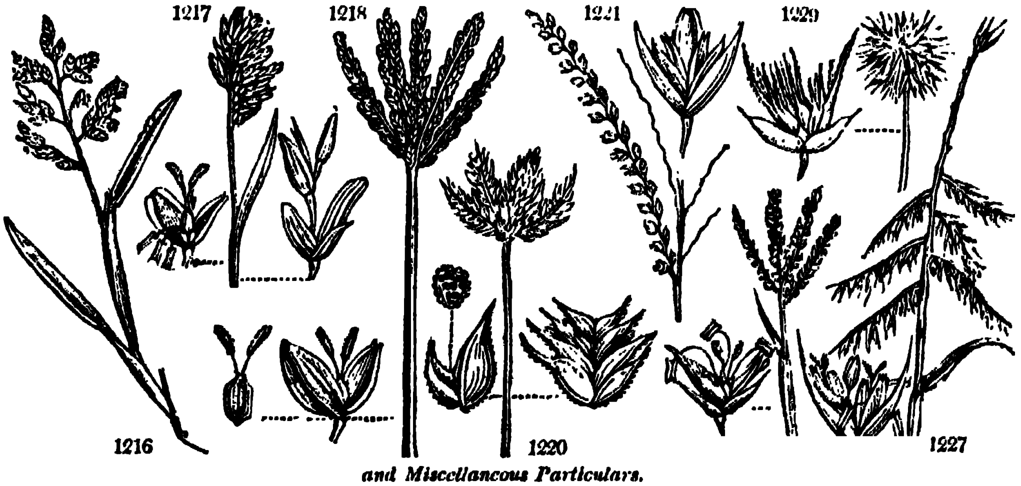
1221 Panicle with simple branches, Flowers sessile 6-flowered, the last sterile, lower bearded
1222 Spike alternate very slender, Spikel. distich beardless, Leaves rather hairy, Sheaths compressed smooth
1223 Pan. branched fringed, Branches simple, Spikelets 5-fl. subsess Florets all bearded (*Rhabdochloa* P.)
1224 Panicle much branched contracted, Branches simple filiform, Spikelets alternate 2-4-flowered beardless

1225 Stolones creeping, Glume much spreading rough, Leaves fringed at edge
1226 All over hoary, Spikes digitate 4, Glume erect, Leaves naked rough at edge

1227 Spikes altern 1-sided panicled, Glumes equal, Spik. 2-fl Flor. stalked beardl. herm. Stems prost. Lvs. flat
1228 Spike one-sided simple, Spikelets many-flowered

1229 The only species

1230 Spike paral. compr. bearded, Glumes gibbous bearded trunc. at base contr. with a nerve runn. thinner upw
1231 Spike par. compr. nearly beardl. Glumes gibb. trunc. mucron. at base contr. with a nerve runn. thinner upw.



and Miscellaneous Particulars.

201. *Dactyloctenium.* The spikes are digitate, or disposed like one's fingers (δακτυλος, a finger).

202. *Leptochloa.* From λεπτος, slender, and χλοη, grass, on account of its heads.

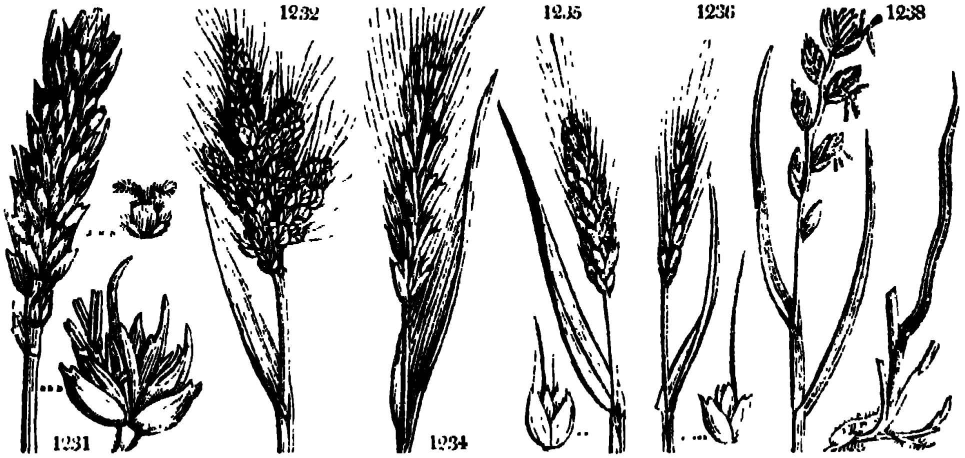
203. *Cynodon.* Κυων, κυνος, a dog, and οδυς, a tooth; wherefore we know not. Cynodon linearis, the Agrostis linearis of Konig, is the famous *durva* grass of the Hindoos, for which, see Lambert in the Linn. trans. vii. No. 22.

204. *Dinebra.* Its Arabic name.

205. *Echinaria*; ἐχινος, a hedge-hog: the prickly round heads may be fancied to resemble little hedgehogs.

206. *Triticum.* According to Varro, was so named from its grain being originally worn down (*tritum*) in making it eatable. This is by far the most important genus of the Gramineæ, as including the wheats, the flour of which is universally allowed to make the best bread in the world. For what is man upon rice or potatoes?

1232 compósitum *W*	Egyptian	⚘	○	ag	3	jn.jl	Ap	Egypt	1799	S	r.m	Mor. h. 3. t. 1. f 7
1233 túrgidum *W.*	turgid	⚘	○	ag	3	jn.jl	Ap	……	…	S	r.m	Host. gra. 3. t 28
1234 polónicum *W*	Polish	⚘	○	ag	4	jn.jl	Ap	……	1692.	S	r.m	Host. gra. 3. t. 31
1235 Spélta *W*	Spelt	⚘	○	ag	3	jn.jl	Ap	……	…	S	r m	Host. gra. 3. t.30
1236 monocóccum *W.*	one grained	⚘	○	ag	3	jn.jl	Ap	……	1648.	S	r.m	Host. gra. 3. t.32
1237 squarrósum *Roth*	Porcupine	⚘	○	w	1	jn.jl	Ap	Egypt	1800	S	co	Host. gra. 3. t.32
1238 júnceum *W.*	rushy	⚘	△	w	1½	jn.jl	Ap	England	sea. sh.	S	co	Eng. bot. 814
1239 répens *W.*	Couch-grass	⚘	△	w	2	jl.au	Ap	Britain	rub.	S	m s	Eng. bot. 909
1240 canínum *E. B.*	bearded	⚘	△	w	½	jl.au	Ap	Britain	ch. wo	S	s.l	Eng. bot. 1372
1241 rígidum *W. en.*	rigid	⚘	△	w	1	jn.jl	Ap	Germany	1805.	S	co	Host. gra. 2. t.22
1242 cristátum *Schr.*	crested	⚘	△	w	1	jl.au	Ap	Britain	hed	S	co	Eng. bot. 2267
1243 Zéa *Host*	maize-like	⚘	○	ag	4	jn.jl	Ap	Austria	1815.	S	r.m	Host. gra. 3. t.29
1244 villósum *P. de B*	villous	⚘	○	w	3	jn.jl	Ap	S. Europe	1790.	S	co	Fl. græc. 1. t. 97
1245 elongátum *Host*	long-spiked	⚘	△	w	5	jn.jl	Ap	Germany	1805.	S	co	Host. gra. 2. t.23
207. LOLIUM *W*	DARNEL.						*Gramineæ.*	*Sp.* 4—10				
1246 perénne *W*	Rye-grass	⚘	△	ag	3	my.jn	Ap	Britain	mc. pa.	S	co	Eng. bot. 315
1247 tenue *W.*	slender	⚘	△	w	3	jl.au	Ap	S. Europe	1590.	S	co	
1248 temuléntum *W*	bearded	⚘	○	p	4	jl.au	Ap	Britain	cor. fi	S	co	Eng. bot. 1124
1249 arvense *E. B*	beardless	⚘	○	ag	4	jl	Ap	England	cor. fi.	S	co	Eng. bot. 1125



History, Use, Propagation, Culture.

T. æstivum, and the five following sorts, are most probably variations of the same species. It is certain that winter-wheat sown in spring will ripen the following summer, though the produce of succeeding generations of spring-sown wheat is found to ripen better. White, red, awned, and beardless wheat change and run into each other on different soils and in different climates; and even the Egyptian wheat is known to change in this country to the single-spiked common plant. There is a sort of summer-wheat apparently a distinct species from those which have been mentioned, the agricultural treatment of which, as well as the general appearance, is similar to that of barley. The straw is short and soft, the ears awned, small, and easily threshed, and the grain may be sown in May and reaped in August or September. It is very subject to the black disease, and though it has been tried in a number of places has never come into general cultivation. A variety from India, called "hill-wheat," and another from the Cape of Good Hope, have also been tried with no better results. But the hill-wheat, and, we believe, the hill-barley, also, of the northern provinces of India has been cultivated with success in Germany, under the direction of the Archduke John of Austria. T. monococcum grown in Switzerland, is of similar appearance.

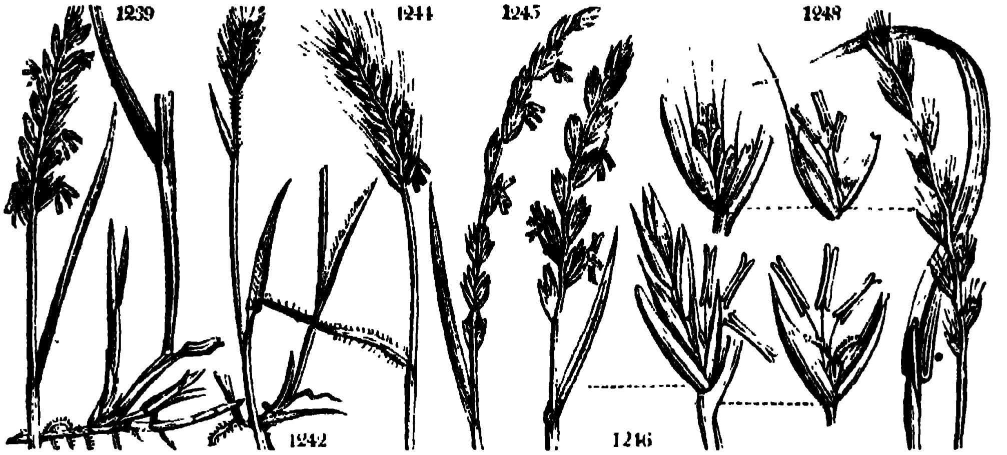
T. spelta appears a distinct species, and more hardy than common wheat; it has a stout straw almost solid, with strong spikes and chaff adhering firmly to the grain. The grain is light, yields but little flour, and makes but indifferent bread. It is grown in Switzerland in elevated situations, where common wheat would not ripen; also in Bavaria and other parts of Germany. It is sown in spring, and ripens in July and August.

Of the common wheat there are many varieties, but the most permanent are the red and white grained, and the spring-wheat, which is generally red. The Hertfordshire reds and whites, woolly eared, awned, and nearly fifty other names are merely sub-varieties of the red and white. Wheat answers best when treated as a biennial, though it does not remain above one year in the ground. Provided the soil be well prepared and dry, and the grain sown in time, the plants do not suffer from the greatest cold of our climate, or even that of Russia. In the latter country, and in the northern counties of Britain, the fields are covered with snow, which retaining a temperature of from 30 to 32 degrees, the plants are found to vegetate and establish their roots firmly in the soil. The snow is not thawed off till the weather is decidedly warm in spring, when the plants make rapid progress, apparently more so than in warmer climates. Wheat, like all culmiferous plants, may be said to have two distinct sets of roots, the seminal or tap-root, and the coronal or surface-root, the former proceeding from the embryo, and the latter from the first joint of the stem. The former seem intended to nourish the plant while young, to fix it to the soil, and to penetrate into the sub-soil for water; the latter to search along the surface among the lighter materials of the soil for nutritive particles. There is in the Banksian museum, a stalk of wheat of ordinary length with a tap-root six feet long, which had penetrated into a sub-soil of limestone brush, and was taken up in digging a drain. It grew on the estate of J. Fane, Esq. at Wormley in Oxfordshire, in 1818. M. Sageret, a scientific French agriculturist, found that when wheat or any of the other grains were etiolated immediately after germination, by growing too rapidly or being sown too thick, the first joint from which the coronal or surface roots proceed is raised above the ground, and in consequence either throws out no roots at all, or so few as to nourish it imperfectly, in which cases it either dies before it comes into flower, or before the grains are matured. This accurate statement of what takes place, is well calculated to show the bad effects of sowing winter-wheats too early, or spring-corn too late, and grasses in general too thick. Animal substances, and especially bones and urine, are the best manures for wheat, as containing much gluten, a substance found in a greater proportion in that grain than any other. Next to animal manures lime is important, as tending to the same effect by chemical combinations. Wheat is almost every where cultivated, both in the temperate and torrid zone, to the 45th degree of north latitude, and the height of 2000 feet above the level of the sea in southern latitudes.

The insects and diseases which attack wheat are various. The grubs of chaffers and beetles, as well as the wire-worm (the larva of different species of Tipula), attack the roots; the wheat-fly (Tipula tritici) the ears; the smut or black the grains; and the mildew, rust, or blight, different names for the same disease, the whole plant. The mildew Sir J. Banks determined to be produced by the growth of a minute fungus on the straws and chaff of the plant, and Dr. Cartwright (*Phil. Mag.* Oct. 1820.) ascertained it might be destroyed by watering with salt and water. The smut converts the farinaceous part of the grain into a black powder, and is supposed to be prevented or lessened by steeping the grain previously to sowing in any strong saline mixture. It

1232 Spike compound at the base, Spikelets 3-flowered ventricose imbricated, Terminal floret beardless neuter
1233 Spikelets 4-flowered ventricose pubescent imbricated bearded, Terminal floret barren, Glumes obtuse
1234 Spikelets 4-flowered ventricose roughish, Two middle florets sterile, Paleæ unequal outer fringed
1235 Spikelets 3-flowered ventricose roughish, Intermediate floret barren, Glumes ovate
1236 Spikel. 2-fl. ventr. imbr. bearded, Barren floret with a short, fertile with a very long beard, Glumes 3-toothed
1237 Spike distich. Spikelets 4-flowered approxim. Two middle florets sterile, Glumes lin. lanc. Stem ascending
1238 Glumes 9-nerved obtuse 4-5-flowered, Florets beardless, Rachis smooth, Root creeping
1239 Root creeping white jointed proliferous
1240 Glumes shortly bearded 3-nerved 5-flowered, Florets bearded, Root fibrous
1241 Spike interrupted, Rachis hispid, Leaves rolled in at edge, Root creeping
1242 Glumes 4-flowered bearded, Spikes lanceolate imbricated, Stems pubescent
1243 Spikelets 4-flowered remote, Two joints of the hairy rachis longer than the spikelet
1244 Spikelets 3-flowered, Ribs of glumes fringed in tufts, Leaves downy
1245 Spikelets lanceolate 8-flowered beardless, Glumes truncate naked, Leaves nerved

1246 Spike beardless, Spikelets longer than glume
1247 Culm slender, Leaves narrow, Spikelets 3-4-flowered
1248 Spike bearded, Spikelets less than glume, Culm rough upwards
1249 Spike nearly beardless, Spikelets as long as calyx



and Miscellaneous Paniculas.

is not easy, however, to cure diseases in the vegetable kingdom, and therefore the grand objects of the cultivator ought to be to procure healthy seed, and apply judicious culture.

The uses of wheat are well known. The grain yields a greater proportion of flour than every other; for, while 14lbs. of barley yield 12lbs of flour, and of oats 8lbs, the same quantity of wheat yields 13lbs It is also more nutritive, 1000 parts of barley yielding 920, of oats 743, and wheat 955 soluble parts. Of these, the gluten of wheat is 90, of barley 60, and of oats 87. (*Davy. Ag. Chem.* 138.) Gluten is so essential an ingredient in bread that the panary fermentation cannot go on without it, and hence the inferiority of that article in wet seasons, when wheat is blighted or ill ripened, and the advantage of having a stock of old grain, or of grain from the south of Europe, especially of the Mediterranean isles and coasts.

Wheat starch is made from wheat, by steeping it, and afterwards beating it in hempen bags. The mucilage being thus mixed with the water produces the acetous fermentation, and the weak acid thus formed, renders the mucilage white. After settling, the precipitate is repeatedly washed, and then put in square cakes In drying, the cakes separate into flakes as found in the shops. Starch is soluble in hot water, but not in cold; and hence, ground down, it makes an excellent hair powder. Its constituents are carbon 43·55; oxygen 49·68; hydrogen 6·77 = 100.

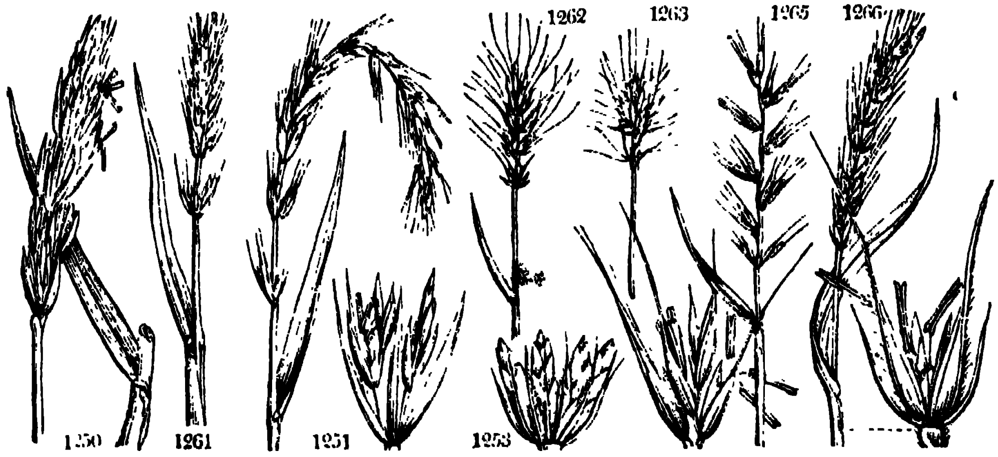
The straw of wheat, from dry chalky lands, is manufactured into hats. for which purpose the middle part of the tube above the last joint is taken, and being cut into lengths of 8 or 10 inches, these pieces being split are used to form the plait. The operation of plaiting is performed by females and children, who plait it into ribbons of from one to two inches broad, and these are afterwards sown together on blocks or moulds, beginning at the crown, in various shapes according to fancy or fashion. The best straw is produced on the chalky soil about Dunstable, where plaiting is a common occupation. Other grasses afford culms which have also been used and manufactured into much finer and expensive work that those of wheat or rye. Leghorn hats are made from the straw of a bearded variety of wheat not unlike rye. It is grown on poor sandy soils on the banks of the Arno, between Leghorn and Florence, expressly for this manufacture. It does not grow above 18 inches in length, is pulled green, and bleached like flax on the gravelly bed of the river. The straws are not split as in England, which renders the plait tougher and more durable. The value of wheat-straw for thatching, litter, and other purposes, need not be mentioned.

T. junceum grows in loose sand on the sea-coast, and by its tough creeping roots and numerous fibres co-operates with Carex arenaria, Elymus arenarius, and Festuca rubra, in keeping them stationary, accumulating more, and eventually rendering drifting sands fit for agricultural purposes.

T. repens, couch, white couch, twitch, dog-grass, quickens, &c. is common in most parts of Europe, and even in Siberia. It is one of the worst weeds in arable lands and gardens, and in the former is only to be destroyed by fallowing or fallow crops, or laying down to grass; and the latter by hand-picking or very deep trenching. The roots are sweet and nourishing, and are greedily eaten by horses and cattle. Sir H. Davy found them to contain nearly three times the nourishment of the stalks and leaves.

207. *Lolium.* Loloa is the Celtic name of this grass. L. perenne is the *fausse ivraie* (see L. temulentum) of the French, from which our term ray-grass is derived, the *Dauerende Lolch*, Ger., and *Loglio vivace*, Ital. This appears to be the first grass which was taken into cultivation in Europe, but when is uncertain. Gerarde, Parkinson, Plattes, and even Blythe in Cromwell's time, take no notice of it. It is first mentioned by Dr. Plott in 1677. "They have lately sown," he says "ray-grass, *Gramen loliaceum*, to improve cold sour clayey weeping ground unfit for saint-foin." It was first sown in the Chiltern parts of Oxfordshire, and afterwards by one Eustace at Islip in the same county. There are two varieties of this grass; the perennial, which is of shorter growth than the other, and on sound dry soils will last four or five years, and on rich soils longer; and the annual, or rather biennial, which is tall and larger in all its parts than the perennial, and after producing one bulky crop dies at the root, or, at least, sends up no latter math. After all that has been affirmed of other grasses, none appear so well adapted as the annual rye-grass for producing a bulky crop of hay, with or without red clover; or better adapted than the perennial variety for sowing down with white clover, to afford three or more years pasture in the rotations of what is called convertible husbandry, or the alternate corn and grass culture. Cock's-foot grass and woolly grass (Holcus) may afford a greater bulk on poor soils, but are far inferior to the ray-grass in regard to nutritive qualities. Sir H. Davy found the value which

208. E'LYMUS. *W*	Lyme-grass				*Gramineæ.*			*Sp.* 16—24				
1250 arenárius *W.*	upright-sea	♀	Δ	ag	4	ap.jn	Ap	Britain	sea co.	S	s	Eng. bot. 1672
1251 geniculátus *E. B.*	pendulous	⚘	Δ	w	4	jl	Ap	England	sea sh.	S	s	Eng. bot. 1586
1252 sabulósus *W. en.*	glaucous	⚘	Δ	w	4	jn.jl	Ap	Siberia	1806.	S	co	
1253 gigantéus *W.*	gigantic	⚘	Δ	or	5	jl.au	Ap	Mexico	1790.	S	co	
1254 sibíricus *W.*	Siberian	⚘	Δ	w	6	jn jl	Ap	Siberia	1758.	S	co	Sch.gra.2.t.21.f.1
1255 téner *W.*	tender	⚘	Δ	w	2	jn jl	Ap	Siberia	1801.	S	co	
1256 philadélphicus *W*	Philadelphian	⚘	Δ	w	4	jl.au	Ap	N. Amer.	1790.	S	co	
1257 canadénsis *W.*	Canadian	⚘	Δ	w	4	jl au	Ap	N. Amer.	1699.	S	co	Mor. h.3. t.2. f.10
1258 virgínicus *W.*	Virginian	⚘	Δ	w	2½	jn.jl	Ap	Virginia	1781.	S	co	
1259 striátus *W.*	striated	⚘	Δ	w	2	jn.jl	Ap	N. Amer.	1790.	S	co	
1260 villósus *Ph.*	villous	⚘	Δ	w	2	jn.jl	Ap	N. Amer.	1802.	S	co	
1261 europæ'us *W.*	wood	⚘	Δ	w	2	jn jl	Ap	England	woods	S	s.l	Eng. bot. 1317
1262 crinitus *Sch.*	long-awned	⚘	○	w	1	jn.jl	Ap	Smyrna	1806.	S	co	Schr. gr. t.24. f.3
1263 Cáput-Medúsæ *W*	Portuguese	⚘	○	w	1	jn jl	Ap	Portugal	1784.	S	co	Schr. gr. t.24. f 2
1264 júnceus *Fisch.*	rush	⚘	Δ	w	2	jn jl	Ap	Siberia	1806	S	co	Mem. mosq. 1. p 45
1265 hýstrix *L.*	Porcupine	⚘	Δ	w	2	jn jl	Ap	Crimea	1770.	S	co	Jacq. ic. 2. t. 305
209 SECA'LE. *W.*	Rye				*Gram*			*Sp* 2.				
1266 cereale *W.*	common	⚘	○	ag	3	jn jl	Ap	Crimea	...	S	s.l	Host. gra. 2. t. 48
1267 orientále *W.*	hairy-spiked	⚘	◎	ag	3	jn.jl	Ap	Levant	1807.	S	co	N.ac.ber.2.t.4.f.3
210 HOR'DEUM. *W*	Barley.							*Sp.* 9—12.				
1268 vulgáre *W.*	spring	⚘	○	ag	3	jl	Ap	Sicily	...	S	r.m	Host. gra. 3. t. 34
1269 hexástichon *W.*	winter	⚘	○	ag	3	jl	Ap	......	...	S	r.m	Host. gra. 3. t. 35
1270 distichon *W*	common	⚘	○	ag	3	jl	Ap	Tartary	...	S	r.m	Host. gra. 3. t. 36
1271 Zeocriton *W.*	battledore	⚘	○	ag	2	au	Ap	......	...	S	r m	Host. gra 3. t. 37
1272 bulbósum *W*	bulbous	⚘	Δ	w	3	jl	Ap	Italy	1770.	S	co	Fl. græc. 1 t 98
1273 murínum *W.*	wall	⚘	○	w	1½	ap.au	Ap	Britain	sal. m	S	s l	Eng. bot. 1971
1274 praténse *Roth.*	meadow	⚘	Δ	w	2	jn	Ap	Britain	m. me	S	h.l	Eng. bot. 409
1275 maritimum *W.*	sea	⚘	○	w	1	jn jl	Ap	Britain	sal m	S	m s	Eng. bot. 1205
1276 jubátum *H. K.*	long-bearded	⚘	◎	w	1	jl au	Ap	N Amer	1782.	S		
211 MICROCHLO'A *R Br.*	Microchloa				*Gramineæ*			*Sp.* 1				
1277 setácea *R Br.*	setaceous	⚘	○	w	½	jl	Ap	E Indies	1806.	S	co	Rox. cor. t.132
212. OPHIU'RUS. *P. de B.*	Hard-grass				*Gramineæ.*			*Sp* 3—4				
1278 incurvátus *P. de B*	sea	⚘	○	w	⅔	jl	Ap	Britain	sea co		m s	Eng. bot. 760
1279 filifórmis *P. de B.*	filiform	⚘	Δ	w	½	jl	Ap	Portugal	1800		co	Barr ic. t.117 f.1
1280 pannónicus *P de B*	two-flowered	⚘	○	w	½	jl	Ap	Hungary	1804.		co	Host. gra. 1. t.24
213 MONER'MA *P de B*	Monerma				*Gramineæ.*			*Sp* 2—3				
1281 monándrum *P de B*	monandrous	⚘	○	w	½	jl	Ap	Spain	1804		co	Cav ic t. 39. f. 1
1282 subulátum *P. de B*	subulate	⚘	○	w	1	jl	Ap	S Europe	1806.		s l	Barr ic t. 5



History, Use, Propagation, Culture,

this grass cut at the time it is coming into flower bears to that when the seed is ripe, to be as 10 to 11. Pacey's perennial ray grass, a variety raised in Staffordshire, has long been in repute, and there has lately been a new variety raised in Bedfordshire, known as the Russel ray grass.

208 *Elymus* Linnæus derives the name from ἐλύω, to cover, because the leaves of his Elymus maritimus are formed into a coarse sort of fabric. The Elymus of the ancients was evidently a sort of corn. E. arenarius is a strong rough glaucous plant common on sandy shores, and like Calamagrostis arenaria and others, which have been mentioned (genus Lygeum, Stipa, Arundo), prevents, by its matted roots, the shifting of loose sand thrown up by the tides. In analyzing the soluble matter afforded by this grass, Sir H. Davy found it to contain more than one-third of its weight of sugar. It is not, however, eaten by any of our domestic animals

209. *Secale.* An ancient name, supposed to have been derived from *seco*, to cut, which word is said to have been formed from the Celtic *sega*, a sickle This grain, of which there is probably only one species, affords a grain next in value to the wheat for making bread, and is generally used for this purpose, alone or mixed with wheat, throughout Germany and the north of Europe It is hardier and earlier than wheat. Like it, it will ripen if sown in spring, but better if treated like a winter-wheat. In Britain it is little sown. Its grain yields 792-1000 parts of soluble matter, of which 645 are mucilage, 190 gluten, and 58 sugar.

210 *Hordeum* Bodæus à Stapel derives this word from *hordus*, heavy, because bread made with barley is very heavy *Bara* is the Celtic for bread, whence the English words barn and barley; as beer is a slight alteration of the appellation of barley in that tongue, *Bere*. *Hexastichon* (ἓξ, six, στιξ στιχος, row) signifies grain growing in six rows, *distichon*, in two rows. *Zeocriton* is derived from ζεα, which is supposed to have been Spelt, and κριθη, barley: that is to say, barley resembling spelt wheat. The four first species, or, more probably, sub species, are cultivated as barleys. H vulgare or two rowed barley, is that in general cultivation, and of this the rath ripe and Thanet are preferred as varieties. H. hexastichon is the bear or bigg chiefly cultivated in the north of Scotland, and in Denmark and Sweden. H. distichon has thin husks, and is preferred for malting H zeocriton or sprat barley has short broad ears, long awns, and short coarse straw, and is not much cultivated. The native country of barley is unknown It was cultivated by the Romans as a horse-corn, and also for the army, and the gladiators were called Hordiarii from their feeding on this grain. In the south of Europe they have sometimes two crops in one season; one sown in autumn and cut in May, and another

1250 Spike erect close, Spikel. 3-fl. pubesc. Lower and upper in pairs middle in 3s rather shorter than fring. glume
1251 Spike loose erect, Spikel. 3-fl. pubesc. lower remote shorter than the smooth glumes, Leaves involute rigid
1252 Spike erect close, Spikel. 4-fl. from middle to base pubesc. shorter than smooth glume, Leaves involute rigid
1253 Spike erect close, Spikel. 6-7-fl. pub. in 6s upper in 3s or pairs shorter than smooth glumes, Lvs. invol. rigid
1254 Spike pendulous close, Spikelets 2 together longer than the glumes
1255 Spike pendulous, Spikelets 3-flowered bearded in pairs, Leaves flat
1256 Spike pendulous spreading, Spikelets 6-flowered bearded in threes, Leaves flat
1257 Spike nodding spreading, Spikelets 6-flowered bearded the lower in threes upper in pairs, Leaves flat
1258 Spike erect, Spikelets 3-fl. bearded smooth in pairs, Glumes lanceol. nerved as long as spikelets, Leaves flat
1259 Sp. erect, Spt. 2-fl. beard. hispid in pairs, Gls. lin. nerv. beard. as long as spikel. Lvs. flat and sheaths smooth
1260 Spike erect, Spikel. 3-fl. villous bearded in threes, Glumes bearded longer than spikel. Leaves flat
1261 Spike erect, Spikel. in 3s 1-2-fl. bearded rough, Glms. linear subul. bearded as long as spikel. Sheaths hairy,
1262 Spikelets 1-fl. rough, Involucres erect [Leaves flat
1263 Spikelets 2-fl. Involucres setaceous spreading
1264 Lvs. short involute curved, Spike erect rough, Spikel. in 3s 2-fl. longer than the bearded very narrow invol.
1265 Spike erect, Spikelets spreading, Involucr. none [Outer glume with a short beard

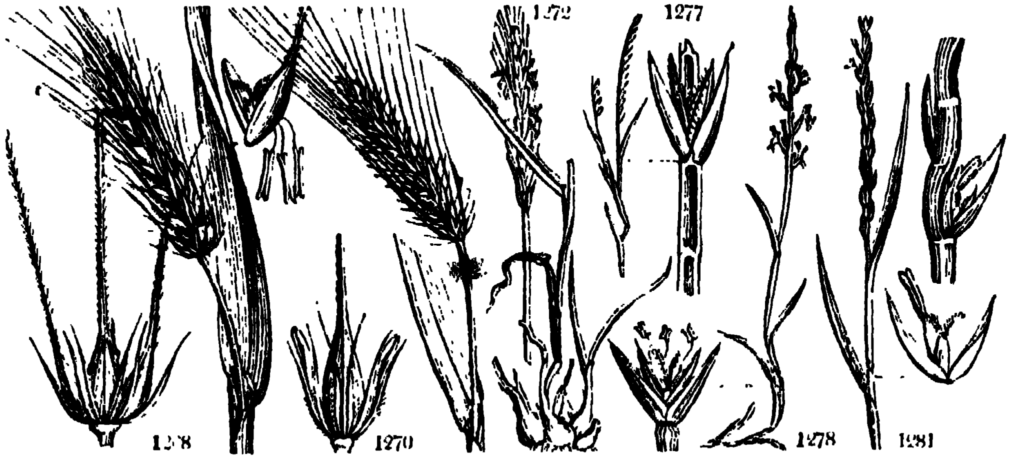
1266 Glumes and beard rough, Paleæ smooth toothed at the end
1267 Stem procumbent at base, Uppermost leafsheath tumid, Glumes and paleæ subulate bearded

1268 All florets hermaphrodite bearded, Seeds in 4 rows, Stems erect
1269 All florets hermaphrodite bearded, Seeds in 6 rows
1270 Lateral florets male beardless hermaphrodite in 2 rows bearded
1271 Lateral florets male beardless hermaphrodite in 2 rows, Spike short, Seeds angular spreading
1272 All florets fertile in threes bearded, Involucres setaceous ciliated at base
1273 Intermediate glumes linear lanceolate ciliated outer setaceous rough
1274 Lateral florets male with a short beard, All the glumes setaceous rough
1275 All the glumes rough, Inner glume of the lateral florets semi-lanceolate the rest setaceous
1276 Beards and involucres setaceous very long

1277 The only species

1278 Spike slender subulate incurved
1279 Spike subulate somewhat compressed erect, Leaves channelled
1280 Spike subulate erect, Leaves flat

1281 Spike subulate erect, Glume minute, Florets bearded
1282 Spike subulate erect, Glume ensiform acuminate appressed



and Miscellaneous Particulars

sown in spring and cut in autumn. In Lapland two months, and in England nine weeks elapse between the sowing and cutting of this grain.

Malt is the chief purpose for which barley is cultivated in Britain, but it is also made into flour, and pot and pearl barley. *In order to understand the process of malting, it may be necessary to observe, that the cotyledons of a seed before a young plant is produced, are changed by the heat and moisture of the earth into sugar and mucilage* Malting is only an artificial mode of effecting this object, by steeping the grain in water, and fermenting it in heaps, and then arresting its progress towards forming a plant by kiln drying, in order to take advantage of the sugar in distillation for spirit, or fermentation for beer The chemical constituents of mucilage and sugar are very nearly alike: in the process of malting a part of the mucilage or starch is converted into sugar, so that the total quantity of sugar, and consequently the source of spirit, is increased.

Of pot-barley there are two sorts, pearl and Scotch, both produced by grinding off the husk, and the former variety by carrying the operation so far as to produce roundness in the kernel. It is used in soups, gruels, and medicinal drinks.

Barley-flour is ground like flour, and forms a light pudding or pottage, which, spread out in thin cakes and slightly toasted, forms a breakfast bread much esteemed in some parts of Scotland. It is brought to table hot from the baking plate, and eaten with butter and honey, or cream and sugar.

H. murinum, squirrel-tail-grass, is common by way-sides, and its awns or heads are so injurious to the gums of horses in the isle of Thanet, that one of the greatest recommendations of an inn is having "hay without any mixture of squirrel-grass."

H. pratense resembles rye, and to this, Professor Martyn observes, the name of rye-grass belongs, and not to Lolium perenne, which is ray (from *ivraye*, Fr.) grass.

211. *Microchloa.* From μικρος, small, χλοη, grass, on account of its size.

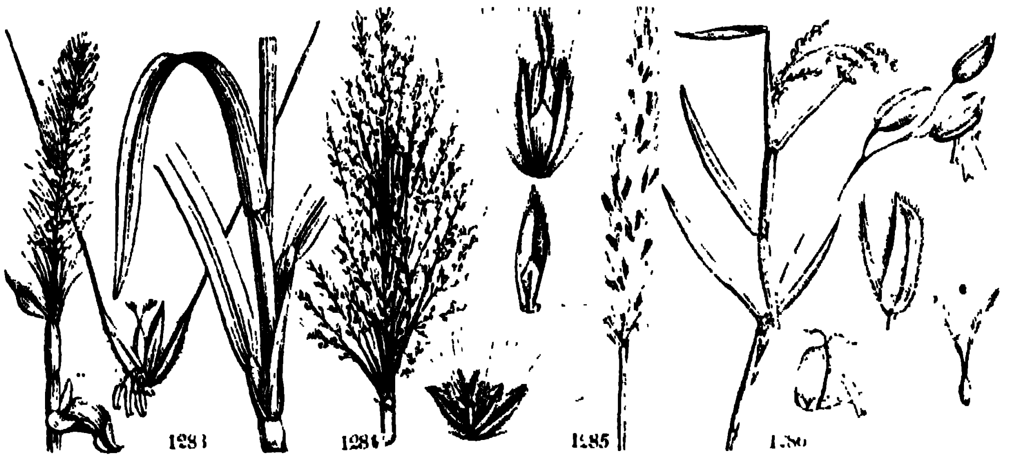
212. *Ophiurus.* A name constructed by Gærtner from οφις, a snake, and ουρα, a tail, from a fancied resemblance in the spikes of the genus to the tail of a viper. This is the genus Rottbollia of English botanists: but no true species of that genus have yet been cultivated in this country.

213. *Monerma.* From μονος, one, and ερμα, support, there is only one glume, which by its rigidity acts as a support to the flower.

214 **PERO'TIS** *H. K.*	PEROTIS.			*Gramineæ.*		*Sp* 1—2			
1283 latifólia *W.*	spiked	ılı [○] cu	2	au s	Ap	E. Indies	1777	S s p	Rheede. 12. t. 62
215. **SAC'CHARUM.** *W.*	SUGAR-CANE.			*Gramineæ*		*Sp* 1—14.			
1284 officinárum *W.*	common	ılı [△] clt	12	...	Ap	India	1597.	Sk r m	Sloan jam. 1. t. 66
216. **IMPERA'TA** *Cyr*	IMPERATA.			*Gramineæ.*		*Sp.* 1—5.			
1285 arundinácea *Cyr.*	reedy	ılı △ cc	2½	jl au	Ap	S. Europe	1817	S co	Cyrill ic. 2 t. 11.
217. **LEER'SIA** *R. Br*	LEERSIA			*Gramineæ.*		*Sp* 2.			
1286 oryzoides *W*	rough	ılı △ w	2	jl.au	Ap	Levant	1793.	S co	Host. gra. 1. t 35
1287 virginica *W*	Virginian	ılı △ w	1½	jl au	Ap	N. Amer.	1770	S co	Jac. ic 2. t. 305
218. **DIARRHE'NA** *Mich*	DIARRHENA			*Gramineæ.*		*Sp.* 1.			
1288 americána *M.*	American	ılı △ w	2	m jl	Ap	N Amer.	1810.	S co	Mich am t 10
219. **ARUNDINA'RIA** *Mich*	CANE-BRAKE.			*Gramineæ*		*Sp* 1—2.			
1289 macrospérma *Mich*	long-seeded	ılı △ or	10	jn	Ap	N Amer	1809.	S co	

TRIGYNIA.

220 **HOLO'STEUM** *W*	HOLOSTEUM.			*Caryophylleæ.*		*Sp* 2—5.			
1290 umbellátum *W*	umbelliferous	○ pr	¼	jl au	Pk	England	old wa	S co	Eng bot. 27
1291 cordatum *W*	cordate	[○] pr	¼	jn	W	Jamaica	1814	S co	Lam ill t. 51. f 2
221 **POLYCAR'PON** *W.*	ALL SEED			*Caryophylleæ.*		*Sp* 1—3.			
1292 tetraphyllum *W.*	four-leaved	○ w	¼	jl	W	England	san pl.	S co	Eng bot 1031
222. **LECHE'A** *W*	LECHEA			*Caryophylleæ*		*Sp* 2.			
1293 májor *W*	greater	♄ △ w	3	jl au	W	Canada	1780	D co	Lam ill. 1 t 52 f 2
1294 mínor *W*	lesser	♄ △ w	¼	jl au	W	Canada	1802.	D co	Lam ill. t 52 f. 1



History, Use, Propagation, Culture,

214 *Perotis* From πηρος, deficient, some parts of the flower being absent

215 *Saccharum* From its Arabic name *soukar*, from which the Greeks formed σακχαρ, and modern European nations sugar *Sucre*, Fr. *Sucker*, Ger., [illegible] This grass or reed, though unknown to the ancients, has be- [illegible] There are many varieties or species both wild and cultivated, [illegible] In [illegible], Chi[illegible] isla[illegible] and South America It is cultivated in a zone extending from 35 to 40 degrees on each side of the equator Where it was first cultivated is unknown, in all probability, in India, for the Venetians imported it from thence by th[illegible] Sea prior to 1148 It is supposed to have been introduced into the islands of Sicily, [illegible], Rhodes, and Cyprus by the Saracens, as abundance of sugar was made in these islands previously to the discovery of the West Indies in 1492 by the Spaniards, and the East Indies and Brazil by the Portuguese in 1497 and 1500 It was cultivated afterwards in Spain, in Valentia, Granada, and Murcia by the Moors, and sugar is still made in these provinces *Townsend and Jacob* In the 15th century the cane was introduced to the Canary islands by the Spaniards, and to Madeira by the Portuguese, and thence to the West India islands and the Brazils. The Dutch began to make sugar in the island of St Thomas, under the line, in 1610, and the English in Barbadoes in 1643, and in Jamaica in 1644 The culture of the cane has since become general in warm climates, and the use of sugar being universal, it forms one of the first articles of commerce throughout the world. Su- [illegible] Pl[illegible] appe[illegible]ed only medicine Actuarius, a physician, who wrote in the 10th century, or later, was the first to substitute sugar for honey in medicinal compositions It was called Indian salt, and a small piece was recommended to be kept in the mouth to moisten it in fevers Different medical men have written for and against the use of sugar, as they have against tea, coffee, wine, and all with similar success The enjoyment derived from these articles to all mankind who enjoy them, is too great to be left off in deference to the opinions of a few Dr. Mosely is the [illegible] adv[illegible] fo[illegible] the la[illegible] [illegible]ect of Europe It was in use in England in 1466, but chiefly in feasts and as a medicine, till it was brought from the Brazils about 1580 to Portugal, and imported from thence. The quantity consumed in Britain has always kept increasing, the consumption of England alone in 1790 amounted to 160,573,44lbs, which, taking the population at eight millions, gives each individual at an average about 20 lbs a-year

The cane, is a stove plant, is of easy culture in soft moist soil with a good heat, it grows seven or eight feet high, but it never flowers. It was grown in abundance in the stoves of the Paris gardens, and a small sugar loaf was made from the canes, and presented to the Empress Josephine In the botanic gardens of Toulon and Naples it stands the winter in the open air

The cane in the West Indies is propagated by cuttings from the root end, planted in hills or trenches in spring or autumn, something in the manner of hops. The cuttings root at the joints under ground, and from these above send up shoots, which in eight, twelve, or fourteen months are from six to ten feet long, and fit to cut down for the mill A plantation lasts from six to ten years. Sugar mills are merely iron rollers placed vertically or horizontally, between which the canes are passed and repassed The juice thus squeezed out, is collected and boiled with quick-lime, which being an alkali, imbibes the superfluous acid, which would otherwise impede crystallization: impurities are skimmed off, and the boiling is continued till a thick syrup is pro-

1283 Culm simple, Leaves very smooth, Joints smooth

1284 Flowers panicled, Leaves flat

1285 Pan. spiked cylindrical, Leaves convolute, Joints smooth, Flowers generally diandrous

1286 Pan. diffuse sheathed, Florets 3-androus spreading, Keel of the glumes fringed
1287 Pan. diffuse, Branches horizontally spreading, Florets 3-androus, Keel of the glumes fringed

1228 The only species

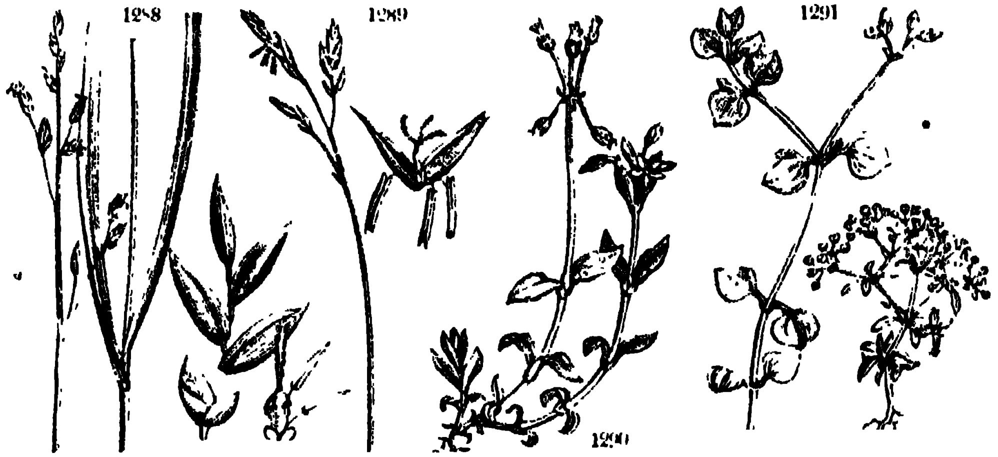
1289 Smooth, Leaves linear-lanceolate distichous, Flowers panicled

TRIGYNIA.

1290 Leaves elliptical glaucous smooth, Flowers umbelled, Common peduncle viscid
1291 Leaves cordate

1292 Stem branched 4-leaved prostrate

1293 Leaves ovate lanceolate, Flowers lateral scattered
1294 Leaves linear-lanceolate, Flowers panicled



duced, when the whole is cooled and granulated in shallow vessels It is now the raw or Muscovado sugar of commerce A further purification is effected by dissolving it in water, boiling, skimming, adding lime, and clarifying from the oily or mucilaginous parts, by adding blood or eggs, which incorporate with them and form a scum When boiled to a proper consistency it is put into unglazed earthen vessels of a conical shape, with a hole at the apex, but placed in an inverted position, and the base, after the sugar is poured in, covered with clay. When thus drained of its impurities, it is taken out of the mould, wrapped in paper, and dried or baked in a close oven. It is now the loaf sugar of the shops, and according to the number of operations it undergoes, is called single or double refined. The operation of refining is seldom or never performed by the growers, but in Europe, at least, generally forms a separate branch in the mother country of the colony.

Sugar candy, *Shukur* and *khand*, Indian names for sugar in general, is formed by dissolving loaf sugar in water over a fire, boiling it to a syrup, and then exposing it to crystallize in a cool place. This is the only sugar esteemed in the east.

Barley sugar is a syrup from the refuse of sugar candy, hardened in cylindrical moulds.

Rum is distilled from the fermented juice of sugar and water.

Sugar as a chemical compound is described as a neutral salt, consisting of the acetic acid, united to a small quantity of oil and charcoal, carbonated hydrogen, and carbonic acid gas Besides its use in medicine, dietetics, and distillation, it is employed to preserve animal and vegetable substances from putrefaction, and to communicate a gloss to ink, varnishes, and pigments. When very cheap, it has been successfully employed to fatten cattle Most plants contain sugar, and it has been extracted in considerable quantities from the beet, parsnip, maple, birch, grape, &c., but the cane is preferred as affording it in greater abundance.

216. *Imperata.* The derivation or application of the idea not explained The plants resemble in their noble port and waving silky heads the plumes of a cap of state.

217. *Leersia.* Named after J D Leers, an author of the Flora Herbornensis, the first edition of which, in 1789, is very valuable on account of its rarity, but its merits have been extolled much beyond reality by Sir James Smith. One species, L. lenticularis, which has not yet been introduced to this country, has the power of catching flies by the singular structure of its corolla, which resembles the leaves of Dionæa muscipula.

218 *Diarrhena.* A word signifying diandrous; δις, two, ἄῤῥην, male.

219. *Arundinaria.* An alteration of the word Arundo, to which genus this may be compared with reference to its large size

220 *Holosteum.* A name derived from ὅλος, all, and ὀστέον, bone, all bone, and applied by antiphrasis to this plant, which is no-bone, being very soft and delicate. The plant is very common in many parts of Britain, by road sides, where protected by hedges; it flowers early in the season, and keeps flowering for a long time. In coppice woods on loamy soils it grows with the greatest luxuriance, and, along with the yellow primrose, and the purple wild hyacinth, forms a most ornamental clothing to the earth in the end of April and beginning of May.

221 *Polycarpon.* From πολυς, many, καρπος, fruit; all-seed; one of the names applied by the ancients to the Polygonum aviculare, and sufficiently applicable to this plant.

222. *Lechea.* In memory of G Leche, a Swede, professor of natural history at Abo, and author of observations on rare plants, died in 1764 The genus consists of small N. American plants of no beauty

223. ERIOCAU'LON. *W.*	Pipewor'			*Eriocauleæ.*	*Sp.* 2—34.					
1295 septánguláre *E. B.*	jointed	≛ △ cu	½ s	W	Scotland	bogs.	D	m.s	Eng. bot. 773	
1296 austrále *R B.*	australasian	≛ [△] cu	1½ jn	W	N. Holl.	1820.	D	m.s		
224. MON'TIA. *W.*	Chickweed.			*Portulaceæ.*	*Sp.* 2.					
1297 fontána *W.*	water	≛ ○ w	¼ ap.my	W	Britain	springs.	S	aq	Eng. bot. 1206	
1298 rivuláris *Gmel.*	brook	≛ ○ w	½ jn.jl	W	Labrador	1823.	D	m.s		
225. MOLLU'GO. *W.*	Mollugo.			*Caryophylleæ.*	*Sp.* 2—7.					
1299 verticilláta *W.*	whorled	○ w	¼ jn.au	Ap	Virginia	1748.	S	co	Ehret. pict. t. 6	
1300 triphýlla *Lk.*	three-leaved	[○] w	½ jl	Ap	Brazil	1821.	D	m.s		
226. MINUAR'TIA. *W.*	Minuartia.			*Caryophylleæ.*	*Sp.* 3.					
1301 dichótoma *W.*	forked	○ w	¼ jn.jl	Ap	Spain	1771.	S	co	Ac.st.1758.t.1.f.2	
1302 campéstris *W.*	field	○ w	1in jn.jl	Ap	Spain	1806.	S	co	Ac.st.1758.t.1.f.3	
1303 montána *W.*	mountain	○ w	½ jn.jl	Ap	Spain	1806.	S	co	Lœf.it.rar.t.1.f.4	
227. QUE'RIA. *W.*	Queria.			*Caryophylleæ.*	*Sp.* 1—2.					
1304 hispánica *W.*	Spanish	○ w	1in my.s	Ap	Spain	1800.	S	co	Quer.fl.6.t.15.f.2	
228. KŒNI'GIA. *W.*	Kœnigia.			*Polygoneæ.*	*Sp.* 1.					
1305 islándica *W.*	Iceland	○ cu	½ ap	Ap	Iceland	1773.	S	co	Lam. ill. t. 51	

1293

1294

1295

1299

1297

History, Use, Propagation, Culture,

223. *Eriocaulon.* Εριον, wool, and καυλος, a stem; in allusion to the velvety stem of some species. Only one kind, E. septangulare, has been found in Britain. The species are all very curious, and deserving of more attention than they have received at the hands of cultivators.

224. *Montia.* In honor of Joseph de Monti, professor of botany and natural history at Bologna in the beginning of the 18th century. The plants are small inconspicuous weeds.

225. *Mollugo.* The Roman name of what is supposed to be our Galium mollugo, which the present plant resembles in its whorled leaves and inconspicuous appearance.

Class IV. — TETRANDRIA. 4 Stamens.

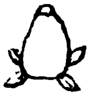
This class is neither so large nor so important as the last. It is composed chiefly of ornamental or curious plants, mostly shrubs, of which the Proteaceæ hold the first rank. Among the few plants used in the arts which it contains, may be mentioned the madder (Rubia), Fuller's thistle (Dipsacus), the holly (Ilex), one of the best evergreen hedge plants, and some foreign timbers and dyes, as the sandal-wood and chayroot.

The Proteaceæ, of which the first section of the class partly consists, are natives chiefly of the Cape of Good Hope and New South Wales; and there is this singular circumstance connected with their geographical distribution, that those two continents do not possess any one genus in common; a singular fact, and of the more difficult solution, as the genera of the order are strictly natural. They have been described by Mr. Brown, in a long and learned memoir, in the Transactions of the Linnean Society, vol. x., where much information respecting them may be found. It has been impossible to state the natural height or color of flower of many of the New Holland kinds, as Mr. Brown says nothing upon these two points; and he is the only author who has seen the plants in their native country, where alone many of them have flowered. In the conservatory they are mostly shrubs of from four to seven feet in height.

The principal part of the fourth section of Monogynia consists of the Stellatæ or Crossworts, which are common weeds all over Europe.

Many of the genera in the sixth section, such as Ixora, Pavetta, Catesbæa, are beautiful ornaments of the conservatory. The wood of Curtisia in the seventh section furnishes the Caffres with materials for the shafts of their hassagays.

With the exception of Proteaceæ, the class is made up of a miscellaneous assemblage of species, with few characters in common. The genera have not been combined in any other than a purely artificial manner, and among them are to be found plants belonging to almost all the natural orders of Dicotyledonous plants of the older French botanists. Pothos, Potamogeton, and Ruppia are among the rare instances of a quaternary division of the flower in Monocotyledonous plants.



Order 1. MONOGYNIA. 4 Stamens. 1 Style.

1. *Flowers incomplete, (no corolla), inferior.*

229. *Petrophila.* Cal. 4-cleft, all deciduous. Style persistent at base. Stigma spindle-shaped, narrowed at end. Scales beneath the ovary none. Cone ovate. Nut lenticular, comose at one end.

223. **ERIOCAU'LON.** *W.*	PIPEWORT					*Eriocauleæ.*	*Sp.* 2—34.				
1295 septánguláre *E. B.*	jointed	≛	△	cu	½ s	W	Scotland	bogs.	D	m.s	Eng. bot. 773
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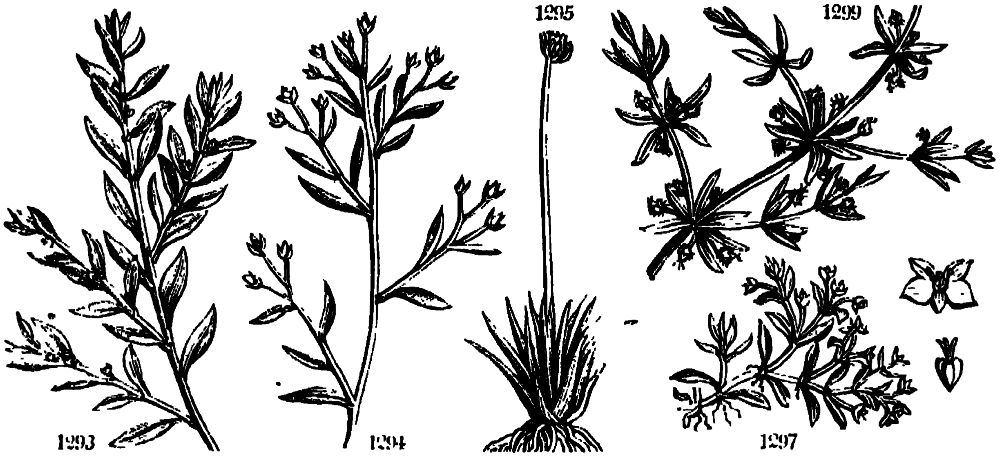

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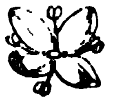

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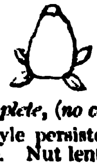
Order 1. MONOGYNIA.  4 Stamens. 1 Style.

1. *Flowers incomplete, (no corolla), inferior.*

229. *Petrophila.* Cal. 4-cleft, all deciduous. Style persistent at base. Stigma spindle-shaped, narrowed at end. Scales beneath the ovary none. Cone ovate. Nut lenticular, comose at one end.

1295 Stem 7-angled, Leaves acuminate cellular, Male fl. monopetalous tetrandrous
1296 Stem 7-angled, Leaves flat hairy much shorter than the stem, Scales of the head powdery

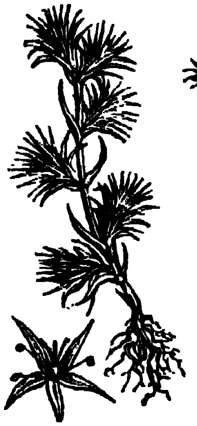
1297 Stem erect divaricating, Leaves connate-sessile oblong ovate
1298 Stem weak dichotomous, Leaves opp. sessile obtuse lanceolate fleshy

1299 Leaves whorled wedge-shaped acute, Stem divided decumbent, Pedunc. 1-flowered
1300 Stem erect, Leaves whorled three larger than the rest, Pan. terminal and lateral

1301 Leaves filiform dilated at base, Branches terminal capitate corymbose, Flowers axillary
1302 Leaves capillary, Flowers terminal stalked alternate longer than bracteæ
1303 Leaves capillary, Corymbs leafy axillary stalked, Flowers shorter than bracteæ

1304 Leaves opposite filiform, Flowers terminal heaped, Bracteæ squarrose

1305 The only species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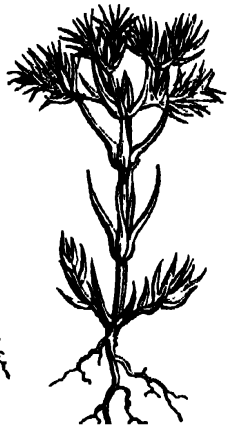
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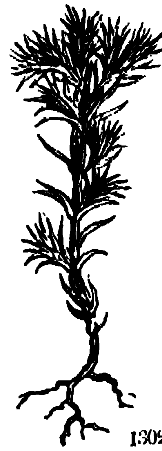
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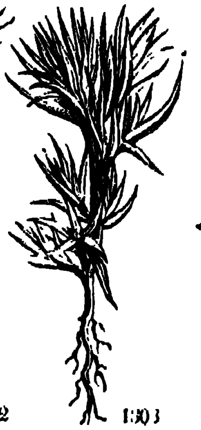
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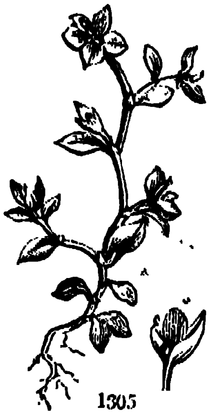

1305

and Miscellaneous Particulars.

226. *Minuartia.* In memory of John Minuart, a Spanish botanist, and correspondent of Linnæus. He published some Opuscula in 1739.

227. *Queria.* In memory of Joseph Quer, a Spanish botanist, who published a *Flor Espagnol* in 1762, in six volumes, quarto.

228. *Kœnigia.* In honor of Emanuel Kœnig, professor of botany at Bale, and called the modern Avicenna; he died in 1731. He published several works now forgotten. The plant is a curious inconspicuous annual, occasionally seen in botanic gardens.

230. *Isopogon.* Cal. 4-cleft, with a slender tube, persistent for a long time. Style wholly deciduous. Stigma spindle-shaped or cylindrical. Scales beneath the ovary none. Nut sessile, ventricose, comose on all sides.

231. *Protea.* Cal. bipartible, unequal, with the stamen-bearing divisions of the broader lip cohering. Style subulate. Stigma narrowly cylindrical. Nut bearded on all sides, with the remains of the persistent style. Common receptacle with short persistent scales. Involucrum imbricated, persistent.

232. *Leucospermum.* Cal. irregular, labiate, with three of the segments (rarely all) cohering at the base, the stamen-bearing divisions distinct. Style filiform, deciduous. Stigma thickened, smooth, sometimes unequal-sided. Nut ventricose, sessile, smooth. Head indefinitely many-flowered. Involucrum many-leaved, imbricated.

233. *Mimetes.* Cal. 4-parted, equal, with distinct divisions. Style filiform, deciduous. Stigma cylindrical, slender. Nut ventricose, sessile, smooth. Common receptacle flat, with narrow deciduous scales. Involucrum indefinitely many-leaved, imbricated.

234. *Serruria.* Cal. 4-cleft, nearly equal, with distinct claws. Stigma vertical, smooth. Scales 4, hypogynous. Nut shortly stalked, ventricose. Head indefinitely many-flowered, with persistent imbricated scales.

235. *Nivenia.* Cal. 4-cleft, equal, wholly deciduous. Stigma clavate, vertical. Nut ventricose, shining, sessile, entire at the base. Involucrum 4-leaved in a simple series, 4-flowered, when in fruit indurated. Receptacle flat, without scales.

236. *Sorocephalus.* Cal. 4-cleft, equal, wholly deciduous. Stigma vertical, clavate. Nut ventricose on a very short stalk, or emarginate at base. Involucrum 3-6-leaved in a simple series, definitely few-flowered or 1-flowered, in fruit not altered. Recept. without scales.

237. *Spatalla.* Cal. 4-cleft, wholly deciduous, the inner segment usually largest. Stigma oblique, dilated. Nut ventricose on a short stalk. Involucrum 2-4-leaved in a simple series, 1-flowered, or definitely many flowered. Recept. without scales.

238. *Persoonia.* Cal. 4-leaved, regular, the segments having the stamens in their middle, recurved at end, and deciduous. Stamens exserted. Glands 4, hypogynous. Ovary stalked, 1-celled, 1-2-seeded. Stigma obtuse. Drupe berried, with a 1-2-celled nut.

239. *Grevillea.* Cal. irregular, with the segments 1-sided, bearing the stamens in their hollow ends. Anthers immersed. Gland 1, hypogynous, halved. Ovary 2-seeded. Stigma oblique, depressed (sometimes nearly vertical and conical). Follicle 1-celled, 2-seeded, with a cell in the middle. Seeds edged, or with a very short wing at the end.

240. *Hakea.* Cal. 4-leaved, irregular, with the segments on one side. Stamens immersed in the concave ends of the calyx. Gland 1, hypogynous, halved. Ovary stalked, 2-seeded. Stigma nearly oblique, with a conical point from a dilated base. Follicle 1-celled, woody, with a cell out of the centre, falsely 2-valved. Seed with a wing at the end longer than the nut.

241. *Stenocarpus.* Cal. irregular, segments distinct, at one side. Stamens immersed in the concave ends of the cal. Gland 1, hypogynous, half-annular. Ovary stalked, many-seeded. Style deciduous. Stigma oblique, orbicular, flattened. Follicle linear. Seeds winged at base.

242. *Lambertia.* Cal. tubular, 4-cleft, the segments spirally revolute. Stamens inserted in the segments.

Scales 4, hypogynous, distinct or united in a sheath. Ovary 2-seeded. Stigma subulate. Follicle 1-celled, coriaceous. Seeds emarginate. Involucrum 1-7-flowered, imbricated, deciduous. Receptacle flat, without chaff.

243. *Xylomelum.* Cal. 4-leaved, regular, the segments revolute at the end. Stam. inserted above the middle of the segments. Glands 4, hypogynous. Ovary 2-seeded. Style deciduous. Stigma vertical, clavate, obtuse. Follicle thick, woody, 1-celled: the cell out of the centre. Seeds winged at end.

244. *Telopea.* Cal. irregular, on one side irregularly divided, on the other 4-toothed. Stam. immersed in the concave ends of the calyx. Gland none. Ovary stalked, many-seeded. Stigma oblique, orbicular, dilated. Follicle cylindrical. Seeds winged at end. Involucrum none.

245. *Lomatia.* Calyx irregular, with distinct 1-sided segments. Stamens immersed in the concave ends of the calyx. Glands 3, hypogynous on one side. Ovary stalked, many-seeded. Style persistent. Stigma oblique, dilated, roundish, flat. Follicle oval. Seeds winged at ends.

246. *Rhopala.* Cal. 4-leaved, regular, segments recurved at end. Stamens inserted above the middle of the segments. Scales 4, hypogynous, distinct or connate. Ovary 2-seeded. Style persistent. Stigma vertical, clavate. Follicle 1-celled, woody. Seeds winged at both ends.

247. *Banksia.* Cal 4-parted. Stamens immersed in the concave ends of the segments. Scales 4, hypogynous. Ovary 2-celled, with 1-seeded cells. Follicle 2-celled, woody. Dissepiment loose, bifid.

248. *Dryandra.* Cal. 4-parted or 4-cleft. Stamens immersed in the concave ends of the segments. Scales 4, hypogynous. Ovary 2-celled, with 1-seeded cells. Follicle 2-celled, woody, with a loose bifid dissepiment. Common receptacle flat.

249. *Struthiola.* Cal. tubular, having 8 glands at the mouth. Berry without juice, 1-seeded.

250. *Opercularia.* Common calyx 1-leaved, campanulate, 3-6-flowered, 6-9-toothed, proper none. Seeds solitary, immersed in a closing receptacle, which is operculiform, deciduous.

251. *Cryptospermum.* Common calyx 6-leaved: leaflets spreading, unequal; proper, 3-leaved from the chaff of the receptacle. Recept. globose, chaffy. Capsules 1-celled, united into a sub-globose receptacle, opening lengthwise in the middle.

252. *Pothos.* Spathe 1-leaved. Spadix cylindrical, simple, covered with flowers. Cal. 4-leaved. Stamens next the ovary. Berry 2-seeded.

253. *Rivina.* Cal. 4-leaved, persistent. Berry 1-seeded, with a lentiform rough seed.

254. *Camphorosma.* Calyx urceolate, with two opposite and alternate teeth very small. Caps. 1-seeded. Stamens exserted.

255. *Alchemilla.* Cal. 8-cleft, the alternate segments smallest. Style from the base of the ovary. Seed 1, naked, covered with the calyx.

256. *Sanguisorba.* Cal. coloured, 4-lobed, with 2 scales at the base. Caps. 4-cornered, enclosed in the calyx, 1-2-celled.

257. *Dorstenia.* Common receptacle 1-leaved, fleshy, dilated, spreading, orbicular, or angular, in which the solitary seeds nestle.

2. *Flowers incomplete, superior.*

258. *Isnarda.* Cal. campanulate, adhering to the ovary, 4-cleft. Caps. 4-celled, surrounded by the calyx, 4-cornered, many-seeded.

259. *Elæagnus.* Cal. 4-8-cleft, campanulate on the outside rugose, inside colored, deciduous. Filaments very short between the segments of the calyx. Style short. Drupe ovate, with an oblong 1-seeded nut.

3. *Flowers monopetalous, 1-seeded or dicoccous, inferior.*

260. *Globularia.* Common calyx imbricated: proper tubular, 5-toothed. Cor. with the upper lip 2-, the lower 3-parted. Seed 1, enclosed in the calyx. Recept. chaffy.

261. *Houstonia.* Cal. 5-toothed. Cor. tubular. Caps. 2-celled, 2-valved, 2-seeded.

4. *Flowers monopetalous, 1-seeded or dicoccous, superior.*

DIPSACEÆ.

262. *Dipsacus.* Common calyx many-leaved, proper superior. Cor. tubular, 4-cleft. Seed 1, crowned by the calyx. Recept. conical, chaffy. Pappus cross-shaped, entire.

263. *Cephalaria.* Common calyx sub-globose, with scales more or less scarious, proper double, pappus-shaped, variously split. Receptacle chaffy.

264. *Scabiosa.* Common calyx many-leaved, proper double pappus-shaped, variously split. Receptacle chaffy.

265. *Knautia.* Common cal. many-leaved, cylindrical, oblong, simple, 5-flowered, proper simple, superior Corolla irregular. Seed 1, crowned by the calyx. Receptacle naked.

STELLATÆ.

266. *Galium.* Cal. an obsolete superior edge. Cor. rotate. Seeds 2, globose.

267. *Rubia.* Cal. an obsolete superior edge. Cor. rotate, sub-campanulate. Berries 2, 1-seeded. Stam. 4-5

268. *Asperula.* Cal. an obsolete edge, 4-toothed. Cor. monopetalous, funnel-form. Seeds 2, globose, not crowned by the calyx.

269. *Sherardia.* Cal. a 4-toothed edge. Cor. monopetalous, funnel-form. Seeds 2, 3-toothed, crowned by the persistent calyx.

270. *Spermacoce.* Cal. a 4-toothed edge. Cor. monopetalous, funnel-form. Caps. 2-celled, not divisible in two, with 2 cells, 2-toothed. Seeds with their edge rolled together over their side.

271. *Crucianella.* Cal. 2-3-leaved. Cor. monopetalous, funnel-form, with a filiform tube and an unguiculate limb. Seeds 2, linear.

5. *Flowers monopetalous, many-seeded, inferior.*

272. *Callicarpa.* Calyx 4-toothed. Corolla tubular, campanulate, 4-cleft. Stamens exserted. Berry 4-seeded.

273. *Witheringia.* Cor. sub-campanulate, with a tube having 4 projections. Cal. very small, obsoletely 4-toothed. Pericarp 2-celled, berried. Anthers conniving, opening laterally.

274. *Egiphila.* Cal. 4-toothed. Cor. 4-cleft. Style semi-bifid, filiform. Berry 2-celled. Cells 2-seeded.

275. *Cephalanthus.* Common cal. none; proper, as well as corolla, 4-toothed, tubular funnel-form. Receptacle globose. Caps. 2-4-celled, not splitting. Seeds solitary by abortion, oblong.

276. *Scoparia.* Cal. 4-parted, equal. Cor. 4-parted, rotate, with a hairy throat, regular. Stamens equal. Stigma obtuse. Capsule nearly round, 2-celled, 2-valved, with a dissepiment from the inflexed margins of the valves.

277. *Centunculus.* Cal. 4-cleft. Cor. 4-cleft, tubular, with a spreading limb. Stamens short. Caps. 2-celled, cut round, many-seeded.

228. *Plantago.* Cal. 4-cleft. Cor. quadrifid, with a reflexed limb. Stamens very long. Caps. 2-celled, cut round.

279 *Buddlea.* Calyx and corolla 4-cleft. Stamens from the incisures. Caps. 2-furrowed, 2-celled, many-seeded.

280. *Exacum.* Cal. 4-leaved. Cor. somewhat bell-shaped, 4-cleft, with a globose tube. Caps. compressed, 2-furrowed, 2-celled, many-seeded, splitting at the end.

281. *Sebæa.* Cal. 4-5-parted, the sepals keeled or winged. Cor. 4-5-cleft, withering. Stamens exserted,

the anthers bursting lengthwise after flowering with a recurved callus at the end. Stigmas 2. Caps. with the valves inflexed at the edge, inserted in a central placenta, which finally becomes loose.

282. *Frazera*. Cal. deeply 4-parted, spreading. Cor. much larger than the calyx, very deeply 4-parted, spreading, the segments oval, bearded with a gland in the middle. Stamens shorter than corolla, with anthers ½-divided at the base. Stigmas 2, thick, glandular. Caps. oval, much compressed, 1-celled, 2-valved at the edge. Seeds 8-12, elliptical, with a membranous edge.

283. *Penæa*. Cal. 2-leaved deciduous. Cor. campanulate. Style quadrangular. Stigma 4-lobed. Caps. 4-cornered, 4-valved, 8-seeded.

284. *Blæria*. Calyx 4-parted. Corolla 4-cleft, somewhat campanulate. Seeds inserted into a receptacle. Caps. 4-celled, many-seeded, opening at the angles.

6. *Flowers monopetalous, 2 or many-seeded, superior.*

285. *Chomelia*. Cal. 4-parted, tubular, with unequal segments. Cor. hypocrateriform, 4-parted. Drupe oval, inferior, with a 2-celled, 2-seeded nut. Stigmas 2, thickish.

286. *Adina*. Cal. 4-5-cleft, with an occasional toothlet between the divisions. Corolla infundibular. Filaments inserted into the mouth of corolla. Stigma turbinate. Seeds 2-3 in each cell. Flowers in heads.

287. *Bouvardia*. Cal. 4-leaved, with some teeth between. Corolla tubular. Anthers included. Caps. 2-partible, many-seeded. Seeds edged.

288. *Ixora*. Cal. 4-parted. Cor. monopetalous, funnel-shaped, long. Stamens above the throat. Berry 4-seeded.

289. *Catesbæa*. Cal. 4-toothed, very small. Cor. funnel-shaped, very long. Stamens within the throat. Stigma simple. Berry 2-celled, many-seeded.

290. *Pavetta*. Cal. 4-toothed. Cor. monopetalous, funnel-form. Stigma thickened, incurved. Berry 1-2-seeded, 1-celled.

291. *Ernodea*. Cal. 4-parted. Cor. hypocrateriform. Style simple. Berry 2-celled. Seeds 2, solitary.

292. *Siderodendrum*. Cal. small, 4-toothed. Cor. hypocrateriform, 4-cleft, with an incurved tube. Stigmas 2, revolute. Berry 2-coccous, 2-celled, dry, with a contrary dissepiment. Seeds 2, solitary.

293. *Coccocypsilum*. Cal. 4-parted. Cor. funnel-shaped. Berry inflated, 2-celled, many-seeded. Style half 2-cleft.

294. *Mitchella*. Cal. 2, on one ovary, 4-parted. Cor. funnel-shaped, hairy within. Stigmas 4. Berry bifid, 4-seeded.

295. *Oldenlandia*. Cal. 5-toothed, persistent. Cor. of 5 petals inserted into the calyx.

296. *Manettia*. Cal. 8-leaved. Cor. quadrifid, tubular. Caps. 2-valved, 1-celled. Seeds imbricated, orbiculate, with a central point.

7. *Flowers polypetalous, inferior.*

297. *Epimedium*. Cal. 4-leaved, caducous, opposite the petals. Nectaries 4, cup-shaped, incumbent upon the petals. Pod 1-celled, 2-valved, many-seeded.

298. *Ptelea*. Cal. 4-parted. Pet. coriaceous. Stigmas 2. Samara roundish with a 1-seeded centre, or 2-celled, 2-seeded.

299. *Monetia*. Cal. 4-cleft, urceolate. Pet. 4, revolute, linear. Berry 2-celled, with 2-seeded cells, one of which is usually abortive.

300. *Curtisia*. Cal. 4-parted. Petals 4, obtuse. Drupe roundish succulent. Nut 4-5-celled.

301. *Hartogia*. Cal. 4-5-cleft. Petals 4, spreading. Drupe not juicy, ovate. Nut rather fleshy, 2-seeded.

302. *Ammannia*. Cal. 1-leaved, campanulate, plaited, 8-toothed. Pet. 4, inserted in the calyx, or very often none. Caps. 2-4-celled, many-seeded.

303. *Fagara*. Cal. 4-5-cleft. Corolla of 4-5 petals, which are shorter than the stamens. Cal. 2-valved, 1-2-celled, 1-seeded, simple or compound. Stam. 4-5-8.

304. *Zieria*. Cal. 4-cleft. Cor. of 4 petals. Stam. 4, smooth, with filaments inserted into a gland. Style simple. Stigma 4-lobed. Caps. 4, connivent. Seeds with an arillus.

8. *Flowers polypetalous, superior.*

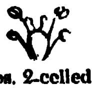
305. *Cissus*. Cal. 1-leaved, nearly entire. Berry 1-seeded, rarely 3-4-seeded, surrounded by the calyx.

306. *Cornus*. Involucre 4-leaved in some. Cal. 4-toothed. Pet. 4. Drupe with a 2-celled nut.

307. *Santalum*. Cal. ½-superior, campanulate, 4-cleft. Pet. 4, squamiform. Berry 1-seeded. Embryo inverse, albuminous.

308. *Trapa*. Cal. 4-parted. Nut with 2 opposite spines proceeding from the leaves of the calyx, 1-celled, 1-seeded.

309. *Ludwigia*. Cal. 4-parted, superior, with long persistent sepals. Cor. 4-petals or O. Caps. 4-cornered, 4-celled, crowned, inferior, many-seeded.

Order 2. DIGYNIA.  4 Stamens. 2 Styles.

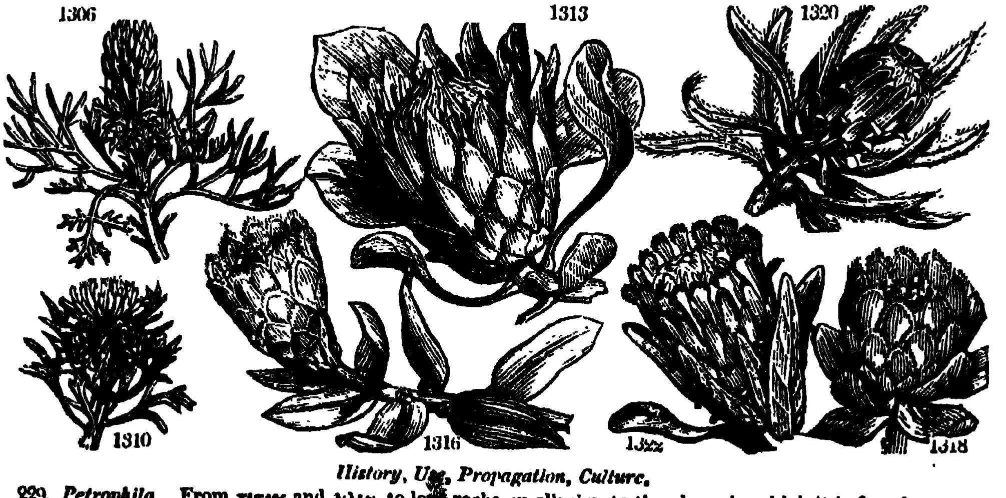
310. *Cuscuta*. Cor. 4-fid, ovate. Cal. 4-fid. Caps. 2-celled, cut round.
311. *Bufonia*. Cal. 4-leaved. Pet. 4, shorter than calyx. Caps. 1-celled, 2-valved, 2-seeded.
312. *Hamamelis*. Involucr. 3-leaved. Sepals 4. Petals 4, linear, very long. Nut 2-horned, 2-celled.
313. *Hypecoum*. Cal. 2-4-leaved. Pet. 4, the two exterior widest. Fruit a silique.

Order 3. TETRAGYNIA. 4 Stamens. 4 Styles.

314. *Myginda*. Cal. 4-toothed, very small, persistent. Pet. 4, rounded, flat, spreading. Stamens shorter than corolla. Style short. Stigmas 2-4. Drupe globose, 1-celled, with a 1-seeded nut.
315. *Ilex*. Cal. 4-5-toothed. Cal. rotate, 4-cleft. Style O. Berry 4-seeded.
316. *Coldenia*. Cor. 1-petalous. Cal. 4-leaved. Seeds 2, 2-celled.
317. *Potamogeton*. Sepals 4. Pet. O. Style O. Seeds 4, sessile.
318. *Ruppia*. Cal. and Cor. O. Seeds 4-stalked.
319. *Sagina*. Sepals 4. Pet. 4. Caps. 4-celled, 4-valved, many-seeded.
320. *Tillæa*. Cal. 3-5-parted. Pet. 3-5, equal. Caps. 3-5, 2 or many-seeded, opening inwards Nectary none.
321. *Radiola*. Cal. many-cut. Pet. 4. Caps. superior, 4-8-valved, 8-celled, globose. Seeds solitary.

MONOGYNIA.

229. PETRO'PHILA. *R. Br.*	PETROPHILA.				*Proteaceæ.*		*Sp.* 2—10.				
1306 pulchélla *R. Br.*	Fennel-leaved		⊔ or	5	jl.au	W	N. S. W.	1790.	S	s.p	Bot mag. 796
1307 diversifólia *R. Br.*	various-leaved		⊔ or	5	...	...	N. Holl.	1803.	S	s.p	
230. ISOPO'GON. *R. Br.*	ISOPOGON.				*Proteaceæ.*		*Sp.* 5—13.				
1308 anéthifólius *R. Br.*	Dill-leaved		⊔ or	5	mr.jn	Pa	N. Holl.	1796.	S	s.p	Cav. ic. 6. t. 549
1309 formósus *R. Br.*	handsome		⊔ or	4	mr jn	Pa	N. Holl.	1805.	S	s.p	
1310 anemónifólius *R. Br.*	Anemone-leav.		⊔ or	5	jl.au	Y	N. Holl.	1791.	S	s p	Bot. mag. 697
1311 trilobus *R. Br.*	three-lobed		⊔ or	4	my.jn	Pa	N. Holl.	1803.	S	s.p	
1312 attenuátus *R. Br.*	attenuate					Pa	N. Holl.	1822.	S	s	
231. PRO'TEA. *R. Br.*	PROTEA.				*Proteaceæ.*		*Sp.* 36—55.				
1313 cynaroídes *R. Br.*	Artichoke-flrd.	♣	⊔ or	1½	mr.n	Pu	C. G. H.	1774.	C	s.l	Bot. mag. 770
1314 latifólia *Kn. Pr.*	ray-flowered	-	‾	7	jl.s	Pu	C. G. H.	1806.	S	s.l	Bot. mag. 1717
1315 compácta *R. Br.*	compact		⊔ or	6	.	...	C. G. H.	1810.	C	s.l.p	
1316 longiflóra *R. Br.*	milk-colored	♣	⊔ or	7	ja..	Pa	C. G. H.	1795.	C	s.l.p	Ex. bot. 2. t. 81
1317 speciósa *R. Br*	splendid	♣	⊔ or	2	mr.jn	Pu	C. G. H.	1786.	S	s.l	Bot. mag. 1183
1318 obtúsa *Kn. Pr.*	obtuse	⚲	⊔ or	10		Re	C. G. H.	1786.	C	s.l.p	Bot. rep. 110
1319 formósa *R. Br.*	crown-flowered	♣	⊔ or	6	my.jn	Re	C. G. H.	1789.	S	p.l	Bot. mag. 1713
1320 melaleúca *R. Br.*	black-fringed	♣	⊔ or	6	mr jl	D.pu	C. G. H.	1786.	C	s.l.p	Bot. rep. 103
1321 Lepidocárpon *R. Br.*	crested	♣	⊔ or	6	mr.jl	D.pu	C G. H.	1806.	S	s.l	Bot. rep 301. 8
1322 neriifólia *R. Br.*	Oleander-leav'd	♣	⊔ or	6	f.ap	W	C. G. H.	1806.	C	s.l.p	Bot. reg. 208
1323 pulchélla *R. Br.*	wave-leaved	♣	⊔ or		mr.au	Re	C. G. H.	1795.	L	s.l	Bot. reg. 20
1324 pátens *R. Br.*	spreading	♣	⊔ or	2	mr.jn	W.pu	C. G. H.	1789.	C	s.l	Bot. rep. 543
1325 magnífica *Kn. Pr.*	magnificent	-		6	mr.jn	W	C. G. H.	1789.	S	s.l	Bot. rep. 438
1326 longifólia *R. Br.*	long-leaved	♣	⊔ or	2	mr.au	Pu	C. G. H.	1798.	S	s.l	Bot. reg. 47
1327 umbonális *Kn. Pr.*	embossed	♣	⊔ or	7	mr.au	W.bk	C. G. H.	1798.	C	s.l.p	Bot. rep. 144
1328 ligulæfólia *Kn. Pr.*	strap-leaved	♣	⊔ or	7	mr.au	Pu	C. G. H.	1798.	C	s.l	Bot. rep. 133
1329 mellífera *R. Br.*	honey-bearing	♣	⊔ or	6	my.d	Pa.Y	C. G. H.	1774.	S	s.l	Bot. mag. 346
1330 grandiflóra *R. Br.*	great-flowered	⚲	⊔ or	8	my.jn	W	C. G. H.	1787.	S	p.l	Bot reg. 569
1331 Scólymus *R. Br.*	small-flowered	♣	⊔ or	3	my jn	Pu	C. G. H.	1780.	C	s.l	Bot. mag. 698
1332 mucronifólia *R. Br.*	dagger-leaved	♣	⊔ or		jl.d	W	C. G. H.	1803.	C	s.l	Bot. mag. 933
1333 incómpta *R. Br.*	bearded	♣	⊔ or	3	ap.my	W	C. G. H.	1822.	C	s.l p	
1334 nána *R. Br.*	dwarf	♣	⊔ or	2	ap.jl	Pk	C. G. H.	1787.	C	s.l p	Ex. bot. 1. t. 44
1335 péndula *R. Br.*	pendulous	♣	⊔ or	2	mr.jn		C. G. H.	1806.	C	l.p	
1336 ténax *R. Br.*	tough	-	‾	2	f.my	Y	C. G. H.	1801.	C	l.p	Par. lond. 70
1337 canaliculáta *R Br.*	channel-leaved	♣	⊔ or	3	f.d	Pu	C. G. H.	1800.	S	s.l	Bot rep. 457
1338 acumináta *B. M.*	sharp-pointed	♣	⊔ or	3	mr jn	Pu	C. G. H.	1809.	C	s.l	Bot. mag. 1694
1339 acaúlis *R. Br.*	short-stalked	♣	⊔ or	1½	my.s	Pu	C. G. H.	1802.	S	s l	Bot mag 2065
β *glaucophýlla* Kn. P.	*glaucous-leaved*	♣	⊔ or	1½		G					Par. lond. 11
1340 læ'vis *R. Br.*	smooth-leaved	♣	⊔ or	½	...	G	C. G. H.	1806.	C	l.p	Bot. mag. 2439
1341 scábra *R. Br.*	rough-leaved	♣	⊔ or	½	...	Br	C. G. H.	1809.	C	l.p	
1342 répens *R. Br.*	creeping	♣	⊔ or	½	...		C. G. H.	1800.	C	s.l	Weinm. t. 897. a
1343 turbiniflóra *R. Br.*	turfy	♣	⊔ or	½	ap my	Pk	C. G. H.	1803.	C	l.p	Par. lond. 108
1344 Scolopéndrium *R. Br.*	Hart's-tongue	♣	⊔ or	¼			C. G. H.	1802.	S	s l	
1345 cordáta *R. Br.*	heart-leaved	♣	⊔ or	1½	mr my	Pu	C. G. H.	1790.	S	s.l	Bot rep. 289
1346 amplexicaúlis *R. Br.*	stem-clasping	♣	⊔ or	1½	ja.mr	Pu	C. G. H.	1802.	S	p.l	Par. lond. 67
1347 húmilis *R. Br.*	low-flowering	♣	⊔ or	1	jn.au	Br	C. G. H.	1802.	S	s.l	Bot. rep 532
1348 acerósa *R. Br.*	Pine-leaved	♣	⊔ or	3	mr.my	Pk	C. G. H.	1803.	C	s l	Bot. rep. 577
232. LEUCOSPER'MUM. *R. Br.*	LEUCOSPERMUM.				*Proteaceæ.*		*Sp.* 12—18.				
1349 lineáre *R. Br.*	linear-leaved	♣	⊔ or	4	au.s	Y	C. G. H.	1774.	C	s.l	Th. prot. n. 35. t. 4
1350 tóttum *R. Br.*	smooth-bracted	♣	⊔ or	3	jn au	Y	C. G. H.	1774.	S	p.l	
1351 médium *R. Br.*	oval-leaved	♣	⊔ or	3	my.jn	O	C. G. H.	1794.	C	l.p	Bot. rep. 17



History, Use, Propagation, Culture.

229. *Petrophila.* From πετρος and φιλεω, to love rocks, in allusion to the places in which it is found growing in a wild state. Stiff shrubs, with smooth leaves of various kinds. Heads of flowers ovate or oblong, terminal or axillary. Ripened cuttings root in sand under a hand-glass.

230. *Isopogon.* This genus consists of stiff shrubs, with smooth, flat or filiform, divided or entire leaves. Heads terminal or rarely axillary. Flowers sometimes closely imbricated in a globose cone, sometimes clustered in a common flat receptacle which is somewhat involucrated; they thrive best in a soil composed of one-third loam, a third of peat, and a third of sand. The pots must be well drained, and ripened wood may be chosen for cuttings which will root in sand and a little earth under a hand-glass. They must be uncovered frequently, and the glass wiped, as they are liable to damp off if kept too close. (*Sweet.*)

231. *Protea.* A mythological name of Proteus the son of Ocean and Thetis, who assumed various forms upon various occasions, to whom this genus, once equally variable in its forms, has been likened. It, as Sweet observes, thrives best in a soil composed of " light turfy loam, mixed with rather more than one-third of fine sand; the pots must be well drained with broken potsherds to prevent them from getting soddened with too much water; the roots are also very fond of running amongst the small bits of sherds. Care must be taken not

MONOGYNIA.

1306 Leaves trifid bipinnate, Segments erect, Flowers silky their segments tomentose at end
1307 Leaves bi-tri-pinnatifid plain, Segments mucronate, Flowers bearded, Cones axillary stalked

1308 Leaves pinnatifid and bipinnatifid filiform furrowed above, Segments erect, Branches smooth
1309 Leaves bipinnatifid somewhat triternate filif. chan. above, Segments divaricating, Branchlets tomentose
1310 Leaves trifid pinnatifid or bipinnatifid, Leaves linear flat spreading erect smooth beneath
1311 Leaves wedge-shaped flat 3-lobed attenuated at base stalked lobes entire, Branchlets tomentose
1312 Leaves elongate oblong mucronate attenuate at base, Branches and involucres smooth

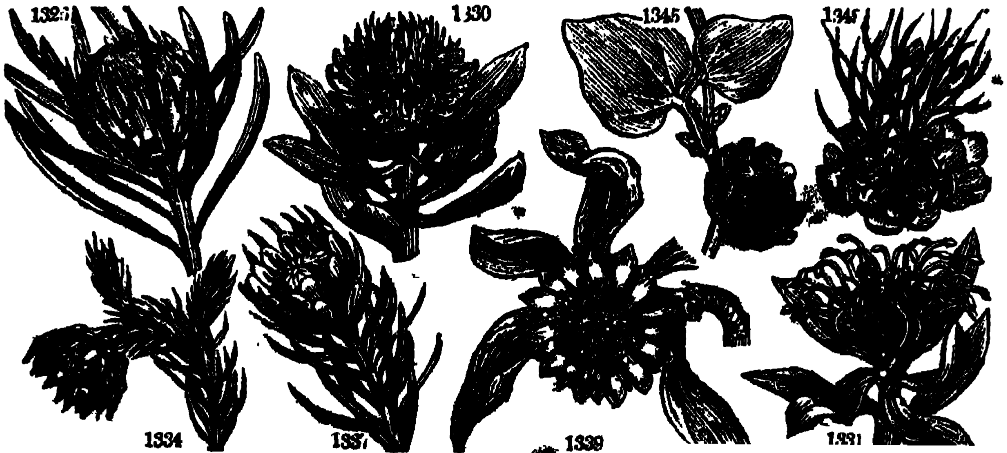
**Flowers terminal.*

1313 Leaves roundish stalked, Invol. silky, Inner bractes acute beardless, Style pubescent below the middle
1314 Leaves broad ovate ½ cordate sessile, Invol. silky toment. Inner bractes narr. dilated at end and bearded
1315 Leaves ovate oblong cordate edged the callus of the end prominent, Invol. silky fringed beardless
1316 Leaves ov. obl. sessile subcord. or simple, Branches toment. Invol. silky, Inner bracte elong. fringed silky
1317 Leaves ov. obl. narr. at base with branches smooth, All the bracteæ sim. inn. dilat. at end and beard. in mid.
1318 Leaves glaucous obov. the adult smooth, Bractes red the upper lyrate spatul. fimbr. obt. Petals obtuse
1319 Leaves narr. oblong veiny oblique simple at base, the edges and branches downy, Involucre ciliated
1320 Leaves linear ligulate edged ciliated, Branches hairy, Invol. long turbinate, Bract. fringed with white
1321 Leaves linear ligulate edged roughish shining with the branches smooth, Inner bract. of invol. spatulate
1322 Leaves linear ligulate smooth opaque at base outside with the branches downy, Invol. fringed with black
1323 Leaves linear ligulate edged shining roughish, Branches little downy, Invol. fringed with black
1324 Leaves narrow oblong rather wavy attenuated at base, Invol. hemisph. inner bearded with black and purple
1325 Leaves broad long elliptical edged the old ones pubescent wavy, Bractes pale yellow, the upper fringed
1326 Leaves elong. lin. atten. at base, Inv. turb. Bractes smooth acute beardl. Beards of cal. longer than segm.
1327 Leaves long ligulate, Head broad convex embossed in middle, Upper bractes spatul. the length of flower
1328 Leaves long ligulate, Head broad not convex, Upper bractes spatulate longer than flowers
1329 Leaves lanc. ligul. attenu. at base, Inv. turb. Bractes smooth beardl. viscid, Beards of flow. woolly white
1330 Leaves obl. sessile and branches smooth, Invol. hemispherical beardl. naked, Fl. toment. Style smooth
1331 Leaves lin. lanceolate acute submucr. attenuated at base, Invol. hemispherical, Bractes smooth obtuse
1332 Leaves lanc. lin. mucr. pungent with an obtuse base, Bractes lanc. mucr. smooth, Stem erect many-flow.
1333 Leaves ligulate oblong the upper and the branches hairy, Inner bracteæ with a round and bearded end
1334 Leaves subulate mucronate, Invol. nodding hemispherical, Bract. smooth obtuse
1335 Leaves linear lanceolate mucronate, Flower-bearing branches recurved, Bract. obtuse at length smooth
1336 Leaves lin. lanc. flat attenuated at base roughish at edge, Branches decumbent, Invol. hemisph.
1337 Leaves linear veinless smooth concave above, Branches smooth decumbent, Invol. obtuse
1338 Leaves lin. lanc. acute flat veiny above, Bractes obtuse pubesc. and conc. at end, Branches wavy colored
1339 Stems short with depressed branches, Leaves obov. obl. edged veiny attenuat. at base, Invol. hemispher.
β Leaves more glaucous and narrow
1340 Stems dwarf decumb. Leaves elong. lin. smooth veinless recurved at edge, Invol. hemispherical
1341 Stems dwarf, Leaves elong. lin. scabrous obsoletely veiny recurv. at edge, Invol. turbinate hemispher.
1342 Stems decumb. dwarf, Leaves elong. lin. roughish revol. at edge, Invol. turb. Bractes obtuse tomentose
1343 Stems dwarf, Leaves elongate lanc. edged subundulate smooth, Invol. turb. Bractes tomentose obtuse
1344 Stems dwarf, Leaves elongate lanc. edged smooth, Invol. turbinate, Bractes lanceolate acuminate

Flowers lateral.

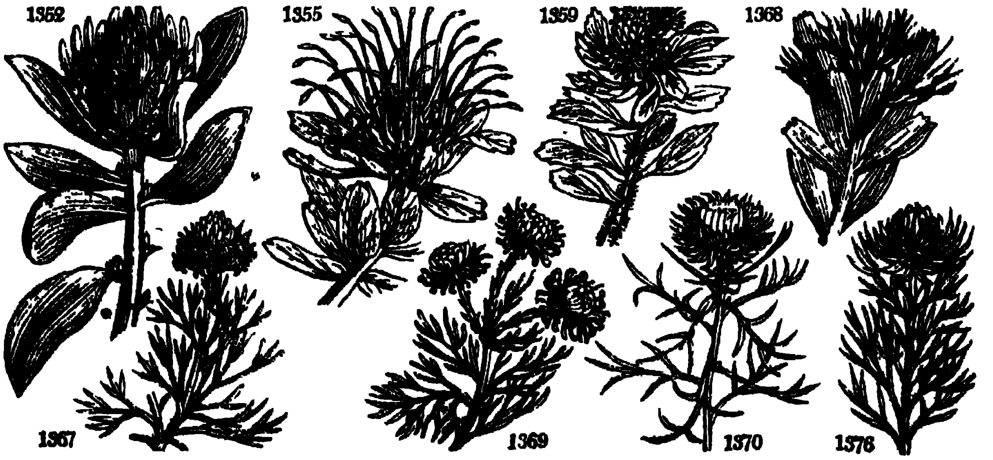
1345 Leaves cordate roughish nerved, Bractes smooth
1346 Leaves cordate ovate, Stem clasping divaricate recurved at the end, Bractes pubescent
1347 Leaves linear acute, Receptacle conical, Paleæ acute
1348 Leaves subulate, Receptacle convex, Paleæ obtuse

1349 Style longer than the hairy flower, Stigma gibbous on one side, Invol. downy, Leaves linear entire
1350 Style a quarter longer than the hairy flow. Stigma gibb. on one side, Leaves lin. obl. veiny ent. obt. at base
1351 Style nearly twice as long as hairy flow. Stigma gibb. on one side, Leaves lin. obl. entire or 2 or 3-toothed



to let them droop for want of water, as the young roots are of a very fleshy substance, and soon suffer by too much drought, as well as by too much wet, so that they seldom recover if suffered to flag much; they also like to be placed where they may have a free circulation of air, as they cannot bear to be crowded like some more rigid-growing plants. Ripened cuttings taken off at a joint, and pared quite smooth, will strike root if planted thinly in pots of sand placed under a hand-glass, but not plunged: the glasses must be often taken off to give them air, as they are very liable to get the damp amongst them, which soon spreads if not cleaned off, and destroys them; water them regularly whenever they want it, but not over the leaves, and let them get a little dry before the glasses are placed over them again. Some of the kinds root very soon, others are a long time before they root. The quickest rooting kinds I have met with are P. cordata, cynaroides, amplexicaulis, grandiflora, acerosa, nana, and acaulis. P. mellifera also roots very quickly sometimes. The same treatment will agree with several other genera belonging to this family, as Leucospermum, Spatalla, Sorocephalus, Leucadendron, and Aulax. (See *Bot. Mag.* No. 1717. *Bot. Cult.* 244.) There are several kinds in cultivation, and published in Knight's Proteæ, which have not been retained here; because, as they are not acknowledged by Mr. R. Brown, it is probable that they are not distinct from some which are here enumerated."

1352	formósum *Kn. Pr.*	handsome	■ ⊔ or	4	my.au	Pk	C. G. H.	1784.	S	p.l	Bot. rep. 469
1353	ellípticum *R. Br.*	elliptic	■ ⊔ or	4	my.au	Y	C. G. H.	1803.	C	l.p	
1354	conocárpum *R. Br.*	many-toothed	■ ⊔ or	3	...	Y	C. G. H.	1774.	S	s.l	Pl. pht. t.900. f.2
1355	grandiflórum *R. Br.*	great-flowered		4	my.jl	Y	C. G. H.	1800.	S	p.l	Par. lond. 116
1356	púberum *R. Br.*	downy-leaved		2	my.au	Y	C. G. H.	1774.	C	s.l	
1357	tomentósum *Kn. Pr.*	cottony		2	au.s	Y	C. G. H.	1789.	S	p.l	
1358	párile *Kn. Pr.*	matched		2	au.s	Y	C. G. H.	1789.	C	l.p	
1359	cándicans *B. R.*	Rose-scented		2	au.s	Y	C. G. H.	1790.	S	p.l	Bot. rep 294
1360	Hypóphýllum *R. Br.*	trifid-leaved	■ ⊔ or	1½		Y	C. G. H.	1787.	S	p.l	Pl. am. t.440. f.3
233.	**MIME'TES.** *R. Br.*	Mimetes.			*Proteaceæ.*		*Sp.* 6—13.				
1361	hírta *R. Br.*	hairy	■ ⊔ or	3½	jn.au	R	C. G. H.	1774.	C	s.l	W. ph.4.t.809.f.a
1362	palústris *Kn. Pr.*	marsh	■ ⊔ or		jn.au	Pu	C. G. H.	1802.	C	l.p	B. lgd.2.p.194.c.t
1363	cucullàta *R. Br.*	three-toothed	■ ⊔ or	2	...	Pu	C. G. H.	1789.	S	s.l	P.al.212.t.304.f.6
1364	divaricáta *R. Br*	divaricate	■ ⊔ or	1½	jn.s	W	C. G. H.	1795.	C	s.l	
1365	vacciniifólia *Sweet.*	Vaccinium-lvd.	■	3	...		C. G. H.	1800.	C	l.p	
1366	purpúrea *R. Br.*	Heath-leaved	■ ⊔ or	2	n.d	Pu	C. G. H.	1789.	C	s.l	
234.	**SERRU'RIA.** *R. Br.*	Serruria.			*Proteaceæ.*		*Sp.* 20—46.				
1367	abrótanifólia *Kn. P.*	Southernw.-lvd.	■ ⊔ or	4	jn.au	Pk	C. G. H.	1803	C	l p	Bot. rep. 522
1368	millefólia *Kn. P.*	thousand-leav'd	■ ⊔ or	4	jn.au	Pu	C. G. H.	1803.	C	l.s.p	Bot. rep. 337
1369	artemisiæfólia *Kn. P.*	wormwood-lvd.	■ ⊔ or	5	jn.au	Pu	C. G. H.	1789.	C	l.p	Bot. rep. 264
1370	pinnáta *R. Br.*	slend.-creeping	■ ⊔ or	1	jn.au	Pk	C. G. H.	1803.	S	p.l	Bot. rep. 512
1371	arenária *R. Br.*	sand	■ ⊔ or	1	jn.au	Pu	C. G. H.	1803.	C	s.p	
1372	cyanoídes *R. Br.*	trifid-leaved	■ ⊔ or	1½	jn.au	Pu	C. G. H.	1803.	S	p.l	Pl. am. t.345.f.6
1373	pedunculáta *R. Br.*	woolly-headed	■ ⊔ or	7	jn.au	Pu	C. G. H.	1789.	C	p.l.s	Bot. rep. 264
1374	Nivéni *R. Br.*	decumbent	■ ⊔ or	½	jn.au	Pu	C. G. H.	1800.	C	s.p.l	Bot. rep. 349
1375	ciliáta *R. Br.*	ciliated	■ ⊔ or	2	jn au	Pu	C G. H.	1803.	C	s.l	
1376	phylicoídes *R. Br.*	Phylica-flower.	■ ⊔ or	3	jn.au	Pu	C. G. H.	1788.	S	p.l	Bot. rep. 507 f. 4
1377	æ'mula *R. Br.*	grey-branched	■ ⊔ or	3	jn.au	Pu	C. G. H.	1803.	C	l.p	
1378	párilis *Kn. P.*	matched	■ ⊔ or	2	jn.au	Pk	C. G. H.	1803.	C	p.l	Bot. rep. 507
1379	odoráta *Sweet.*	sweet-scented	■ ⊔ or	2	jn.au	Pk	C. G. H.	1803.	C	p.l	Bot. rep 545
1380	emarginàta *Sweet.*	emarginated	■ ⊔ or	2	jn.au	Pk	C. G. H.	1800.	C	p.l	Bot. rep. 536
	Serrúria arenária	*Kn. Prot.*									
1381	glomeráta *R. Br.*	many-headed	■ ⊔ or	3	jn.au	Pu	C. G. H.	1789.	S	p.l	Bur. afr. t.99. f.2
1382	decipiens *R. Br.*	deceptive	■ ⊔ or	4	jn.au	Pu	C. G. H.	1806.	C	l p	
1383	Roxbúrghi *R. Br.*	Roxburgh's	■ ⊔ or	3	jn.au	W	C. G. H.	1806.	C	l.p	
1384	Burmánni *R. Br.*	Burmann's	■ ⊔ or	2½	jn.au	Pu	C. G. H.	1786.	C	l.p	Bur. afr. t. 99. f. 1
1385	triternáta *R. Br.*	silvery-flower'd	■ ⊔ or	7	jn.au	W	C. G. H.	1802.	S	p.l	Bot. rep 447
1386	elongáta *R. Br.*	long-stalked	■ ⊔ or	1½	jn.au	Pu	C. G. H.	1800.	C	l p	
235.	**NIVE'NIA.** *R. Br.*	Nivenia.			*Proteaceæ.*		*Sp.* 5—12.				
1387	Scéptrum *R. Br.*	sceptre-like	■ ⊔ or	2	my.jn	W	C. G. H.	1790.	S	p.l	
1388	spathuláta *R. Br.*	maiden-hair-lv.	■ △ or	2½	jl.au	Pu	C. G. H.	1790.	C	s.l	Thu. dis. n 58 t.5
1389	spicáta *R. Br.*	spiked	■ __ or	2½	jn.au	Pu	C. G. H.	1786.	S	p.l	
1390	crithmifólia *R. Br.*	Samphire-leav.	■ ⊔ or	2½	jn.au	Pa.pu	C. G. H.	1797.	S	p.l	Bot. rep. 243
1391	média *R. Br.*	middle	■ ⊔ or	6	jn.au	W	C. G. H.	1803.	C	s.p	Bot. rep. 234
236.	**SOROCE'PHALUS.** *R. Br.*	Sorocephalus.			*Proteaceæ.*		*Sp.* 6—10.				
1392	imbérbis *R. Br.*	smooth	■ ⊔ or	3	jn.au	Pu	C. G. H.	1806.	C	s.p	
1393	diversifólius *R. Br.*	various-leaved	■ ⊔ or	4	...	Pu	C. G. H.	1803.	C	l.p	
1394	spatálloides *R. Br.*	club-bearing	■ ⊔ or	3	jn.au	Pu	C. G. H.	1803.	C	s.p	
1395	tenuifólius *R. Br.*	slender-leaved	■ ⊔ or	3	jn.au	Pu	C. G. H.	1802.	C	l.p	
1396	lanátus *R. Br.*	woolly	■ ⊔ or	2	jn.s	Pu	C. G. H.			l.p	
1397	imbricátus *R. Br.*	imbricated	■ ⊔ or	3	ap.jl	Pu	C. G. H.	1794.	S	p.l	Bot rep. 517
237.	**SPATAL'LA.** *R. Br.*	Spatalla.			*Proteaceæ.*		*Sp* 4—16.				
1398	prolífera *R. Br.*	proliferous	■ ⊔ or	1½	jn.au	Pu	C. G. H.	1800.	C	s l	Thunb. dis 27. t.4
1399	ramulósa *R. Br.*	cluster-flowered	■ ⊔ or	3	au.s	Pu	C. G. H.	1787.	C	l.p	
1400	incúrva *R. Br.*	incurved-leav'd	■ ⊔ or	2½	my.jn	Pu	C. G. H.	1789.	S	s.l	
1401	Thunbérgii *R. Br.*	Thunberg's	■ ⊔ or	3	my.jn		C. G. H.	1806.	C	l.p	



History, Use, Propagation, Culture,

232. *Leucospermum.* From λευκος, white, and σπερμα, seed, in allusion to the color of the seeds. The genus is chiefly composed of low shrubs, which are usually downy or hairy. Leaves entire, or with callous teeth at the end. Heads terminal. Flowers yellow. The culture as for Protea.

233. *Mimetes.* Named by Mr. Sallisbury from μιμητης, a mimic, because it resembles various other genera. The soil for this genus is two-thirds of light loam, and one third of sand. In other respects, the treatment is the same as for Isopogon.

234. *Serruria.* Named by Burmannus after Professor Joseph Serrurier, a foreign botanist, of whom little is known. The species flower freely, and make handsome bushy shrubs. The soil best adapted to them is one-third light loam, a third of peat, and a third of sand, with well drained pots. "They also require an airy situation, as they are so crowded with leaves that the branches are liable to damp and canker if any wet settles

1352 Leaves elliptical edged, Bractes spreading : upper spatulate minutely fringed, Petals downy
1353 Style nearly twice as long as hairy flower, Stigma conical ovate g[illegible] on one side, Leaves obl. 3-4-toothed
1354 Style longer than the very villous flower, Stigma equal-sided conical, Leaves oval 3-9-toothed
1355 Style longer than very vill. fl. Stig. equal-sided obl. Lvs. obl. lanc. 3-toothed and entire, Branches very hairy
1356 Style longer than hairy fl. Stigma equal-sided ovate, Lvs. lanc. and ellipt. entire short pub. Branches hairy
1357 Leaves linear channelled veinless, Branches and bractes tomentose, Segments of flower bearded
1358 Leaves linear flat, Branches hairy, Bractes smoothish ciliated
1359 Leaves linear wedge-shaped flat veiny 3-5-toothed, Branches hairy, Bractes and segments of flow. toment.
1360 Leaves linear 3-toothed, Bractes rounded tomentose twice as short as tube of flower

1361 Involucr. equal-sided colored acuminate half exserted 8-10-flowered, Leaves acute entire
1362 Leaves oval lanceolate pubescent, Stigma short prominent at base
1363 Invol. unequal-sided, Leaves lin. oblong 3-toothed smooth the floral dilated beneath with recurved edges
1364 Stem procumbent, Leaves oval obtuse pubescent, Style smooth, Heads terminal
1365 Leaves narrow obovate almost smooth, Upper bractes longer than flowers very acuminate
1366 Stem procumbent, Branches ascending, Leaves linear subulate channelled, Segments of flower smooth

Heads simple.

1367 Leaves from below the middle bipinnatifid hairy, Head sessile higher than leaves, Bractes hairy outside
1368 Leaves from base bipinnat. hairy, Ped. as long as head or longer, Bractes hairy at end outside, Stig. trunc.
1369 Leaves from the base 3-pinnatifid pubescent, Ped. 1-3 long smoothish, Bractes recurved scarcely toment.
1370 Heads terminal and axillary stalked clustered, Leaves pinnatifid and trifid more than an inch long
1371 Heads terminal longer than the stalk, Leaves pinnatifid and trifid less than an inch long, Stem pubesc.
1372 Heads ter longer than stalk, Lvs. sprdg. upper less an inch long nearly bipin. lower shorter trifid, Stem erect
1373 Heads terminal stalked, Leaves bi-tripinnatifid with the erect stem hairy
1374 Heads term. sessile, Leaves bi-pin about an inch long upper longer than heads with the branches smooth
1375 Heads ter longer than stalks, Brac. subul. smooth hairy at edge, Lvs sub-bipinnate and branches smooth
1376 Heads ter. and axil stalks branch-like squarrose, Outer bractes subul. inner lanc Lvs an inch and half long
1377 Bractes a little shorter than the terminal head, Outer lanc fringed inner less villous, Leaves bipinnatifid
1378 Stem pubesc Leaves from below middle all bipinnatifid, Heads 1-3 shorter than ped. Bractes reflex. ciliat.
1379 Leaves bipinnatifid filiform pointed hairy, Flowers terminal sweet-scented
1380 Leaves from below the middle bipinnatifid pubescent, Heads 1-3 longer than leaves, Bractes silky at base

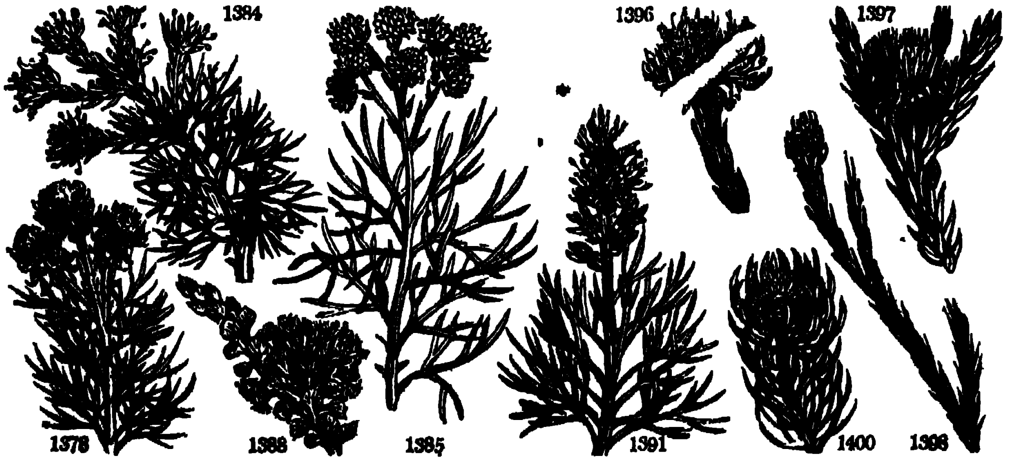
Heads compound

1381 Stem erect, Lvs. smth. bipin more than an inch long, Partial heads many-fl. outer brac. smth : inner silky
1382 Stem erect, Branches pub. Lvs bipin an inch and more long, Partial heads few-fl. All the bractes very vill.
1383 Stem erect, Leaves triternate bundled less than ½ inch long common and partial heads few-flow. sessile
1384 Heads corymbose 10-flow. Leaves bipinnatifid setaceous scarcely 2 inches long, Flowers silky clustered
1385 Corymbs compound, Leaves triternate ½ inch long and stem very smooth, Bractes and partial stalks silky
1386 Corymbs simple or compound, Leaves bi-tripinnat. common flower-stalk long, partial and bractes smooth

1387 Leaves obovate or lanceolate fla[illegible] simple at edge, Flower silky with appressed hairs
1388 Leaves broader than long hooded edged, Leaves of invol obt Flower bearded style smooth, Stig. clavate
1389 Stalks umbelled ½ as long [illegible]e cylindrical spike, Bractes ovate, Style 2-3ds hairy, Leaves smooth
1390 Stalks umbelled about as [illegible] as cylind spikes, Leaves obtuse divar smooth, Styles vill. as far as middle
1391 Spikes cylindrical 4 t[illegible] as their stalk, Leaves of involucrum ovate acute beardless at end

1392 Involucr. 3-flowered, Segments of flower and points of bractes smooth, Spike naked
1393 Leaves spatulate lanceolate smooth beneath, the lower bipinnatifid, Flower bearded, Stigma cylindrical
1394 Involucr 3-flowered stalked, Segments of flower bearded, Spike naked

1398 Involucr 4-leaved, Leaflets withered at end, Spike conical headed, Flowers sessile
1399 Involucr. 2-leaved the wider leaf trifid, Spike sessile imbricated, Leaves with a sharp point
1400 Spikes racemose stalked, Bractes shorter than the 4-flowered downy involucrum, Leaves incurved
1401 Spike sessile, Bractes and invol. ovate lanc. vill. Leaves longer than flow. acute chann. and branches hairy



and Miscellaneous Particulars

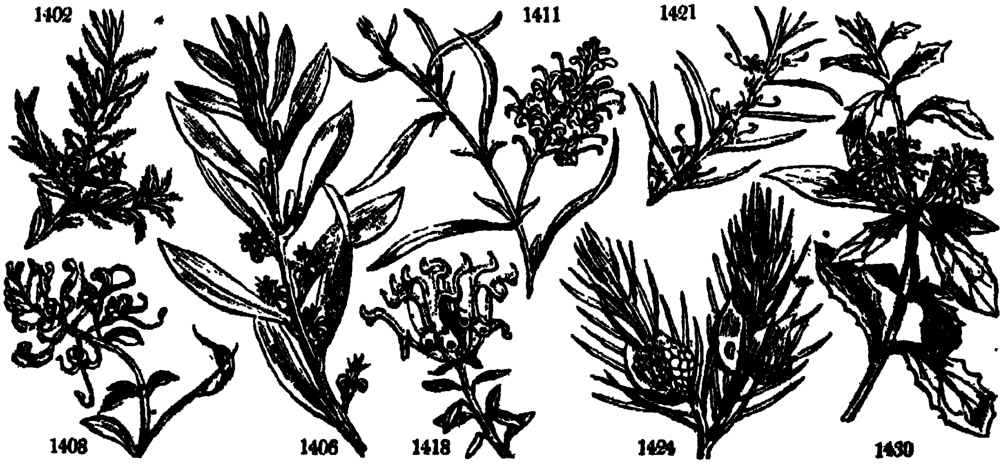
amongst them. Ripened cuttings taken off at a joint and planted thinly in a pot of sand, will root without difficulty under a hand-glass : but the glass must be taken off occasionally to give them air, and dry their leaves." (*Bot. Cult.* 254.)

235. *Nivenia.* Named by Salisbury, in compliment to Mr. James Niven, an intelligent collector, who discovered many new plants in South Africa while in the service of Mr. Hibbert. Culture as for Serruria.

236. *Sorocephalus.* From σωρος, a heap, and κεφαλη, a head, on account of the heads of flowers being in clusters.

237. *Spatalla.* A word formed by Mr. Salisbury, with more wit than decency, from σπαταλαω, *lascivio*, on account of its ample stigma. Culture as for Leucospermum.

238.	**PERSOO'NIA.** *R. Br.*	PERSOONIA.				*Proteaceæ.*		*Sp.* 6—22.				
1402	hirsúta *R. Br.*	hairy	♣	⊔ or	4	my.jl	Y	N. S. W.	1800.	C	l.p	Bot. cab. 327
1403	lineáris *R. Br.*	linear-leaved	♣	⊔ or	5	jl.au	Y	N. S. W.	1794.	L	s.p	Bot. mag. 760
1404	lanceoláta *R. Br.*	spear-leaved	♣	⊔ or	4	jn.jl	Y	N. S. W.	1791.	L	s.p	Bot. rep. 74
1405	salicina *R. Br.*	willow-leaved	♣	⊔ or	7	jn.jl	Pk	N. S. W.	1795.	C	l.p	Cav. ic. 4. t. 389
1406	latifólia *Andr.*	broad-leaved	♣	⊔ or	4	jn.jl	Y	N. S. W.	1795.	L	s.p	Bot. rep. 280
1407	pinifolia *R. Br.*	pine-leaved	♣	⊔ or	4	jn.jl	Y	N. S. W.	1822.	L	s.p	
239.	**GREVIL'LEA.** *R. Br.*	GREVILLEA.				*Proteaceæ.*		*Sp.* 13—38.				
1408	sericea *R. Br.*	silky	♣	⊔ or	6	ap.s	Pk	N. S. W.	1790.	S	s.p	Bot. mag. 862
1409	punicea *R. Br.*	purple	♣	⊔ or	...	...	Pu	N. S. W.	1822.	C	l.p	Sm. N. H. t. 9. f. 3
1410	juniperina *R. Br.*	juniper-like	♣	⊔ or	4	...	Pk	N. S. W.	1822.	C	l.p	Bot. cab. 1006
1411	lineáris *R. Br.*	linear-leaved	♣	⊔ or	6	ap.s	W	N. S. W.	1790.	S	s.p	Bot. rep. 272
1412	ripária *R. Br.*	river-side	♣	⊔ or	4	ap.s	Pk	N. S. W.	1791.	C	l.p	
1413	arenária *R. Br.*	sand	♣	⊔ or	5	ap.s	Pk	N. S. W.	1803.	C	l.p	
1414	acumináta *R. Br.*	acute-leaved	♣	⊔ or	4	ap.s	...	N. S. W.	1805.	S	s.p	
1415	stylósa *Kn. P.*	long-styled	♣	⊔ or		ap.s	Pk	N. S. W.	1809.	C	s.l	
1416	mucrónuláta *R. Br.*	Podalyria-leav.	♣	⊔ or	4	ap.s	Pk	N. S. W.	1809.	C	l.p	
1417	cinérea *R. Br.*	cinereous	♣	⊔ or	...	...	...	N. S. W.	1822.	C	l.p	Bot. cab. 857
1418	buxifólia *R. Br.*	Box-leaved	♣	⊔ or	6	f.s	Pk	N. S. W.	1790.	S	s.p	Bot. rep. 218
1419	collina *Kn. P.*	hill	♣	⊔ or		mr.jl	Pk	N. S. W.	1802.	C	l.p	
1420	aspleniifólia *R. Br.*	Asplenium-lvd.	♣	⊔ or	5	mr.jl	Pk	N. S. W.	1806.	C	l.p	
240.	**HA'KEA.** *R. Br.*	HAKEA.				*Proteaceæ.*		*Sp.* 20—40.				
1421	pugiónifórmis *R. Br.*	dagger-fruited	♣	⊔ or	6	my.jn	W	N. S. W.	1796.	S	s.p	Bot. cab. 353
1422	párilis *Kn. P.*	matched	♣	⊔ or		my.jn	W	V. Di. L.	1796.	C	l.p	
1423	obliqua *R. Br.*	oblique-flower.	♣	⊔ or	6	...	W	N. Holl.	1803.	C	s.p	Bot. cab. 1682
1424	gibbósa *R. Br.*	gibbous-fruited	♣	⊔ or	7	my.jn	W	N. S. W.	1790.	C	s.p	Cav. ic. 6. t. 524
1425	acicúláris *R. Br.*	needle-leaved	♣	⊔ or	3	my.jn	W	N. S. W.	1790.	C	s.p	Vent. mal. 111
1426	suavéolens *R. Br.*	sweet-smelling	♣	⊔ or	4	ja.n	W	N. Holl.	1803.	C	s.p	
1427	microcárpa *R. Br*	small-fruited	♣	⊔ or	4	my.jn	W	V. Di. L.	1819.	C	s.p	Bot. reg. 475
1428	flórida *R. Br.*	many-flowered	♣	⊔ or	5	my.jn	W	N. Holl.	1803.	C	s.p	Bot. mag. 2579
1429	ilicifólia *R. Br.*	Holly-leaved	♣	⊔ or	4	jl.s	W	N. Holl.	1803.	C	s.p	
1430	nítida *R. Br.*	glossy	♣	⊔ or	5	jn.jl	W	N. Holl.	1803.	C	s.p	Bot. mag. 2246
1431	amplexicaúlis *R. Br.*	stem-clasping	♣	⊔ or	2	...	W	N. Holl.	1803.	C	s.p	
1432	prostráta *R. Br.*	trailing	♣	⊔ or	1½	...	W	N. Holl.	1803.	C	s.p	
1433	ceratophýlla *R. Br.*	horn-leaved	♣	⊔ or	4	my.jn	Br	N. Holl.	1803.	C	s.p	
1434	acanthophýlla *Lk.*	prickly-leaved	♣	⊔ or	3	...	...	N. S. W.	1821.	C	s.p	
1435	unduláta *R. Br.*	wave-leaved	♣	⊔ or	3	...	...	N. Holl.	1803.	L	s.p	
1436	óleifólia *R. Br.*	olive-leaved	♣	⊔ or	5	jn.jl	W	N. Holl.	1794.	S	s.p	
1437	saligna *R. Br.*	willow-leaved	♣	⊔ or	7	mr.jl	W	N. Holl.	1791.	C	s.p	Bot. rep. 215
1438	cinérea *R. Br.*	hoary-leaved	♣	⊔ or	5	jn.jl	W	N. Holl.	1803.	S	s.p	
1439	dáctyloides *R. Br.*	nerved-leaved	♣	⊔ or	7	jn.au	W	N. S. W.	1790.	C	s.p	Cav. ic. 6. t. 535
1440	elliptica *R. Br.*	oval-leaved	♣	⊔ or	4	jn.au	W	N. Holl.	1794.	C	s.p	
241.	**STENOCAR'PUS.** *R. Br.*	STENOCARPUS.				*Proteaceæ.*		*Sp.* 1—2.				
1441	salignus *R. Br.*	fragrant	♣	⊔ or	5	jn.jl	G	N. Holl.	1819.	C	s.l	Bot. reg. 441
242.	**LAMBER'TIA.** *R. Br.*	LAMBERTIA.				*Proteaceæ.*		*Sp.* 1—2.				
1442	formósa *R. Br.*	handsome	♣	⊔ or	4	jn.au	Re	N. S. W.	1788.	C	s.p	Bot. rep. 69
243.	**XYLOME'LUM.** *R. Br.*	XYLOMELUM.				*Proteaceæ.*		*Sp.* 1.				
1443	pyrifórme *R. Br.*	pear-fruited	🌳	⊔ or	14	...	...	N. S. W.	1789.	S	s.p	Cav. ic. 6. t. 536
244.	**TELOPE'A.** *R. Br.*	WARRATAH.				*Proteaceæ.*		*Sp.* 1—2.				
1444	speciosissima *R. Br.*	splendid	🌳	⊔ or	10	my.jl	S	N. S. W.	1789.	C	s.p	Bot. mag. 1128
245.	**LOMA'TIA.** *R. Br.*	LOMATIA.				*Proteaceæ.*		*Sp.* 2—8.				
1445	silaifólia *R. Br.*	cut-leaved	♣	⊔ or	2	jn.au	O	N. S. W.	1792.	C	s.p	Bot. mag. 1272
1446	longifólia *R. Br.*	long-leaved	♣	⊔ or	2	jn	G	N. S. W.	1816.	C	l.p	Bot. reg. 442



History, Use, Propagation, Culture,

238. *Persoonia.* So named by Sir J. E. Smith, in honor of C. H. Persoon, the celebrated author of Synopsis Plantarum and other esteemed works: he is still living, and about to publish a new edition of his most useful Synopsis.

239. *Grevillea.* So named by Mr. R. Brown, after the Right Honorable Charles Francis Greville, a great promoter of natural history. He was one of the vice-presidents of the Royal Society. Some species ripen abundance of seeds; all of them thrive in an equal mixture of sandy loam and peat, and strike roots freely in sand under a hand-glass.

240. *Hakea.* Named by Schreber after Baron Hake, a patron of the botanic garden at Hanover. This genus thrives in equal parts of loam, peat, and sand well drained; and cuttings root readily in sand under a hand-glass.

1402 Leaves linear hairy scabrous recurved at edge, Flowers axillary, Ovary one-sided silky
1403 Leaves oblong linear mucronate rather villous, Flowers axillary solitary
1404 Leaves lanceolate or elliptical mucronate glabrous smooth, Peduncle axillary 1-flowered, Flower silky
1405 Leaves lanceolate oblong unequal-sided, Flowers smooth, Stem arborescent, Bark scarious in layers
1406 Leaves obovate acute smooth on both sides without ribs thick, Flowers axillary remote on long stalks
1407 Leaves filiform lax, Spike leafy elongated pyramidal, Floral leaves abbreviated

Style smooth, Follicle ribless.

1408 Leaves ellipt. or obl. obt. mucr. broken back at the edges, Flower branches erect, Racemes abbrev. recurv.
1409 Leaves elliptical oblong attenuate at base broken back at edges, Flower bearing branches recurved
1410 Leaves subulate fascicled divaricating broken back at the edge, Branches villous rounded
1411 Leaves linear lanceolate acute mucr. broken back at edges, Rac. abbreviate erect, Style very smooth at end
1412 Lvs. elong. linear broken back at edges smooth, Inner beard of flower very dense, Stalks longer than ovary

Style hairy. Follicle ribbed.

1413 Leaves oblong obtuse mucronate, Racemes recurved few-flowered, Pistils tomentose
1414 Leaves lanc. sub-acum. mucr. above dotted scabrous beneath cinereous, Branc. pubes. Rac. few-fl. recurved
1415 Leaves lanceol. hairy beneath, Style very long compressed hairy at back [or horizontal
1416 Leaves obovate obt. mucr. above scabrous and shining beneath rather silky, Hairs of flowers appressed
1417 Leaves elliptical and obovate mucronate above roughish beneath cinereous

Pistil woolly. Follicle ribless. [as recurved appendage

1418 Leaves elliptical above dotted scabrous beneath cinereous with close tomentum, Stig. orbic. scarcely as long
1419 Leaves elliptic lanceolate little revolute at edge, Flowers scarcely higher than leaves

Raceme thyrsoid. Leaves pinnatifid. (True Grevilleæ, Br.)

1420 Leaves elongate linear pinnatifid cut or entire beneath tomentose, Racemes 3 times as short as the leaf

Leaves filiform.

1421 Leaves smooth, Flowers silky or hairy, Caps. lanceolate acuminate straight crested on both sides
1422 Leaves smooth with bloom not channelled, Petals woolly
1423 Leaves terete, Branches toment. Gland attached to oblique end of stalk, Flow. silky, Caps. gibbous nodose
1424 Lvs. ben. with an obsol. furr. at base and branc. s.-pub. Branchl. and fl.-stks. hairy, Caps. gibb. with cav. inside
1425 Leaves smooth beneath below the middle with an obsolete furrow the length of fruit, Caps. gibbous rugose
1426 Leaves furrowed above pinnatifid occasionally undivided, Flowers racemose smooth, Caps. gibbous
1427 Lvs. of upper branches filif. of lower flat, Perianths very smooth, Caps. with 2 spurs umbelled much shorter

Leaves flat, toothed, or entire. [than leaf

1428 Leaves narrow-lanceol. prickly toothed minutely dotted a little rough at the edge, Caps. 2-spurred convex
1429 Leaves oval opaque sinuate-toothed prickly stalked, Caps. 2-spurred ovate gibbous compressed at end
1430 Lvs. lanc. or obl. attenu. at base with a few prickly teeth or entire shining veiny with branches very smooth
1431 Lvs. sinu. tooth. shining veiny stem-clasp. with a dilated cord. base, Stem prost. Bran. smooth, Caps. spurl.
1432 Lvs. angul. tooth. dil. at end and cuneate at base cord. stem clasp. Stem prost. Branc. pubes. Caps. spurless
1433 Leaves pinnatifid and bipinnatifid linear, Capsules spurless
1434 Leaves pinnatifid the anterior segments 1 inch long the posterior 1½ inch and more
1435 Leaves obovate 3-nerved reticulated wavy prickly toothed, Caps. spurless ventricose
1436 Leaves lanc. entire and nerved obsoletely veined prickly at end upper pubesc. Caps. term. 2-spurred gibbous
1437 Lvs. elongate-lanc. entire 1-nerv. acute withered at end with bran. very smooth, Caps. keeled on both sides
1438 Lvs. lin.-lanc. elongate entire 3-nerv. obsoletely veined rough. wither. at end, Bran. downy, Caps. lanceol.
1439 Leaves entire 3-nerved veiny obovate-oblong or linear lanceolate reversed, Branches angular, Bark warted
1440 Leaves entire 5-nerved reticulated elliptical or oval pointless, Stalks and flowers smooth, Bark shining

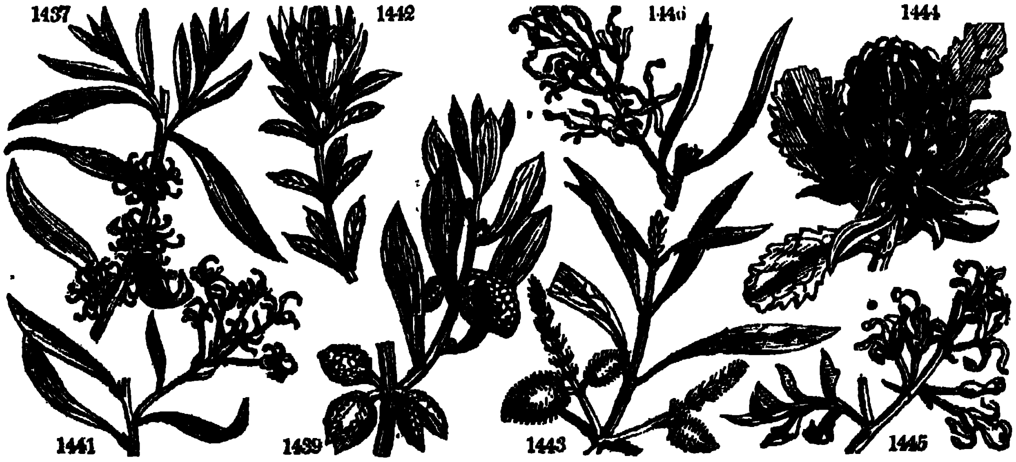
1441 Leaves elongate lanceolate 3-nerved at base

1442 Involucres 7-flowered, Leaves linear-lanceolate cuspidate

1443 The only species

1444 Leaves wedge-shaped oblong toothed veiny smooth

1445 Leaves bipinnatifid very smooth, Segments wedge-shaped or lanceolate cut
1446 Leaves linear lanceolate elongate smooth remotely serrate



and Miscellaneous Particulars.

941. *Stenocarpus.* A handsome genus. The name is derived from στενος, narrow, and καρπος, fruit.

942. *Lambertia.* In honor of A. B. Lambert, Esq. F. R. S., vice-president of the Linnæan Society, and possessor of a rich Herbarium. This handsome plant thrives well in loam and peat not over watered. Cuttings must be taken off at a joint before they begin to push, and planted thinly in sand under a glass, and guarded from damp.

943. *Xylomelum.* A name derived by Sir J. E. Smith from the remarkable fruit of the plant which resembles a wooden apple; ξυλον, wood, and μῆλον, an apple.

944. *Telopea.* From τηλωπος, seen at a distance, in allusion to the brilliant crimson blossoms which decorate the plant, and make it a conspicuous object in its own country, as well as in our conservatories.

945. *Lomatia.* From λωμα, an edge, on account of the winged edge of the seeds.

246. RHOPA'LA. *R. Br.*	RHOPALA.				*Proteaceæ.*		*Sp.* 2.				
1447 dentáta *R. Br.*	tooth-leaved	♀	□ or	10	my.au	G	S. Amer.	1802.	C	l.p	
1448 séssilifólia *R. Br.*	sessile-leaved	♀	□ or	10	...	G	Guiana	1803.	C	l.p	Rudg. gui.1. t.31
247. BANK'SIA. *R. Br.*	BANKSIA.				*Proteaceæ.*		*Sp.* 26—35.				
1449 pulchélla *R. Br.*	small-flowered	♣	⊔ or				N. Holl.	1805.	C	l.p	
1450 sphærocárpa *R. Br.*	round-fruited	♣	⊔ or		...		N. Holl.	1803.	C	s.l	
1451 nútans *R. Br*	nodding-flower.	♣	⊔ or		jn.s		N. Holl.	1803.	C	s.l	
1452 ericifólia *R. Br.*	Heath-leaved	♣	⊔ or		ja d		N. S. W.	1788.	C	s.p	Bot. mag. 738
1453 spinulósa *R. Br.*	spiny	♣	⊔ or		my.d		N. S. W.	1788.	C	s.p	Bot. rep. 457
1454 collina *R. Br.*	hill	♣	⊔ or				N. S. W.	1800.	C	s.l	
1455 occidentális *R. Br.*	west-coast	♣	⊔ or				N. Holl.	1803.	C	l.p	
1456 littorális *R. Br.*	sea-side	♣	⊔ or			O	N. Holl.	1803.	C	s.p	
1457 marginála *R. Br.*	various-leaved	♣	⊔ or	6	my.au	Y	N. S. W.	1804.	G	s.p	Bot. mag. 1947
1458 austrális *R. Br.*	southern	♣	⊔ or	6	...	G	N. S. W.	1822.	C	s.p	Bot. reg. 787
1459 intégrifólia *R. Br.*	entire-leaved	♀	⊔ or	12	...	Y	N. S. W.	1788.	C	l.p	Cv.ic.6. t.545,546
1460 verticilláta *R. Br.*	verticillate	♀	⊔ or	12	jl.o	Y	N. Holl.	1794.	C	s.p	Hook. ex. fl. 96
1461 coccinea *R. Br.*	scarlet-flowered	♣	⊔ or	6	...	S	N. Holl.	1803.	C	l.p	
1462 paludósa *R. Br.*	marshy	—	⊔ or	5	ja.ap	Y	N. S. W.	1805.	L	s.p	Bot. cab. 392
1463 oblongifólia *R. Br.*	oblong-leaved	♀	⊔ or	15	my.au	Y	N. S. W.	1788.	C	l.p	Bot. cab. 241
1464 latifólia *R. Br.*	broad-leaved	♀	⊔ or	30	my.au	G	N. S. W.	1802.	S	s.p	Bot. mag. 2406
1465 marcéscens *R. Br.*	short-leaved	♣	⊔ or	6	ja.d	Pu	N. Holl.	1794.	C	s.p	Bot. rep. 258
1466 insuláris *R. Br.*	Island	♣	⊔ or	6	...	...	N. S. W.	1822.	C	s p	
1467 attenuáta *R. Br.*	smooth-flower.	♣	⊔ or	6	...	...	N. Holl.	1794.	L	s.p	
1468 serráta *R. Br.*	saw-leaved	♀	⊔ or	20	jl.s	Y	N. S. W.	1788.	S	s p	Bot. rep. 82
1469 æ'mula *R. Br.*	deeply-sawed	♣	⊔ or	6	jl.s	G	N. S. W.	1788.	C	l.p	Bot. rep 638
1470 quercifólia *R. Br.*	oak-leaved	♣	⊔ or	5	...	...	N. Holl.	1805.	C	l.p	
1471 dentáta *R. Br.*	toothed	♣	⊔ or	4	...	...	N. S. W.	1822.	C	s.p	
1472 speciósa *R. Br.*	long-leaved	♣	⊔ or	5	my.au	...	N. Holl.	1805.	C	l.s.p	
1473 grándis *R. Br.*	great-flowered	♣	⊔ or	4	...	...	N. Holl.	1794.	S	s.p	
1474 répens *R. Br.*	*creeping	♣	⊔ or	2	...	Y	N. Holl.	1803.	C	l.s.p	Voy.de lab.1.t.23
248. DRYAN'DRA. *R. Br.*	DRYANDRA.				*Proteaceæ.*		*Sp.* 9—13.				
1475 floribúnda *R. Br.*	many-flowered	♣	⊔ or	3	ja.d	Y	N. Holl.	1803.	S	s.p	Bot. mag. 1581
1476 cuneáta *R. Br.*	wedge-leaved	♣	⊔ or	3	f.n	Y	N. Holl.	1803.	C	l.p	
1477 armáta *R. Br.*	acute-leaved	♣	⊔ or	3	ja.d	Y	N Holl.	1803.	C	l p	
1478 formósa *R. Br.*	splendid	♣	⊔ or		ja.d	Y	N. Holl.	1803.	C	l.p	Lin. tran. 10. t. 3
1479 plumósa *R. Br.*	feathered	♣	⊔ or			Y	N. Holl.	1803.	C	l.p	
1480 obtúsa *R. Br.*	obtuse-leaved	♣	⊔ or			Y	N. Holl.	1803.	C	l p	
1481 nivea *R. Br.*	white-leaved	♣	⊔ or		jl.s	Y	N. Holl.	1803.	C	l.p	Voy.de lab.1.t 24
1482 longifólia *R. Br.*	long-leaved		—	2	ja.d	Y	N. Holl.	1805.	S	s.p	Bot. mag. 1582
1483 tenuifólia *R. Br.*	fine-leaved	♣	⊔ or	2	mr.my	Y	N. Holl.	1803.	S	s.p	
249. STRUTHI'OLA. *W.*	STRUTHIOLA.				*Thymeleæ.*		*Sp.* 9—18.				
1484 juniperina *W.*	drooping	♣	⊔ or	2	ap.s	W	C. G. H.	1758.	C	l.p	Bot. mag. 222
1485 erécta *W. en.*	upright	♣	⊔ or	1½	ap.s	W	C. G. H.	1798.	C	s.p	Bot. mag. 2138
1486 ováta *W.*	oval-leaved	♣	⊔ or	2	f.jn	W	C. G. H.	1792.	C	s.p	Bot. rep. 119
1487 imbricáta *H K.*	tiled-leaved	♣	⊔ or	2	ap.au	Y	C. G. H.	1794.	C	s.p	Bot. rep. 113
1488 tomentósa *H. K.*	downy-leaved	♣	⊔ or	2	au.s	Y	C. G. H.	1799.	C	s.p	Bot. rep. 334
1489 virgáta *H. K.*	twiggy	♣	⊔ or	2	ap.au	R	C. G. H.	1779.	C	s.p	Bot. rep. 139
1490 ciliáta *Andr.*	ciliated	♣	⊔ or	2	ap.au	W	C. G. H.	1779.	C	s.p	Bot. rep. 149
1491 pubéscens *H. K.*	downy	♣	⊔ or	3	ap au	R	C. G. H.	1790.	C	s.p	Bot. mag. 1212
1492 incána *Lodd.*	hoary	♣	⊔ or	2	au	W	C. G. H.	1817.	C	s.p	Bot. cab. 11

History, Use, Propagation, Culture,

246. *Rhopala.* The vernacular name of one of the species found in Guiana is Roupala. The species seldom flower, and are remarkable more for the beauty of their foliage than blossoms, which are disposed in long spikes, usually of a greenish color.

247. *Banksia.* So named by Linnæus, in honor of Sir Joseph Banks, Bart., Pres. R. S., a distinguished promoter of the study of natural history, and of science in general: he died in 1820. This is an elegant genus, and to be grown well requires a soil composed of equal parts of peat, loam, and sand. The pots must be well drained; and the following is the mode recommended by Sweet: "Place a piece of potsherd about half way over the hole at the bottom of the pot, then lay another piece against it that it may be hollow, afterwards put some smaller pieces all round them, and some more, broken very small, on the top of these. All plants belonging to the Proteaceæ should be drained in the same manner, as the roots are very fond of running amongst the broken potsherds; and there is not so much danger of their being overwatered; care must be taken not to let them flag for want of water, as they seldom recover if allowed to get very dry; they should also be placed in an airy part of the green-house when in doors, as nothing is more beneficial to them than a free circulation of air.

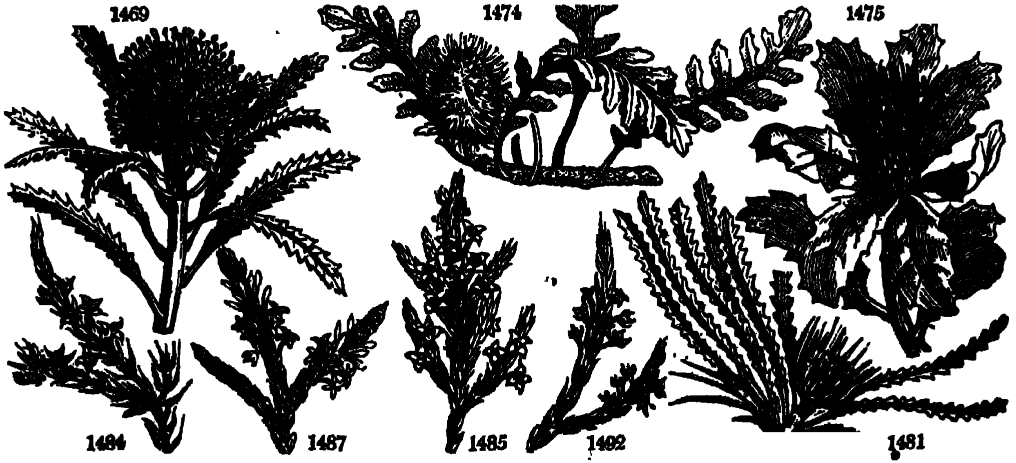
[illegible] readily if properly managed: let them [illegible], and plant them in pots of sand without [illegible] the sand, where they should be taken off quite close; the less depth they are planted in the pots the better, if they only stand firm when the sand is well closed round them; then place them under hand-glasses in the propagating house, but not plunge them in

1447 Leaves alternate ovate lanceolate complicate toothed attenuated at both ends
1448 Leaves 4 together subsessile wedge-shaped oblong entire

1449 Leaves acerose entire not pointed, Claws of flower woolly, Segments smooth, Stigma a depressed head
1450 Leaves acerose entire mucronate, Flower all hairy, Stigma subulate, Cones globose
1451 Leaves acerose entire mucronate, Flower heads nodding, Flowers silky
1452 Leaves acerose emarginate 2-toothed entire, Flower heads long, Flowers silky, Stigma capitate
1453 Leaves acerose 3-toothed at end, the middle tooth longest prickly or entire at the edge, Stigma subulate
1454 Leaves linear prickly toothed; the terminal tooth shortest
1455 Leaves linear beyond the middle prickly toothed beneath veinless, Stem shrubby, Branches smooth
1456 Leaves long lin. prickly toothed atten. at base veinless beneath, Stem arborescent, Branchlets tomentose
1457 Leaves linear truncate mucronate entire or toothed; veins beneath inconspicuous, Ends of branches hairy
1458 Leaves linear truncate mucronate recurved at edge entire beneath netted, Ends of branches tomentose
1459 Leaves whorled oblong lanc. entire mucronulate with conspicuous netted veins beneath, Stem arboreous
1460 Leaves whorled lingulate oblong obtuse unarmed beneath veinless white, Stem arboreous
1461 Leaves altern. wedge-shaped obovate or obl. toothed truncated ribbed reticulated at the base transverse
1462 Leaves somewhat whorled wedge-shaped obl. subtrunc. attenuated at base beyond middle toothed serrate
1463 Leaves scattered narr. obl. trunc. toothed serr. beneath ribbed and veiny, Footstalks and branchl. toment.
1464 Leaves obovate oblong prickly serrate acute at base beneath ribbed reticulated cinereous
1465 Leaves wedge-shaped flat scattered truncate beyond the middle toothed serrate at the base acutish
1466 Leaves linear or wedge-shaped oblong rounded mucronulate scattered or whorled beneath netted
1467 Leaves elongate lin. trunc. at the base attenuate beyond the middle serrated beneath ribbed retic. toment.
1468 Leaves broad linear elongate truncated serrate beneath reticulated smoothish at the base attenuated
1469 Lvs. broad lin. elong. truncated deeply serrate beneath reticulated smoothish, Stig. bearded not furrowed
1470 Leaves oblong wedge-shaped subtruncate smooth cut serrate mucronate, Segments of flower awned
1471 Leaves wedge-shaped oblong truncate sinuate toothed undulated acute at base beneath ribbed veiny snowy
1472 Leaves linear pinnatifid, Lobes triangular half ovate mucronate beneath snowy obsoletely nerved
1473 Leaves pinnatifid, Lobes triangular ovate acute flat beneath nerved smoothish, Flowers smooth
1474 Leaves pinnatifid, Lobes sinuate or toothed, Stem prostrate

1475 Leaves wedge-shaped cut serrate, Bractes of involucre striated outer smoothish
1476 Leaves wedge-shaped sinuate toothed prickly stalked, Bractes all smooth silky
1477 Lvs. pinnatifid, Lobes triang. flat divaricating straight prickly pointed the term. longer than those next it
1478 Lvs. elongate linear pinnatifid, Lobes triangular pointless flat snow-white beneath, Involucres tomentose
1479 Leaves elongate lin. pinnatifid, Lobes an equal-sided triangle mucron. recurved at edge beneath snow-white
1480 Leaves lin. pinnatifid longer than decumbent tomentose stem, Lobes triangular obtuse snow-white beneath
1481 Leaves lin. pinnatifid as long as smooth stem, Lobes triang. acute mucr. beneath white with recurved edge
1482 Lvs. lin. pinnatifid very long acute beneath ashy at base attenuated and entire, Lobes triang. ascend. decur.
1483 Leaves linear elongate pinnatifid sub-truncate white beneath, Lobes triangular decurrent divaricating

1484 Leaves linear acute spreading, Flowers naked, Anthers included
1485 Leaves linear and 4-cornered branches smooth
1486 Leaves ovate and branches rugose smooth
1487 Leaves ovate furrowed quadrifarious ciliated at edge, Glands of flower 4
1488 Leaves ovate tomentose, Glands of flower 12
1489 Leaves lanceolate ciliated, Bractes the length of germen
1490 Leaves lanceolate mucronate ciliate concave incurved at end
1491 Leaves linear ciliated, Bractes longer than germen
1492 Leaves all over hoary



and Miscellaneous Particulars.

heat; the glasses must be frequently taken off to give them air and dry them, or they are apt to damp off; when they are rooted, the sooner they are potted off in little pots the better, as the sand is liable to canker their roots if left too long in it; when potted off, they should be placed in a close frame, but not on heat, as a bottom heat will destroy their roots, when they must be hardened to the air by degrees. Plants raised in this way have better roots, grow faster, and flower sooner than plants raised from seeds. In raising them from seeds they should be sown in the same kind of soil as the plants are grown in, and placed in the green-house; or if it is in summer they will come up sooner if placed out in the open air; they will soon make their appearance, when they should be potted off in small pots, for if left in the seed-pots too long they are apt to die, and are more difficult to move with safety." (*Bot. Cult.* 147.)

248. *Dryandra.* Was named by Mr. R. Brown after the famous Jonas Dryander, whose catalogue of the Banksian library would alone be a monument of talent and industry, if his high botanical acquirements had been unknown. This genus is allied in character and habits to Banksia. It thrives best in very sandy loam and peat in well drained pots. Cuttings made from ripened wood taken off at a joint before they begin to push, planted in sand without shortening any of the leaves, and covered with a glass, will root without difficulty. The pots should not be plunged, and as soon as the cuttings are rooted they must be potted off, as the sand is apt to injure their roots. Place them afterwards in a close frame or under hand-glasses till they strike root afresh, and then harden them by degrees. (*Sweet.*)

249. *Struthiola.* From στρουθος, a sparrow; the pointed seed vessels have some resemblance to the beak of a

250 **OPERCULA'RIA.** *W.*	OPERCULARIA.				*Valerianeæ.*		*Sp* 1—12.				
1493 áspera *W.*	rough-seeded	£ ⊔△	w	1	jn.jl	W	N. S. W.	1790.	S	s.p	An. mu. 4 t. 70. f. 1
251. *CRYPTOSPER'MUM. *P. S.*	CRYPTOSPERMUM				*Valerianeæ.*		*Sp.* 1.				
1494 Youngii *P. S.*	chaffy	n ⊔	w	4	jl.au	Pk	N. S. W.	1793.	C	co	Linn. trans. 3. t. 5
252. **PO'THOS.** *W.*	POTHOS.				*Aroideæ.*		*Sp.* 12—28.				
1495 acaúlis *W.*	stemless	£ ⍍	cu	1	ap.jl	Ap	W. Indies	1790.	Sk	s.p	Jac. am. 240. t. 153
1496 lanceoláta *W.*	lance-leaved	£ ⍍	cu	1½	ap.jl	Ap	Barbadoes	1790.	Sk	s.p	Plum. am. 47. t. 62
1497 violácea *W.*	blue-fruited	£ ⍍	cu	2	ap.jn	Ap	Jamaica	1793.	Sk	s.l	Hook. ex. fl.
1498 cannæfólia *H. K.*	sweet-scented	£ ⍍	cu	3	ap.my	Ap	W. Indies	1789.	Sk	s.p	Bot. mag. 60
1499 crassinérvia *W.*	thick-nerved	£ ⍍	cu	2½	...	Ap	S. Amer.	1796.	Sk	s.p	Jac. ic. 3. t. 60
1500 cordáta *W.*	heart-leaved	£ ⍍	cu	3	ap	Ap	America	1770.	Sk	s.p	Plum. ic. 26. t. 38
1501 sagittáta *B. M.*	arrow-leaved	£ ⍍	cu	3	au	Ap	W. Indies	1800.	Sk	p.l	Bot. mag. 1584
1502 macrophýlla *W.*	large-leaved	£ ⍍	cu	3	my.jn	Ap	W. Indies	1794.	Sk	s.p	Jac. ic. 3. t. 610
1503 obtusifólia *H. K.*	blunt-leaved	£ ⍍	cu	2	my.jn	Ap	Barbadoes	1790.	Sk	p.l	
1504 fœ'tida *H. K.*	Scunkweed	£ ⊔△	cu	1	mr.ap	Ap	N. Amer.	1735.	Sk	p.l	Bot. mag. 836
1505 palmáta *W.*	palmated	£ ⍍	cu	3	jn.jl	Ap	S. Amer.	1801.	Sk	p.l	Plum. am. 49. t. 64
1506 pentaphýlla *W.*	five-leaved	£ ⍍	cu	2	o n	Ap	Cayenne	1803.	Sk	p.l	Bot. mag. 1975
253. **RIVI'NA.** *W.*	RIVINA.				*Chenopodeæ.*		*Sp.* 5—7.				
1507 húmilis *W.*	downy	n ☐	or	2	ja.o	W	W. Indies	1699.	S	r.m	Bot. mag. 1781
β *canes'cens* W.	*hoary*	n ☐	or	2	my.au	W	W. Indies	1804	C	l.p	
1508 purpuráscens *W. en.*	purple	n ☐	or	2	my.au	Pk	W. Indies	1815.	C	l.p	
1509 læ'vis *W.*	smooth	n ☐	or	2	f s	Pk	W. Indies	1733.	S	r.m	Bot. mag. 2333
1510 brasiliénsis *W.*	wave-leaved	n ☐	or	2	jn.jl	G	Brazil	1790.	C	l.p	
1511 octándra *W.*	climbing	n ☐	or	20	my.jn	W	W. Indies	1752.	C	p.l	B. jm. 149. t 23. f 2
254. **CAMPHOROS'MA.** *W.*	CAMPHOROSMA.				*Chenopodeæ.*		*Sp.* 1—5.				
1512 monspeliaca *W.*	hairy	n ⊔	cu	1½	au.s	Ap	S. Europe	1640.	C	p.l	Schk. han. 1. t. 26
255. **ALCHEMIL'LA.** *W.*	LADIES-MANTLE.				*Sanguisorbeæ.*		*Sp.* 7—14.				
1513 vulgáris *W. en.*	common	♃ △	or	1	jn au	G	Britain	me.pa.	D	co	Eng. bot. 597
1514 montána *W. en.*	mountain	♃ △	or	1	jn.au	G	Britain	moun.	D	co	Mill. ic. t. 18
1515 pubéscens *W. en.*	pubescent	♃ △	or	½	jn.au	G	Caucasus	1813.	D	co	Hort. ber. 2. t. 79
1516 sericea *W. en.*	silky	♃ △	or	½	jn.au	G	Caucasus	1813.	D	co	
1517 alpina *W.*	silvery	♃ △	or	½	jl	G	Britain	rocks.	D	co	Eng. bot. 244
1518 pentaphýlla *W.*	five-leaved	♃ △	or	½	jl	W	Switzerl.	1784.	D	co	Bocc. mus. 1. t. 1
1519 A'phanes *W.*	Parsley-piert	♃ ○	w	¼	ap.jn	G	Britain	...	D	co	Eng. bot. 1011
256. **SANGUISOR'BA.** *W.*	GREAT-BURNET.				*Sanguisorb.*		*Sp.* 5.				
1520 officinális *W.*	officinal	♃ △	ag	2	jn.au	Pk	Britain	me. pa.	S	co	Eng. bot. 1312
β *auriculáta*	*eared*	♃ △	or	2	jn.au	Pk	Italy	...			Bocc. mus. 19. t. 9
1521 cárnea *Fisch.*	flesh-colored	♃ △	or	2	jn.au	R	......	1823.	D	co	Schr. mon. t. 69
1522 tenuifólia *Fisch.*	fine-leaved	♃ △	or	2	jn.au	Pk	......	1820.	D	co	
1523 média *W.*	short-spiked	♃ △	or	2	jl.s	R	Canada	1785.	D	co	Zan. h. 181. t. 138
1524 canadénsis *W.*	Canadian	♃ △	or	3	jl.s	W	Canada	1633.	D	co	Cor. can. t. 174.
257. **DORSTE'NIA.** *W.*	DORSTENIA.				*Urticeæ.*		*Sp.* 4—14.				
1525 brasiliénsis *W.*	Brazilian	¥ ⍍	cu	½	ap.au	G	S. Amer.	1792.	R	s.l	
1526 Houstóni *W.*	Houston's	¥ ⍍	cu	½	jn.jl	G	S. Amer.	1747.	R	s.l	Bot. mag. 2017
1527 Contrajérva *W.*	Contrajerva-rt.	¥ ⍍	m	½	my.au	G	S. Amer.	1748.	Sk	p.l	Jac. ic. 3. t. 614
1528 arifolia *Lam.*	arum-leaved	¥ ⍍	cu	½	my.jl	G	Brazil	1822.	R	s.l	Bot. mag. 2476

History, Use, Propagation, Culture,

sparrow or other small bird. The species are all slender, hardy, green-house plants, of pretty appearance, and easy cultivation.

250. *Opercularia.* From *operculum*, a lid, in allusion to the manner in which the calyx is closed. Plants of no beauty.

251. *Cryptospermum.* From *κρυπτω*, to conceal, and *σπερμα*, seed. The seeds, or rather seed-vessels, are hidden in the involucrum. Weeds of some tropical countries.

252. *Pothos.* From *potha*, the native name of this plant in Ceylon. Most of the species are sub-parasitic, and found climbing, like ivy, on the trunks of trees in the West Indies and America. In our stoves most of the species will thrive planted in old bark and moss, and plunged in heat. P. palmata has leaves upwards of three feet long, with a foot-stalk nearly four feet long, palmate, as thick as strong parchment, smooth, with a midrib of a deep green above, and the fructification on spikes more than a foot in length. The species are cultivated for the sake of their foliage, which is always of an agreeable green color, and not liable to discoloration by damp or other accidents of a hot-house.

253. *Rivina.* In memory of A. Q. Rivinus, a native of Saxony, born in 1652, and died in 1722. He was for a long time professor of botany and medicine at Leipsig, and left behind him some valuable botanical works; and among them a very ingenious attempt at a classification of plants by the corolla; from which some modern botanists have profited more than they have acknowledged. The name, as Linnæus observes, with his usual neatness, has been given to a shrub always covered with leaves and fruits, in allusion to the merit of the works of Rivinus. R. octandra, the Hoop-withy of Jamaica, and *liane à baril* of Martinique, has a very long, tough, flexile stalk an inch or more in diameter, and sometimes made into hoops in the West Indies. The berries con-

1493 Leaves opposite ovate rough, Flowers capitate, Heads stalked axillary

1494 Stem erect 4-cornered and leaves lanceolate entire smooth

1495 Leaves lanceolate entire nerveless
1496 Leaves lanceolate 3-nerved veiny entire, Scape 3-cornered at the end
1497 Leaves ovate lanceolate entire nerved dotted
1498 Leaves obovate lanceolate pointed at both ends ribbed, Spathe oblong acuminate flat stalked
1499 Leaves obl. attenuated at both ends veiny entire, Middle rib convex on both sides with 3 keels at its base
1500 Leaves cordate lobed imbricated, Spathe flat, Scape rounded
1501 Leaves cordate acute, Lobes spreading, Spathe reflexed as long as the erect spadix
1502 Leaves cordate lobes divaricating, Spadix much shorter than the spatha
1503 Leaves cordate very obtuse
1504 Leaves cordate acute, Spadix subglobose
1505 Leaves palmated, Lobes 9 or 10 lanceolate obtuse
1506 Leaves digitate quinate ovate acuminate

1507 Leaves pubescent

1508 Leaves ovate smooth ciliated, Petioles pubescent
1509 Leaves ovate acuminate smooth flat, Stem round
1510 Leaves ovate wavy rugose, Stem furrowed
1511 Flowers octandrous and dodecandrous

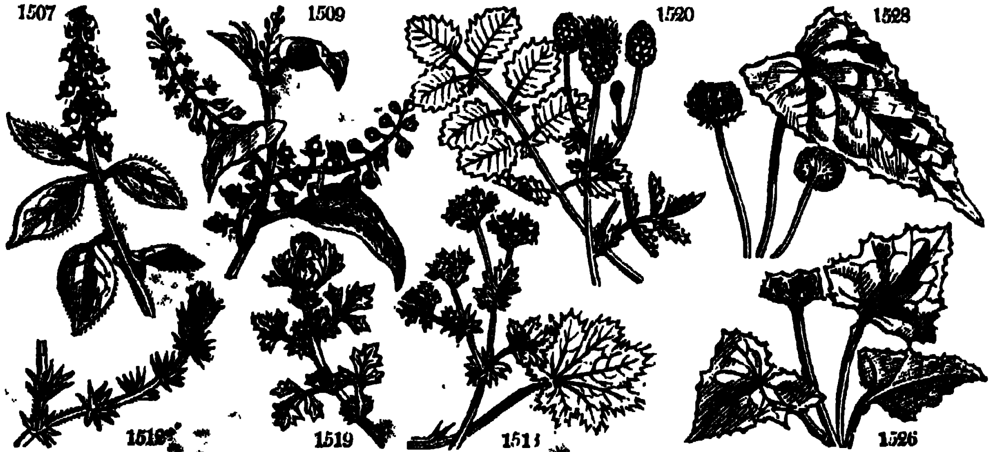
1512 Tufted tomentose hoary, Stems ascending simple

1513 Leaves reniform plaited serrated, Stem and petiole smoothish, Flowers dichotomous corymbose
1514 Leaves reniform 9-lobed beneath with the stem and petioles silky, Flowers fastigiate clustered sessile
1515 Leaves reniform 7-lobed toothed silky beneath, Corymbs terminal
1516 Leaves digitate in sevens lanceolate acute, from the middle to the end deeply serrated silky beneath
1517 Leaves digitate in fives or sevens lanceolate cuneate obtuse serrated or toothed at the end silky beneath
1518 Leaves three together, Leaflets ciliated multifid smooth
1519 Leaves three parted, Segments trifid pubescent, Flowers clustered monandrous

1520 Spike ovate, Stamens shorter than the cor. Cal. and leaves smooth, Leaflets ovate subcordate

1521 Leaflets cordate lanceolate crenate toothed quite smooth, Stamens shorter than corolla
1522 Leaflets subsessile ovate-lanceolate finely serrated, Spikes cylindrical, Stamens longer than corolla
1523 Spikes cylindrical, Stamens longer than corolla, Cal somewhat ciliated
1524 Spikes cylindrical very long, Stamens much longer than corolla

1525 Leaves cordate oval obtuse crenulate, Receptacles orbicular
1526 Leaves cordate angular acute, Receptacles quadrangular
1527 Leaves cordate or pinnatifid palmate serrated, Receptacles quadrangular
1528 Leaves cordate sagittate undulated toothed large, Receptacles oval



stitute the principal part of the food of the American thrush or nightingale; they contain a very oily seed, and after the bird has swallowed many of them he frequently flies to the next bird-pepper bush (Capsicum), and picks a few pods: instinct directing him to what is necessary to promote the digestion of that oleaginous heavy food.

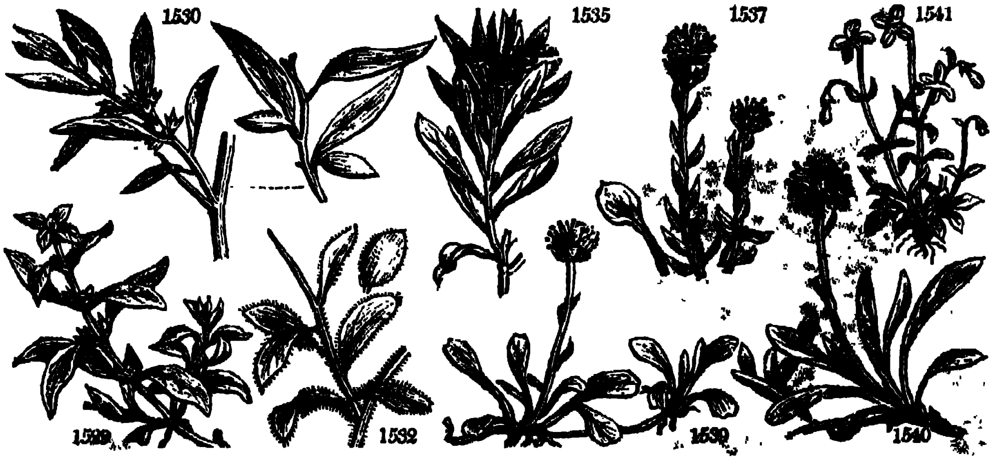
254. *Camphorosma.* Barbarously named from two words, the one Latin (*camphora*), and the other Greek (*osmē*), signifying a smell of camphor. The plant abounds with a volatile oily salt, and is warm and stimulating; but its appearance has nothing to recommend it.

255. *Alchemilla.* Named, as Linnæus asserts, from its supposed alchymical purposes; but, as others maintain, from its Arabic appellation *âlkêmelyeh.* (*J. de Souza*, p. 52.) A. vulgaris is eaten readily by horses, sheep, and goats, and is considered a good herbage-plant where it abounds in upland pastures. A. alpina is an elegant species, common on many of the Highland mountains, and supposed by Lightfoot and others to aid considerably in giving the peculiarly excellent flavor to Highland mutton. A. aphanes is a worthless weed.

256. *Sanguisorba.* From *sanguis*, blood, and *sorbere*, to absorb. The plant has passed for an excellent vulnerary. This genus greatly resembles Poterium (*Monœcia Polyan.*), and Professor Martyn observes, that it is certainly a defect in the Linnæan system that two genera so similar in habit should be placed so far apart. It must be considered, however, that the object of the Linnæan system was less to bring plants together according to all their relative qualities, than to associate them according to one quality, which might serve as an index by which to ascertain their names.

257. *Dorstenia.* In memory of Theodore Dorsten, a German, author of a work entitled Botanicon, printed in 1740. Its flowers, says Linnæus, are like the works of Dorsten, they have little to recommend them. The roots are imported under the name of Contrayerva roots, and used both in medicine and dyeing.

258. ISNARDA. *W.*	ISNARDA.				*Onagrariæ.*		*Sp.* 1—6.				
1529 palústris *W.*	marsh	○	w	1	jl	G	Eur., &c.	1776.	S	co	Schk. han. 1. t. 25
259. ELÆAG'NUS. *W.*	OLEASTER.				*Elæagneæ.*		*Sp.* 5—10.				
1530 angustifólia *W.*	narrow-leaved		or	15	jl	Ap	S. Europe	1633.	C	co	Pall. ross. 1. t. 4
1531 argéntea *Ph.*	silvery		or	10	jl.au	Ap	N. Amer.	1813.	C	co	
1532 orientális *W.*	oriental	⊔	or	10	jl.au	Ap	Levant	1748.	L	p.l	Pall. ross. 1. t. 5
1533 latifólia *W.*	broad-leaved	□	or	3	jl.au	Ap	E. Indies	1712.	L	p.l	Bm. zeyl. t. 39. f. 2
1534 acumináta *Lk.*	acuminated	⊔	or	3	...	Ap	......	...	C	co	
260. GLOBULA'RIA. *W.*	GLOBULARIA.				*Globularineæ.*		*Sp.* 6—13.				
1535 longifólia *W.*	long-leaved	⊔	pr	3	jl.au	W	Madeira	1775.	L	p.l	Bot. reg. 685
1536 A'lypum *W.*	three-toothed	⊔	pr	2	au.s	Pa	S. Europe	1640.	L	p.l	Garid. aix. t. 48
1537 vulgáris *W.*	common	△	pr	½	my.jn	B	Europe	1640.	C	p.l	Bot. mag. 2256
1538 spinósa *W.*	prickly-leaved	⊔	pr	½	my.jn	B	Spain	1640.	C	l.p	
1539 cordifólia *W.*	wedge-leaved	△	pr	½	jn.jl	B	Germany	1633.	C	l.p	Jac. aus. 3. t. 245
1540 nudicaúlis *W.*	naked-stalked	△	pr	½	jn.jl	B	Germany	1629.	C	p.l	Jac. aus. 3. t. 230
261. HOUSTO'NIA. *W.*	HOUSTONIA.				*Rubiaceæ.*		*Sp.* 2—15.				
1541 cærúlea *W.*	blue-flowered	△	pr	½	my.au	L.B	N. Amer.	1785.	D	s.p	Bot. mag. 370
1542 purpúrea *W.*	purple-flower'd	△	pr	1	my.au	Pu	N. Amer.	1800.	D	co	Bot. cab. 1621
262. DIPSA'CUS. *W.*	TEASEL.				*Dipsaceæ.*		*Sp.* 6—10.				
1543 fullónum *W.*	clothier's	⊙	ag	6	jl	Pu	Britain	hedg.	S	l	Eng. bot. 2080
1544 sylvéstris *W.*	wild	⊙	w	4	jl	Pu	Britain	m.hed.	S	m.s	Eng. bot. 1032
1545 laciniatus *W.*	cut-leaved	⊙	w	4	jl.au	Pu	Germany	1683.	S	m.s	Jac. aus. 5. t. 403
1546 Gmelini *Bieb.*	intermediate	⊙		3	jl.au	B	Caucasus	1820.	S	m.s	
1547 inérmis *Wall.*	unarmed	△		4	...	W	Nepal	1823.	S	m.s	
1548 pilósus *W.*	small	⊙		4	au	W	Britain	moi.pl.	S	m.s	Eng. bot. 877
263. CEPHALA'RIA. *Schr.*	CEPHALARIA.				*Dipsaceæ.*		*Sp.* 13—30.				
1549 alpina *W.*	Alpine	△	or	3	jn.jl	L.Y	Switzerl.	1570.	D	co	Be. eys. æs. t. 8. f. 1
1550 albéscens *W. en.*	whitish	△	or	2	jn.jl	W	Siberia	1804.	D	co	
1551 rigida *W.*	stiff-leaved	⊔	or	2	jl	W	C. G. H.	1731.	S	p.l	Com. hort. 2. t. 93
1552 attenuáta *W.*	narrow-leaved	⊔	or	1	jl.s	W	C. G. H.	1774.	S	l.p	
1553 transylvánica *W.*	Transylvanian	○	or	2	jl	Li	Transylv.	1699.	S	co	Jac. vind. 2. t. 111
1554 syriaca *W.*	Syrian	○	or	3	jl	W	Syria	1633.	S	co	Mor. h. 3. t. 14. f. 14
1555 leucántha *W.*	white-flowered	△	or	2	s.o	W	France	1739.	D	co	Ger. ema. 721. f. 8
1556 tatárica *W.*	Tartarian	⊙	or	6	jn.au	L.Y	Russia	1759.	S	co	Act. ups. 1744. t. 1
1557 uralénsis *W.*	Uralian	○	or	5	jl.au	Y	Siberia	1789.	S	co	Co. gott. 1782. t. 4
1558 lævigáta *W. & K.*	smooth	△	or	1½	jl.au	Str	Hungary	1805.	D	co	Wl. & Kit 3. t. 230
β *corniculáta*	*horned*	△	or	2	jl.au	Str	Hungary	1801.	D	co	W. et Kit. t. 13
1559 cretácea *Bieb.*	chalky	△	or	4	jl.au	Str	Caucasus	1818.	D	co	
1560 Vaillantii *Schott.*	Vaillant's	○	or	1½	jl.au	B	Aleppo	1822.	D	co	
1561 pappósa *W.*	downy-headed	○	or	1	jl	W	S. Europe	1739.	S	co	
264. SCABIO'SA. *W.*	SCABIOUS.				*Dipsaceæ.*		*Sp.* 33—103.				
1562 dichótoma *W. en.*	forked	○	or	1	jn.au	Pk	Sicily	1804.	S	co	Bocc. mus. t. 120
1563 Succísa *W.*	Devil's-bit	△	or	1	au.o	V	Britain	pas.	D	co	Eng. bot. 878
1564 integrifólia *W.*	red-flowered	○	or	1½	jn.au	R	France	1748.	S	co	
1565 arvénsis *W.*	field	△	or	2	jl.o	Pu	Britain	cor. fi.	S	co	Eng. bot. 659
1566 sylvática *W.*	broad-leaved	△	or	3	jl	Pu	Austria	1633.	D	co	Jac. aus. 4. t. 362
1567 longifólia *P. S.*	long-leaved	△	or	1½	jl.au	Li	Hungary	1802.	D	co	W. et Kit. t. 5
1568 ciliáta *Spr.*	ciliated	△	or	2	jl.au	W	Germany	1802.	D	co	



History, Use, Propagation, Culture,

258. *Isnarda.* Antoine Tristan Danti d'Isnard was a French botanist, professor at the Jardin du Roi, and member of the Academy of Sciences, to which he communicated many memoirs upon plants from 1716 to 1724. An obscure marsh plant.

259. *Elæagnus.* From ελαια, an olive: the tree having a striking resemblance to the olive tree. E. angustifolia is a low tree with elegant silvery leaves and a brown bark, but not of long duration. All the hardy species are commonly propagated by layers; but according to Sweet and Haynes, "cuttings will strike if taken off at a joint in ripened wood, and planted in a sheltered situation early in autumn." The green-house and stove species strike in sand under a bell-glass.

260. *Globularia.* From the flowers being packed in *globose* heads. The species called Alypum has been so named from α, privative, and λυπη, pain; used by way of antiphrasis, according to Dalechamp, because it is a dangerous purgative. Bauhin even calls it Frutex terribilis; but Clusius says, it was used by the Spanish quacks of his day as a cure for venereal diseases. It is however doubtful whether the Alypon of the old botanists is the same with the plant so called by the moderns. Cuttings of the shrubby green-house species, taken off before they begin to make new shoots, root freely in loam and peat under a bell-glass, and in moderate bottom heat. The hardy and herbaceous kinds may be propagated from seeds, or divided like daisies. Miller says, they prefer a shady situation and a moist loamy soil; but Sweet recommends a light sandy soil. The leaves of most of the species dry black.

261. *Houstonia.* Named after Dr. Wm. Houston, the friend and correspondent of Miller: he died in 1733. The plants are small, elegant in their habits, and very fit for pots or rockwork.

1529 Leaves stalked ovate acute

1530 Leaves lanceolate
1531 Leaves oblong acute at each end silvery, Flowers solitary nodding
1532 Leaves oblong ovate opaque
1533 Leaves ovate
1534 Leaves ovate acuminate wavy

1535 Stem shrubby, Leaves lanceolate linear entire, Flowers axillary subsessile solitary
1536 Stem shrubby, Leaves lanceolate 3-toothed and entire, Heads terminal
1537 Stem herbaceous, Radical leaves about 3-toothed much longer than the stalk, Cauline lanceolate
1538 Radical leaves crenate acuminate, Cauline entire mucronate
1539 Radical leaves wedge-shaped retuse toothed at end the intermediate tooth very small
1540 Stem naked, Leaves entire lanceolate

1541 Leaves radical ovate, Stem compound, First peduncles 2-flowered
1542 Leaves ovate lanceolate, Corymbs terminal

1543 Corona obsolete, Head cylindrical, Bractes recurved, Leaves connate entire subcoriaceous
1544 Corona obsolete, Head cylind. Bractes straight, Invol. weak longer than head, Lvs. conn. entire or jagged
1545 Leaves of involucre linear-lanceolate rigid about as long as the head, Leaves usually sinuately jagged
1546 Corona membranaceous, Head ovate, Involucre weak deflexed
1547 Leaves oblong serrate villous stalked sublobate, Cauline connate, Heads globular villous
1548 Corona obsolete, Head globose, Involucre deflexed not quite so long as bractes

Corollas 4-cleft.

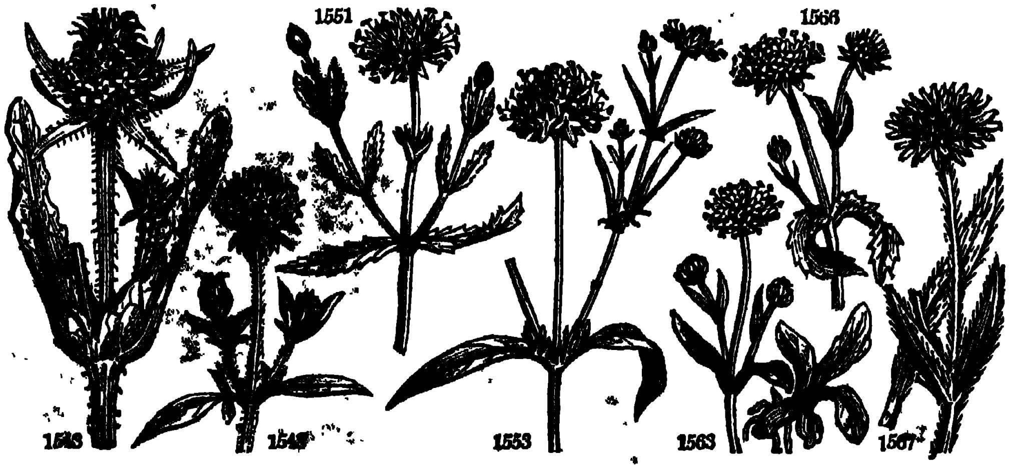
1549 Corona with 8 nearly eq. awned teeth, Anth. strip. with green at time of open. Br. acum. puh. Corol. radiant
1550 Corolla equal, Cal. imbr. Radical leaves pinnated, Leafl. lanc. cut toothed ciliat. Caul. tern. and sim. lin.
1551 Corollas 4-fid unequal, Scales of calyx obtuse, Leaves oblong serrated scabrous
1552 Corollas equal, Scales of calyx oblong obtuse, Leaves linear smooth entire trifid and at base pinnatifid
1553 Corona with 8 equal short teeth, Bractes awned, Awns purplish black
1554 Corona with 8 teeth of which 4 are awned and the other 4 very short, Br. awned, Awns rufous, Corol. equal
1555 Coroll. sub-equal, Scales of calyx ovate, Leaves pinnatifid
1556 Corona with 8 awned nearly equal teeth, Anth. str. with green at time of op. Br. acum. pub. Corol. radiant
1557 Coroll. radiant, Radical leaves simple, Cauline decurrent pinnated, Paleæ arid reflexed at end
1558 Corona with 4-8 obsolete teeth, Bractes awnless yellowish white the outer obtuse the inner acuminate
β Teeth of the corona distorted
1559 Coroll. radiant, Calyx imbricated, Leaves coriaceous smooth lanceolate entire: the upper lyrate
1560 Coroll. equal, Calyx and paleæ awned, Stem simple smoothish, Leaves lanceolate almost smooth

Corollas 5-cleft.

1561 Coroll. unequal, Stem herbaceous erect, Leaves pinnatifid, Seeds bearded and feathery pappose

Corollas 4-fid.

1562 Coroll. nearly equal, Stem dichotomous, Leaves oblong cauline entire subsessile radical toothed stalked
1563 Cor. equal, Stem simple, Branches approximated, Leaves lanc. ovate pubescent, Caul. lin. nearly entire
1564 Cor. radiant, Leaves undivided, Radical ovate serrated, Cauline lanceolate
1565 Coroll. radiant, Leaves entire pinnatifid and cut, Stem hispid
1566 Coroll. radiant, Leaves all undivided ovate oblong serrated, Stem hispid
1567 Coroll. radiant, Leaves oblong lanceolate entire, Stem below smooth above pilose
1568 Coroll. sub-radiant, Stem and leaves ovate hispid the lower leaves stalked entire auric. or pinn. Calyx cil.



and Miscellaneous Particulars.

262. *Dipsacus.* From διψαω, to thirst. At the axillæ of the leaves is usually a quantity of limpid water, which may be acceptable to people who are thirsty. This water once had reputation as a cosmetic. *Chardon à Foulon*, Fr. *Kardendestel*, Ger.; and *Dissaco*, Ital. D. fullonum is cultivated in the west of England for raising the nap upon woollen cloths, by means of the crooked awns or chaffs upon the heads, which in the wild Teasel are not hooked. For this purpose they are fixed round the circumference of a large broad wheel, which is made to turn round, and the cloth is held against them. The seeds are sown in March, on well prepared strong clayey loam, broad-cast, and at the rate of one peck to the acre. They are hoed, like turnips, to a [illegible] distance; and the second year, in August, the heads are fit to cut. They are sold by the bundle or staves, twenty-five in each, and the ordinary produce is 160 staves per acre. In Essex, carraway is often sown along with teasel, and the second year after the latter is pulled, the former is mown or reaped. (*Young's Annals*, vol. xxi. p. 53.)

D. pilosus is the handsomest species; the seeds are eaten by small birds, and the flowers frequented by moths in great numbers.

263. *Cephalaria.* From κεφαλη, a head, in reference to the manner in which the flowers grow. A mere artificial division of the genus Scabiosa, from which it differs in no natural characters whatever.

264. *Scabiosa.* From *scabies*, leprosy. The sudorific qualities of this plant are said to be useful in cutaneous diseases. This is a vigorous-growing coarse-looking genus. S. succisa is one of the few examples of radix præmorsa or bitten-off root; an appearance, as Keith states, owing to the point or top of the seminal root

1569 canéscens *P. S.*	hoary	⚘	△	or	1	jl.au	Li	Hungary	1802.	D	co	W.&K.hun. t.53
1570 gramúntia *W.*	cut-leaved	⚘	△	or	1	jl.au	L.B	S. Europe	1597.	D	p.l	Ger. herb.582.f.2
1571 columbária *W.*	fine-leaved	⚘	△	or	1	jl.au	Pu	Britain	dr. pa.	S	co	Eng. bot. 1311
1572 grandiflóra *P. S.*	great-flowered		○	or	3	jn.s	W	Barbary	1804.	S	co	Sco. dl. ins.3. t.14
1573 lúcida *P. S.*	shining	⚘	△	or	2	jn.s	B	Dauphiny	1800.	D	co	
1574 sícula *W.*	Sicilian		○	or	1	au	Pk	Sicily	1783.	S	co	Jac. vind. 1. t. 15
1575 rutæfólia *P. S.*	Rue-leaved	⚘	△	or	1	jn.au		Sicily	1804.	D	co	Bocc. sic. t. 52
1576 marítima *W.*	sea		○	or	2	jl	Pu	Italy	1683.	D	co	Mor.h.6.t.5.f.29
1577 Webbiána *B. R.*	Webb's	⚘	△	or	½	jl	W	Mnt. Ida	1818.	D	co	Bot. reg. 717
1578 holoserícea *Bert.*	silky	⚘	△	or	1	jn.jl	B	Pyrenees	1818.	D	co	
1579 stelláta *W.*	starry		○	or	1½	jl.au	B	Spain	1596.	S	co	Clu. hist.2.p.1.ic
1580 prolífera *W.*	prolific		○	or	1	jl.au	Y	Egypt	1683.	S	co	Her. parad.t.125
1581 atropurpúrea *W.*	sweet	⚘	⊙	or	4	jl.s	Br	......	1629.	S	co	Bot. mag. 247
1582 argéntea *W.*	silvery	⚘	△	or	2	jn.o	W	Levant	1713.	D	co	Ann.mus.11.t.24
1583 urceoláta *P. S.*	jagged	⚘	△	or	3	jl.au	Y	Barbary	1804.	S	co	Moris.6. t.13.f.24
1584 africána *W.*	African	■	⊔	or	6	jl.o	W	Africa	1690.	S	p.l	Herm. par. t.219
1585 nítens *R. & S.*	Masson's	⚘	△	or	...	jn.au	...	Azores	1779.	D	co	
Scabiósa lucida H. K.												
1586 crética *W.*	Cretan	■	⊔	or	1	jn.o	Pu	Crete	1596.	S	p.l	Mor.h.3.t.15.f.31
1587 gramínifólia *W.*	grass-leaved	⚘	△	or	1	jn	B	Switzerl.	1683.	D	p.l	Bot. reg. 835
1588 caucásea *B. M.*	Caucasian	⚘	△	or	1	jl.au	B	Caucasus	1803.	D	p.l	Bot. mag. 886
1589 lyráta *W.*	lyrate-leaved	⚘	[○]	or	1	jl.au	Pu	Turkey	1799.	S	s.l	
1590 palæstína *W.*	Palestine	⚘	○	or	1	jl.au	Ci	Palestine	1771.	S	s.l	Jac. vind. 1. t. 96
1591 isetónsis *W.*	Siberian	⚘	⊙	or	1	jl.au	W	Siberia	1801.	S	s.l	Gmel. sib.2. t.88
1592 ucránica *W.*	Ukraine	⚘	△	or	1	s	L.Y	Ukraine	1795.	C	s.l	Gmel. sib.2. t.87
1593 ochroleúca *W. en.*	pale-flowered	⚘	△	or	1	jl.au	Y	Germany	1597.	D	s.l	Jac. aust.5. t.4[illegible]
1594 banática *P. S.*	Hungarian	⚘	△	or	3	jl.au	Pk	Hungary	1800.	D	co	W. & Kit. 10. t. 12
265. KNAU'TIA. *W.*	Knautia.				*Dipsaceæ.*			*Sp.* 2—6.				
1595 orientális *W.*	red-flowered		○	or	1	jn.s	R	Levant	1713.	S	co	Schk. han.1. t.22
1596 propóntica *W.*	purple-flower'd	⚘	⊙	or	2	jn.au	Pu	Levant	1768.	S	co	Till. pis.153. t.48
266. GA'LIUM. *W.*	Bed-straw.				*Rubiaceæ.*			*Sp.* 26—160.				
1597 rubioídes *W.*	Madder-leaved	⚘	△	w	1	jl	W	S. Europe	1775.	D	co	Buxb.cent.2.t.29
1598 palústre *W.*	marsh	⚘	△	w	2	jl.au	W	S. Europe	m.me.	D	m.s	Eng. bot. 1857
1599 Witheringii *E. B.*	rough	⚘	△	w	½	jn.jl	W	England	hea.	D	s.p	Eng. bot. 2206
1600 austríacum *W.*	Austrian	⚘	△	w	1	jn.jl	W	Europe	1804.	D	co	Jac. aust. t. 80
1601 Boccóni *W.*	Boccone's	⚘	△	w	1	my.jn	Pk	Europe	1801.	D	co	Boc. m.145. t.101
1602 eréctum *E. B.*	upright	⚘	△	w	1½	jn.jl	W	Britain	m. pas.	D	m.s	Eng. bot. 2067
1603 pusíllum *W.*	least	⚘	△	w	½	jl.au	W	England	moun.	D	s.l	Eng. bot. 74
1604 vérum *W.*	Cheese-rennet	⚘	△	w	1½	jl.au	Y	Britain	bu. pl.	D	m.s	Eng. bot. 660
1605 Mollúgo *W.*	great-hedge	⚘	△	w	2	jl.au	W	Britain	hedg.	D	co	Eng. bot. 1673
1606 sylváticum *W.*	wood	⚘	△	w	3	jl.au	W	S. Europe	1658.	D	co	Flor. dan. t.609
1607 linifólium *W.*	Flax-leaved	⚘	△	w	1½	jn.jl	W	S. Europe	1759.	D	co	Barrel. ic. 583
1608 rígidum *W.*	rigid	⚘	△	w	1	jn.jl	W	......	1778.	D	co	
1609 aristátum *W.*	awned	⚘	△	w	¾	jn.jl	W	Italy	1699.	D	co	Boc. mus.83. t.75
1610 tyrolénse *W. en.*	Tyrolese	⚘	△	w	1	jl	W	Tyrol	1801.	D	co	
1611 glaúcum *W.*	glaucous	⚘	△	w	2	jn.s	W	S. Europe	1710.	D	co	Jac. aust. 1. t. 81
1612 purpúreum *W.*	purple	⚘	△	or	1	jn.jl	Pu	Switzerl.	1731.	D	co	
1613 rúbrum *W.*	red	⚘	△	or	1	jn.jl	Pu	Italy	1597.	D	co	Ger. herb.967.f.3
1614 spúrium *E. B.*	spurious	⚘	○	w	1½	jn.jl	G	Britain	cor. fi.	S	co	Eng. bot. 1871
1615 uliginósum *W.*	marsh	⚘	△	w	½	jl.au	W	Britain	mar.	D	m.s	Eng. bot. 1972
1616 ánglicum *E. B.*	wall	⚘	△	w	½	jl.au	Y	England	Wales.	D	s.l	Eng. bot. 384
1617 saxátile *W.*	smooth-heath	⚘	△	w	½	ap.s	W	Britain	hea.	D	s.p	Eng. bot. 815
1618 tricórne *Sm.*	three-horned		○	w	½	jn.jl	W	Britain	hea.	S	co	Eng. bot. 1641

History, Use, Propagation, Culture.

dying off, in consequence of which horizontal roots naturally protrude themselves. Why it should rot off is not known, but is vulgarly accounted for by ascribing it to a bite from the devil. The same appearance is found in Plantago, Trifolium, and some other plants with subfusiform roots. A decoction of S. succisa is an empirical specific for the gonorrhœa.

S. atropurpurea is the handsomest species, and is cultivated as a border annual and biennial. It has been so long in cultivation that its native country is unknown. Linnæus and Miller consider it as a native of India; Professor Martyn of the south of Europe.

265. *Knautia.* So named by Linnæus in honor of Christopher Knaut, physician at Halle in Saxony: born in 1638; died in 1694. Another Knaut (Christian) published a system of plants in 1706, which has nothing to recommend it.

266. *Galium.* Derived from γαλα, milk; because one sort is used for the purpose of curding milk. This is a very natural genus; the roots of most of the sorts dye red, and the herb, like madder, colors the bones of animals that feed on it. The stems of all the species are four-cornered, and the leaves in whorls; the flowers ge-

Corollas 5-fid.

1569 Hoary, Coroll. radiant, Stem many-flowered, Radical leaves ovate lanceolate entire, Cauline pinnatifid
1570 Calyx very short, Cauline leaves bipinnate filiform
1571 Coroll. radiant, Radical leaves ovate or lyrate pubescent crenate, Cauline pinnate setaceous
1572 Coroll. radiant, Radical leaves oblong crenated, Caul. pinnatifid : the pinnæ linear lanceolate spreading
1573 Coroll. radiant, Leaves smooth, Radical ovate oblong serrate or lyrate, Caul. pinnate : the segm. lin. cut
1574 Coroll. equal shorter than calyx, Leaves lyrate pinnatifid hairy, Stem branched divaricating
1575 Leaves pinnate : the upper linear, Calyces 1-leaved 5-cleft
1576 Coroll. radiant shorter than calyx, Leaves pinnated the upper linear entire
1577 Silky, Lower lvs. stalked roundish or cuneate rugose cren. upper pinnat. Florets uniform longer than invol.
1578 Hoary very soft, Radical leaves obl. crenated upper caul. pinnatifid with ovate or lanc. crenated segm.
1579 Coroll. radiant, Lvs. cut, Recept. of fruit roundish, Outer limb of calyx broad membran. Stem branched
1580 Coroll. radiant, Flowers subsessile, Stem dichotomous, Leaves oblong lanceolate nearly entire pubescent
1581 Coroll. radiant, Leaves cut, Receptacles of the flower subulate
1582 Coroll. radiant, Leaves pinnatifid, Segments linear, Peduncles very long, Stem rounded
1583 Calyx multifid urceolate, Coroll. radiant, Leaves fleshy pinnatifid with linear stiff pinnæ
1584 Coroll. equal, Stem shrubby, Leaves simple erect
1585 Coroll. radiant, Leaves undivided elliptical serrated shining stalked

1586 Coroll. radiant, Leaves lanceolate nearly entire, Stem shrubby
1587 Coroll. radiant, Leaves linear lanceolate entire, Stem herbaceous 1-flowered
1588 Coroll. radiant, Radical leaves lanceolate stalked entire, Cauline pinnated, Stem 1-flowered
1589 Coroll. radiant, Segments entire, Lower leaves oblong coarsely serrated upper pinnatifid at base
1590 Coroll. radiant, all the segments trifid, Leaves undivided subserrate the upper pinnatifid at base
1591 Coroll. radiant longer than calyx, Leaves bipinnate longer than stem
1592 Coroll. radiant, Radical leaves pinnatifid, Cauline linear fringed at base
1593 Coroll. radiant, Radical leaves bipinnate with linear leaflets, Cauline pinnate with perfoliate stalks
1594 Coroll. radiant, Radical leaves lyrate, Cauline sub-bipinnate, Calyxes as long as disk

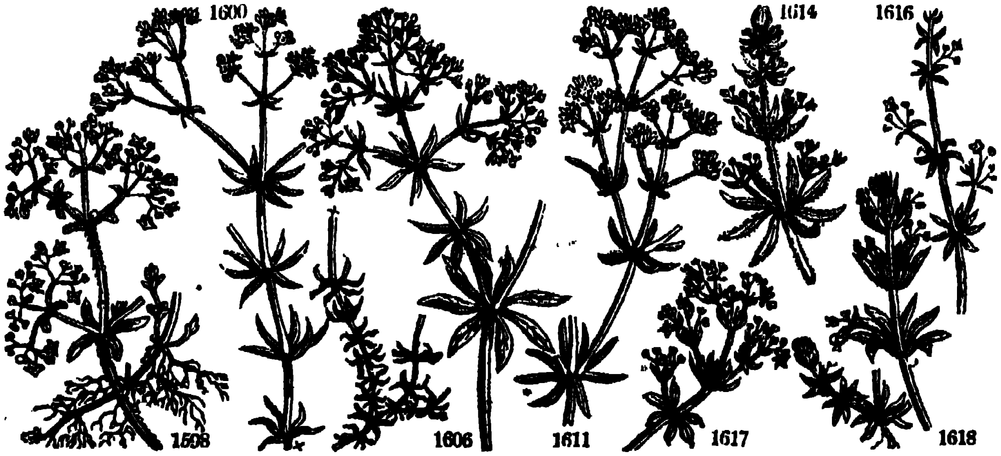
1595 Leaves cut, Cor. 5 longer than calyx
1596 Upper leaves lanceolate entire, Cor. 10 as long as calyx

Fruit smooth.

1597 Leaves 4 ovate lanceolate 3-nerved beneath scabrous, Stem erect simple
1598 Leaves 4 obovate unequal obtuse, Stems diffuse
1599 Leaves 5 reflexed lanceolate awned ciliated, Stem erect simple scabrous
1600 Leaves linear smooth mucronate, Stems 4-cornered diffuse
1601 Leaves 6 linear mucron. roughish, Peduncles trichot. Stems prostrate diffuse 4 angular winged branched
1602 Leaves 8 lanceolate prickly serrate forwards, Panicles trichotomous, Stems smoothish flaccid
1603 Leaves 8 hispid lanceolate linear acuminate subimbricate, Peduncles twice dichotomous
1604 Leaves 8 linear furrowed with stem smooth to the touch, Branches flexible, the flow.-bearing ones short
1605 Leaves 8 elliptical lanceolate obtuse mucronate at the edge rough horizontally spreading, Stem flaccid
1606 Leaves 8 smooth lanc. scabrous beneath, Floral in pairs, Panicle term. Ped. capill. Stem rounded smooth
1607 Leaves 8 linear lanceolate very smooth, Peduncles panicled capillary, Stem rounded
1608 Leaves whorled linear above scabrous, Panicle divaricating, Stem erect rounded pilose roughish
1609 Leaves 8 lanceolate smooth mucronate, Panicle capillary, Petals awned, Stem 4-cornered weak
1610 Leaves 8-6 obovate lanc. mucr. rough at edge, Peduncles 3-flow. Petals awned, Stem 4-cornered smooth
1611 Leaves whorled linear, Peduncles dichotomous flower-bearing from the top of the stem which is smooth
1612 Leaves whorled linear setaceous, Peduncles capillary longer than the leaves
1613 Leaves whorled linear spreading, Peduncles very short
1614 Leaves 6 lanceolate keeled rough aculeate backwards joints simple
1615 Leaves 6 or 8 lanceolate prickly serrate backwards mucronate stiff, Cor. larger than fruit
1616 Leaves 6 linear lanceolate mucronate thin, edges and the stem scabrous, Peduncles bifid, Fruit granular

Fruit rough or hispid.

1617 Leaves 4-6 oblong with short point rough at edge, Panicles close, Stem weak short smooth
1618 Leaves 8 lanc. at edge and stem aculeate backwards, Peduncles axillary 3-fl. Fruit granular nodding

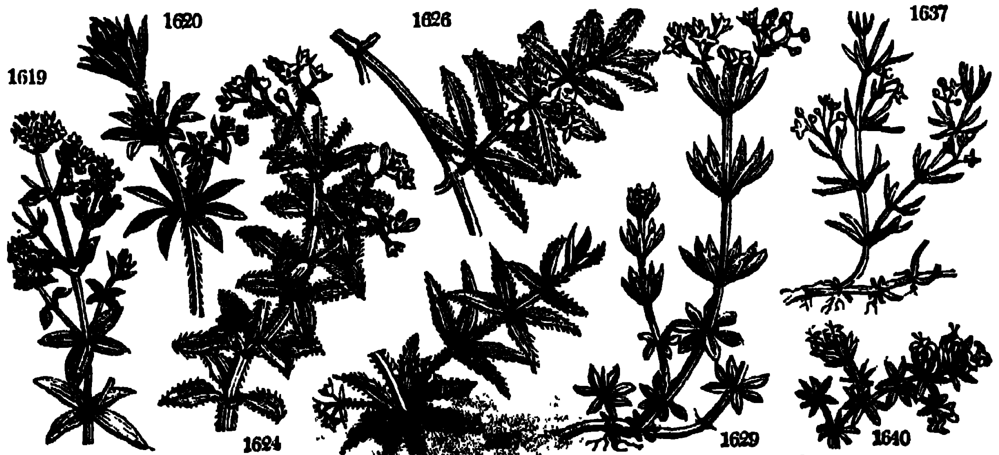


and Miscellaneous Particulars.

nerally axillary, but sometimes panicled. G. verum, *petit Muget*, Fr. is called bed-straw, from the verb to strew, strow, or straw; being one among a variety of odoriferous herbs which were formerly used to strew beds with. The bruised plant is sometimes put in milk intended for cheese to give it a flavor and color. Boiled in alum-water, the flowering stems dye a good yellow color, and the roots a red equal to madder. They were once cultivated like that plant, at the recommendation of the Committee of Council for Trade, and yielded 12½ cwt. of dried roots per acre. G. mollugo, of which there are several varieties, and G. sylvaticum and boreale have similar qualities, though in a less degree.

G. aparine, (from [illegible], to lay hold of), has the fruit set with hooked bristles which adhere to whatever they come in contact with, whence it was called by the Greeks *Philanthropon* (man-lover), and by us cleavers, catch-weed, scratch-weed, &c.; and from being a favorite food or medicine with geese, goose-grass, &c. Linnæus informs us, that they use the stalks in Sweden as a filtre to strain their milk through. Dioscorides relates, that the shepherds made the same use of it in his time; and certainly it is no bad thing to take hairs from milk, where a sieve is not at hand. It is reckoned to purify the blood, and for that purpose the tops are

1619 boreále *W.*	cross-leaved	⚘	△	w	1½	jl	W	Britain	moun.	D	co	Eng. bot. 105
1620 Aparine *W.*	Cleavers	⚘	○	w	3	my.au	W	Britain	hedg.	S	co	Eng. bot. 816
1621 pilósum *W.*	hairy	⚘	△	w	1	jn.jl	W	N. Amer.	1778.	D	co	
1622 græ'cum *W.*	Candian	⚘	△	cu	½	jn.jl	Pu	Candia	1798.	D	co	Alp.ex.167. t.166
267. RU'BIA. *W.*	Madder.					*Rubiaceæ.*		*Sp.* 6—17.				
1623 tinctórum *W.*	dyer's	⚘	△	ag	4	jn	Y	S. Europe	1596.	D	s.l	Lam. ill. t.60. f.1
1624 peregrína *W.*	wild	⚘	△	w	2	jl	Y	England	bu. pl.	D	co	Eng. bot. 851
1625 lúcida *W.*	shining	ɱ	⊔	w	2	jl	Y	Majorca	1762.	C	l.p	Fl. græc. t. 142
1626 fruticósa *W.*	prickly-leaved	ɱ	⊔	w	4	s	Y	Canaries	1779.	C	p.l	Jac. ic. 1. t. 25
1627 angustifólia *W.*	narrow-leaved	ɱ	⊔	w	2	jl.au	Y	Minorca	1772.	C	l.p	Lam. ill. t.60. f.2
1628 cordifólia *W.*	heart-leaved	⚘	△	cu	½	jl	W	Siberia	1783.	D	p.l	Pall. it. 3. t. 2. f.1
268. ASPE'RULA. *W.*	Woodroof.					*Rubiaceæ.*		*Sp.* 14—30.				
1629 odoráta *W.*	sweet-scented	⚘	△	or	¾	my.jn	W	Britain	woods.	D	s.l	Eng. bot. 755
1630 arvénsis *W.*	field		○	w	½	jl	Li	Europe	1596.	S	co	Lob. ic. t.801. f.2
1631 hirta *P. S.*	hairy	⚘	△	pr	¼	jn.jl	Pu	Pyrenees	1817.	D	co	
1632 hirsúta *Desf.*	hirsute	⚘	△	pr	1	my.jn	W	Portugal	1819.	D	co	
1633 taurína *W.*	broad-leaved	⚘	△	pr	1	ap.jn	W	Italy	1739.	D	s.l	Moris.s.9.t.21.f.1
1634 crassifólia *W.*	thick-leaved	⚘	△	pr	¼	jn	W	Levant	1775.	D	s.l	
1635 aristáta *L.*	awned	⚘	△	pr	1	jl.au	Y	S. Europe	1823.	D	co	
1636 scábra *Lk.*	rough	⚘	△	pr	1	jn.jl	W	Italy	1824.	D	co	
1637 tinctória *W.*	narrow-leaved	⚘	△	pr	¾	jn.jl	Pk	Europe	1764.	D	s.l	Tab. ic. t.733. f.1
1638 cynánchica *W.*	small	⚘	△	pr	¾	jl	F	England	ch. hil.	D	s.l	Eng. bot. 33
1639 supína *Bieb.*	supine	⚘	△	pr	¼	jn	Pk	Caucasus	1821.	D	co	
1640 arcadiénsis *B. M.*	Arcadian	⚘	△	pr		my		Arcadia	1819.	D	co	Bot. mag. 2146
1641 lævigáta *W.*	shining	⚘	△	pr	1	jn	W	S. Europe	1775.	D	s.l	Mor. his. t.21. f.4
1642 montána *W. en.*	mountain	⚘	△	pr	1	jn.jl	Pk	Hungary	1801.	D	co	
269. SHERAR'DIA. *W.*	Field-madder.					*Rubiaceæ.*		*Sp.* 2.				
1643 arvénsis *W.*	little		○	w	¼	ap.s	B	Britain	cor. fi.	S	co	Eng. bot. 891
1644 murális *W.*	wall		○	w	¼	jn.au	Y	Italy	1805.	S	co	Allion. t. 77. f. 1
270. SPERMACO'CE. *W.*	Button-weed.					*Rubiaceæ.*		*Sp.* 13—65.				
1645 tenúior *W.*	slender		○	w	2	jn.au	Pk	W. Indies	1732.	S	co	Sch. hand.1. t.22
1646 latifólia *W.*	broad-leaved	£	[○]	w	2	jl	W	Guiana	1803.	S	s.l	Aublet. t. 19. f.1
1647 strigósa *B. M.*	Cross-wort		[○]	w	1	jl.au	W	W. Indies	1760.	S	s.l	Bot. mag. 1558
1648 radícans *W.*	rooting	£	[△]	w	½	jl	W	Guiana	1803.	S	s.l	Aublet.1.t.20.f.4
1649 verticilláta *W.*	whorl-flowered	ɱ	□	w	2	jn.au	W	Africa	1732.	S	s.p	Dil.el.t.277.f.358
1650 híspida *W.*	bristly		[○]	w	1½	au.s	V	Indies	1781.	S	s.l	Mur.co.got.3. t 6
1651 rúbra *Jacq.*	red	£	[○]	w	1	jn.au	Pu	......	1804.	S	s.l	Jac.schœn. t.256
1652 stricta *L.*	upright		[○]	w	½	jn.jl	W	E. Indies	1820.	S	s.l	
1653 stylósa *Lk.*	long-styled		[○]	w	1	my.jn	W	Manilla	1819.	S	s.l	
1654 cornifólia *Fisch.*	dogwood-leav'd		[○]	w	1	my.jn	R	Brazil	1819.	S	s.l	
1655 Fischéri *Lk.*	Fischer's		[○]	w	1	my.jn	W	Jamaica	1821.	S	s.l	
1656 suffruticósa *Jacq.*	suffruticose	ɱ	□	w	½	jn.au	F	......	1824.	C	s.l	Jac.schœn. t.322
1657 mucronáta *Nees.*	mucronate	£	[△]	w	2	jn.jl	W	Jamaica	1822.	D	s.l	
271. CRUCIANEL'LA. *W.*	Cross-wort.					*Rubiaceæ.*		*Sp.* 9—16.				
1658 angustifólia *W.*	narrow-leaved		○	cu	½	jn.jl	Y	France	1658.	S	co	Ex. bot. 2. t. 109
1659 latifólia *W.*	broad-leaved		○	cu	½	jn.jl	G	France	1633.	S	co	Barr. ic. t. 520



History, Use, Propagation, Culture,

an ingredient in spring-broth. The expressed juice of the herb, taken to the amount of four ounces or a quarter of a pint night and morning, during several weeks, is very efficacious in removing many of those cutaneous eruptions, which are called, though improperly, scorbutic. The seeds have been substituted for coffee. The roots, like those of most of the species, will dye red; and, eaten by birds, tinge their bones of that color. It is a very troublesome weed, particularly in young hedges, but being an annual is easily eradicated.

G. tuberosum is cultivated in China for the roots, which are eaten boiled, either whole or in meal, and Loureiro says, are esteemed salubrious. It has not yet been introduced.

267. *Rubia.* From *ruber*, red. R. tinctorum has an annual stalk, which trails or climbs, supporting itself in the latter case by its leaves and prickles. Its root is composed of many long thick succulent shoots nearly half an inch in diameter, striking deep into the ground, and growing to the length of three or four feet. From them is procured a well-known red and scarlet dye used by clothiers and callico-printers, and employed to a great extent, though chiefly from foreign roots. England was formerly supplied with this article exclusively from Holland, and as in times of political derangement the price was greatly increased, its dearness induced some patriotic individuals, who had recently set on foot the Society of Arts, to attempt its culture in England. Miller paid great attention to the subject about 1758, publishing separately, as well as in his Dictionary, the Dutch practice as observed by him while in Holland. A. Young, in his "Annals," details several trials; the result of which, and especially those of J. Arbuthnot in 1765, proves, that it could be grown here to as great perfection as in Holland, but not sold at so low a price. Its culture was not therefore encouraged, and we are now supplied from Holland, France, Italy, and Turkey, and the cochineal is very generally in use as a substitute. Like others of the natural order of Rubiaceæ, madder tinges with a florid red color the milk, urine, and bones of the animals that feed on the plant. The hardest part of the bones receives the color first, which gradually extends through the whole substance; but if the plant be alternately given and inter-

1619 Leaves 4 lanceolate 3-nerved smooth, Stem erect, Fruit hispid
1620 Leaves 8 lanc. keels and edge scab. acul. backw. Stem flaccid, Joints vill. Fruit covered with hooked hairs
1621 Leaves 4 subovate pilose nerveless, Fruit hairy
1622 Hairy leaves about 6 linear lanceolate, Stems woody

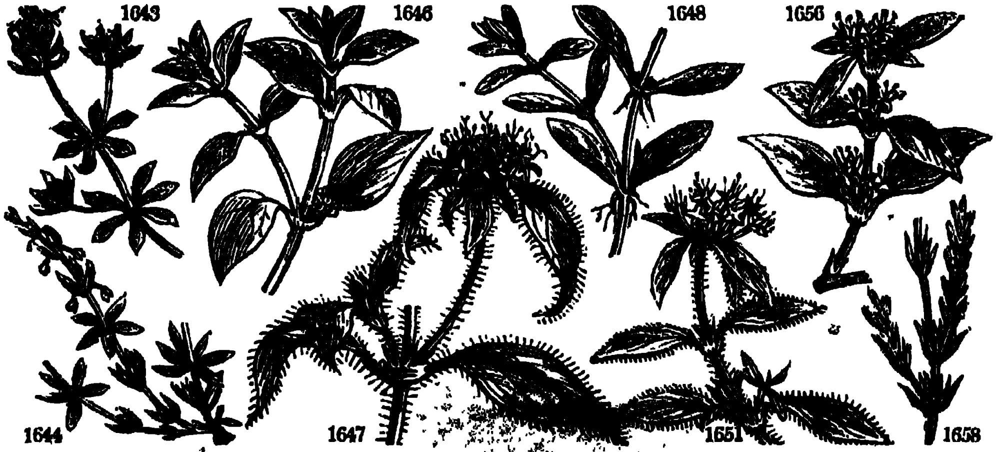
1623 Leaves 6 lanceolate smooth above: their edge and keel beneath scabrous, Stem herbaceous aculeate
1624 Leaves 4 perennial lanceolate above shining smooth their edge and rib beneath scabrous
1625 Leaves perennial 6 elliptical shining, Stem smooth
1626 Leaves perennial elliptical at the edge and keel very prickly, Stem rough shrubby
1627 Leaves perennial linear above scabrous
1628 Leaves perennial 4 cordate oblong stalked 3-nerved above and at the edges scabrous

1629 Leaves 8 lanceolate, Corymbs terminal stalked, Seeds echinate
1630 Lower leaves 4 obovate, upper 5-6-8, Flowers terminal sessile aggregated, Involucres ciliated
1631 Leaves hairy acute 6 longer than the joint, Flowers terminal aggregate sessile longer than involucrum
1632 Leaves 6 linear acute toothletted: the lower hirsute, Flowers aggregate terminal
1633 Leaves 4 ovate lanceolate 3-nerved, Flowers fascicled terminal
1634 Leaves 4 together oblong: the lateral revolute obtuse pubescent
1635 Leaves linear fleshy: the lower 4, Flowers 3 awned
1636 Cauline leaves 4 linear the lower elliptical the upper in pairs all rough awned, Cor. rough
1637 Leaves linear the lower 6 3-nerved, the middle 4, the upper opposite, Stem flaccid, Cor. smooth 3-fid
1638 Lower leaves 4 lanceolate upper linear very unequal in pairs, Stem erect, Fruit smooth tubercled
1639 Leaves 4 linear the lower imbricate, Stem much branched at base procumbent, Flowers 4-fid
1640 Hispid, Leaves 6 oblong-ovate acute revolute at edge, Stems decumbent
1641 Leaves 4 elliptical obsoletely nerved smooth glabrous at edge, Fruit scabrous
1642 Leaves linear the lower 6, middle 4, upper opposite, Stem flaccid, Cor. 4-fid scabrous outside

1643 Lower leaves 8 and 4, Flowers terminal, Stem and branches scabrous, Involucres naked
1644 Leaves 6 linear: floral in pairs opposite, Branches simple, Flowers two, Fruit hispid subsessile

1645 Smooth, Leaves lanceolate, Stamens included, Flowers whorled, Seeds hairy
1646 Smooth, Leaves ovate, Stamens exserted, Flowers whorled ciliated
1647 Leaves and bractes oblong ovate hispid, Stalks stem-clasping, Flowers capitate, Stamens exserted
1648 Smooth, Leaves subsessile lanceolate acute, Flowers whorled small, Stem procumbent rooting
1649 Smooth, Leaves lanceolate, Whorls globose
1650 Hispid, Leaves obovate oblique, Flowers axillary in pairs
1651 Hairy, Leaves ovate the upper four together, Heads terminal
1652 Leaves linear-lanceolate lined
1653 Stem decum. rounded smooth, Lvs. obl. lanc. atten. at base, Stipules setose, Fl. whorled, Style exserted
1654 Stem erect slightly downy, Leaves stalked oblong acute rough and pubescent at edge, Stamens exserted
1655 Stem erect 4-cornered hairy, Leaves acute entire lined pubescent with very short hairs, Flowers termina.
1656 Stem ascending very smooth 4-cornered, Leaves stalked ovate acuminate thin, Flowers whorled
1657 Resembles Sp. verticillata, but the leaves are shorter and obtuse with a point, at the edge and back rough

1658 Erect, Leaves 6 linear, Flowers spiked
1659 Procumbent, Leaves 4 lanceolate, Flowers spiked



and Miscellaneous Particulars.

mitted, the bones are found to be colored in concentric circles. In medicine, madder was formerly used in complaints of the kidnies.

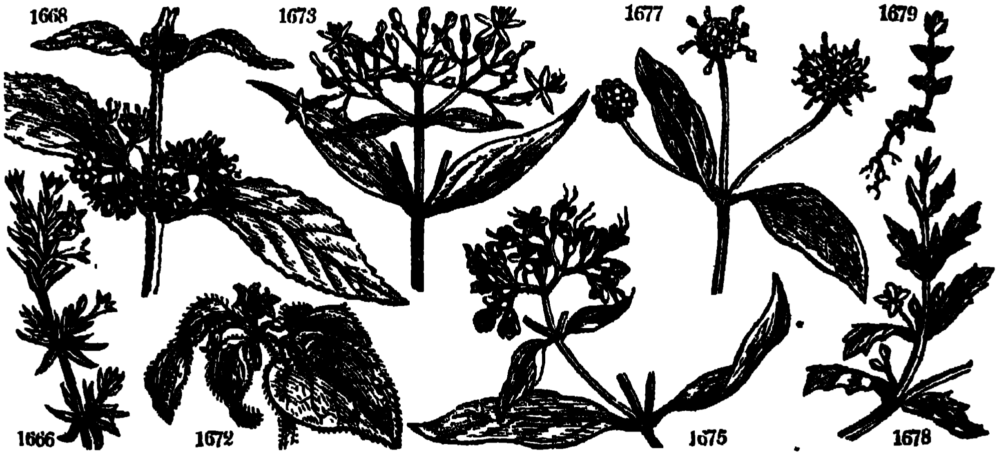
To cultivate the madder, choose a deep sandy loam, and prepare it by trenching or very deep ploughing. Plant cuttings of the roots in rows, eighteen inches by one foot in the row, in March, and the third year they may be taken up in September. The roots are next kiln-dried, and afterwards threshed to clean them from earth and dust. They are then dried a second time, and immediately afterwards pounded or stamped in a mill. It is cultivated extensively in Zealand, and especially in the isle of Schowen: round Avignon and in Lombardy it is grown on narrow ridges, and irrigated by directing water along the furrows.

268. *Asperula.* From *asper*, rough. The species *cynanchica* is so called from *κυναγχειν*, to choak, it being a specific in cases of squinancy. The English name of this genus is supposed to be a corruption of the word *wood-rowel*, the whorls of leaves, according to Turner, representing certain kinds of "rowelles of sporres." All the species, excepting arvensis and cynanchica, will thrive in the shade and drip of trees in a moist soil. A. odorata has a pleasant scent like Anthoxanthum: it imparts a grateful flavor to wine, an agreeable perfume to clothes, and preserves them from insects. It is eaten by cattle and horses, and from containing an acid principle, with much fixed alkaline salt, has been thought useful in obstructions of the liver and biliary ducts. The roots of A. tinctoria are used in Gothland to dye wool a red color.

269. *Sherardia.* So named in honor of the famous Sherard, of whose noble garden at Eltham Dillenius's Hortus Elthamensis is a living monument, and whose herbarium is still one of the few things which recommend Oxford to the notice of a botanist. This is a little insignificant weed, by no means worthy to be consecrated to the memory of so celebrated a man.

270. *Spermacoce.* From *σπερμα*, seed, and *ακη*, point. The seeds have two remarkable points. The rubbish of the tropics.

1660 ægyptiaca *W.*	Egyptian		○		½	jn.jl	Y	Egypt	1800.	S	co	
1661 pátula *W.*	spreading		○		½	jn.jl	Y	Spain	1798.	S	co	
1662 pubéscens *W.*	pubescent	♃	△		1	jl.au	Pu	Candia	1799.	C	l.p	
1663 ciliáta *W.*	ciliated		○		½	jl.au	Y	Levant	1805.	S	co	
1664 marítima *W*	sea	ħ	⊔		1	jl.au	Y	France	1640.	C	l.p	
1665 monspeliaca *W.*	Montpelier		○		½	jl.au	Y	France	1791.	S	s.l.p	
1666 molluginoides *W.en.*	Mollugo-like	♃	△		1	jl.au	G	Caucasus	1800.	D	co	Bux.cn.2.t.30.f.1
272. CALLICAR'PA. *W.*	CALLICARPA.					*Verbenaceæ.*		*Sp.* 5—22.				
1667 americána *W.*	American	♣	⊔	or	6	jn.jl	R	N. Amer.	1724.	C	s.p	Cat. car. 2. t. 47
1668 cána *W.*	hoary	♣	□	or	3	...	Pu	E. Indies	1799.	C	s.p	Bot. mag. 2107
1669 lanáta *W.*	woolly	♣	□	or	4	jn.jl	Pu	E. Indies	1788.	C	l.p	
1670 macrophýlla *W.*	long leaved	♣	□	or	6	...	Pk	India	1808.	C	s.p	Vah.symb.3.t.53
1671 ferrugínea *W.*	rusty	♣	□	or	2	jn.jl	B	Jamaica	1794.	C	l.p	
273. WITHERIN'GIA. *W.*	WITHERINGIA					*Solanaceæ*		*Sp.* 1—12.				
1672 solanácea *W.*	yellow-flower'd	♃	[△]		1	my.s	Y	S. Amer.	1742.	D	l.p	L'Her.ser.33. t.1
274. ÆGI'PHILA. *W.*	ÆGIPHILA.					*Verbenaceæ.*		*Sp.* 4—12.				
1673 martinicénsis *W.*	Martinique	♣	□	or	6	n	W	W. Indies	1780.	S	p.l	Jac. obs. 2. t. 27
1674 fœ'tida *W.*	fœtid	♣	□	or	2	jn.jl	Li	W. Indies	1800.	C	l.p	
1675 diffúsa *Andr.*	diffuse	♣	□	or	2	jl.au	Y	W. Indies	1804.	C	l.p	Bot. rep. 578. f. 1
1676 obováta *Andr.*	oval-leaved	♣	□	or	2	jl.au	Y	W. Indies	1804.	C	l.p	Bot. rep. 578. f. 2
275. CEPHALAN'THUS. *W.*	BUTTON-WOOD.					*Rubiaceæ*		*Sp.* 1—10.				
1677 occidentális *W.*	American	♣		or	7	au	W	N. Amer.	1735.	S	s.l	Schm. arb.1. t.45
276. SCOPA'RIA. *W.*	SCOPARIA.					*Scrophularinæ.*		*Sp.* 4.				
1678 dúlcis *W.*	sweet		[○]	cu	3	jn.s	W	Jamaica	1730.	S	s.l	Herm. par. t.241
277. CENTUN'CULUS. *W.*	BASTARD-PIMPERNEL.					*Primulaceæ.*		*Sp.* 1—4.				
1679 mínimus *W.*	least		○	cu	½	jn.jl	F	Britain	mo.f. h.	S	p.l	Eng. bot. 531
278. PLANTA'GO. *W.*	PLANTAIN.					*Plantagineæ.*		*Sp* 42—115.				
1680 májor *W.*	greater	¥	△	w	1	my.jn	W	Britain	me.pa.	D	co	Eng. bot. 1558
1681 críspa *Jacq.*	thick-leaved	¥	△	w	¼	jn.jl	W	S. Europe	1793.	D	s.l	Jc.co.sup.34.t.16
1682 asiática *W.*	broad-leaved	¥	△	w	1	jl	W	Siberia	1787.	D	s.l	Gmel.sib.4. t.37?
1683 máxima *W.*	hollow-leaved	¥	△	w	2	jl.au	G	Siberia	1763.	D	co	Jac. ic. 1. t. 26
1684 média *W.*	hoary	¥	△	w	1½	my.jl	G	Britain	me.pa.	D	co	Eng. bot. 1559
1685 virgínica *W.*	Virginian		○	w	½	jn.s	G	N. Amer.	1688.	S	co	Mor.h.3. t.15. f.8
1686 altíssima *W.*	tall	¥	△	w	3	jn.jl	G	Italy	1774.	S	co	Jac. obs. 4. t. 83
1687 lanceoláta *W.*	Rib-grass	¥	△	ag	½	my.jl	G	Britain	me.pa.	S	co	Eng. bot. 507
1688 capénsis *W.*	Cape	ħ	⊔	w	1	my.au	G	C. G. H.	1788.	C	co	
1689 Lagópus *W.*	round-headed	¥	△	w	1	jn.jl	G	Spain	1683.	S	co	W. ph.4.t.820.f.2
1690 túmida *Lk.*	swelling		○	w	1	jn.jl	G	Chili	1819.	S	co	
1691 mexicána *Lk.*	Mexican	¥	△	w	1	jn.jl	G	Mexico	1820.	D	co	
1692 kamtchática *Lk.*	Kamtchatka	¥	△	w	¼	jn.jl	G	Kamtsch.	1819.	D	co	
1693 tenuiflóra *W. & K*	slender-flower.		○	w	¼	jn.jl	G	Hungary	1802.	S	s.l	Pl. rar. hn.1 t.39
1694 sálsa *Pall.*	grassy	¥	△	w	¼	jl.s	G	Siberia	1804.	D	s.l	
1695 lusitánica *W.*	Portuguese	¥	△	w	½	jl.au	W	Spain	1781.	D	s.l	Bar. ic.119. t.745
1696 álbicans *W.*	woolly	¥	△	w	½	jn.s	G	S. Europe	1776.	D	s.l	Cav. ic. 2. t. 124?
1697 patagónica *W.*	Patagonian		○	w	½	jn.s	Y	Patagonia	1793.	S	s.l	Jac. ic. 2. t. 306
1698 hirsúta *W.*	hairy	♃	[○]	w	1	jn.jl	G	C. G. H.	1801.	S	s.l	Jac.schœ.3. t.258
1699 villósa *P. S.*	villous		○	w	¼	jn.jl	G	Germany	1804.	S	s.l	
1700 Wulféni *W. en.*	Wulfen's	¥	△	w	¼	jn.jl	G	Germany	1802.	D	co	
1701 alpína *W.*	Alpine	¥	△	w	¼	jn.jl	W	Austria	1774.	D	s.l	Jac.vind.2 t 125
1702 Bellárdi *W.*	Bellardi's		○	w	¼	jn.jl	G	S Europe	1797.	S	co	Al. ped.1.t.85.f 3
1703 crética *W.*	Cretan		○	w	¼	jn.jl	G	Candia	1711.	S	co	



History, Use, Propagation, Culture,

271. *Crucianella.* A diminutive of *crux*, a cross; some of the roots having their leaves in whorls of four. These are small herbaceous plants of little beauty, natives of the south of France, and rarely seen in this country except in botanic gardens.

272. *Callicarpa.* From καλος, beautiful, and καρπος, fruit. Its berries are of a bright purple color.

273. *Witheringia.* In honor of Dr. W. Withering, the author of a classification of English plants, which has been one of the most popular of our English botanical works, and deservedly so, although it has now yielded to others of a more modern character.

274. *Ægiphila.* From αιξ αιγος, a goat, and φιλος, friend, beloved by goats. In Martinique the plant is called *Bois de Cabrit.*

275. *Cephalanthus.* From κεφαλη, a head, and ανθος, a flower; because the flowers grow in heads. This is a low evergreen shrub, with large light green leaves, and the flowers in spherical heads, about the size of a musket bullet. It has a good effect on lawns in scattered groups, or in the front ranks of shrubberies. Sweet says, "soil that has some peat in it suits them best," and that they are readily propagated by layers, or ripened cuttings under a hand-glass. Miller, in whose time the art of striking cuttings was not nearly so well understood as at present, recommends a moist light soil, and propagating from seeds.

1660 Leaves 4 sublinear, Flowers spiked 5-cleft
1661 Diffuse, Leaves 6 revolute at edge, Bract. linear subulate roughish, Flowers scattered
1662 Erect, Leaves 6 linear pubescent, Heads stalked axillary and terminal
1663 Diffuse, Leaves 4 or 2 lin. keeled, Bract. ciliated loosely spiked, Seeds oval covered with obtuse tubercles
1664 Procumbent suffruticose, Leaves 4 mucronate, Flowers opposite 5-cleft
1665 Procumbent, Leaves acute, of the stem in 4s ovate, of the branches 6 linear, Flowers spiked
1666 Erect, Leaves whorled 8-12 linear lanc. scab. Fascic. of flowers stalked term. and axillary, Cor. 5-cleft

1667 Lvs. ovate acum. uneq. obtusely toothed at base wedge-shaped atten. entire beneath and branches toment.
1668 Leaves ovate toothletted running down the petiole beneath hoary villous, Panic. dichotomous
1669 Leaves ovate rounded at base entire somewhat toothletted rugose above beneath with the branches woolly
1670 Leaves ovate lanc. serrulate reticul. hoary beneath, Corymbs axillary dichotomous longer than petioles
1671 Leaves broad lanceolate serrate roughish beneath, Cymes terminal and axillary

1672 Stem hairy herbaceous angular, Leaves ovate lanceolate pilose, Stalks 1-flowered umbelled axillary

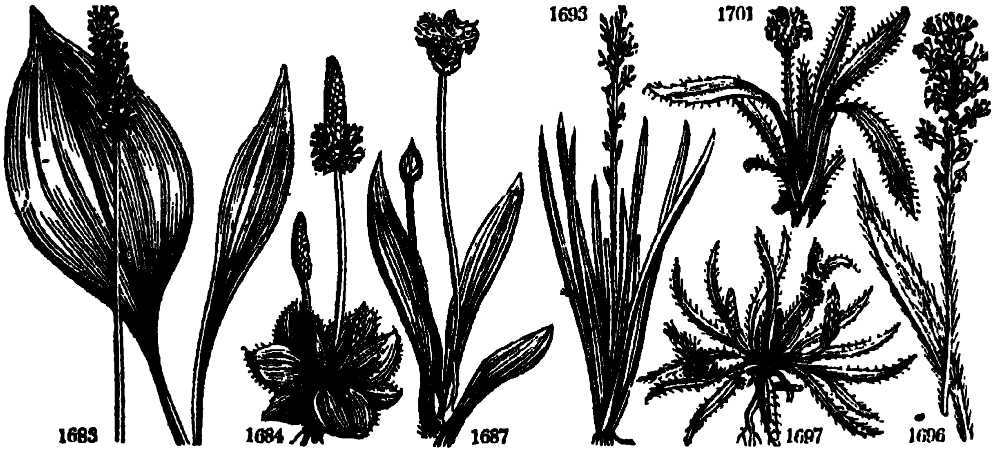
1673 Leaves ovate lanceolate acuminate smooth, Branches diffuse, Panic. terminal and axillary, Cal. smooth
1674 Leaves ovate lanceolate beneath and the stalks hairy, Peduncles axillary solitary
1675 Leaves ovate lanceolate with a long point smooth on both sides, Pan. diffuse axillary and terminal
1676 Leaves obovate acuminate smooth on both sides, Pan. axillary and terminal, Stalks and calyxes less pub.

1677 Leaves opposite and ternate oblong oval acuminate

1678 Leaves 3 together, Flowers stalked

1679 Leaves alternate ovate, Flowers sessile

1680 Lvs. ovate smoothish generally shorter than footst. Scape rounded, Spike cyl. slender, Caps. many-seeded
1681 Leaves obovate shining undulated fleshy sessile, Scape compressed below, Flowers imbric. remote at base
1682 Leaves ovate smooth somewhat toothed, Scape angular, Spike with distinct flowers
1683 Leaves ovate subdenticulate 9-nerved pubescent, Spike cylindrical imbricated, Scape rounded
1684 Leaves ovate pubescent longer than the footstalk, Scape rounded, Spike short cylindrical, Filam. lilac
1685 Leaves lanceolate ovate pubescent toothletted, Spikes cylindrical pubescent, Scape angular
1686 Leaves lanceolate 5-nerved toothed smooth, Spike oblong cylindrical, Scape angular
1687 Leaves lanceolate acuminated both ways, Spike short ovate cylind. Scape angular, Caps. 2-seeded
1688 Leaves elliptical, Spike with distinct flowers
1689 Leaves lanceolate somewhat toothed, Spike ovate hairy, Scape rounded
1690 Leaves linear lanceolate toothletted silky, Scapes ascending with appressed hairs, Caps. tumid
1691 Leaves lanceolate linear entire, Hairs scattered, Scapes erect rounded, Spike cylindrical dense
1692 Leaves oblong toothed 5-nerved hairy, Scapes ascending angular hairy, Spike cylindrical dense
1693 Leaves linear nearly entire obtuse fleshy, Scape rounded, Spike erect, Flowers distant
1694 Leaves linear convex beneath a little toothed smooth, Scape rounded hirsute, Spike cylindrical smooth
1695 Leaves broad lanceolate 3-nerved a little toothed pilose, Scape angular, Spike oblong hairy
1696 Leaves lanceolate oblique villous, Spike cylindrical erect, Scape rounded
1697 Leaves lanc. lin. somew. chan. ent. woolly; Scape rounded hirsute, Spike cyl. Stam. not longer than flower
1698 Leaves linear ciliated, Spike cylindrical, Stem hirsute
1699 Subcaulescent, Lvs. lin. lanc. obsol. 3-nerv. toothl. hoary, Spike roundish, Br. winged keeled shorter than fl.
1700 Leaves linear attenuated both ways flat 3-nerved, Scape rounded
1701 Leaves lin. atten. remotely toothed, Scape rounded hairy, Spike obl. acute, Br. ovate membranous at edge
1702 Leaves linear lanceolate hairy longer than the rounded hairy scape, Spike ovate erect, Bractes lanceolate
1703 Leaves linear, Scape rounded very short woolly, Spike roundish nodding



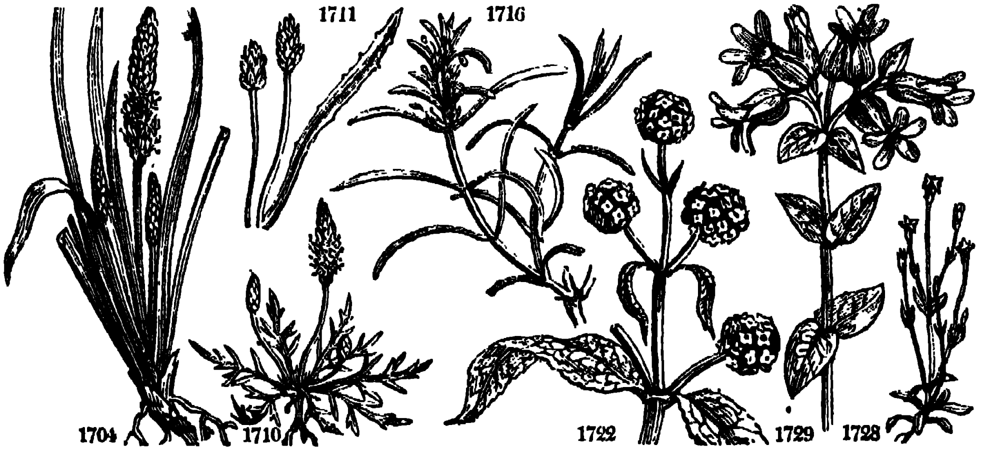
and Miscellaneous Particulars.

276 *Scoparia.* From *scopa*, a broom. In the Antilles brooms are made of the twigs. This plant is treated as a tender annual, and after being raised in the hot-house or hot-bed, is potted off, and kept in the green-house, or planted out in the flower borders.

277. *Centunculus.* A name given by the Romans to a small plant found in cultivated lands. The present is a little mean weed of no use or beauty.

278. *Plantago.* A name of which no satisfactory explanation has been given. Of the species, Psyllium is derived from ψυλλος, a flea, in allusion to the appearance of its little seeds. Lagopus, from λαγως, a hare, and πους, foot; its velvety or silky spike resembling the foot of such an animal. Coronopus, from κορωνη, a crow, and πους, foot; its deeply-cut leaf having been compared to a bird's foot. Cynops, signifying dog's-eye, is the name of a plant of Pliny, and one of his plantains. This is a genus of little beauty, and no great utility. Like all other plants known to our botanical forefathers, they were said to have their medical virtues; but that is nothing, or at least but little guide to their absolute use in the arts. P. lanceolata (rib-grass) has been employed in agriculture as a herbage plant, but to which it appears to have no great claim. Where it abounds naturally, it is a certain indication of a dry soil. Haller attributes the richness of the milk in the alpine dairies to this plant and Alchemilla vulgaris, but Linnæus says cows refuse it. This every shepherd knows to be the case as far as

1704 marítima *W.*	sea	♃	△	w	½	jl	G	Britain	sea co.	S	co	Eng. bot. 175
1705 gramínea *P. S.*	grass-leaved	♃	△	w	½	jn.jl	G	France .	1804.	D	co	Dod. pempt. 108
1706 recurváta *W.*	recurved-leav'd	♃	⊙	w	½	jn.jl	G	S. Europe	1799.	S	s.l	M.co.go.1780. t.6
1707 subuláta *W.*	awl-leaved	♃	△	w	½	jl	W	S. Europe	1596.	D	s.l	Lob. ic. 439
1708 macrorhiza *W.*	large-rooted	♃	△	w	½	jl.au	Br	Morocco	1798.	D	s.l	Mor. h.3. t.17. f.2
1709 Serrária *W.*	saw-leaved	♃	△	w	1	jn.jl	G	Barbary	1640.	D	s.l	Col. ecphr. t. 259
1710 Corónopus *W.*	Star of the earth		○	clt	½	ap.s	G	Britain	sea sh.	S	s.l	Eng. bot. 892
1711 Lœflingii *W.*	narrow-leaved		○	w	½	jl.au	G	Spain .	...	S	co	Jac. vind.2. t.126
1712 Cornúti *W.*	rough-leaved	♃	△	w	2	jl.au	G	......	1801.	S	co	
1713 amplexicaúlis *W.*	stem-clasping		○	w	½	jn.jl	G	Spain	1797.	S	co	Cav. ic. 2. t. 125
1714 Psyllium *W.*	Fleawort		○	w	½	jl.au	G	S. Europe	1562.	S	co	Mor. h.3. t.17. f.4
1715 arenária *P. S*	sand		○	w	½	my.au	G	Hungary	1804.	S	co	W. & Kit. t. 51
1716 squarrósa *W.*	leafy-spiked		○	w	2	au.s	G	Egypt	1787.	S	co	Jac. ic. 1. t. 28
1717 índica *W.*	Indian		○	w	½	jl.au	G	India	1780.	S	co	
1718 strícta *P. S.*	upright		○	w	1	jl.au	G	Morocco	1804.	S	co	Sch.mar.1.ic.145
1719 púmila *W.*	dwarf		○	w	½	jl.au	G	S. Europe	1790.	S	s.l	M.co.go.1778.t.5
1720 Cynops *W.*	shrubby	✢		w	½	my.au	G	S. Europe	1596.	C	s.l	W.ph.4.t.837.f.a
1721 áfra *W.*	Barbary	♃	⊙	w	1	jn	G	Sicily	1640.	S	s.l	Mor. h.3. t.17. f.4
279. BUD'DLEA. *W.*	**Buddlea.**					*Scrophularinæ.*		*Sp.* 4—26.				
1722 globósa *W.*	round-headed	❀		or	15	my.jn	Or	Chili	1774.	C	co	Bot. mag. 174
1723 Neem'da *Buch.*	Indian	❀	▭	or	15		W	Nepal	1824.	C	l.p	
1724 salvifólia *W.*	Sage-leaved	❀	⊔	or	3	au.s	C	C. G. H.	1760.	C	s.l	Jac.schœn.1.t.28
1725 salígna *W. en.*	Willow-leaved	❀	⊔	or		au.s	W	C. G. H.	1816.	C	l.p	Jac.schœn.1.t.29
280. EX'ACUM. *W.*	**Exacum.**					*Gentianeæ.*		*Sp.* 3—18.				
1726 viscósum *Sm.*	clammy	♂	[⊙]	or	2	jn.jl	Y	Canaries	1781.	S	p.l	Smit.ic.fas.3.t.18
1727 spicátum *Vahl.*	spiked	♂	[△]	or	2	...	...	S. Amer.	1823.	S	m.p	Aub. gui. 1. t. 27
1728 filifórme *W.*	least		○	cu	½	jn.jl	Y	Britain	sa. ma.	S	s.l	Eng. bot. 235
281. SEBÆ'A. *R. Br.*	**Sebæa.**					*Gentianeæ.*		*Sp.* 1—4.				
1729 cordáta *R. Br.*	heart-leaved		○	or	½	jl.au	Y	C. G. H.	1815.	S	co	Bur. afr. t.74. f.5
282. FRASE'RA. *Walt.*	**Frasera.**					*Gentianeæ.*		*Sp.* 1.				
1730 carolinénsis *P. S.*	Carolina	♃	⊙	or	4	jl.au	G	Carolina	1795.	S	co	Bart. m. bot. t.35
283. PENÆ'A. *W.*	**Penæa.**					*Epacrideæ?*		*Sp* 2—14.				
1731 mucronáta *W.*	heart-leaved	❀	⊔	or	2	jn.jl	R	C. G. H.	1787.	S	p.l	Vent. mal. 87
1732 squamósa *W.*	scaly	❀	⊔	or	1	jn.jl	R	C. G. H.	1787.	S	p.l	Bot. reg. 106
284. BLÆ'RIA. *W.*	**Blæria.**					*Ericeæ.*		*Sp.* 5—				
1733 ericoídes *W.*	heath-leaved	❀	⊔	or	2	au.o	Pu	C. G. H.	1774.	C	s.p	P.gz.471. t.2. f.10
1734 articuláta *W.*	jointed	❀	⊔	or	2	my.jn	Pk	C. G. H.	1795.	C	s.p	Lam. ill. t. 78
1735 purpúrea *W.*	purple-flowered	❀	⊔	or	2	my.jn	Pu	C. G. H.	1791.	C	s.p	
1736 muscósa *W.*	Moss-leaved	❀	⊔	or	1	jn.au		C. G. H.	1774.	C	l.p	
1737 ciliáris *W.*	ciliated	❀	⊔	or	2	jn.au	W	C. G. H.	1795.	C	s.p	Wend.col.2. t.49
285. CHOME'LIA. *W.*	**Chomelia.**					*Rubiaceæ.*		*Sp.* 1—2.				
1738 spinósa *W.*	spiny	❀	▭	or	12	...	W	W. Indies	1793.	C	p.l	Jac.amer.18.t.13
286. ADI'NA. *Sal.*	**Adina.**					*Rubiaceæ.*		*Sp.* 1.				
1739 globiflóra *Sal.*	globe-flowered	❀	▭	or	2	jl.au	W	China	1804.	C	s.l.p	Par. lon. 115
287. BOUVAR'DIA. *H. K.*	**Bouvardia.**					*Rubiaceæ.*		*Sp.* 2.				
1740 triphýlla *H. K*	three-leaved	❀	⊔	or	2	ap.n	S	Mexico	1794.	C	s.p	Par. lond. 88
1741 versícolor *B. Reg.*	various-colored	❀	⊔	or	2	jl.s	R	S. Amer.?	1814.	C	l.p	Bot. reg. 245



History, Use, Propagation, Culture,

respects the flower-stalks. Zappa of Milan, and A. Young, speak in high terms of it; but the general feeling and practice of scientific agriculturists is against it, and it is now seldom sown.

P. major is a native of most parts of Europe and of Japan, and always by way-sides, whence its name of way-bread or way-bred. The seeds afford food to linnets, finches, and other small birds, and the leaves are a common application to wounds and cutaneous sores. An American negro once received a reward from an assembly of South Carolina for a cure for the bite of the rattle-snake; and in the receipt, it is said by Woodville (*Med. Bot.*), plantain was a principal ingredient. There are several varieties of this species to be met with in rich pastures and in botanic gardens, such as the rose P., in which the flower appears changed into a tuft of leaves expanded like a rose, and the besom P., in which the spike-leaves are imbricate and pyramidal.

P. maritima varies in size and situation more than most plants. Its leaves are sometimes scarcely an inch, and at other times more than a foot in length; and the number of flowers in the spike varies extremely. Like Statice armeria and Sambucus nigra, it is found on the summits of the highest mountains, in the clefts of rocks, on the sea-shore, in salt marshes, and muddy banks.

P. coronopus is a singular-growing plant, with recumbent stems pressing closely on the ground. The leaves have a very peculiar flavor, and are rather disagreeable, but were formerly used in salads. P. psyllium is sometimes imported from the south of France in a dried state for the druggists.

279. *Buddlea.* In honor of Adam Buddle, a name well known to the English botanist as authority for many rare British plants. B. globosa is a very handsome shrub, and though rather tender, flowers freely in warm situations, or against a wall, with protection in very severe winters. Its leaves are long, narrow, pointed,

1704 Leaves semicylindrical entire woolly at base, Scape rounded
1705 Leaves lin. flat somew. toothed smooth at base, Spike cyl. Scape rounded hairy scarcely longer than leaves
1706 Leaves linear channelled recurved naked
1707 Leaves linear channelled entire beneath with rigid ciliæ hairy at base, Scape rounded pubescent
1708 Leaves spatulate cut-toothed, Teeth imbricated mucronated, Scape rounded hairy
1709 Leaves lanceolate 5-nerved toothed serrate, Scape rounded
1710 Leaves linear pinnate toothed, Scape rounded
1711 Leaves linear sub-toothed, Scape rounded, Head ovate, Bractes keeled membranous
1712 Leaves ovate entire fleshy rough woolly at base, Capsules 4-seeded
1713 Stem erect simple short, Leaves lanceolate fleshy entire stem-clasping hairy, Heads oblong leafless
1714 Stem branched herbaceous, Leaves somewhat toothed recurved, Heads leafless
1715 Hoary, Stem erect branched herbaceous, Leaves nearly entire, Heads leafy and sepals ovate
1716 Herbaceous, Stem branched diffuse decumbent, Leaves linear entire, Heads squarrose
1717 Stem branched herbaceous, Leaves linear entire reflexed, Heads leafy
1718 Stem branched herbaceous erect, Leaves linear channelled entire, Heads leafless
1719 Stem branched herbaceous weak, Leaves subulate entire, Heads leafy
1720 Stem branched suffruticose, Leaves entire filiform straight, Heads somewhat leafy
1721 Stem branched shrubby, Leaves lanceolate toothed, Heads leafless

1722 Leaves lanceolate acuminate crenulate beneath hoary, Heads globose stalked
1723 Leaves lanceolate subserrate hoary underneath, Spikes terminal lengthening with flowers threefold
1724 Leaves lanceolate cordate crenate rugose beneath tomentose, Flowers panicled
1725 Leaves linear lanceolate entire revolute at edge tomentose beneath, Corymbs terminal

1726 Leaves oblong nerved stem-clasping, Bractes cordate perfoliate longer than calyx
1727 Flowers spiked whorled and ternary, Leaves ovate lanceolate, Stem nearly simple
1728 Limb spreading, Stem filiform branched, Radical leaves roundish, Cauline subulate

1729 Flowers 5-cleft, Sepals cordate striated membranous keeled, Stem dichotomous, Leaves cordate

1730 A singular plant found in morasses in North America, and resembling Swertia

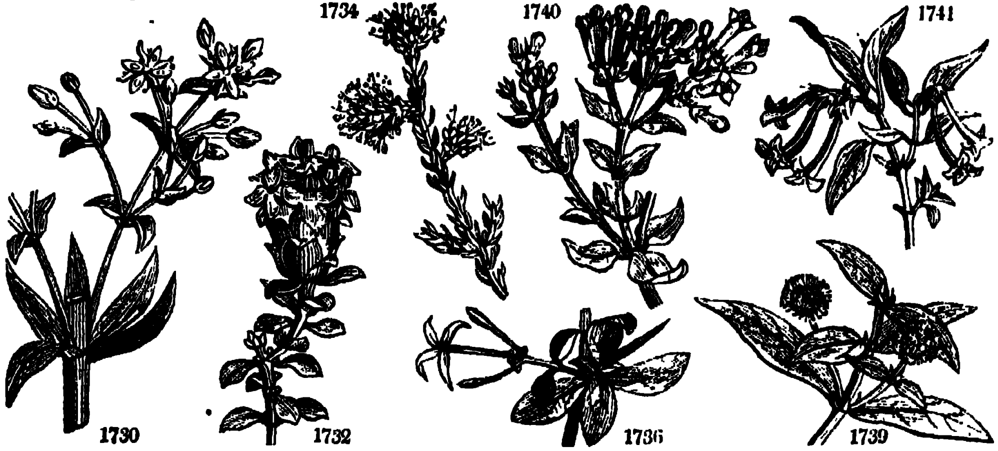
1731 Flowers terminal, Leaves cordate acuminate smooth
1732 Leaves rhomboidal wedge-shaped fleshy smooth, Flowers terminal

1733 Anthers exserted awnless, Cal. 4-leaved, Bract. 3 length of cal. Leaves 4 oblong acerose hairy imbricated
1734 Anthers exserted awnless, Leaves 4 ovate smooth, Flower-heads cernuous
1735 Anthers included awnless, Leaves 4 ovate subciliated, Flowers umbelled, Stem flexuose erect
1736 Anthers subexserted awnless, Cal. 1-leaved pilose, Cor. campanulate pilose above, Flowers axillary
1737 Leaves 4 smooth, Calyx lacerated ciliated

1738 Leaves ovate acuminate entire, Peduncles axillary

1739 The only species

1740 Leaves ternate lanceolate, Stamens included
1741 Leaves opp. Cor. clavate, Tube smooth inside



and Miscellaneous Particulars.

rugose, of the color of the common sage, and the flowers are very fragrant. It is commonly propagated by layers; but cuttings of the young wood of all the species root freely in common earth under a hand-glass. Buddlea Neemda is one of the most beautiful plants of India.

280. *Exacum.* The ancient name of a plant nearly related to Centaurium; said to have been derived from ἐξ and ἀγω, to conduct out, on account of its properties of expelling poison taken into the stomach.

281. *Sebæa.* A genus nearly related to the last, named after the famous Albert Seba, whose museum was once one of the wonders of Europe.

282. *Frazera.* After Mr. John Fraser, an indefatigable collector of plants in North America.

283. *Penæa.* In honor of P. Pena, who published Adversaria Botanica, 1570, in conjunction with Lobel. A handsome genus, readily propagated by cuttings in sand under a hand-glass. Many of the finest species remain to be introduced from the Cape of Good Hope.

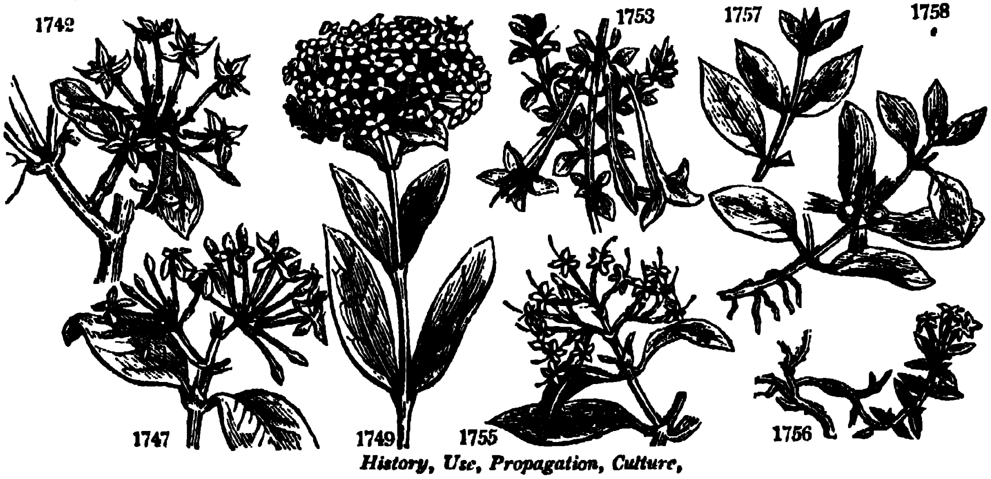
284. *Blæria.* In honor of Patrick Blair, who practised physic at Boston in Lincolnshire, and was one of the fellows of the Royal Society. He published Botanical Essays in 1778. The species resemble some kinds of heaths, and require the same treatment.

285. *Chomelia.* Named after Pierre Jean Baptiste Chomel, a French botanist, physician to Louis XV.; he died in 1740. Culture as for Siderodendrum.

286. *Adina.* From ἁδινες, clustered, its flowers being in heads. A small Chinese plant, with flowers looking like those of a Cephalanthus. It is probably not different from Cephalanthus.

287. *Bouvardia.* Named after Dr. Charles Bouvard, formerly a superintendent of the Jardin du Roi at

288. IXO'RA. *W.*	IXORA.					*Rubiaceæ.*	*Sp.* 11—16.			
1742 grandiflóra *B. R.*	sessile-leaved	♣ ☐ or	4	au	Or	E. Indies	1814.	C	l.p	Bot. reg. 154
1743 Bandhúca *Roxb.*	Bandhooka	♣ ☐ or	3	jl	F	E. Indies	1815.	C	p.l	Bot. reg. 513
1744 coccínea *W.*	scarlet	♣ ☐ or	4	jl.au	S	China	...	C	p.l	Rhed. mal.2.t.12
1745 barbáta *Roxb.*	bearded	♣ ☐ or	12	jn.jl	W	E. Indies	1823.	C	p.l	Bot. mag. 2505
1746 parviflóra *W.*	small-flowered	♣ ☐ or	20	au.o	W	E. Indies	1800.	C	p.l	Va.sy.3.p 11.t.52
1747 rósea *Wall.*	highland	♣ ☐ or	4	jl	F	Bengal	1819.	C	p.l	Bot. reg. 540
1748 álba *W.*	white	♣ ☐ or	4	jn	W	E Indies	1768.	C	p.l	
1749 stricta *Roxb.*	upright	♣ ☐ or	3	jl.au	S	Moluccas	1690.	C	p.l	Bot. mag. 169
1750 blánda *B. Reg.*	charming	♣ ☐ or	4	au		E. Indies	...	C	p.l	Bot. reg. 100
1751 cuneifólia *Roxb.*	wedge-shaped	♣ ☐ or	3	jn.jl	S	E. Indies	1822.	C	p.l	Bot. reg. 648
1752 crocáta *B. R.*	orange	♣ ☐ or	3	au.s	O	E. Indies	1822.	C	p.l	Bot. reg. 782
289. CATESBÆ'A. *W.*	LILY-THORN.					*Rubiaceæ.*	*Sp.* 2—3.			
1753 spinósa *W.*	spiny	↟ ☐ or	12	my.s	Y	I. Provid.	1726.	C	s.p	Bot. mag. 131
1754 parviflóra *P. S.*	small-flowered	♣ ☐ or	1	...	W	Jamaica	1810.	C	l.p	Sl.his.2. t.207. f.1.
290. PAVET'TA. *W.*	PAVETTA.					*Rubiaceæ.*	*Sp.* 1—13.			
1755 índica *W.*	Indian	♣ ☐ or	4	au.o	W	E. Indies	1791.	C	p.l	Bot. reg. 198
291. ERNO'DEA. *Swz.*	ERNODEA.					*Rubiaceæ.*	*Sp.* 1—3.			
1756 montána *Sm.*	mountain	⌇ or	½	jn.jl	R	Sicily	1820.	D	rk	Fl græc. t. 143
292. SIDERODEN'DRUM. *W.*	IRON-TREE.					*Rubiaceæ.*	*Sp* 1.			
1757 triflórum *W.*	three-flowered	↟ ☐ tm	20	...	Pk	W. Indies	1793.	C	p.l	Jacq.am.t.175.f.9
293. COCCOCYP'SILUM. *W.*	COCCOCYPSILUM.					*Rubiaceæ.*	*Sp.* 1—5.			
1758 répens *W.*	creeping	£ ⧋ w	½	my	Pu	W. Indies	1793.	D	s.p	Bro. jam. t.6. f. 1
294. MITCHEL'LA. *W.*	MITCHELLA.					*Rubiaceæ.*	*Sp.* 1.			
1759 répens *W.*	creeping	♣ or	½	jn	W	N. Amer.	1761.	L	s.p	Cat. car. 1. t. 20
295. OLDENLAN'DIA. *W.*	INDIAN MADDER.					*Rubiaceæ.*	*Sp.* 2—3.			
1760 umbelláta *W.*	common	£ ⧋ w	½	jl.au	W	E. Indies	1792.	R	s.p	Roxb. cor 1. t. 3
1761 corymbósa *W.*	Hyssop-leaved	⊡ w	½	jn.o	W	Jamaica	1739.	S	s.l	Eh. pic.t.2.f.1.t.4
296. MANET'TIA. *W.*	MANETTIA.					*Rubiaceæ.*	*Sp.* 1—8.			
1762 coccínea *W.*	pink	↟ ☐ or	20	my.jl	Pk	Guiana	1806.	C	l.p	Bot. reg. 693
297. EPIME'DIUM. *W.*	BARREN-WORT.					*Berberideæ.*	*Sp.* 1.			
1763 alpínum *W.*	Alpine	✱ △ or	½	ap.my	Bd	England	m. thi.	C	p.l	Eng. bot. 438
298. PTE'LEA. *W.*	SHRUBBY-TREFOIL.					*Terebintaceæ.*	*Sp.* 1—2.			
1764 trifoliáta *W.*	three-leaved	↟ or	12	jn.jl	G	N. Amer.	1704.	L	co	Schm. ar. 2. t. 76
299. MONET'IA. *W.*	MONETIA.					*Incerta.*	*Sp.* 1.			
1765 barlerioídes *W.*	four-spined	♣ ☐ or	3	jl	G	E. Indies	1758.	C	s.p	L'Her. st.n.1 t.1
300. CURTI'SIA. *W.*	HASSAGAY-TREE.					*Incerta.*	*Sp.* 1.			
1766 faginea *W.*	Beech-leaved	↟ ⊔ tm	30	...	Pa	C. G. H.	1775.	C	s.l	Bur. afr.235. t.82
301. HARTO'GIA. *W.*	HARTOGIA					*Terebintaceæ?*	*Sp.* 1.			
1767 capénsis *W.*	Cape	♣ or	6	jn jl	G	C. G. H.	...	C	s.l	Lam. ill. t. 76



History, Use, Propagation, Culture,

Paris. B. triphylla is a beautiful, and not very tender plant, which flowers great part of the year; var. β has smooth shining leaves, and flowers of a deeper scarlet than the other. B. versicolor requires the warmest part of the green-house, and the cuttings require bottom heat, with the same soil as the plants.

288. *Ixora.* A name of doubtful origin. Iswara is the name of an Indian divinity. According to Sweet, the species of this beautiful genus "require to be kept in a moist heat to thrive well; but not plunged in tan, as that is almost certain to injure their roots. A mixture of sandy loam and peat is the best soil for them. Care must be taken to keep them clean and free from insects, or they will not thrive. Cuttings root very freely in sand under a hand-glass.

289. *Catesbæa.* So named by Gronovius, in honor of Mark Catesby, author of the natural history of Carolina, &c. who discovered the first species of this genus. It is very ornamental. C. spinosa has flowers about six inches long, in the form of a Roman trumpet, and succeeded by fruit the size of a pullet's egg; the skin smooth and yellow, and the pulp like that of a ripe apple, with an agreeable taste. It does not flower very freely, but strikes root readily in sand under a bell-glass, and in moist heat.

290. *Pavetta.* The name of the plant in Malabar. A small genus nearly related to Ixora, with flowers usually white, as those of Ixora are red.

291. *Ernodea.* From ερνωδης, branching, in allusion to the habit of the plant.

292. *Siderodendrum.* From σιδηρος, iron, and δενδρον, a tree. Wood, compared for hardness to iron. This tree may be noticed on account of an anomaly which occurs in the corolla, which is often changed, perhaps by some insect, into an oblong bag, half an inch in length, fleshy, and hollow within, and ending in a point at top like a fruit. Cuttings of ripened wood root in sand under a hand-glass.

293. *Coccocypsilum.* From κοκκος, fruit, and κυψελη, a vase, its berry being surmounted by a corona resembling a little cup. Cuttings root freely in sand under a bell-glass.

294. *Mitchella.* Named after John Mitchell, an Englishman, who travelled in Virginia, and left some papers upon North American plants behind him. This is one of those plants which Humboldt (*De Distrib. Plant.*) calls

1742
1743 Shrubby spreading, Lvs. oval stem-clasping, Corymbs crowded, Segm. of cor. ovate obt. Berries crowned
1744 Leaves elliptical acute cordate at base sessile, Umbels terminal aggregate, Segm. of cor. ovate acute
1745 Corol. long bearded at mouth, Lvs. opp. obl. entire smooth shining, Floral lvs. round cord. sess. Pan. open
1746 Leaves subsessile oblong smooth, Panicles ovate oblong decussated, Pet. oval, Style hairy
1747 Leaves obl. acute with a contr. emarg. base pubesc. beneath subsessile, Corymbs large, Pet. cuneate acute
1748 Leaves sessile broad lanceolate, Corymbs decompound dense, Pet. obovate reflexed
1749 Shrubby straight, Lvs. subsess. obl. Corymbs dense, Pet. round spreading, Anthers round bristle-pointed
1750 Leaves ovate-lanceolate, Cyme trichotomous contracted
1751 Leaves wedge-shaped lanceolate acuminate, Corymbs terminal, Sepals conical
1752 Leaves coriaceous oval lanc. Cymes decompound close, Petals wedge-shaped obovate, Anthers sessile

1753 Tube of corolla very long, Berries oval
1754 Tube of corolla 4-cornered short, Berries roundish

1755 Leaves smooth entire, Panic. fastigiate axillary and terminal, Style twice as long as corol. Stigma entire

1756 Leaves in 4s oblong obtuse smooth, Stem shrubby

1757 The only species. Branches 4-cornered, Leaves 5-6 inches long elliptic lanceolate

1758 Stem herbaceous creeping, Leaves ovate, Flowers clustered axillary sessile

1759 A little creeping plant with flat round leaves and little scarlet berries

1760 Umbels naked lateral alternate, Leaves linear
1761 Pedunc. many-flowered, Leaves linear lanceolate

1762 Leaves ovate acuminate, Racemes many-flowered, Stem twining shrubby

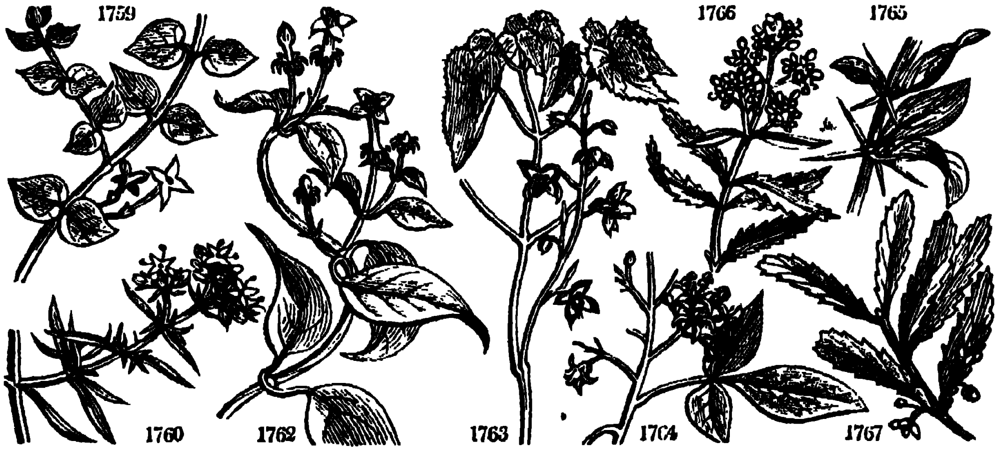
1763 The only species

1764 Leaves on long stalks ternate, Fruit with two wings

1765 A small prickly shrub, Leaves opposite ovate acute entire. The only species

1766 The only species. Leaves ovate oblong acute serrated opposite

1767 Leaves opposite elliptical obtuse emarginate serrated



and Miscellaneous Particulars.

social, being always found in quantities. Barton says, it is the plant most extensively spread in North America, covering the surface from the 28th to the 69th degree of north latitude.

295. *Oldenlandia.* In honor of H. B. Oldenland, a Dutch naturalist, who travelled in Africa, where he died about the end of the 17th century. O. umbellata, the chay-root, grows on light sandy ground near the sea, and is much cultivated on the coast of Coromandel for dyeing red, purple, brown, and orange, and to paint the red figures on chintz. The coloring matter resides in the bark, which gives it out to water. The Malabar physicians say that the roots cure poisonous bites, colds, and cutaneous disorders, and warm the constitution.

296. *Manettia.* In honor of Xavier Manetti, an Italian, and professor of botany at Florence. Some of the species are rather pretty, but they are seldom seen in collections.

297. *Epimedium.* A name of Dioscorides, applied to this little elegant alpine plant, without any assignable reason.

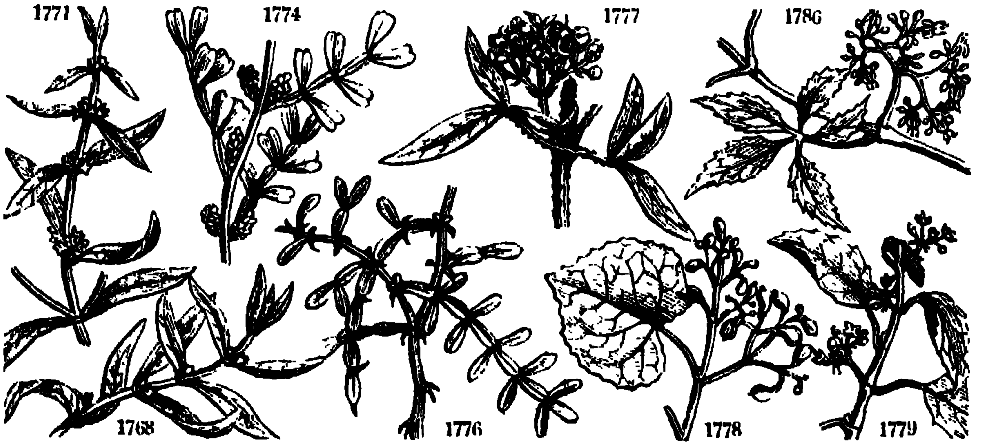
298. *Ptelea.* The Greek name of the elm. It is derived from πταω, to fly, in allusion to the winged seed-vessels. A hardy shrub of North America, not unlike a laburnum in foliage, but with small green flowers.

299. *Monetia.* So named by L'Heritier, in honor of the Chevalier Jean Baptiste Monet de la Marck, a celebrated French botanist, now dead; who, unfortunately for botany, many years ago diverted his attention from that science to conchology. Cuttings root in sand under a bell-glass, and in bottom heat.

300. *Curtisia.* Named in honor of W. Curtis, lecturer on botany, author of the Botanical Magazine and other works; he died in 1799. This is one of the largest trees of Africa, from which the Hottentots and Caffres make the shafts of their javelins. It has fine broad leaves, but small flowers, which, however, have not yet appeared in this country.

301. *Hartogia.* Named after John Hartog, a Dutchman, who travelled in Southern Africa and Ceylon. The plant called by this name in the gardens is probably only a variety of the common laurel, and nearly as hardy as it. The flowers grow in axillary racemes like bunches of currants.

302. AMMAN'NIA. *W.*	AMMANNIA.					*Salicariæ.*		*Sp.* 6—20.				
1768 latifólia *W.*	broad-leaved		[○]	w	1	jl.au	W	W. Indies	1733.	S	s.l	Slo. jam. 1. t. 7. f. 4
1769 débilis *W.*	cluster-flowered		○	w	1	jl.au	Pu	E. Indies	1778	S	s.l	
1770 cáspica *Ledeb.*	Caspian		○	w	¼	jl.au	Ap	Astracan	1821.	S	s.l	
1771 baccífera *L.*	berry-bearing		[○]	w	½	jn jl	Ap	India	1820.	S	s.l	Lam. ill. t. 77. f. 5
1772 ramósior *W.*	branching		○	w	2	jl.au	Pu	Virginia	1759.	S	s l	Bocc. mus. t. 104
1773 sanguinolénta *W.*	bloody		○	w	¼	jl.au	R	Jamaica	1808.	S	s.l	
303. FAGA'RA. *W.*	FAGARA.					*Terebintaceæ.*		*Sp.* 3—18.				
1774 Pteróta *W.*	Lentiscus-leav.	♀	☐	tm	20	au.s	G	Jamaica	1768.	C	p.l	Bro. ja. 146. t. 5. f. 1
1775 Piperíta *W.*	ash-leaved	♣	⊔	or	10	s	W	Japan	1773.	L	p.l	Kæmpfr. t. 893
1776 tragódes *W.*	prickly-leaved	♣	☐	or	5	...	W	W. Indies	1759.	C	l.p	Jac. am. 21. t. 14
304. ZIE'RIA. *Sm.*	ZIERIA.					*Rubiaceæ.*		*Sp.* 1.				
1777 Smíthii *Sm.*	Smith's	♣	⊔	or	2	ap.jl	W	N. S. W.	1806.	C	s.p	Bot. mag. 1395
305. CIS'SUS. *W.*	CISSUS					*Sarmentaceæ.*		*Sp.* 13—50.				
1778 vitigínea *W.*	vine-leaved	ɫ	☐	or	20	...	G	India	1772.	C	p.l	Pl m. 27. t 337. f. 2
1779 antárctica *Vent.*	Kanguru-vine	ɫ	⊔	or	20	jn.au	G	N. S. W.	1790.	C	s.l	Bot. mag. 2488
1780 heterophýlla *Lk.*	various-leaved	ɫ	☐	or	10	...	G'	......	1822.	D	co	
1781 glandulósa *Horn.*	glandular	ɫ	☐	or	10	...	G	......	1819.	D	co	
1782 sicyoides *W.*	naked-leaved	ɫ	☐	or	10	...	G	Jamaica	1768.	C	s.p	Jac. amer 22. t. 15
1783 quadranguláris *W*	square-stalked	ɫ	☐	or	30	...	G	E. Indies	1790.	C	p.l	Forsk. ic. t. 2
1784 capénsis *W.*	Cape	ɫ	⊔	or	30	...	G	C. G. H.	1792.	C	s.p	
1785 cæsia *R B.*	Sier. Leo. grape	ɫ	☐	or	15	...	...	S. Leone	1822.	D	co	
1786 5-folia *B. M*	five-leaved	ɫ	☐	or	12	jl.au	G	Brazil	1822.	D	co	Bot. mag. 2443
1787 ácida *W.*	acid	ɫ	☐	or	6	...	G	Jamaica	1692.	C	p.l	Jac. schœn. 1 t. 33
1788 trifoliáta *W.*	three-leaved	ɫ	☐	or	6	...	G	Jamaica	1739.	C	p l	Slo. ja. 1 t. 145. f 2
1789 pentaphýlla *W*	five-leaved	ɫ	⊔	or	6	ap s	G	Japan	1790.	C	s p	
1790 quináta *H K.*	wedge-leaved	ɫ	⊔	or	10	jl	G	C. G. H.	1790.	C	s p	
306 COR'NUS *W*	DOGWOOD					*Caprifoliæ*		*Sp.* 11—14.				
1791 suécica *W.*	dwarf	⚘	△	or	¼	ap	Pu	Britain	sc. alp	R	s.p	Eng. bot 310
1792 canadénsis *W*	Canadian	⚘	△	or	½	jn.au	Pu	Canada	1774	R	s.p	Bot. mag. 880
1793 flórida *W*	great-flowered	♆		or	15	ap my	W	N. Amer	1731	L	co	Bot. mag. 526
1794 máscula *W*	Cornel.-cherry	♆		or	15	f ap	Y	Austria	1596.	L	co	Schm arb 2. t 63
1795 sanguínea *W*	common	♣		or	8	jn jl	W	Britain	woods	L	co	Eng. bot 249
1796 álba *W.*	white-berried	♆		or	10	jn s	Y	Siberia	1741	L	co	Sch. arb. 2. t. 65
β ros'sica	*Russian*	♣		or	8	jn.s	W	Siberia	...	L	co	
1797 serícea *W*	blue-berried	♣		or	5	au	W	N. Amer	1683	L	co	Sch. arb. 2. t. 64
1798 circináta *W.*	Pensylvanian	♣		or	6	jl.au	W	N. Amer.	1784	L	co	Sch. arb. 2. t. 69
1799 stricta *W*	upright	♆		or	10	jn.jl	W	N Amer	1758	L	co	Sch. arb 2 t. 67
1800 paniculáta *W.*	panicled	♣		or	6	jn jl	W	N. Amer.	1758.	L	co	Sch. arb. 2 t. 68
1801 alternifólia *W*	alternate-leav'd	♆		or	15	s	W	N. Amer.	1760	L	co	Sch. arb. 2. t. 70
307. SAN'TALUM. *W*	SANDAL-WOOD					*Santalaceæ*		*Sp.* 2—6.				
1802 álbum *W*	true	♀	△	tm	10	...	Pu	E Indies	1804.	C	p l	Rum. amb. 2 t 11
1803 myrtifólium *Roxb*	myrtle-leaved	♣	△	or	4	...	R	E. Indies	1804	C	p l	Roxb cor 1. t 2



History, Use, Propagation, Culture,

302. *Ammannia.* Named in honor of John Ammann, a native of Siberia, who was a physician and professor of botany at St. Petersburg. He published a work upon the plants of Finland, and some papers in the Transactions of the Academy at St. Petersburg. None of the species have any beauty. They may be treated like balsams and other tender annuals

303. *Fagara.* The name of an aromatic plant mentioned by Avicenna. The foliage of the present plant has a strong smell of turpentine. Cuttings root readily in sand under a hand-glass.

304. *Zieria* So called by Sir J. E. Smith, in honor of his friend Mr. Zier, of whom nothing more is known than that he was "a learned and industrious botanist." The species is a pretty greenhouse plant.

305. *Cissus.* The Greek name of the ivy. The Latin name *hedera* having been retained for the real plant; the Greek word was given to this genus, which climbs like the ivy. The species greatly resemble Vitis in generic character. None of them are ornamental, with the exception of C. quinquefolia, justly admired for its quinquefid leaves, and the different tints of yellow, red, and purple which these take in autumn. It grows rapidly in any soil, and is well adapted for covering naked walls, decorating old unsightly elevations of houses, ruins, cottages, bowers, &c. All the species root freely by cuttings in any soil.

306. *Cornus.* From *cornu*, a horn: the wood being thought to be as hard and durable as horn. Its value as a material for warlike instruments has been celebrated by Virgil—*Bona bello cornus.* The larger species of this genus are very ornamental and hardy shrubs, not only from their flower and berries of different colors, but by their green, red, purple, or striped barks, which have a fine effect in winter, especially among evergreens. C florida blossoms early, but does not bear berries in this country. C. mascula, the Cormier of old authors, blossoms still earlier, and bears handsome fruit, which were formerly made into tarts and *rob de cornis*: the wood is very hard, and Evelyn says, made into wedges, it will last like iron. C. sanguinea, alba, and sericea,

1768 Leaves stem-clasping, Stem square, Branches erect
1769 Leaves lanceolate attenuated at base, Stem branched, Flowers fascicled axillary, Caps. 2-locular
1770 Leaves sessile lanceolate attenuated at base, Flowers axillary clustered, Sepals rigid acute
1771 Leaves somewhat stalked, Caps. larger than calyx colored
1772 Leaves half stem-clasping, Stem square, Branches much spreading
1773 Leaves half stem-clasping linear lanceolate cordate at base, Pedunc. very short many-flowered

1774 Leaves pinnated, Leaflets obovate emarginated, Common footstalk margined jointed unarmed
1775 Leaves pinnated, Leaflets oblong unequal at base crenate
1776 Leaves pinnated, Leaflets wedge-shaped emarginate, Common stalk winged jointed prickly beneath

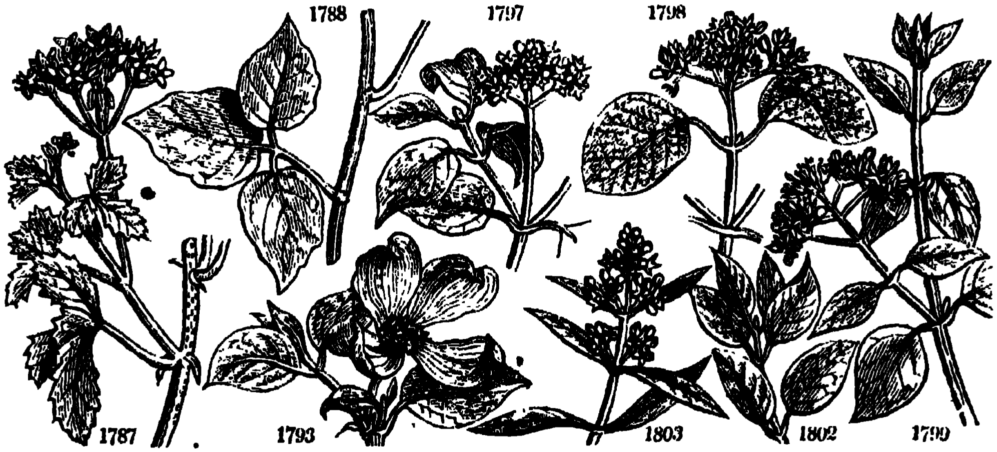
1777 The only species. It may be known by the stamens being inserted into large glands

1778 Leaves cordate roundish 3-5 lobed angular repand beneath ferruginous
1779 Leaves ovate loosely serrated smoothish, Nerves glandular at base, Petioles and branches pubescent
1780 Branches rounded subpubesc. Petioles with a pubesc. line, Lower lvs. simple, middle tern., upper quinate
1781 Leaves ovate serrate toothed, Pedicels and cal. hispid glandular
1782 Leaves ovate cordate smooth thickish bristly serrated, Serratures appressed, Branches rounded
1783 Leaves cordate ovate serrated fleshy, Stem 4-cornered winged
1784 Leaves 5 angular toothed beneath ferruginous, Flowers headed
1785 Leaves cordate serrated, Branches very glaucous
1786 Leaves in fives, Leaflets narrowed each way acuminate stalked, Branches rounded knotted smooth
1787 Leaves ternate obovate wedge-shaped fleshy smooth toothed at end entire at base
1788 Leaves ternate rounded hairy toothed, Branches with membranous angles
1789 Leaves quinate, Leaflets undivided ovate serrated
1790 Leaves quinate, Leaflets obovate wedge-shaped serrated above

1. *Flowers in umbels with an involucrum.*
1791 Herbaceous, Branches binate, Umbel axillary stalked, Nerves of leaves distinct
1792 Herbaceous, Branches none, Upper leaves whorled stalked veiny
1793 A tree, Involucr. very large colored, Leaflets obcordate
1794 A tree, Umbels as long as involucrum

2. *Flowers in naked cymes.*
1795 Branches upright, Leaves ovate whole-colored, Cymes depressed flat
1796 Branches recurved, Branchl. smooth, Leaves broad ovate acute pubesc. hoary beneath, Cymes depressed
1797 Branches sprdg. Branchl. woolly, Lvs. ovate acum. beneath ferrugin. Cymes depr. woolly, Nuts compr.
1798 Branches warted, Leaves orbicular beneath hoary, Cymes depressed
1799 Branches upright, Leaves ovate whole-colored naked, Cymes panicled
1800 Branches erect, Leaves ovate acuminate smooth hoary beneath, Cyme panicled
1801 Leaves alternate, Stem dichotomously forked

1802 Leaves oblong
1803 Leaves lanceolate



and Miscellaneous Particulars.

have fine red twigs; the wood of the first is equal to that of the cornel for hardness, and makes excellent mill cogs, bobbins for lace, toothpicks, and butchers' skewers. An oil may be extracted from the berries, by boiling and pressing. C. sericea from its large leaves, whitish underneath, and its terminating branches of white flowers, is valuable for the shrubbery or lawn. All the species may be propagated by seeds, layers, suckers, or cuttings; the second is the most common mode.

C. sanguinea is very common in woods, and after a smothered combustion, affords a charcoal esteemed the best for entering into the composition of gunpowder. It grows in the shade and drip of other trees, and is therefore a valuable plant for thickening strips of plantations which have become naked below.

C. suecica is called by the Highlanders Lus-a-chrasis, or plant of gluttony, from its berries, which are eaten by the children, being supposed to create an appetite. This plant is difficult to preserve in gardens: a bed of peat in a shady situation, and kept moist, is the most suitable for it; or it may be planted in small pots of peat, and treated as an alpine.

307. *Santalum.* From its Persian name *Sandul-sufed* It is a low tree in habits; leaves and inflorescence a good deal resembling the privet. It produces the white and yellow sandal wood of the materia medica, formerly thought to be the produce of different trees. But in India, as in a certain degree in every other country, most trees when large and old, become colored towards the centre, and when the sandal tree becomes large, its centre acquires a yellow color, and great fragrance and hardness; while the exterior part of the same tree that covers the colored part is less firm, white, and without fragrance. It is only the yellow part that is in use, being in universal esteem for its fragrance. According to Wathen (*Voy. to China*, 1812, p. 116.), it sells so high that the tree is seldom allowed to grow more than a foot in diameter. It is manufactured into musical instruments, small cabinets, escrutoires, boxes, and similar articles, as no insect can exist, or iron rust (as it is

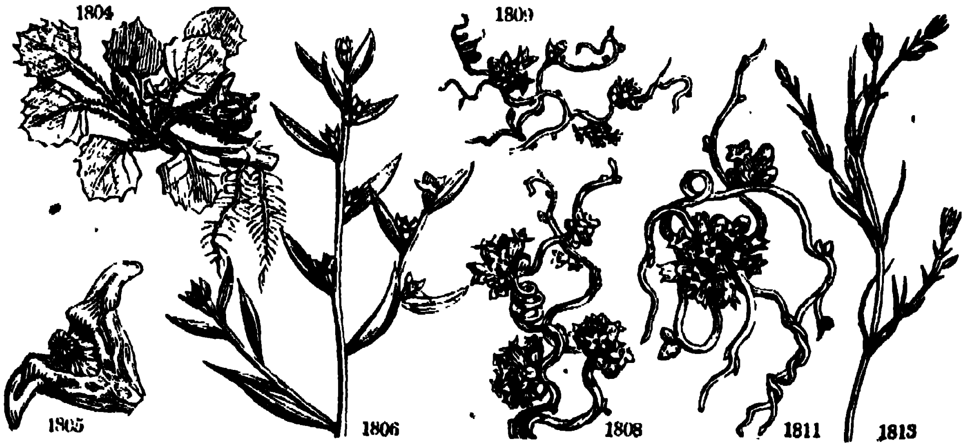
308 **TRA'PA.** *W.*	WATER-CALTROPS.				*Hydrocharideæ.* *Sp.* 2—3.						
1804 nátans *W.*	European	○	clt		jn.au	W.P	Europe	1781.	S	co	Bot. reg. 88
1805 bicórnis *W.*	Chinese	[△]	clt		...	W	China	1790.	S	co	Gært.sem.2. t.95
309. **LUDWI'GIA.** *W.*	LUDWIGIA.				*Onagrariæ.* *Sp.* 2—16.						
1806 alternifólia *W.*	large-capsuled	○	w	1	jn.jl	Y	Virginia	1752.	S	co	Lam. ill. 1. t. 77
1807 hirsúta *Ph.*	hairy	△	w	1	jn.au	Y	N. Amer.	1812.	D	p.l	

DIGYNIA.

310. **CUS'CUTA.** *W.*	DODDER.				*Convolvulaceæ.* *Sp.* 5—10.						
1808 europæ'a *W.*	common	△	cu		jl	W	Britain	hea.	D	par	Eng. bot. 378
1809 Epithymum *W.*	lesser	△	cu		jl	W	Britain	hea.	D	par	Eng. bot. 55
1810 chinénsis	Chinese	△	cu		au.s	W	China	1803.	D	par	
1811 chilénsis *B. M.*	Chili	△	cu		ja.d	W	Chili	1821.	D	par	Bot. reg. 603
1812 verrucósa *Sweet*	Nepal	△	cu		ap.o	W	Nepal	1821.	D	par	Scot. fl. gard. 6.
311 **BUFO'NIA.** *W.*	BUFONIA.				*Caryophylleæ.* *Sp* 1—2.						
1813 tenuifólia *W.*	slender-leaved	△	w	½	jn	W	England	sea co.	S	co	Eng. bot. 1313
312. **HAMAME'LIS.** *W.*	WITCH-HAZEL.				*Berberideæ.* *Sp.* 1—2.						
1814 virgínica *W.*	Virginian		or	10	n. m	W	N. Amer.	1736.	L	p.l	Duh. arb. 1. t. 114
313. **HYPE'COUM.** *W*	HYPECOUM.				*Papaveraceæ.* *Sp.* 3—6.						
1815 procum'bens *W.*	procumbent	○	or	1	jn.jl	Y	S. Europe	1596.	S	co	Schk. han. 1. t. 27
1816 péndulum *W.*	pendulous	○	or	½	jn.jl	Y	S. France	1640.	S	co	Par. thea. 372. f. 2
1817 eréctum *W.*	erect	⦶	or	½	my.jn	Y	Siberia	1759.	S	co	Am. ruth. 58. t. 9

TETRAGYNIA.

314. **MYGIN'DA.** *W.*	MYGINDA.				*Rhamni.* *Sp.* 3—6.						
1818 Uragóga *W.*	saw-leaved	☐	or	4	au.s	Pu	S. Amer.	1790.	L	p.l	Jac. amer. 24. t. 16
1819 Rhácoma *W.*	blunt-leaved	☐	or	4	...	...	Jamaica	1798.	L	p.l	Jac. ic. 2. t. 311
1820 latifólia *W*	broad-leaved	☐	or	4	ap.my	...	W. Indies	1795.	C	s.p	Fl. peruv. t. 84. f. b
315. **I'LEX.** *W.*	HOLLY.				*Rhamni* *Sp.* 12—29.						
1821 Aquifólium *W.*	common		tm	20	ap.jn		Britain	hedg.	S	co	Eng. bot. 496
β heterophýlla	*various-leaved*		or	20	ap.jn		Britain	...	G	co	
γ crassifólia	*thick-leaved*		or	20	ap.jn	W	Britain	...	G	co	
δ recúrva	*slender*		or	20	ap.jn	W	Britain	...	G	co	
ε férox	*hedgehog*		or	12	ap.jn	W	Britain	...	G	co	



History, Use, Propagation, Culture,

said) within its influence It is of the dust of this wood that the Bramins form the pigment which they use in giving the tilac or frontal mark to the God Vishnoo: and the oil used in their ceremonies is obtained from the shavings, or at least scented by them. Cuttings root readily in a pot of sand under a bell-glass.

The true sandal wood is the Santalum album, found chiefly on the coast of Malabar, and in the Indian Archipelago.

Santalum myrtifolium, which has been confounded with it, is the kind which grows upon the Circar mountains, the wood of which is of little value. An amusing specimen of German critical puzzling upon this subject may be seen in Messrs. Römer and Schultes, Species Plantarum, vol. iii. p. 328.

308. *Trapa.* Abridged from *calcitrapa*, the Latin name of a dangerous instrument called caltrops, furnished with four spines, which was formerly used in war to impede the progress of cavalry. The fruit of this plant is hard, and has four spines also. T. natans is a curious aquatic, with long brown and green roots and floating leaves, with petioles inflated into a tumour, as in the marine algæ. The seed is larger than the kernel of the filbert, with two cotyledons, one large, and the other very small, and not increasing in size during the germination. Hence, Gærtner considers this plant like the Nelumbium, as in a sort of middle state between the monocotyledoneæ and dicotyledoneæ. The nuts are farinaceous, and are esteemed nourishing and pectoral. The skin with the spines being removed, there is a white sweet kernel within, somewhat like a chestnut. They are sold in the market at Venice under the name of Jesuits' nuts. They are also much eaten in Switzerland and the south of France. Some of the canals at Versailles are covered with the plant; and Neill informs us (*Hort. Tour.*), that the nuts are sometimes served up like chestnuts. Pliny says that the Thracians made them into bread; and Thunberg states that they (the seed of Trapa bicornis) are commonly put into broth in Japan. In this country the plant is generally kept in a cistern in the stove, and so treated, was fruited by A. B. Lambert, Esq. in 1815, and specimens of the fruit sent to the Horticultural Society.

T. bicornis is cultivated by the Chinese in marshes; and the nuts used as food.

309. *Ludwigia.* So named by Linnæus, in honor of C. G. Ludwig, professor of botany at Leipsic, in the middle of the last century. He left behind him several works which are now almost forgotten. The species are of no beauty.

310. *Cuscuta.* This is a genus of parasitical plants, which fasten themselves to, and draw their nourishment from others. The seed does not split into lobes, but opens and puts forth a little spiral body, which is the em-

1804 Nuts 4 horned, Spines spreading
1805 Nuts 2 horned

1806 Erect branched smooth, Leaves altern. lanc. hoary beneath, Caps. large crowned with the col. lvs. of cal.
1807 Leaves alternate lanceolate, Flowers axillary solitary subsessile, Stem rounded diffuse.

DIGYNIA.

1808 Flowers sessile, Orifice of cor. naked, Stigma acute
1809 Flowers sessile, Stamens with a scale at their base, Stigma acute
1810 A species of which no account has yet been published. Shoots short white
1811 Flowers 5-cleft, Segments oblate rounded, Anthers sessile, Stigmas pileate
1812 All over warted, Color dull brown, Shoots very long

1813 Stem branched at end, Branches erect, Calyx scariose at edge

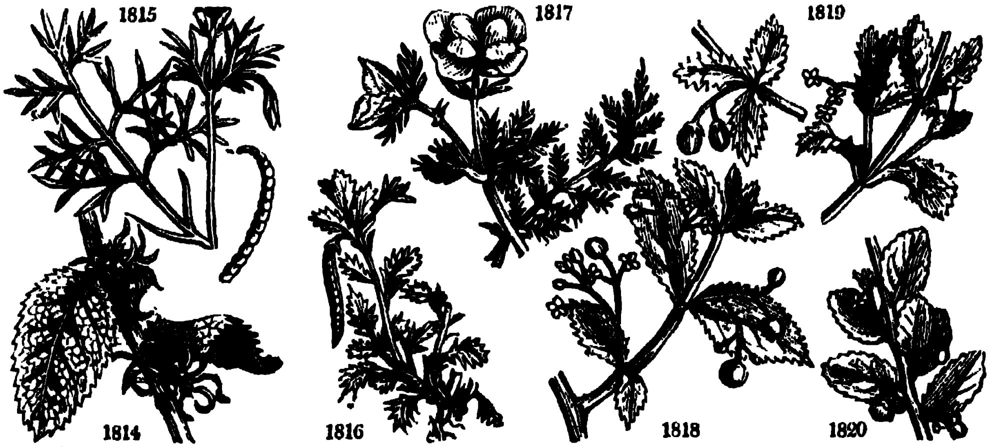
1814 Leaves obovate acutely toothed cordate with a small sinus

1815 Pods jointed compressed arcuate, Pet. 3-lobed the outside smooth at the back
1816 Pods knotty rounded pendulous, Petals smooth the 2 outer ovate oblong pendulous 2 inner 3-parted
1817 Pods not jointed erect compressed, Pet. smooth outer wedge-shaped about 3-lobed inner trifid the lateral lobes 2-lobed the middle one small

TETRAGYNIA.

1818 Leaves ovate and subcordate acuminate subserrated pubescent
1819 Leaves lanceolate ovate obtuse crenated, Flowers monogynous, Style quadrifid
1820 Leaves elliptical crenated subcoriaceous, Stigmas 2-4 sessile

1821 Leaves ovate acute spiny shining waved, Flowers axillary umbelled



bryo. The stalk twines about some other plant, contrary to the sun's apparent motion, or from right to left, sending out from the inner surface a number of little vesicles which attach themselves to the bark of the supporting plant. By degrees, the longitudinal vessels of the stalk shoot from their extremities, and insinuate themselves so intimately with it, that it is easier to break than to disengage them. Plants raised from seed soon die when they have no plant to which they can attach themselves. They adhere to the ground by the original root, and draw a part of their nutriment from thence at first; but the original root withers away as soon as the young stem has fixed itself to any other plant.

C. europæa may be sown in peat soil by the sides of other plants; in a wild state it is commonly found in hedges, and on hops, brambles, woody nightshade, fern, thistles, hemp; as also on flax, nettles, clover, grass, &c.

C. epithymum will thrive well on any small shrub when once it has got hold. According to Sweet, "it will flower freely, and be very handsome."

C. chinensis may be treated like C. europæa.

311. *Bufonia.* So named after the celebrated Count de Buffon. It is slender, like the botanical acquirements of that illustrious naturalist.

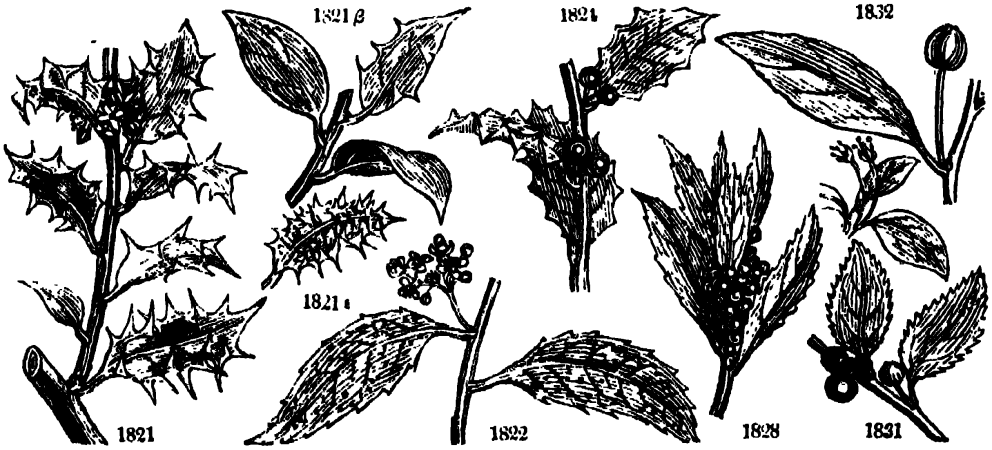
312. *Hamamelis.* From ἁμα, with, and μηλον, an apple, from the fruit and flowers being on the tree at the same time. This is a low tree or shrub, in general appearance resembling the hazel; but it has fine yellow blossoms, which appear in profusion in October or November, and sometimes last till spring. The fruit, which is a small nut, seldom ripens in England.

313. *Hypecoum.* From ὑπηχεω, to rattle, on account of the noise the seeds make in the pods. It is not impossible that Hypecoum procumbens is the Hypecoon of Pliny; the wild cumin of Gerarde. The juice of all the species is yellow, like that of celandine, and is said to have the same effect as opium.

314. *Myginda.* So named by Jacquin, in honor of Counsellor Mygind of Vienna; a botanical amateur and patron. A tree resembling some kind of Ilex.

315. *Ilex.* A word upon which much ingenuity and learning have been tortured in vain. De Théis derives it from *ec*, or *ac*, a point, in Celtic; but that explanation applies better to the specific name Aquifolium. I. Aquifolium is one of our most beautiful shrubs or low trees, displaying either character, according to situation, age, and application of art. It is found in most parts of Europe, and in North America, Japan, Cochin-

ζ *flava*	*yellow-berried*	♣		or	15	ap.jn	W	Britain	...	G	co	
η *álbo-marginàta*	*silver-edged*	♣		or	12	ap.jn	W	Britain	...	G	co	
ϑ *aúreo-marginàta*	*gold-edged*	♣		or	12	ap.jn	W	Britain	...	G	co	
ι *medio-picta*	*painted*	♣		or	10	ap.jn	W	Britain	...	G	co	
1822 chinénsis *B. M.*	Chinese	♣	⊔	or	10	jl	W	China	1814.	G	s.l	Bot. mag. 2043
1823 laxiflóra *Ph.*	loose-flowered	♣		or	20	ap.jn	W	Carolina	1811.	G	s.p	Lam. ill. t. 89
1824 opáca *W.*	Carolina	♣		or	10	my.jn	W	Carolina	1744.	G	p.l	Meerb. ic. 2. t. 5
1825 crócea *W.*	African	♣	⊔	tm	30	...	...	C. G. H	1794.	G	s.p	
1826 Perádo *W.*	thick-leaved	♣	⊔	or	10	ap.my	Pk	Madeira	1760.	G	s.l	Meerb. ic. 2. t 6
1827 Prinoídes *W.*	deciduous	♣		or	2	jl	W	N. Amer.	1760.	G	s.p	
1828 Cassine *Ph.*	br.-lv.-Dahoon	♣	⊔	or	12	au	W	Carolina	1726.	G	s.l	Cat. car. 1. t. 31
1829 Dahóon *Ph.*	Dahoon	♣	⊔	or	6	my.jn	W	Carolina	1726.	G	s.l	
1830 augustifólia *W. en*	Myrtle-leaved	♣	⊔	or	6	my.jn	W	Carolina	1806.	G	s.l	
1831 vomitória *W.*	South Sea Tea	♣	⊔	or	10	...	...	Florida	1700.	G	p.l	Cat. car. 2. t. 57
1832 canadénsis *Ph.*	Canadian	♣		or	3	ap.my	W	N. Amer.	1802.	G	s.l	Mich. am. 2. t.49
316. COLDE'NIA. *W*	Coldenia.					*Boragineæ.*		*Sp.* 1—2.				
1833 procúmbens *W.*	trailing	✱	▢	or	2	jl.au	W	E. Indies	1699.	S	co	Lam. ill. t. 89
317. POTAMOGE'TON. *W.*	Pond-weed.					*Alismaceæ.*		*Sp.* 13—44.				
1834 nátans *W.*	broad-leaved	⚘	△	cu		au	G	Britain	riv.	D	co	Eng. bot. 1822
1835 flúitans *W.*	long-leaved	⚘	△	cu		jl.au	R	Britain	dit.	D	co	Eng. bot. 1286
1836 heterophýllum *W.*	various-leaved	⚘	△	cu		jl au	G	Britain	dit.	D	co	Eng. bot. 1285
1837 perfoliátum *W.*	perfoliate	⚘	△	cu		jl au	P	Britain	riv.	D	co	Eng. bot. 168
1838 den'sum. *W*	close-leaved	⚘	△	cu		my.jl	G	Britain	dit.	D	co	Eng. bot. 397
1839 lúcens *W.*	shining	⚘	△	cu		jn jl	G	Britain	dit.	D	co	Eng. bot. 376
1840 crispum *W.*	curled	⚘	△	cu		jn jl	R	Britain	rivul.	D	co	Eng bot. 1012
1841 comprèssum *W.*	flat-stalked	⚘	△	cu		jn.jl	G	Britain	rivul.	D	co	Eng. bot. 418
1842 pectinátum *W.*	fennel-leaved	⚘	△	cu		jn jl	Ol	Britain	dit.	D	co	Eng. bot. 323
1843 lanceolátum *E. B.*	spear-leaved	⚘	△	cu		jl.au	Ol	England	w.lak.	D	co	Eng. bot. 1985
1844 gramíneum *W.*	grass-leaved	⚘	△	cu		jl.au	G	Britain	dit.	D	co	Eng. bot. 2253
1845 pusillum *W*	small	⚘	△	cu		jl.au	G	Britain	dit	D	co	Eng bot. 215
1846 setáceum *W*	bristle-leaved	⚘	△	cu		jl au	G	Britain	...	D	co	
318 RU'PPIA. *W.*	Ruppia.					*Fluviales.*		*Sp.* 1.				
1847 maritima *W*	sea	⚘	△	cu		jl	G	Britain	s. w. d.	S	s.l	Eng. bot. 136
319. SAGI'NA. *W.*	Pearlwort					*Caryophylleæ*		*Sp.* 5—7.				
1848 procum'bens *W.*	procumbent		○	w	¼	my.s	W	Britain	rub	S	s.l	Eng bot. 880
1849 cerastoídes *W*	tetrandrous		○	w	¼	jn jl	W	Britain	sea sh.	S	co	Eng bot 169



History, Use, Propagation, Culture,

China, &c. In Britain, it is found congregated in natural woods and forests. Some of the finest in England, are in Medwood forest, in Staffordshire, and in Scotland, in the woods of Dumbartonshire, about Luss and Lochlomond. Professor Martyn's father first discovered the difference of sexes in the holly; some being male, others female, and others hermaphrodite. It is a tree of great longevity, and will grow in any soil not very wet, but best in a dry deep loam; such is the soil of Medwood forest. By culture alone, a hundred varieties and subvarieties have been produced, differing in the variegation, margin, and size of the leaves, and in the color of the fruit. These make gay and elegant shrubs for lawns and small groups; and form an important feature in the general shrubbery. The common green prickly-leaved holly makes the best of all hedges, whether we regard its qualities for defence, shelter, duration, or beauty. It has one fault, it is very slow of growth unless carefully cultivated, and for this reason hawthorn is preferred It was a very general custom about the end of the 17th century to divide gardens by hedges of this tree, and to keep them exactly shorn. Evelyn's impenetrable holly hedge at Deptford has been much celebrated. It was 400 feet long, 9 feet high, and 5 feet broad. Gibson, (*Archæologia Brit. &c*) who mentions Evelyn's hedge, made a tour of the principal gardens near London, and states, as next in grandeur, that of Sir M. Decker at Richmond: of neither does there exist a single plant. The largest holly hedge in Scotland is at Tynningham near Dunbar, planted by a former Earl of Haddington, author of a Treatise on Fruit Trees It has for many years past been left uncut, and now presents a noble phalanx of deep shining green leaves, and numerous spiry tops with spikes of coral berries.

In cultivating the holly, the kernel or stone of the berries is divested of its skin and glutinous pulp, by mixing with sand in heaps in the open garden, and turning over frequently. The berries being gathered in November, may be rotted in this way till the October following, and then sown in beds, and covered three quarters of an inch with fine mould; or they may remain on the trees till spring, then gathered and mashed in a tub of water to separate the pulp, after which they may be sown. In general, the stones do not vegetate till the second year from the gathering; some will occasionally germinate the first year, and a number not till the third. In transplanting and pruning the holly, the months of October and April are to be chosen: the oftener young plants are removed before planted in the final site the better, as it has naturally but few roots, and those chiefly ramose and descending. Miller recommends cutting holly hedges with a knife, as clipping renders them unsightly. The variegated and other curious sorts are generally propagated by budding and grafting on the common green. Evelyn says he raised some of the variegated sorts by sowing the seeds, and Miller always found the hedgehog variety continue the same when so propagated. Some raise them by layers, and Sweet says all of them " will root freely by cuttings taken off at a joint in ripened wood, and planted in sand under a hand-glass in a shady situation "

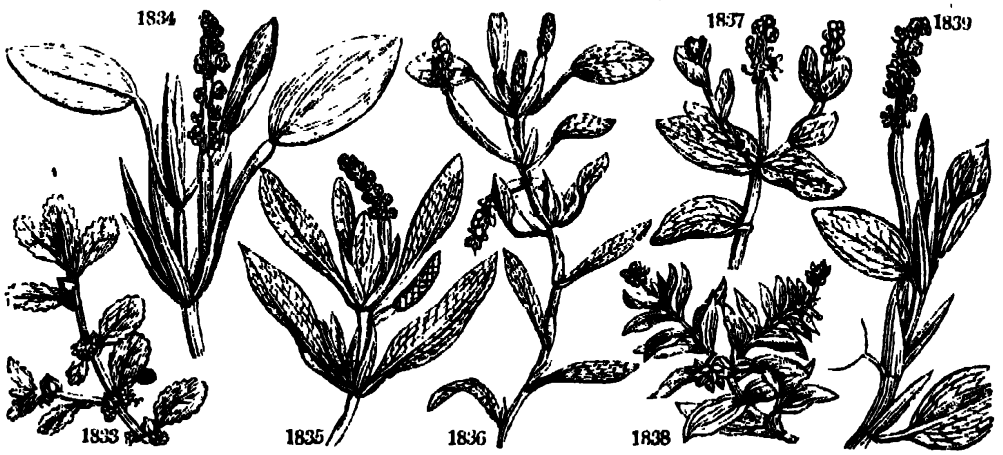
1822 Leaves ovate oblong edge with little cartilaginous scarcely pungent teeth, Corymbs pedunc. dichotomous
1823 Leaves ovate sinuate-toothed slightly spiny, Stipules subulate, Pedunc. lax divided
1824 Leaves ovate acute spiny smooth flat, Flowers scattered at the base of the older branches
• 1825 Leaves oblong serrated, Serratures prickly-ciliated
1826 Leaves ovate with a point unarmed nearly entire
1827 Leaves elliptic-lanceolate acute deciduous serrated, Serratures unarmed
1828 Leaves alternate distant evergreen lanceolate attenuated both ways serrated at the end
1829 Leaves lanceolate elliptical nearly entire reflexed at the edge, Rib villous beneath
1830 Leaves alternate distant evergreen linear lanceolate shining serrated at end, Rib smooth beneath
1831 Leaves alternate distant oblong obtuse crenated serrated, Serratures not prickly
• 1832 Leaves oblong acuminate subserrated at the end, Pedunc. long axillary 1-flowered

1833 Leaves wedge-shaped stalked shorter on one side coarsely sawed and plaited

1834 Leaves all elliptical stalked floating, Lower petioles submersed leafless
1835 Leaves floating on long stalks lanceolate ovate narrowed at both ends
1836 Upper leaves stalked elliptical narrowed at both ends the lower close together sessile linear
1837 Leaves cordate stem-clasping all immersed
1838 Leaves ovate acuminate opposite close, Stem dichotomous, Spike 4-flowered
1839 Leaves ovate-lanceolate flat narrowed into the stalks, Spike many-flowered contracted
1840 Leaves lanceolate alternate wavy serrated
1841 Leaves linear obtuse, Stem compressed
1842 Leaves setaceous parallel close together in two rows
1843 Leaves lanceolate membranous flat entire, Spike ovate dense few-flowered
1844 Leaves linear lanceolate alternate sessile broader than their stipule
1845 Leaves linear opposite and alternate narrower than their stipule spreading at base, Stem rounded
1846 Leaves lanceolate opposite acuminated

1847 The only species

1848 Branches procumbent smooth, Petals very short
1849 Stem diffuse dichotomous, Leaves spatulate and obovate recurved, Fruit-stalks reflexed



and Miscellaneous Particulars.

I. cassine and vomitoria have bitter leaves, of which the N American Indians make a tea, which is almost their only physic. At a certain time of the year they come down in droves from a distance of some hundred miles, to the coast, for the leaves of this tree, which is not known to grow at any considerable distance from the sea. They make a fire on the ground, and putting a great kettle of water on it, they throw in a large quantity of these leaves, and setting themselves round the fire, from a bowl that holds about a pint they begin drinking large draughts, which in a very short time occasion them to vomit easily and freely: thus they continue drinking and vomiting for the space of two or three days, until they have sufficiently cleansed themselves; and then every one taking a bundle of the tree to carry away with him, they all retire to their habitations.

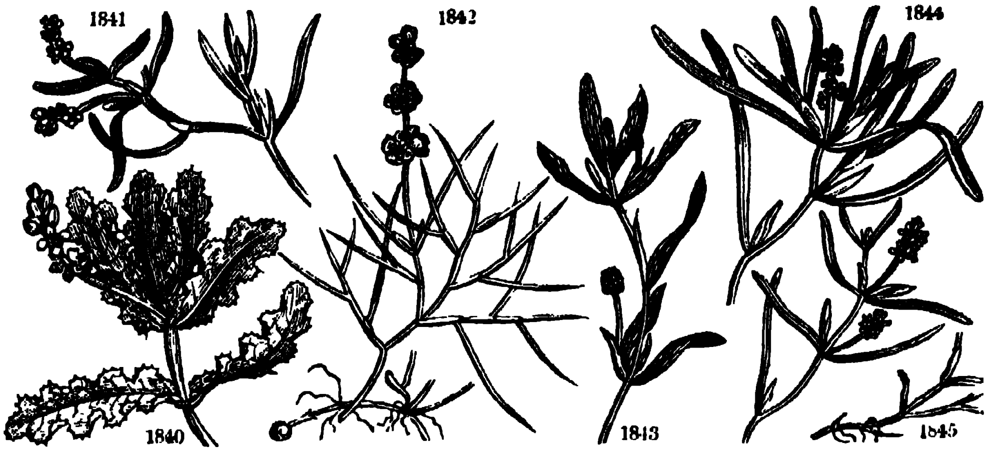
316. *Coldenia.* So named by Linnæus, in honor of Cadwallader Colden, an English naturalist, who published in 1742, an account of the plants of New York.

317. *Potamogeton.* From *ποταμος*, a river, and *γειτων*, near. Most of the species grow wholly immersed in water, but like most aquatics, flower above its surface. It should seem, Professor Martyn observes, that the respiration of such truly-aquatic vegetables must be as different from those which inhale atmospheric air, as the breathing of fishes is from that of beasts and birds. Accordingly, they are, as Haller remarks, of a different texture, pellucid, like oiled paper, very vascular, harsh, and ribbed, but often very brittle; and their surface, like that of aquatic animals, destitute of hair or down of any kind. The leaves of aquatic plants afford shade and spawning places to fish, and habitations for aquatic insects and worms for their nourishment. The roots of P. natans are a favorite food of the swan, and that bird is in consequence erroneously considered as keeping ponds and lakes clear of all aquatics. Ducks eat the seeds and leaves of P. crispum. Haller informs us, that in the Swiss lakes P. serratum grows from ten to twenty fathoms long, forming, as it were, immense woods in the midst of these immense reservoirs. Most of the species may be considered as ornamental in a botanic garden, when kept within bounds or in pots. They are readily propagated by seeds or by dividing their long roots, and for the most part, grow best on a clayey bottom.

318. *Ruppia.* Named after Henry Bernard Ruppi, a German. He published in 1718, a Flora Jenensis. It is remarked by Dr. Goodenough, that the flower-stalk of this plant is spiral, like that of Valisneria, and relaxes or contracts itself according to the depth of the water. The truth is, the flower and leaf-stalks of all aquatics have a power of accommodating themselves to the depth of the water, so as just to emerge above its surface; but the singularity in Ruppia and Valisneria appears to be the employment of a flower-stem for that purpose. (See *Valisneria.*)

319. *Sagina.* This plant, says Linnæus, is so called for its qualities. In Latin, *sagina* expresses something

1850 apétala *W.*	small-flowered	○	w	¼	my.jn	W	Britain	rub.	S	co	Eng. bot. 881
1851 marítima *E. B.*	sea-side	○	w	¼	my.au	W	Ireland	sc. alp.	S	co	Eng. bot. 2195
1852 erécta *Sm.*	glaucous	○	w	¼	ap.my	W	Britain	...	S	co	Eng. bot. 609
320. TILLÆ'A. *W.*	TILLÆA.				*Sempervivæ.*		*Sp.* 1—4.				
1853 muscósa *W.*	mossy	○	cu	¼	jn.o	Pl	England	sa. he.	S	co	Eng. bot. 116
321. RADI'OLA. *Sm.*	RADIOLA.				*Caryophylleæ.*		*Sp.* 1.				
1854 millegrána *Sm.*	all-seed	○	w	¼	jl.au	W	Britain	san. pl.	S	co	Eng. bot. 893



History, Use, Propagation, Culture,

nourishing. The species are very common in dry pastures, where they are valuable for sheep-food. S. procumbens is a small but troublesome weed in shaded garden-walks and paved courts, and with S. apetala, seeds the whole summer. Curtis remarks, that the latter species ripens its seeds more rapidly than almost any other plant.

CLASS V. — PENTANDRIA. 5 STAMENS.

ONE of the most extensive of the Linnæan classes, and containing about a fifth part of all phænogamous plants. It includes the whole of the Boragineæ or Asperifoliæ, Asclepiadeæ, Apocyneæ, and Umbelliferæ, nearly all Primulaceæ, and portions of a great variety of other natural orders, among which many are ornamental, and others valuable on account of their relation to medicine and the arts.

The Boragineæ are, in many instances, ornamental plants; a few, such as Anchusa tinctoria are applied to economical purposes; but the principal part are weeds of northern latitudes. They have been recently described and re-arranged in a scientific manner by M. Lehmann, whose Monographia Asperifoliarum should have a place in every botanical library.

The curious genus Stapelia is a part of the Asclepiadeæ, which order was in so unsettled and confused a state as to be a reproach to the science until it was remodelléd by Mr. Brown, who first determined the just limits of its genera. The Apocyneæ contain, among some poisonous plants, such as Echites venenata, the Oleander remarkable for the beauty of its flowers, and the Cream fruit and Picimmons of Sierra Leone, which are said to be excellent fruit-trees.

Umbelliferous plants contain numerous species, some of which, like the Cicuta virosa, Conium maculatum, &c. are dangerous poisons, and others which are useful to mankind either as luxuries or necessaries. The seeds of caraway, coriander, &c. are commonly used by the confectioner, of dill and anise by the distiller; the blanched stems of celery and sweet fennel, and the roots and leaves of many others are among the best of British vegetables. The gum galbanum of the shops is said to be the produce of a plant of this tribe. Great difficulty exists in ascertaining upon what principles the genera should be divided. Linnæus, contrary to his usual practice, attempted to derive the characters from the absence or presence of the involucrum; Hoffman, Link, and Sprengel from peculiarities in the fruit, or, as it is familiarly called, in the seeds. The characters of Sprengel, who has, as it were, grown old in the study of Umbelliferæ, are certainly deserving of attention; but botanists are much divided in opinion upon their merits; and, it is to be feared, that notwithstanding the labours of the learned men who have directed their study particularly to the consideration of the order, little real progress has been made in its final arrangement. In this work the arrangement of Sir James Smith has been adopted, as being the most simple of all that has been published, and the most easy of application.

The plants belonging to Primulaceæ are beautiful border-flowers, or pretty alpine plants. In the same artificial section with these, are found the elegant families of Convolvulus and Ipomæa, one or several species of which produce the jalap of the shops; the various kinds of Epacris, which in New Holland rival the heaths of Southern Africa, and the splendid genus Azalea.

Other sections include the teak wood of the East Indies; the Sapodilla plum, and the Star apple, fine fruits of the West Indies; solanum, well digested by Dunal; the Jesuit's bark (Cinchona), of which no species has yet been brought alive to Europe; the coffee tree, and many others.

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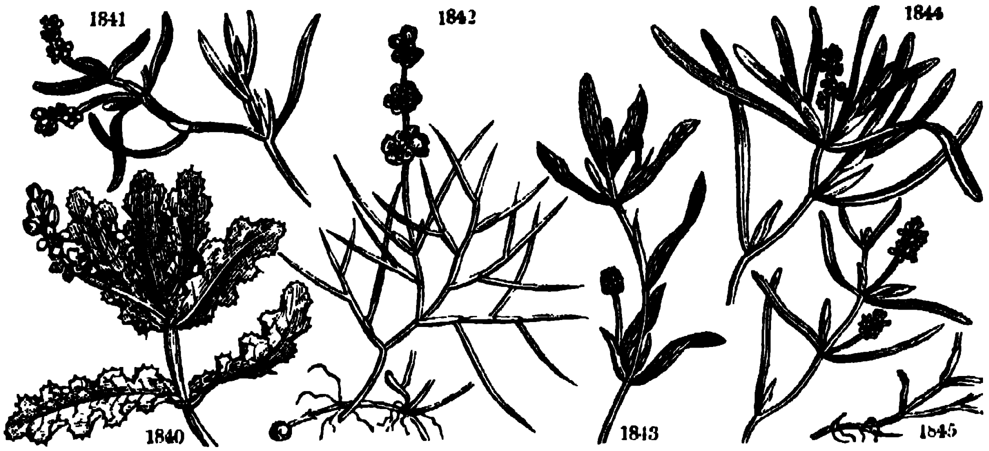

History, Use, Propagation, Culture,

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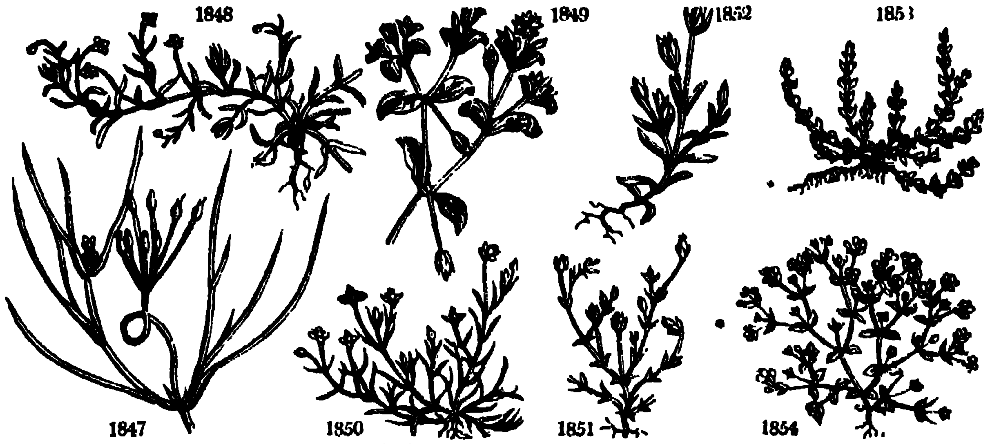
1850 Stem erect pubescent, Flowers alternate apetalous
1851 Stems erect divaricating smooth, Leaves obtuse blunt, Petals obsolete
1852 Stem erect about 1-flowered, Sepals acute, Petals entire

1853 Procumbent, Flowers trifid

1854 The only species



and Miscellaneous Particulars.

320. *Tillæa.* From Mich. Ang. Tilli, an Italian, born in 1653, died in 1740. He was a foreign member of the Royal Society of London, and published a Catalogus Horti Pisani, in one volume, folio.

321. *Radiola.* A diminution of *radius.* A little insignificant weed, formerly referred to the same genus with common flax.

Order 1. MONOGYNIA. 5 Stamens. 1 Style.

1. *Flowers monopetalous, inferior. Seed* 1, *naked.*

322. *Mirabilis.* Nut below the corolla, which is funnel-shaped. Stigma globose, a little warted.

323. *Abroma.* Cor. funnel-shaped, with cordate segments, above the germen contracted, at the orifice inflated. Stigma simple.

324. *Plumbago.* Seed 1. Stamens inserted into the valves. Corolla funnel-shaped. Stigma 5-cleft.

2. *Flowers monopetalous, inferior. Seeds* 2 *or more, na*[illegible].

325. *Heliotropium.* Cal. 5-parted. Cor. hypocrateriform, orifice without teeth, limb 5-cleft, sinuses plaited, simple, or toothed. Stamens included. Stigma peltate. Nuts 4, cohering without a common receptacle.

326. *Myosotis.* Cal. 5-parted. Cor. hypocrateriform, closed with scales. Limb 5-parted, obtuse. Stamens included. Anthers peltate. Stigma capitate. Nuts 4, distinct, perforated at the base.

327. *Echinospermum.* Cal. cor. and other parts as in Myosotis. Nuts united to a central column, prickly, compressed, closed at the base.

328. *Mattia.* Cal. 5-parted, spreading. Cor. tubular, funnel-shaped at the orifice with 5 scales as long as the tube. Anthers sagittate, conniving, exserted. Style longer than stamens. Stigma simple. Seeds winged.

329. *Tiaridium.* Cor. hypocrateriform, with an angular tube, the orifice contracted with 5 rays. Style very short. Stigma capitate. Nuts 4, 2-celled, mitre-formed, cohering, closed at base. No common receptacle.

330. *Lithospermum.* Cal. 5-parted, persistent. Cor. funnel-shaped, with a half 5-cleft obtuse limb, and an open orifice. Anthers included. Stigma obtuse, bifid. Seeds 4, hard, smooth, closed at the base.

331. *Batschia.* Cal. deeply 5-parted. Cor. hypocrateriform, with a hairy ring at the base inside, an open orifice, and rounded segments. Stigma emarginate. Seeds hard, shining.

332. *Onosma.* Cal. 5-parted, erect. Cor. campanulate, funnel-shaped, with a ventricose tubular 5-toothed limb, and an open orifice. Anthers sagittate, connected at base by their lobes. Stigma obtuse. Seeds ovate, shining, stony, closed at base.

333. *Anchusa.* Cal. 5-cleft, persistent. Cor. funnel-shaped, with a half 5-cleft spreading limb, orifice closed with 5 prominent scales. Anthers included. Stigma emarginate. Seeds gibbous, with a sculptured surface.

334. *Symphytum.* Cal. 5-parted, acute. Cor. cylindrical, campanulate, with a short tube and a tubular inflated limb, orifice with 5 subulate rays conniving into a cone. Stigma simple. Seeds gibbous, not pierced at base.

335. *Onosmodium.* Cal. deeply 5-parted. Cor. oblong, campanulate, with a ventricose half 5-cleft limb, the edges of which are inflated, orifice open. Anthers sagittate, included.

336. *Cynoglossum.* Cal. 5-parted. Cor. short, funnel-shaped, with a 5-parted obtuse limb; orifice closed by scales. Stamens included. Stigma capitate. Nuts depressed, attached to a central column.

337. *Omphalodes.* Cal. deeply 5-parted. Cor. rotate, shorter than the tube of the calyx, with 5 short scales crossing over the anthers, which are inserted into the base of the tube. Style short. Stigma thick. Seeds urceolate, toothed at the edge.

338. *Pulmonaria.* Cal. prismatic, 5-cornered, 5-toothed. Cor. funnel-shaped, with a cylindrical tube, open orifice, and obtuse 5-lobed limb. Stigma obtuse. Seeds 4, obtuse, rounded.

339. *Cerinthe.* Cor. tubular, ventricose. Nuts 2, each 2-celled, open at the base.

340. *Borago.* Cal. 5-parted. Cor. rotate, with acute segments; orifice crowned. Filaments conniving. Seeds rounded, closed at base, rugose, inserted lengthways into an excavated receptacle.

341. ***Trichodesma.*** Cor. rotate, with a naked orifice and subulate segments. Stamens exserted. Anthers villous at back. Nuts half immersed in the 4-winged column.

342. ***Asperugo.*** Cal. 5-parted, irregular. Cor. funnel-shaped, with a short tube, orifice closed by convex scales. Stigma obtuse. Seeds oblong, compressed, not perforated.

343. ***Nonea.*** Cal. at length inflated. Cor. funnel-form, with a 5-cleft short limb, and straight naked tube. Stamens included. Orifice nearly open. Seeds 4, with parallel streaks.

344. ***Lycopsis.*** Cor. funnel-shaped, 5-lobed, with a covered tube and obtuse limb. Scales at the orifice. Stigma emarginate. Nuts hollowed at base.

345. ***Echium.*** Cal. 5-parted, subulate. Cor. campanulate with unequal obtuse segments, the 2 upper the longest; orifice open. Filaments unequal, declinate. Stigma obtuse. Seeds roundish, warted, not open at base.

346. ***Tournefortia.*** Berry 2-celled, cells 2-seeded, perforated at end. Cor. hypocrateriform or rotate, naked at the orifice.

347. ***Nolana.*** Cal. turbinate. Cor. campanulate, plaited. Nuts 5, 2 or 4-celled.

3. ***Flowers monopetalous, inferior. Seeds in a capsule or dry drupe. (Vestia, which has a berry, is an exception, but is placed here on account of its relation to other genera.)***

348. ***Aretia.*** Caps. 1-celled. Corolla hypocrateriform, contracted at the orifice. Stigma globose.
349. ***Androsace*** Caps. 1-celled. Corolla hypocrateriform, contracted at the orifice. Stigma globose.
350. ***Primula.*** Caps. 1-celled. Corolla funnel-shaped, pervious at the orifice. Stigma globose.
351. ***Cortusa.*** Caps. 1-celled, oblong. Corolla rotate Stigma somewhat capitate.
352. ***Soldanella.*** Caps. 1-celled. Corolla torn. Stigma simple.
353. ***Dodecatheon.*** Caps. 1-celled, oblong. Corolla reflexed. Stigma obtuse
354. ***Cyclamen.*** Caps. 1-celled, pulpy within. Corolla reflexed. Stigma acute.
355. ***Hottonia.*** Caps. 1-celled. Corolla with the tube below the stamens. Stigma globose.
356. ***Lysimachia.*** Caps. 1-celled, 10-valved. Corolla rotate. Stigma obtuse.
357. ***Anagallis.*** Caps. 1-celled, cut round. Corolla rotate. Stigma capitate.
358. ***Diapensia.*** Caps. 3-celled. Corolla hypocrateriform. Cal. 8-leaved.

359. ***Pyxidanthera.*** Cal. deeply 5-parted. Cor. campanulate, much shorter than the tube of calyx, segments 5, spatulate. Anthers with an appendage at their base. Style thick. Stigmas 3

360. ***Coris.*** Caps. 1-celled, 5-valved. Corolla irregular. Stigma capitate.
361. ***Galax.*** Caps. 1-celled, 2-valved. Corolla hypocrateriform. Stigma roundish.
362. ***Menyanthes.*** Caps. 1-celled. Corolla villous spreading. Stigma bifid. Cal. 5-parted.

363. ***Villarsia.*** Caps. many-seeded, 2-valved. Cor. rotate, limb spreading, 5-parted, flat, bearded or scaly at the base Glands 5, hypogynous.

364. ***Chironia.*** Caps. ovate, seeds numerous small. Cal. 5-parted erect. Cor. equal, with a 5-parted limb of ovate equal segments. Filaments from mouth of tube. Anthers, after bursting, spiral Style declinate.

365. ***Eustoma.*** Cal. deeply 5-cleft. Tube of cor. funnel-shaped, contracted. Filam. short, regular, inserted about the middle of the tube. Stigma large, deeply 2-lobed. Seeds scurfy.

366. ***Erythræa.*** Caps. linear. Cal. 5-cleft Cor. funnel-shaped, with a short limb withering. Anthers, after bursting, spiral. Stigmas 2

367. ***Sabbatia.*** Cor. with an urceolate tube, and limb 5-12-parted. Stigmas 2-parted, with spiral divisions. Anthers at length revolute.

368. ***Logania.*** Caps. 2-parted. Cor. subcampanulate, with a villous throat, and 5-parted limb. Stigma clavate.

369. ***Phlox.*** Caps. 3-celled. Corolla hypocrateriform, with a curved tube. Stigma trifid.
370. ***Polemonium.*** Caps. 3-celled. Corolla 5-parted. Stamens placed on the valves.

371. ***Vestia.*** Berry. Cor. funnel-shaped, 5-parted, with a hairy throat. Stamens exserted Stigma nearly entire

372. ***Hydrophyllum.*** Caps. 1-celled, 2-valved. Corolla with 5 nectaries. Stigma bifid.

373. ***Phacelia.*** Caps. 2-valved, 4-seeded. Cal. persistent. Cor. campanulate, 5-cleft, with 5 furrows inside the base. Stam. exserted. Style short. Stigmas 2, long.

374 ***Ramondia.*** Caps. 2-valved, valves bent in at edge, septiferous. Cor. rotate, rather unequal. Stamens approximated, perforated at end. Stigma round.

375. ***Verbascum.*** Caps. 2-celled Corolla rotate. Stigma obtuse. Stamens declinate.
376. ***Datura.*** Caps. 2-celled, 4-valved. Corolla funnel-shaped. Calyx deciduous.

377. ***Brugmansia.*** Caps. unarmed. Cal. bursting at side, persistent. Cor. funnel-shaped. Anthers glued together. Stigma or line running down each side of style

378. ***Lisianthus.*** Caps. 2-celled, many-seeded. Corolla funnel-shaped, ventricose. Style persistent.
379. ***Spigelia.*** Caps. 2-celled, double. Corolla funnel-shaped. Stigma simple.

380. ***Nicandra.*** Berry without juice, 3-5-celled, covered by the calyx, which is inflated. Cor. campanulate. Stamens incurved, distant.

381 ***Hyoscyamus.*** Caps. 2-celled, with a lid. Corolla funnel-shaped. Stigma capitate.
382. ***Nicotiana.*** Caps 2-celled. Corolla funnel-shaped. Stigma emarginate.
383. ***Ipomæa.*** Caps. 3-celled. Corolla funnel-shaped. Stigma capitate.
384. ***Convolvulus.*** Caps 2-celled, 2-seeded Cor. campanulate. Stigma 2-cleft.

385. ***Argyreia.*** Berry rounded, juiceless, 4-celled. Cal. colored, persistent, the outer sepals largest. Cor. 5-parted, with a short thick tube surrounding the nectary. Stamens in the mouth of tube thickened, at base hairy. Anthers sagittate.

386. ***Nemophila.*** Ovary 1-celled, with 2 parietal placentas, each bearing 2 distant ovules. Capsule 1-celled, with fleshy placentas fixed to a longitudinal dorsal axis, otherwise loose, bearing the seeds on their inner surface.

387. ***Calystegia*** Ovary half 2-celled, 4-seeded. Cal. 5-parted, inclosed in two leafy bractes. Cor. campanulate, 5-plaited. Stamens nearly equal, shorter than the limb. Stigmas 2, obtuse.

388. ***Cobæa.*** Caps. obovate, 3-5-celled, 3-5-valved. Seeds imbricated, edged. Cal. 5-cleft, campanulate, 5-cornered, winged. Cor. campanulate, with 5 blunt lobes. Stamens declinate, filaments spiral.

389. ***Cantua.*** Caps. 3-celled, 3-valved. Seeds winged. Corolla funnel-shaped. Stigma trifid.

390. ***Hoitzia.*** Caps. of Cantua. Seeds not edged. Cal. double, inner 1-leaved, tubular, outer of 4-8 leaves. Cor. funnel-shaped, 4-5 times as long as calyx, a little incurved. Stamens inserted into base of tube.

391. ***Retzia.*** Caps. 2-celled. Corolla cylindrical, villous on the outside. Stigma bifid.

392. ***Lubinia.*** Caps. many-seeded, mucronate, when pressed of 2-4 valves. Cal. 5-parted. Cor. hypocrateriform, with a flat 5-parted equal limb. Filaments attached to middle of tube Stigma obtuse.

393. ***Epacris.*** Caps. with placentas attached to a central column. Cal. colored, with many bracteæ. Cor tubular, with a beardless limb. Stamens on the petals. Scales 5, hypogynous.

394. ***Styphelia.*** Drupe juiceless, with a solid bony putamen. Cal. 5-parted, with many bracteæ. Cor. in a long tube, having within 5 bundles of hairs, and bearded reflexed segments. Filaments exserted.

395. ***Lissanthe*** Drupe berried, with a bony solid putamen. Cal. with 2 bracteæ or more. Cor. infundibuliform, not bearded. Ovarium 5-celled.

396. ***Astroloma.*** Drupe juiceless, with a solid bony putamen. Cal. with 4 or more bracteæ. Cor. ventricose, twice as long as calyx, with 5 bundles of hairs inside, and a short spreading bearded limb. Filaments linear included.

397. ***Sprengelia.*** Caps. with placentas attached to a central column. Cal. colored. Cor. 5-parted, rotate, beardless. Stamens hypogynous. Anthers connate or not. No hypogynous scales.

398. ***Andersonia.*** Caps of Sprengelia. Cal. colored, with 2 or more leafy bracteæ. Cor. the length of the

calyx, the segments of the limb bearded at the base. Stamens hypogynous. Scales 5, hypogynous, sometimes connate.

399. *Lysinema.* Caps of Sprengelia. Cal. colored, with many bracteæ. Cor. hypocrateriform, with a tube sometimes 5-partible, with beardless segments bent to the right. Stamens hypogynous. Scales 5, hypogynous.

400. *Monotoca.* Drupe berried. Cal. with 2 bracteæ. Cor. funnel-shaped, with the limb and throat beardless. Ovary 1-seeded.

401. *Leucopogon.* Drupe berried or juiceless, sometimes crustaceous. Cal. with 2 bracteæ. Cor. funnel-shaped, with a spreading limb bearded lengthwise. Filaments included. Ovary 2-5-celled.

402. *Stenanthera.* Drupe juiceless, with a solid bony putamen. Cal. with many bracteæ. Cor. tubular, longer than the calyx, ventricose, with a short spreading half-bearded limb. Filaments included, fleshy, broader than the anthers.

403. *Azalea.* Caps. 5-celled. Corolla campanulate. Stigma obtuse.

404. *Chamæledon.* Caps. 2-celled, opening at the end. Cal. 5-parted, equal. Cor. campanulate, 5-cleft, unequal. Stamens inserted into the base of cor. equal, straight, included. Anthers opening lengthwise. Style straight.

405. *Brexia.* Cal. short, with 5 rounded lobes. Petals ovate, spreading, rounded. Filam. dilated at base. Bristles shorter than the stamens, about the ovarium.

406. *Ophiorhiza.* Caps 2-celled, 2-parted. Corolla funnel-shaped, villous at mouth, with acute segments. Stigma bifid.

407. *Allamanda.* Caps. 1-celled, lens-shaped, 2-valved, the valves being boat-shaped. Seeds imbricated.

408. *Theophrasta.* Caps. 1-celled, very large. Corolla campanulate. Stigma acute.

409. *Clavija.* Caps. 1-celled, very large. Corolla rotate, with 5 prominences in the centre. Filaments 5, united into a tube at the base of the corolla.

4. *Flowers monopetalous, inferior. Seeds in a follicle.*

410. *Vinca.* Cal. 5-cleft. Cor. hypocrateriform, plaited at the orifice, with flat segments, truncate at the end. Filaments at the end dilated into concave scales. Glands 2 at base of ovary.

411. *Nerium.* Cor. hypocrateriform, crowned at the mouth with little lacerated appendages, segments of cor. twisted. Filaments inserted into middle of tube. Anthers sagittate, adhering to the stigma by the middle. Little teeth at the base of the calyx outside the corolla.

412. *Wrightia.* Cor. hypocrateriform. Mouth crowned by 10 divided scales. Stam. exserted. Filaments inserted into throat. Anthers sagittate, adhering to the stigma by the middle. Scales 5-10, inserted into base of calyx outside of corolla, some hypogynous.

413. *Echites.* Cor. hypocrateriform, with segments of the limb unequal-sided. Ovaries 2. Style 1, filiform. Follicles slender.

414. *Ichnocarpus.* Cor hypocrateriform, with segments of limb halved. Ovaries 2. Style 1, filiform. Stigma ovate, acuminate. Filaments 5, hypogynous, alternate with the stamens.

415. *Plumieria.* Cor. funnel-shaped, with a flat limb, and ovate-oblong oblique segments. Filaments from the middle of tube. Anthers conniving. Styles scarcely any.

416. *Strophanthus.* Cor. funnel-shaped, with segments caudate, mouth crowned with 10 entire scales. Stam. inserted into middle of tube. Anthers sagittate, aristate, or mucronate. Style filiform, dilated at end. Stigma cylindrical.

417. *Cameraria.* Cal. very small. Cor. funnel-shaped or hypocrateriform, with a long tube inflated at both ends, and a flat limb, with 5 lanceolate oblique segments. Filaments in the middle of tube. Ovaries, with appendages at their sides. Styles scarcely any.

418. *Tabernæmontana.* Cor. hypocrateriform. Stamens included. Anthers sagittate. Ovaries 2. Style filiform. Stigma dilated at base, bifid. Seeds immersed in pulp.

419. *Amsonia.* Cor. funnel-shaped, closed at the orifice, with a 5-lobed limb. Stigma capitate, surrounded by a membranous angle. Seeds obliquely truncate, naked.

5. *Flowers monopetalous, inferior. Seeds in a drupe or berry.*

420. *Cerbera.* Cal. persistent, 5-parted. Cor. funnel-shaped, with a clavate tube and 5-cornered throat, with 5 scales, segments of limb oblique obtuse. Stigma fringed, bifid. Drupe bony, 2-celled, 4-valved. Seeds 1-2, covered with a fleshy skin.

421. *Tectona.* Cal. campanulate, with 5-6 lobes. Cor. funnel-shaped, the length of calyx, with a short tube, and 5-6-parted crenulate limb. Stamens under the throat of corolla. Drupe globose in the inflated calyx, 3-4-celled

422. *Caldasia.* Cal. tubular. Cor. tubular, 2-lipped, with emarginate segments. Filaments declinate. Drupe 3-angular, 3-valved, 3-seeded.

423. *Bumelia.* Cal. 5-parted, very small. Cor. campanulate, 5-cleft, or hypocrateriform, with teeth between the divisions of limb. Nectary a 5-leaved crown, adhering to the tube of the corolla. Drupe ovate or globose.

424. *Chrysophyllum.* Cal. 5-parted, small. Cor. campanulate, short. Filaments on the tube connivent Style very short. Stigma obtuse, 5-cleft. Berry 10-celled, with solitary shining seeds.

425. *Sideroxylon.* Cal. 5-toothed. Cor 5-cleft. Scales of nectary five. Stigma simple. Berry 5-seeded.

426. *Jacquinia.* Cal. 5-leaved. Cor. with a campanulate ventricose tube, and 10-cleft limb. Stamens hypogynous. Anthers hastate. Stigma capitate. Berry roundish, 1-celled, 1-seeded.

427. *Achras.* Cal. 5-6-parted. Cor. ovate, 5-6-cleft, with as many scales on the throat. Berry or apple teated, 1-celled. Seeds solitary, with a marginal hilum, and a claw at the end.

428. *Cordia.* Cal. tubular, 4-5-toothed. Cor. funnel-shaped, 4-5-cleft. Style dichotomous. Stigmas 4 Drupe covered by the calyx, 1-4-celled. Cotyledons plaited.

429. *Varronia.* Cal. tubular, 5-toothed. Cor. tubular, with a 5-cleft, spreading, plaited limb. Style dichotomous. Stigmas 4. Drupe 4-celled, 4-seeded.

430. *Ehretia.* Cal. deeply 5-cleft. Cor. funnel-shaped, with a naked throat. Stamens exserted. Style semi-bifid. Berry 2-celled, 2-seeded.

431. *Bourreria.* Cal. campanulate, half 5-cleft, very small. Cor. longer than calyx, with a plaited limb. Stam. as long as cor. Stigma obtuse edged. Berry roundish, 1-celled, with 4 convex seeds.

432. *Ellisia.* Cal. 8-parted. Cor. funnel-shaped. Stam. inserted in base of corolla. Stigma simple or bifid. Berry dry, scrotiform, 2-valved, 2-celled, in an enlarged stellate calyx. Seeds globose, black, dotted.

433. *Sersalisia.* Cal. 5-parted. Cor. 5-cleft. Stamens 5, sterile, scale-like, with as many alternate fertile ones. Ovary 5-celled. Stigma undivided. Berry 1-5 seeded. Seeds with a crustaceous skin, and longitudinal hilum.

434. *Manglilla.* Cal. very small, 5-parted. Cor. rotate, 5-parted. Scales of nectary none. Drupe or berry 1-celled, 1-seeded.

435. *Ardisia.* Cal. 5-parted. Cor. hypocrateriform, with a reflexed limb. Anthers large, erect. Stigma simple. Drupe fleshy, superior, 1-seeded.

436. *Arduina.* Cor. funnel-shaped, curved. Stigma bifid. Berry 2-celled. Seeds solitary, oblong.

437. *Strychnos.* Cor. tubular, 5-cleft. Berry 1-celled, with a woody coat. A Contorta.

438. *Carissa.* Cal. short. Cor. tubular. Stamens included. Berry 2-celled. Cells 1-2 or many-seeded. A Contorta.

439. *Pæderia.* Cal. 5-toothed. Cor. infundibuliform, 5-lobed, hairy within. Style bipartite. Berry brittle, shining, 2-seeded.

440. *Gelsemium.* Cal. 5-toothed. Cor. infundibuliform. Limb spreading, 5-lobed, nearly equal. Caps. compressed, flat, 2-partible, 2-celled. Seeds flat, attached to the margins of the valves.

441. *Rauwolfia.* Cor. tubular, globose at base. Berry succulent, 2 seeded. A Contorta.

442. *Vallesia.* Cal. very small, 5-fid. Cor. hypocrateriform, or infundibuliform, with a long slender tube, an inflated throat, and a flat limb with 5 lanceolate spreading segments. Stamens inserted in the throat. Drupes 2, 1-celled, 1-seeded. Nut fibrose, striated.

443. *Bæobotrys.* Cor. tubular, 5-cleft. Calyx double, superior: outer 2-leaved, lower campanulate, 5-toothed. Berry 1-celled, many-seeded.

444. *Solandra.* Cal. bursting. Cor. clavate, funnel-shaped, very large. Berry 4-celled, many-seeded.

445. *Cestrum.* Cal. funnel-shaped. Segments acute, edged. Stamens with or without a tooth. Anthers 4-cornered. Berry 1-2-celled. Seeds few, angular.

446. *Atropa.* Cor. campanulate. Stamens distant. Berry globose, 2-celled, sitting on the calyx.

447. *Mandragora.* Cal. turbinate. Cor. campanulate. Filaments dilated at base. Ovary with 2 glands. Berry fleshy, solid. Seeds reniform.

448. *Physalis.* Cor. campanulate, rotate. Stamens conniving. Berry within the inflated calyx, 2-celled.

449. *Saracha.* Cor. rotate, campanulate. Berry 1-celled. Receptacle fleshy.

450. *Lycium.* Cor. tubular, with a closed orifice. Filaments bearded. Berry 2-celled, many-seeded.

451. *Solanum.* Cal. persistent. Cor rotate or campanulate, 5-lobed, plaited. Anthers in some degree united, opening by a double pore at the end. Berry 2-celled, many-seeded.

452. *Nycterium.* Cal. 4-5-cleft. Cor rotate, unequal. Anthers declinate, conniving, the lowest longest. Berry 2-celled, many-seeded.

453. *Capsicum.* Cor. rotate. Berry without juice.

454. *Leea.* Cor. monopetalous. Nectary 1-leaved, placed on the tube of the corolla, 5-cleft, erect. Berry 5-seeded, inferior.

6. *Flowers monopetalous, superior. Seeds in a capsule.*

455. *Spermadictyon.* Caps. inferior, 1-celled, 5-valved. Seeds 5, with a netted coat. Cor. funnel-shaped. Stigma 5-cleft.

456. *Dentella.* Cal. 5-parted, superior. Cor. funnel-shaped, with 3-toothed divisions. Caps. 2-celled, many-seeded.

457. *Macrocnemum* Cal. campanulate, cup-shaped. Cor. campanulate or funnel-shaped. Caps. 2-celled. Seeds imbricated.

458. *Exostemma.* Cal. campanulate, 5-toothed. Cor. funnel-shaped. Limb 5-parted, usually hairy. Caps. oblong, rounded, 2-celled, 2-partible. Seeds numerous, with a membranous edge.

459. *Burchellia.* Heads of flowers in an involucrum. Cor. clavate, funnel-shaped, with a 5-cleft short limb and a beardless orifice. Segments before expansion twisted together. Stamens inserted above the middle of the tube. Anthers subsessile, included. Stigma clavate. Berry crowned by the deeply 5-cleft calyx, 2-celled, many-seeded.

460. *Rondeletia.* Cor. funnel-shaped. Tube ventricose at top. Segments rounded, flattish. Caps. round, crowned, 2-celled. Seeds several or solitary.

461. *Coutarea.* Cal. 6-leaved. Cor. large, funnel-shaped, 6-cleft, with an incurved ventricose tube. Filaments inserted at base of tube. Caps. 2-celled, 2-valved, many-seeded. Seeds with a membranous edge.

462. *Portlandia.* Cal. 5-leaved. Cor. clavate, funnel-shaped. Segments spreading, deflexed. Caps 5-cornered, obtuse, crowned, 2-celled, 2-valved. Valves doubled, 2-cleft, many-seeded.

463. *Campanula.* Cor. campanulate, closed at bottom with staminiferous valves. Stigma 3-5-cleft. Caps. inferior, opening by lateral pores.

464. *Lobelia.* Cor. with the tube split on one side, the limb 2-lipped, 5-parted. Stigma 2-lobed, sometimes entire. Caps. 2-3-celled, 2-valved at end.

465. *Phyteuma.* Cor. at first rounded conical, afterwards 5-parted with linear weak segments. Stigma 2 or 3-cleft. Caps. 2-3-celled, inferior.

466. *Trachelium.* Cor. funnel-shaped. Style long. Stigma globose. Caps. 3-celled, inferior.

467. *Roella.* Cor. funnel-shaped, closed at bottom with staminiferous valves. Stigma 2-fid. Caps. nearly 2-celled, cylindrical, inferior.

468. *Goodenia.* Cor. labiate, 5-cleft, waved, longitudinally split, pushing forth the stamens. Anthers linear. Stigma urceolate, ciliated. Caps. 1-2-celled, 2-valved, many-seeded. Seeds imbricated.

469. *Euthales.* Cal. tubular, 5-cleft, equal. Cor. split at the end, with a 2-lipped limb. Anthers distinct. Style undivided. Stigma 2-lipped. Caps. 4-valved, 2-celled at base.

470. *Dampiera.* Cor. 2-lipped. Tube split on one side. Segments of upper lip with an auricle upon the inner edge. Anthers cohering. Covering of stigma naked.

471. *Samolus.* Cor. hypocrateriform, 5-cleft, with scales between the divisions. Stamens inserted into the tube. Caps. 1-celled, 5-toothed, many-seeded.

472. *Velleia.* Cal. 3-5-leaved, unequal. Tube split at end with a 2-lipped limb. Anthers distinct. Style undivided. A gland between the two front stamens.

7. *Flowers monopetalous, superior. Seeds in a drupe or berry.*

473. *Scævola.* Cor. 1-petalous, with the tube divided lengthwise. Limb 5-cleft, lateral. Drupe inferior, 1-seeded. Nect. 2-celled.

474. *Caprifolium.* Cal. 4-5-toothed or entire. Tube of cor. long, with a 5-cleft, regular, or 2-lipped limb. Stamens length of cor. Stigma globose. Berry distinct, 3-celled, many-seeded.

475. *Lonicera.* Cal. 5-toothed. Cor. tubular, 5-cleft, irregular. Berry inferior, 2-3-4-celled, many-seeded.

476. *Symphoria.* Cal. 4-toothed. Cor. trifid, nearly equal. Berry crowned, 4-celled, 4-seeded, 2 cells sometimes abortive.

477. *Diervilla.* Cal. oblong, 5-cleft. Cor. twice as long, funnel-shaped, 5-cleft, spreading. Caps. oblong, 4-celled, many-seeded.

478. *Triosteum.* Cal. 5-cleft. Cor. scarcely longer, tubular, 5-lobed. Berry 3-celled, 3-seeded, inferior.

479. *Coffea.* Cal. increasing, 5-toothed, teeth deciduous. Cor. hypocrateriform. Stamens above the tube. Anthers sagittate. Berry 2-seeded. Seeds with an arillus, on one side convex, on the other flat.

480. *Chiococca.* Cor. funnel-shaped, equal. Berry compressed, double, 2-seeded. Seeds oblong, compressed.

481. *Serissa.* Cor. funnel-shaped, fringed at the throat, with segments of the limb 3-lobed. Berry 2-seeded.

482. *Canthium.* Cal. 5-cleft. Cor. 5-cleft, spreading. Style elevated. Stigma capitate. Berry coated, 2-celled, 2-seeded. Seeds on one side convex, on the other flat, with a longitudinal furrow. Prickly.

483. *Psychotria.* Cal. 5-toothed, crowning. Cor. funnel-shaped. Berry globose or oval. Seeds 2, furrowed, bony.

484. *Hamelia.* Cor. 5-cleft. Berry 5-celled, many-seeded. Racemes divided. Flowers 1-sided.

485. *Posoqueria.* Cal. turbinate. Cor. hypocrateriform, with a long cylindrical curved tube which is dilated at end, with long narrow reflexed segments. Stamens exserted.

486. *Vanguiera.* Cor. campanulate, globose, with a hairy throat. Stigma of 2 lips. Berry apple-shaped, 4-5-celled, 4-5-seeded.

487. *Gardenia.* Segments of the cal. vertical or oblique. Cor. at first twisted, funnel-shaped, 5-9-cleft, with a tube usually long. Style elevated. Stigma 2-lobed. Berry 2-celled, many-seeded. Seeds in a double row.

488. *Genipa.* Cal. tubular or turbinate, entire. Cor. hypocrateriform, with a large 5-parted limb. Anthers sessile in the throat, exserted. Stigma clavate, entire, or simple. Berry large, fleshy, truncated at the end, 2-celled, many-seeded.

489. *Oxyanthus.* Cal. contracted at top. Cor. funnel-shaped, with a very long rounded tube, and a 5-parted limb, with very acute lobes. Anthers exserted.

490. *Randia.* Cal. 5-parted, with linear-lanceolate, twisted sepals. Cor. hypocrateriform, tube not much longer than calyx. Stigma 2-lobed, with oblong unequal lobes. Berry half 2-celled, with an incomplete partition; crowned with the tubular calyx. Seeds many.

491. *Mussænda.* Cor. funnel-shaped. Stigmas 2, thickish. Berry oblong, 2-celled, many-seeded. Seeds in 4 rows. Stamens in the inside of the tube.

492. *Pinckneya.* Sepals unequal, one or two of them foliaceous. Cor. a long tube. Filaments in the base of the tube. Caps. 2-valved, valves bearing the divisions in the middle.

493. *Erithalis.* Cal. urceolate. Cor. 5-parted, with recurved segments. Berry 10-celled, 10-seeded.

494. *Webera.* Cor. funnel-shaped, spreading. Stamens included. Stigma clavate. Berry rounded, two-celled.

495. *Plocama.* Cal. 5-toothed. Cor. campanulate, 5-cleft. Berry 3-celled, with 1-seeded cells.

496. *Morinda.* Flowers collected in a globe above a spherical receptacle. Cal. 5-toothed. Cor. funnel-shaped, 5-cleft, spreading. Berries aggregate, on account of their mutual compression angular.

497. *Cephaelis.* Flowers headed in an involucrum. Cal. 5-toothed. Cor. tubular. Stigma 2-parted. Berry 2-seeded. Receptacle chaffy. Involucrum 1-5-leaved.

498. *Sarcocephalus.* Flowers in a naked head, 5-parted. Stigma clavate. Fruit united into a great fleshy tessellated berry.

8. *Flowers polypetalous, inferior. Seeds in a drupe, berry, or berried capsule.*

499. *Hirtella.* Pet. 5. Filam. very long, persistent, spiral. Berry 1-seeded. Style lateral.

500. *Triphasia.* Flowers with their parts ternary. Stamens distinct. Anthers sagittate. Berry 3-celled 3-seeded.

501. *Vitis.* Petals cohering at the end like a calyptra, withering. Berry 5-seeded.

502. *Ampelopsis.* Cal. entire. Petals cohering at the end, withering. Stigma capitate. Ovary immersed in the disk, 2-4-seeded.

503. *Rhamnus.* Cal. campanulate, 4-5-cleft. Cor. scales protecting the stamens, inserted into the calyx. Stigmas 1-2-5-cleft. Berry 3-4-seeded.

504. *Œnoplia.* Cal. urceolate, 5-cleft. Petals 5. No fleshy discus. Drupe juicy, 2-celled, one cell being usually abortive, 1-seeded.

505. *Paliurus.* The flowers of Zizyphus. Styles 3. Drupe dry, 3-celled, surrounded by a membranous orbicular wing.

506. *Zizyphus.* Cal. spreading, 5-cleft. Petals 5. Discus fleshy, orbicular, surrounding the ovary. Styles 2. Drupe with a 1 or 2-seeded nut. Flowers axillary.

507. *Celastrus.* Cor. 5 petals, spreading. Caps. 3, angular, 3-celled. Seeds with an arillus.

508. *Senacia.* Cal. very small, 5-toothed. Cor. 5 petals. Caps. spherical, stalked, 2-valved, 4-seeded. Seeds angular, naked.

509. *Euonymus.* Pet. 5. Caps. 5-cornered, 3-celled, 3-valved, colored. Seeds with an arillus.

510. *Ceanothus.* Pet. 5, bagged, vaulted. Berry dry, 3-celled, 3-seeded.

511. *Staavia.* Flowers aggregate. Stamens inserted into the calyx. Styles 2, united. Berry 5-seeded, coated. Receptacle chaffy, villous.

512. *Pomaderris.* Cal. turbinate. Petals arched, scale-like, sometimes none. Style 3-cornered. Stigmas 3, capitate. Caps. of 3 papery divisions.

513. *Mangifera.* Pet. 5. Drupe reniform.

514. *Schrebera.* Drupe dry, with a 2-celled nut. Nectary an elevated edge.

515. *Billardiera.* Petals 5, alternate with the sepals. Nectary O. Stigma simple. Berry many-seeded

516. *Elæodendrum.* Sepals 5-10, with round concave scales. Cor. 5-parted. Segments ovate, lanceolate, concave. Nect. linear, subulate, petal-like. Drupe dry, with a 2 or 3-celled nut. Putamen thick, hard, furrowed.

9. *Flower polypetalous, inferior. Seeds in a capsule.*

517. *Diosma.* Cal. 5-parted. Petals and stamens inserted in the calyx. Nect. of 5 plaits. Ovary crowned. Caps. 5-valved. Each end with an elastic arillus

518. *Adenandra.* Cal. 5-parted. Pet. and stamens inserted in the calyx. Stamens 10, of which every other one is sterile. Anthers with a gland at end.

519. *Baryosma.* Cal. 5-leaved. Petals 10, unequal, inserted in the receptacle. Nect. a 5-lobed gland inserted on the receptacle.

520 *Agathosma* Cal. 5-parted. Petals 10, unequal, inserted in the calyx. Nect. 5-lobed, inserted in calyx.

521. *Nauclea.* Cal about 5-toothed. Cor. funnel-shaped. Caps. 3-cornered, 2-celled, many-seeded. Flowers in a globose head upon a common pilose receptacle.

522. *Pittosporum.* Cal. deciduous. Petals 5, conniving in a tube. Caps. 2-5-celled, 2-5-valved. Seeds pulpy.

523 *Lasiopetalum.* Cal. 5-leaved. Petals minute, gland-like. Filaments 5, separate. Anthers opening by two pores inwards. Stipules none.

524 *Thomasia.* Cal. persistent, veiny. Pet 5, very small or O. Filam united at base. Anthers opening laterally. Stipules leafy.

525. *Seringia.* Cal. withering. Pet. O. Filam. 10, every other one barren. Anthers opening at their back. Stipules small, deciduous.

526. *Buttneria.* Pet. 5. Nect. 5-leaved. Filaments inserted into the end of the nectary. Caps. of 5 divisions, muricated.

527. *Ayenia.* Cal. 5-parted. Pet. 5, connected at end into a star, with their claws slender, bent into the form of a crown Glands 5, stamen-shaped. Nectary cup-shaped. Caps. depressed, 5-furrowed, 5-celled, 5-valved. Valves bifid.

528. *Calodendrum.* Cal. 5-parted, short. Petals lanceolate, stalked. Stam. 5, sterile, petal-shaped. Caps. 5-angular, 5-celled, 5-valved, with 2-seeded cells.

529. *Toddalia.* Cal. 5-cleft. Petals 5. Stigma capitate. Caps. berried, 5-celled. Cells 2-seeded.

530. *Bursaria.* Cal. inferior, 5-toothed. Pet. 5, linear. Stigma simple. Caps. cordate, compressed, 2-partible, 2-seeded. Seeds reniform.

531. *Cedrela.* Cal. withering. Cor. of 5 petals, funnel-shaped, at base united with the receptacle. Caps. woody, 5-celled, 5-valved. Seeds with a membranous wing.

532. *Hovenia.* Cal. 5-parted. Pet. 5, convolute. Stigma 3-fid. Caps. 3-celled, 3-valved. Cells 1-seeded

533. *Brunia.* Flowers aggregate. Cal. superior, 5-parted. Filaments inserted into the claws of the petals. Stigma 2-fid. Caps. small, 2-celled.

534. *Brossæa.* Cal. fleshy, superior. Cor. conical, truncated. Caps. 5-furrowed, 5-celled, covered by the persistent calyx, with 5-fissures.

535. *Itea.* Cal. 5-cleft, campanulate. Pet. 5, linear, reflexed, inserted into calyx. Stigma capitate, 2-lobed. Caps. 2-celled, 2-valved, with the valves bent inwards.

536. *Cyrilla.* Cal. very small, turbinate, 5-parted, superior. Pet. 5, stellate, stiffish. Styles 2-fid. Berry dry, 2-celled. Seeds solitary, attached by a little cord.

537. *Claytonia.* Cal. 2-valved. Pet. 5. Stigma 3-fid. Caps. 3-valved, 1-celled, 3-seeded.

538. *Impatiens.* Cal. 2-leaved. Pet. 5, irregular, with one cucullate. Anthers at first subconnate. Caps. superior, 5-valved.

539. *Sauvagesia.* Pet. 5, fringed. Sepals 5. Nectary 5-leaved, alternate with the petals. Caps. 3-celled, 3-furrowed, 3-valved, with the edges bent inwards.

540. *Viola.* Sepals 5. Petals 5, irregular, connate behind. Anthers adhering at the end by a membrane, or distinct. Caps. 3-valved, 1-seeded.

541. *Ionidium.* Sepals 5, produced at their base. Cor. 2-lipped, without a spur. Anthers usually distinct. Stigma simple. Caps. 1-celled, 3-valved.

10. *Flowers polypetalous, superior.*

542. *Phylica.* Cal. 5-parted, turbinate. Pet. O. Scales 5, protecting the stamens. Caps. 3-coccous, inferior.

543. *Plectronia.* Cal. turbinate, 5-toothed, persistent, closed by 5 villous scales. Pet. 5, inserted in the throat of calyx. Berry 2-celled, 2-seeded.

544. *Conocarpus.* Pet. 5 or O. Seeds naked, solitary. Flowers in heads.

545. *Cyphia.* Cal. 5-cleft, turbinate. Petals linear, dilated at base, connivent, spreading at end. Filaments hairy, cohering. Anthers distinct. Stigma cernuous, hollow, gibbous.

546. *Lightfootia.* Sepals 5. Petals thin, bottom closed by stamen-bearing valves. Stigma 3-5-cleft. Caps. 3-5-celled, 3-5-valved, ½-superior.

547. *Jasione.* Flowers in heads. Common involucrum 10-leaved. Petals 5, erect. Anthers oblong, cohering at base. Stigma bifid.

548. *Lagoecia.* Umbel simple. Common involucre about 8-leaved, partial 4-leaved, finely pinnated. Cal. 5-cleft, with many-cut fine segments. Petals 2-fid. Seeds crowned by the calyx.

549. *Hedera.* Petals 5, oblong. Berry 5-seeded, surrounded by the calyx.

550. *Ribes.* Petals 5, and stamens inserted into the calyx. Style 2-fid. Berry many-seeded, inferior.

551. *Gronovia.* Petals 5, and stamens inserted into the campanulate calyx. Berry dry, 1-seeded, inferior.

11. *Flowers incomplete, inferior.*

552. *Achyranthes.* Sepals 5. Scales 5, connate at the base into a tube, at the end fringed and alternate with the stamens. Stigma 2-fid. Seed solitary, crowned by the conniving sepals.

553. *Philoxerus.* Sepals 5, irregular. Stamens 5, united at the base into a little cup shorter than the ovary. Anthers 1-celled. Style 1. Utricle 1-seeded, without valves.

554. *Desmochæta.* Sepals 5. Stamens 5, united at base with a very small cup with neither teeth nor chaff between. Stigma capitate. Utricle 1-seeded.

555. *Illecebrum.* Sepals 5, vaulted at the end. Pet. O. Stigma simple or bifid. Caps. 5-valved, 1-seeded.

556. *Alternanthera.* Sepals 5. Stamens 5, united into a little cup, with or without intermediate teeth, one or more of the stamens usually abortive. Anthers 1-celled. Stigma capitate.

557. *Paronychia* Cal. nearly 5-parted, colored inside. Scales or petals 5, linear. Style 2-fid. Stigmas 2. Caps. 1-celled, 5-valved.

558. *Chenolea.* Cal. globose, fleshy, concave. Cor. O. Filam. inserted into the base of calyx. Stigmas 2, spreading. Caps. round, depressed, 1-celled, 1-seeded.

559. *Anychia.* Cal. connivent, with oblong segments, bagged at the end. Pet. O. Filam. distinct, with no setæ between. Stigmas 2, oblong. Caps. an utricle, not opening. Seed 1, reniform.

560. *Ærua.* Sepals 5, with 2-3-bracteæ, oblong; on the outside white, hairy; inside smooth. Stamens 10, alternately barren, inserted into a little cup at the base Style la[illegible], filiform. Stigma bifid.

561. *Lestibudesia.* Sepals 5. Stamens 5, united into a little cup without teeth. Anthers 2-celled. Ovary many-seeded. Style short or none. Stigmas 3-4, filiform, recurved. Caps. opening transversely.

562. *Rhagodia.* Flowers polygamous. Perianth 5-parted. Stamens 5 or fewer. Style bifid. Grain depressed, fleshy, surrounded by the perianth.

563. *Deeringia.* Perianth 5-parted. Stamens united at base into a small cup. Anthers 2-celled. Style 3-parted. Berry many-seeded.

564. *Trianthema.* Sepals oblong, colored inside. Stamens 5-10-12, with capillary filaments. Ovary half-superior Style 1 or 2, filiform. Stigmas simple. Caps. oblong, truncate, cut round.

565. *Celosia.* Sepals 3, like a 5-petalous corolla. Stam. united at base by a plaited nectary. Caps. horizontally opening. Style 2-3-cleft.

566. *Gomphrena.* Sepals 5, colored: outer 3 conniving, keeled. Pet. 5, rude, villous. Nect. cylindrical, 5-toothed. Caps. cut round, 1-seeded. Style half-bifid.

567. *Mollia.* Sepals 5. Pet. 5, emarginate. Style simple. Caps. 3-cornered, 1-celled, 3-valved, many-seeded.

568. *Glaux.* Cal 1-leaved, colored, 5 lobed. Cor. O. Caps. 1-celled, 5-valved, 5-seeded, surrounded by a calyx.

12. *Flowers incomplete, superior.*

569. *Thesium.* Cal. 1-leaved, into which the stamens are inserted. Nect. inferior, 1-seeded, surrounded by the persistent calyx.

570. *Heliconia.* Spathes universal and partial. Cal. O. Cor. 3 petals, superior. Nect. 2-leaved. Stigma 1. Caps. 3-celled, with 1-seeded cells.

571. *Strelitzia.* Spathes universal and partial. Cal. O. Cor. superior, 3 petals, the larger segments hastate. Nect. 3-leaved, surrounding the stamens. Stigmas 3. Caps. 3-celled. Cells many-seeded.

Order 2. DIGYNIA. 5 Stamens. 2 Styles.

1. *Flowers monopetalous, inferior. Fruit a follicle or capsule.* (Asclepiadeæ.)

572. *Apocynum.* Cor. campanulate. Filaments 5, alternate with the stamens. Style none. Stigma broad. Follicles long, linear.

573. *Melodinus.* Cal. campanulate, 5-toothed. Cor. hypocrateriform. Limb spreading, with falcate, crenulate segments. Corona 5-cleft, with short, stellate, torn divisions. Stigmas 2. Fruit a fleshy globose, 2-celled, many-seeded berry.

574. *Periploca.* Anthers bearded at back. Pollen-masses solitary, made up of 4 confluent ones. Stigma blunt. Follicles cylindrical, divaricating, smooth. Seed comose.

575. *Cryptostegia.* Cor. funnel-shaped. Tube with two included bifid scales, alternate with the divisions of the limb. Stamens included, inserted in the base of the tube. Filaments distinct. Anthers cohering with the stigma by their base. Glands 5, spatulate. Pollen granular, simple.

576. *Hemidesmus.* Cor. with 5 blunt scales under the sinuses. Anthers free from the stigma, simple at end. Stigma blunt. Follicles cylindrical, much spreading, smooth. Seeds comose.

577. *Secamone.* Corona 5-leaved. Pollen-masses 20, smooth, erect, fixed by fours to the point of each corpuscle of the stigma. Stigma contracted at end.

578. *Microloma.* Tube of cor. inflated, angular, shorter than the limb. Scales inserted into the middle of the tube below the sinuses. Anthers terminated by a membrane, sagittate. Pollen-masses compressed, pendulous. Stigma with a little point.

579. *Sarcostemma.* Cor. rotate. Pollen-masses pendulous. Stigma blunt. Seeds comose.

580. *Dæmia.* Cor. rotate, with a short tube. Outer corona 10-parted, short. Pollen-masses pendulous, compressed. Stigma blunt. Seeds comose.

581. *Cynanchum.* Cor. rotate, 5-parted. Pollen-masses inflated. Stigma with a little point. Follicles smooth.

582 *Oxystelma.* Cor. spreading, rotate, with a short tube. Columna exserted. Crown 5-leaved, with compressed, acute, undivided leaflets. Pollen-masses compressed, pendulous, fixed by a narrow end. Stigma blunt. Follicles smooth. Seeds comose.

583. *Gymnema.* Cor. 5-cleft. Scales or little teeth of the orifice 5, inserted in the sinuses. Crown none. Masses of pollen erect, fixed by the base Follicle slender, smooth.

584. *Calotropis.* Cor. with an angular tube: the angles saccate inside. Crown with carinate leaflets, united lengthwise to the tube of the filaments. Pollen-masses pendulous, fixed by the narrow end. Stigma blunt.

585. *Dischidia.* Cor. urceolate, 5-cleft. Corona with subulate, spreading, recurved segments. Pollen-masses erect, fixed by the base. Stigma blunt. Follicles smooth. Seeds comose.

586. *Xysmalobium.* Cor. 5-cleft, spreading. Corona 10-parted in a single row: the 5 divisions next to the anthers fleshy, round, simple within, the 5 others small. Pollen-masses pendulous, with lax connecting processes. Stigma blunt.

587. *Gomphocarpus.* Corona 5-leaved, the segments simple within. Pollen-masses compressed, pendulous, fixed by a fine end. Stigma depressed, blunt. Follicles ventricose, covered with innocuous spines. Seeds comose

588. *Asclepias.* Corona 5-leaved, with a process on the inside. Pollen-masses fixed by a fine end. Stigma depressed, blunt.

589. *Gonolobus.* Cor. rotate, 5-parted. Corona shield-shaped. Anthers opening across, terminated by a membrane. Stigma flat, depressed.

590. *Pergularia.* Cor. hypocrateriform, with an urceolate tube. Pollen-masses erect, fixed by their base. Stigma blunt. Follicles ventricose, smooth. Seeds comose.

591. *Marsdenia.* Cor. urceolate, 5-cleft, sometimes rotate. Pollen-masses erect, fixed by the base. Follicles smooth. Seeds comose.

592. *Hoya.* Cor. 5-cleft. Pollen-masses fixed by the base, conniving, compressed. Stigma depressed, with an obtuse wart. Follicles smooth. Seeds comose.

593. *Ceropegia.* Outer corona short, 5-lobed; inner 5-leaved, with ligular undivided leaflets. Pollen-masses fixed by their base with simple edges. Stigma blunt. Follicles cylindrical, smooth. Seeds comose.

594. *Stapelia.* Cor. rotate, 5-cleft, fleshy. Column of fructification exserted. Pollen-masses fixed by the base Stigma blunt. Follicles cylindrical, smooth. Seeds comose.

595. *Piaranthus.* Cor fleshy. Outer corona none. Pollen-masses fixed by the base, with one edge cartilaginous, pellucid. Stigma blunt.

596. *Huernia.* Accessory segments of cor. tooth-like. Leaflets of the inner corona from a gibbous base subulate, undivided, alternate with the outer segments. Pollen-masses fixed by the base, with one edge cartilaginous, pellucid. Stigma blunt. Follicles cylindrical, smooth. Seeds comose.

597. *Brachystelma* Cor. campanulate, with angular recesses. Column included. Crown 1-leaved, 5-cleft, with the lobes opposite the anthers, simple at back. Anthers without a membrane at the end. Pollen-masses erect, inserted by the base.

598. *Caralluma.* Cor rotate, deeply 5-cleft. Cal. of fructification exserted. Pollen-masses erect, fixed by the base with simple edges. Stigma blunt. Follicles slender, smooth. Seeds comose.

2. *Flowers monopetalous, inferior. Fruit a capsule.*

599. *Swertia.* Caps. of 1 cell. Cor. wheel-shaped, with 2 nectariferous pores at the base of each segment.

600. *Gentiana.* Caps. of 1 cell. Cor. tubular at the base, destitute of nectariferous pores.

601. *Hydrolea.* Caps. 2-valved, 2-celled. Cor. rotate, campanulate. Stamens inserted in the tube.

602. *Falkia.* Cal. inflated, 5-parted, 5-angular. Cor. campanulate, emarginate, crenate. Styles spreading. Stigma globose, woolly. Seeds 4, globose, with an arillus in the bottom of the calyx.

603. *Dichondra.* Cal. 5-parted, with spatulate segments. Cor. short, campanulate, 5-parted. Stigma peltate, capitate. Caps. compressed, 2-celled, 2-seeded. Seeds round.

3. *Flowers pentapetalous, inferior.*

604. *Velezia.* Cal. slender, 5-toothed. Cor. of 5 small petals. Caps 1-celled, at the end 4-valved. Seeds many, attached to a filiform central receptacle.

605. *Bumalda.* Cal. 5-parted. Petals 5. Styles villous. Caps. 2-celled, with 2 bractes.

606. *Heuchera.* Petals 5. Caps. 2-celled, with 2 bractes.

607. *Cussonia.* Invol. O. Cal. 1-leaved, truncated, crenated. Pet. 5, oblong, acute Fruit twin, 2-celled, crowned by the calyx and styles.

608. *Anabasis.* Cal. 3-leaved. Pet. 5. Berry 1-seeded, surrounded by the calyx.

609. *Salsola.* Caps. closed, imbricated in the fleshy calyx. Seed with a spiral embryo.

610. *Kochia.* Cal 1-leaved, campanulate, in the fruit expanding into a leafy rim resembling 5 petals. Cor. O. Stigmas 2-3, long. Caps. 1-celled, 1-2-seeded. Seed incurved.

611. *Chenopodium.* Seed lenticular, truncated, superior.

612. *Beta.* Seed kidney-shaped, imbedded in the fleshy calyx.

613. *Bosea.* Cal. 5-leaved. Cor. O. Berry 1-seeded.

614. *Herniaria.* Caps. closed, membranous, invested with the calyx. Stam. with 5 imperfect filaments.

615. *Ulmus.* Caps. closed, membranous, compressed, bordered, superior.

616. *Planera.* Cal. membranous, subcampanulate, 4-5-cleft. Cor. O. Stigmas 2, oblong, glandular, spreading. Caps. globose, membranous, 1-celled, not opening, either smooth or scaly, not winged, 1-seeded. Stamens 4-6. Polygamous.

4. *Flowers pentapetalous, superior.*

617. *Phyllis.* Cal. 2-leaved. Pet. 5. Stigmas hispid. Seeds 2, oblong, fixed to a filiform axis.

5. *Flowers pentapetalous, superior. Seeds* 2. (UMBELLIFERÆ.)

A. *Fruit of a single or double globe.*

618. *Coriandrum* Fruit a single or double globe, smooth, without ribs. Cal. broad, unequal. Petals radiant. Floral recept. none.

B. *Fruit beaked.*

619. *Scandix.* Beak much longer than the seeds, fruit somewhat bristly. Cal. none. Pet. unequal, undivided. Floral recept. 5-lobed, colored.

620. *Anthriscus.* Beak shorter than the seeds, even. Fr. rough, with scattered prominent bristles. Cal. none. Petals equal, inversely heart-shaped. Fl. recept. slightly bordered.

621. *Chærophyllum.* Beak shorter than the seeds, angular. Fr. smooth, without ribs. Cal. none. Pet. inversely heart-shaped, rather unequal. Fl. recept. wavy.

C. *Fruit solid, prickly, without a beak.*

622. *Eryngium.* Fr. ovate, clothed with straight bristles. Cal. pointed. Pet. oblong, equal, inflexed, undivided. Fl. aggregate. Common recept. scaly.

623. *Sanicula.* Fr. ovate, clothed with hooked bristles. Cal. acute. Pet. lanceolate inflexed, nearly equal. Fl. separated, dissimilar.

624. *Echinophora.* Fr. ovate, imbedded in the enlarged armed receptacle. Seed solitary. Cal. spinous. Pet. inversely heart-shaped, unequal. Fl. separated.

625. *Daucus.* Fr. elliptic oblong, compressed transversely. Seeds with four rows of flat prickles, and rough intermediate ribs. Cal. obsolete. Pet. inversely heart-shaped, unequal. Fl. separated.

626. *Caucalis.* Fr. elliptic oblong, compressed transversely. Seed with 4 rows of ascending, awl-shaped, hooked prickles, the interstices prickly or rough. Cal. grooved, acute, unequal. Pet. inversely heart-shaped, unequal. Fl. imperfect, separated.

627. *Torilis.* Fr. ovate, slightly compressed laterally. Seeds villous, rough, with scattered prominent,

ascending, rigid prickles. Cal. short, broad, acute, nearly equal. Pet. inversely heart-shaped, nearly equal. Fl. united.

628. *Oliveria.* Leaflets of the involucres 3-parted. Umbels fascicled, as long as the involucres. Petals split to the base. Fr. ovate, hispid, with three streaks.

629. *Ledeburia.* Involucres O. Fr. ovate, with spreading bristles. Bases of styles 2, conical, connate at base. Styles persistent.

630. *Myrrhis.* Fr. deeply furrowed. Cal. none. Pet. inversely heart-shaped, rather unequal. Fl. recept. none. Flowers imperfectly separated.

631. *Bunium.* Fr. slightly ribbed. Cal. small, acute, unequal. Pet. inversely heart-shaped, equal. Fl. recept. none. Flowers imperfectly separated.

D. *Fruit solid, nearly round, unarmed, without wings.*

632. *Œnanthe.* Fr. ribbed, somewhat spongy. Cal. large, lanceolate, acute, spreading, unequal. Pet. inversely heart-shaped, very unequal. Fl. recept dilated, depressed. Fl. separated.

633. *Crithmum.* Fr. ribbed, coriaceous. Cal. small, broad, acute, incurved. Pet. elliptical, acute, incurved, equal. Fl. recept. none. Fl. united, all perfect.

634. *Athamanta* Fr. ribbed, ovate, hairy. Styles short. Cal. lanceolate, acute, incurved. Pet. inversely heart-shaped, broadly-pointed, equal. Fl. recept. none. Fl. imperfectly separated.

635. *Pimpinella.* Fr. ovate, ribbed, with convex interstices. Styles capillary, as long as fruit. Cal. none. Pet inversely heart-shaped, nearly equal. Fl. recept. none. Fl. either united or diœcious.

636. *Phellandrium* Flowers fertile. Fruit crowned. Fruit ovate, smooth, crowned by the calyx and styles. Involucres partial, not universal.

637. *Dondia.* Umbels capitate. Involucre 6-leaved, longer than umbel. Petals entire. Fruit ovate, solid, with 4 ribs, and convex intervals.

638. *Trachyspermum.* Leaves of involucre pinnatifid. Fruit striated, with 5 muricated ribs. Rudiments of calyx 5. Fl receptacle conical Style withering.

639. *Ammi.* Involucre pinnate or pinnatifid. Fruit oblong, with 5 obtuse ribs, and convex intervals.

640. *Bubon.* Involucres O. Fruit ovate, solid, hispid, or villous, with 5 ribs, and broadish bands of the intervals and raphe

641. *Cuminum.* Involucres 5-leaved. Fruit ovate, prismatic, smoothish, bladdery, with 7 ribs, and bearded intervals.

642. *Seseli.* Common involucre O; partial 5-leaved, sometimes 1-leaved. Fruit ovate, solid, with 5 acute ribs, and furrowed, striated intervals.

643. *Thapsia.* Fruit narrow, but little compressed, scarcely ribbed, with 2 dorsal and marginal wings.

644. *Actinotus* Umbel capitate Involucre woolly, very large. Cor. O. Cal 5 sepals. Male flowers mixed with hermaphrodite. Fruit ovate, villous, with 5 stripes, crowned by the calyx.

645. *Trinia.* Flowers diœcious. Involucre few-leaved. Pet. [illegible]te, lanceolate. Seeds roundish, with 5 ribs, with the intervals once-banded.

E. *Fruit solid, unarmed, without wings, compressed laterally, the diameter of its juncture being at least twice as narrow as the opposite diameter.*

646 *Sium* Fr. ovate or orbicular, ribbed, furrowed. Cal. small, acute, unequal, or obsolete. Pet. inversely heart-shaped or obovate, equal. Styles cylindrical, shorter than the petals. Fl. receptacle none. Fl uniform, united

647. *Sison.* Fr. ovate or nearly orbicular, ribbed. Cal obsolete or blunt Pet elliptical or inversely heart-shaped, with an involute point, equal Styles very short and thick Fl recept. none Fl. uniform, united

648 *Cicuta.* Fr. nearly orbicular, heart-shaped at the base, with 6 double ribs. Cal broad, acute, rather unequal Pet. ovate or slightly heart-shaped, nearly equal. Style scarcely tumid at the base. Fl. recept. depressed, withering Fl. uniform, nearly regular, united.

649. *Conium* Fr ovate, with 10 acute ribs, wavy in an unripe state. Cal obsolete. Pet inversely heart-shaped, slightly unequal. Styles a little tumid at the base. Fl recept. dilated, depressed, wavy, permanent. Fl slightly irregular, united.

650 *Smyrnium.* Fr. broader than long, concave at each side, with 6 acute dorsal ribs; interstices convex Cal very small, acute. Pet. equal, lanceolate, incurved or inversely heart-shaped. Styles tumid and depressed at the base. Fl. recept. none. Fl. nearly regular, partly barren or abortive.

651. *Apium.* Fr roundish, ovate, with 6 acute dorsal ribs; interstices flat. Pet. roundish, with an inflexed point, very nearly equal. Styles greatly swelled at the base. Fl. recept. thin, orbicular, wavy. Fl. nearly regular, united

652. *Ægopodium.* Fr elliptic-oblong, with equidistant ribs; interstices flattish Cal. none. Pet. inversely heart-shaped, broad, a little unequal. Style ovate at the base. Fl. recept. none. Fl. united, all perfect, slightly radiate.

653. *Meum.* Fr elliptic, oblong, with equidistant ribs; interstices flattish. Cal. none. Pet. obovate, with an inflexed point, equal. Styles tumid at the base, short, recurved. Fl. recept. none. Fl. united, all perfect, regular.

654. *Anethum.* Invol. none. Pet. involute, yellow. Seeds compressed, with 3 ribs; intervals once-banded

655. *Carum.* Fr elliptic, oblong, with equidistant ribs; interstices convex. Cal. minute, acute, often obsolete. Pet. inversely heart-shaped, unequal. Styles tumid at the base, subsequently elongated, widely spreading. Fl. recept. angular, thin, wavy, permanent Fl. separated, irregular.

656. *Cnidium.* Fr. ovate, acute, with equidistant sharp ribs; interstices deep, concave; juncture contracted. Cal none. Pet. equal, obovate or inversely heart-shaped. Styles hemispherical at the base; subsequently elongated, spreading, cylindrical. Fl. recept. annular, thin, undulated, erect, afterwards depressed. Flower imperfectly separated, nearly regular.

657 *Bupleurum* Fr. ovate-oblong, obtuse, with prominent, acute, abrupt ribs; interstices flat; juncture contracted. Cal. none. Pet equal, broadish, wedge-shaped, very short, involute. Styles very short, not extending beyond the circumference of their broad tumid bases. Fl. recept. none. Fl. all perfect and regular.

658. *Hydrocotyle.* Fl. nearly orbicular, rather broader than long, angular, much compressed, juncture very narrow. Cal. none. Pet. equal, ovate, spreading, undivided. Styles cylindrical, shorter than the stamens, tumid at the base. Fl. recept. none. Fl. all perfect and regular.

659. *Spananthe* Umbel simple, with few rays. Involucre few-leaved. Fruit ovate, solid, smooth, with the juncture and sides contracted, and 5 ribs at the back.

660. *Ulospermum* Involucre few-leaved. Germen oblong. Ribs of fruit membranous, wavy, curled. Calyx scarcely any. Fl. receptacle flattened. Styles withering.

F *Fruit solid, unarmed, compressed transversely, the diameter of the juncture being much greater than the opposite diameter.*

661. *Æthusa.* Seeds ovate, convex, with 5 tumid, rounded, acutely keeled ribs; interstices deep, acute, angular; border none. Cal. pointed, very minute. Pet. inversely heart-shaped, rather angular. Fl. recept. none Fl all perfect, slightly radiant.

662 *Imperatoria.* Seeds obicular, with a notch at each end, a little convex, with 3 prominent dorsal ribs, and a dilated, flat, even border. Cal. none. Pet. inversely heart-shaped, very slightly irregular. Fl. recept none. Fl. all perfect, scarcely radiant.

663. *Selinum* Scales elliptical, slightly convex, with 3 acute dorsal ribs, and a dilated, flat, even border. Cal. minute, pointed, spreading. Pet. inversely heart-shaped, involute, equal. Fl. recept. obsolete. Fl. perfect, regular, a few occasionally abortive.

664. *Angelica.* Seeds elliptic-oblong, convex, with 3 dorsal wings, and a narrow, flat, even border. Cal. none. Pet. lanceolate, flattish, undivided, contracted at each end, equal. Fl. recept. thin, wavy, narrow, permanent. Fl. all perfect,

665. *Ligusticum.* Seeds oblong convex, with 3 dorsal and 2 marginal equal wings. Cal. small, pointed, erect, broad at the base. Pet. elliptical, flattish, undivided, contracted at each end, equal. Fl. recept. none. Fl. all perfect, regular.

666. *Hasselquistia.* Involucres various. Flowers radiant. Fruit compressed at edge, flat, roundish. Bark turgid in the circumference with 5 obtuse ribs. Fruit in the middle of the umbel deformed, navicular, torn at edge, with 3 stripes at back.

667. *Artedia.* Fruit oblong, compressed, with the marginal wings sinuated, 5 dorsal ribs, and scaly juncture. Flowers radiant. Involucres pinnatifid.

668. *Ferula.* Fruit compressed, flat, thickened at edge, with 3 obtuse dorsal ribs, and banded intervals and juncture. Flowers polygamous Involucres various.

669. *Laserpitium.* Fruit oval, somewhat compressed, with the 3 principal ribs acute, the secondary winged. Involucres many-leaved.

G. *Fruit thin and almost flat, compressed transversely, without dorsal wings.*

670. *Peucedanum.* Seeds broadly elliptical, with a notch at each end, a little convex, with 3 slightly prominent ribs, interstices striated, border narrow, flat, even, smooth, and entire. Cal. pointed, ascending. Pet. inversely heart-shaped, all very nearly equal. Fl. recept. none. Flowers regular, imperfectly separated.

671 *Pastinaca.* Seeds elliptic-obovate, with a slight notch at the summit, very nearly flat, with 3 dorsal ribs and 2 marginal ones; border narrow, flat, thin, even, smooth, and entire. Cal. very minute, obsolete. Pet. broadly lanceolate, involute, equal. Fl. recept. broad, orbicular, wavy, rather thin, concealing the calyx. Fl. regular, uniform, perfect.

672. *Heracleum.* Seeds inversely heart-shaped, with a notch at the summit, very nearly flat, with 3 slender dorsal ribs, 2 distant marginal ones, and 4 intermediate, colored, depressed, abrupt lines from the top; border narrow, slightly tumid, smooth, even, and entire. Cal. of 5 small, acute, evanescent teeth. Pet. inversely heart-shaped, radiant. Fl. recept wavy, crenate, obtuse. Fl. separated.

673. *Tordylium.* Seeds orbicular, nearly flat, roughish, without ribs; border tumid, wrinkled or crenate, naked or bristly. Cal. of 5 awl-shaped unequal teeth. Pet. inversely heart-shaped, radiant, variously unequal and irregular. Fl. recept. none. Fl. separated.

674. *Astrantia.* Umbels fascicled. Involucres as long as umbels. Fruit oblong, surrounded by furrowed, wrinkled, little bladders.

675. *Zosimia.* Both involucres many-leaved. Petals obcordate, with the little segment involute, acute Fruit compressed, villous, thickened at edge, at the back with 4 bands, which are jointed and conniving

H. *Fruit with a coarse, corky, or spongy bark.*

676. *Rumia.* Partial involucre, 3-8-leaved. Cal. 5-toothed. Petals ovate, incurved, with a short crenulate segment. Seeds ovate, fleshy, rugose, scaly.

677. *Cachrys.* No involucre. Cal. O. Petals ovate, lanceolate, acute. Seed obovate, oblong, rounded, smooth, fungous.

678. *Hippomarathrum.* Fruit with scaly, rough ribs, covered with a thick bark.

Order 3. TRIGYNIA. 5 Stamens. 3 Styles.

1. *Flowers superior.*

679. *Viburnum.* Cor. 5-cleft. Berry with 1 seed.

680. *Sambucus.* Cor. 5-cleft Berry with 3 seeds.

2. *Flowers inferior*

681 *Rhus.* Cal 5-parted Petals 5. Berry 1-seeded

682. *Cassine.* Cal. 5-parted. Petals 6. Berry 3-seeded.

683. *Spathelia.* Cal. 5-leaved. Petals 5. Caps. 3-angular, 3-celled. Seeds solitary.

684. *Staphylea.* Petals 5. Caps. 2 or 3, inflated.

685. *Tamarix.* Pet. 5. Caps. of 3 valves Seeds numerous, feathered.

686. *Turnera.* Cal. 5-cleft, infundibuliform; the outer 2-leaved. Petals 5, inserted in the calyx. Stigmas many-cleft. Caps. 1-celled, 3-valved.

687. *Drypis.* Cal 5-toothed. Petals 5. Caps. cut round, 1-seeded.

688. *Alsine.* Cal. 5-leaved. Pet. 5 equal. Caps. superior, 1-celled, 3-valved. many-seeded. Receptacle central, free.

689 *Telephium.* Cal. 5-leaved. Petals 5, inserted in the receptacle. Caps. 1-celled, 3-valved.

690. *Corrigiola.* Pet. 5 Seed 1, naked, triangular.

691. *Pharnaceum.* Cal 5-leaved. Cor. O. Caps. 3-celled, many-seeded.

692. *Portulacaria.* Cal. 2-leaved. Petals 5. Seed 1, winged, 3-cornered.

693. *Basella.* Cal. O. Cor. 7-cleft; at length berried, with the two opposite segments larger than the rest.

Order 4. TETRAGYNIA. 5 Stamens. 4 Styles.

694. *Parnassia.* Nectaries fringed with bristles bearing globes Caps. of 4 valves.

695. *Evolvulus.* Cal. 5-leaved. Cor. rotate, campanulate, with emarginate lobes. Styles 2, deeply bifid. Stigma simple. Caps. 2-celled, 4-valved, 4-seeded. Seeds 2.

Order 5. PENTAGYNIA. 5 Stamens. 5 Styles.

1. *Flowers superior.*

696. *Aralia.* Involucre very small. Umbels globose. Cal. very small, 5-toothed. Petals 5, ovate, oblong, spreading, or reflexed. Stigmas nearly round, 5-10. Berry roundish, crowned, 5-seeded. Seeds hard, oblong.

697. *Actinophyllum.* Cal. an entire rim. Cor. calyptrate, jumping off. Stam. 5-6-8-9. Styles 4-7. Berry with 7 angles and 7 cells. Seeds solitary, bony. Flowers clustered.

2. *Flowers inferior.*

698. *Rochea.* Cal. 5-parted. Cor. funnel-shaped, 5-cleft. Scales 5, at base of ovary. Caps. 5.

699. *Crassula.* Cal. 5-leaved. Pet. 5. Scales 5, nectariferous at base of ovary. Caps. 5.

700. *Gisekia.* Cal. 5-leaved. Cor. O. Caps. 5, close together, roundish, 1-seeded.

701. *Linum.* Pet. 5. Capsule of 10 cells.

702. *Drosera.* Pet. 5. Caps. of 3 valves, with many seeds.

703. *Commersonia*. Cal. 1-leaved, bearing the cor. Petals 5. Nectary 5-parted. Caps. 5-celled, echinate.

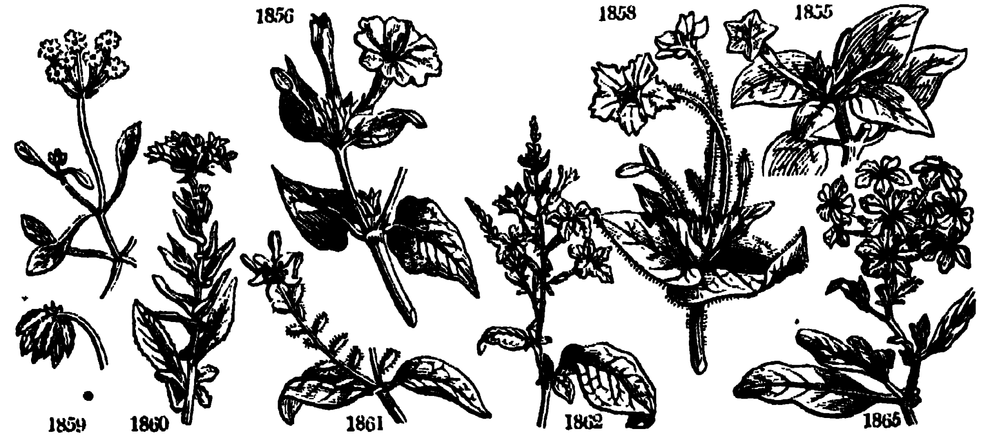
704. *Rulingia*. Petals 5, with a cucullate base. Sterile stamens 5, undivided. Ovary 5-celled. Caps. with double septa.

705. *Armeria*. Cal. 2-leaved, entire, plaited, scarious. Petals 5. Seed 1, superior. Flowers in heads, with a common many-leaved involucrum.

706. *Statice*. Cal. 2-leaved, entire, plaited, scarious. Petals 5. Seeds 1, superior. Flowers scattered in a panicled or spiked scape.

MONOGYNIA.

322. MIRA'BILIS. *W.*	MARVEL OF PERU					*Nyctagineæ.*		*Sp.* 4—5.				
1855 dichótoma *W.*	forked	✱	⊔	or	2	jl.au	Y	Mexico	1640	R	co	Mart. cent. 1. t. 1
1856 Jalápa *W.*	common	✱	⊔	or	2	jn.s	R	W. Indies	1596.	R	r.m	Bot. mag. 371
β fláva	*yellow-flowered*	✱	⊔	or	2	jn.s	Y	W. Indies	1596.	R	r.m	
γ álba	*white-flowered*	✱	⊔	or	2	jn.s	W	W. Indies	1596.	R	r.m	
δ rubro-álba	*red and white*	✱	⊔	or	2	jn.s	R.w	W. Indies	1596.	R	r.m	
ε rubro-fláva	*red and yellow*	✱	⊔	or	2	jn.s	R.y	W. Indies	1596.	R	r.m	
1857 hýbrida *W. en.*	close-flowered	✱	⊔	or	2	jn.s	R	......	1813.	R	r.m	
1858 longiflóra *W.*	long-flowered	✱	⊔	or	2	jn.s	W	Mexico	1759.	R	r.m	Ex. bot. 1. t. 23
323. ABRO'NIA. *Juss.*	ABRONIA.					*Nyctagineæ.*		*Sp.* 1.				
1859 umbelláta *J.*	umbelled	£	△	el	½	ap.my	R	California	1823.	D	s.p	Hook. ex. fl. 194
324. PLUMBA'GO. *W.*	LEADWORT.					*Plumbagineæ.*		*Sp.* 7—11.				
1860 europæ'a *W.*	European	£	△	or	3	s.o	B	S. Europe	1596.	C	p.l	Bot. mag. 2139
1861 zeylánica *W.*	cingalese	ħ	□	or	2	ap.s	W	E. Indies	1731.	Sk	s.p	Rhed. mal. 10. t. 8
1862 rósea *W.*	Rose-colored	ħ	□	or	1½	mr.jl	R	E. Indies	1777.	Sk	r.m	Bot. mag. 230
1863 scándens *W.*	climbing	ħ	□	or	3	jl.au	W	W. Indies	1699.	Sk	s.p	Slo. jm. 1. t. 133. f. 1
1864 trístis *H. K.*	dark-flowered	ħ	⊔	or	1½	my.jn	Br	C. G. H.	1792.	C	l.p	
1865 capénsis *W.*	Cape	ħ	⊔	or	1½	n	B	C. G. H.	1818.	C	l.p	Bot. reg. 417
1866 lapathifólia *W*	Dock-leaved	£	⊔△	or	1½	jn.jl	W	Iberia	1822.	Sk	s.p	
325 HELIOTRO'PIUM.	TURNSOLE.					*Boragineæ.*		*Sp.* 10—77.				
1867 peruviánum *W.*	Peruvian	ɫ	⊔	or	2	my.s	Li	Peru	1757.	C	r.m	Bot. mag. 141
1868 corymbósum *B. M.*	large-flowered	ɫ	⊔	or	4	my.s	Li	Peru	1808.	C	r.m	Bot. mag. 1609
1869 parviflórum *W.*	small-flowered	£	⊡	w	1	jl.s	W	W. Indies	1752.	C	s.l	Dil. el. t. 146. f. 175
1870 europæ'um *W.*	European		○	or	¾	jn.o	W	S. Europe	1562.	C	s.l	Jac. aust. 3. t. 207
1871 oblongifólium *Lk*	oblong-leaved		○	or	¾	jn.o	W	S. Europe	1824.	S	s.l	
1872 chenopodioídes *W. en.*	Goose-foot		⊡	or	1	jn.jl	W	S. Amer.	1823.	S	l.p	
1873 curassávicum *W.*	glaucous	£	⊡	or	¾	jn.jl	W	W. Indies	1731.	C	s.l	Mr. s. 11. t. 31. f. 12
1874 húmile *Lam.*	dwarf	ħ	□	or	1	my.jn	W	S. Amer.	1752.	C	s.l	Plum. ic. 227. f. 2
1875 índicum *W.*	Indian		⊡	or	1	jn.au	B	W. Indies	1713.	S	s.p	Plk. phyt. 245. f. 4
1876 supínum *W.*	trailing	⁎	○	or	½	jn.jl	W	S. Europe	1640.	S	co	Goua. m. 17. c. tab
326. MYOSO'TIS. *B. P.*	SCORPION-GRASS.					*Boragineæ.*		*Sp.* 10—29.				
1877 scorpioídes *W*	marsh	♃	△	w	2	ap.au	B.y	Britain	mea.	D	co	Eng. bot. 1973
1878 arvénsis *W.*	field		○	w	1	ap.au	B	Britain	dry fi.	S	co	Eng. bot. 480
1879 nána *W.*	dwarf	♃	△	cu	½	jl	B	Europe	...	D	co	Hac. pl. al. t. 2. f. 6
1880 obtúsa *W. en.*	obtuse-calyxed	♃	△	w	2	jn.jl	B	Hungary	1815.	D	co	Pl. rar. hu. 1. t. 100
1881 rupícola *E. B.*	rock	♃	△	or		jn.jl	B	Scotland	al. roc.	D	co	Eng. bot. 2559
1882 strícta *Lk.*	upright		○	cu	1	jn.jl	B	Germany	1822.	S	co	
1883 sylvática *Ehr.*	wood	♃	△	cu	2	jn.jl	B	Europe	1823.	D	co	Fl. dan. 583



History, Use, Propagation, Culture,

322. *Mirabilis*, is a Latin word, signifying something wonderful or admirable; and applied with some reason to this, the most fragrant of flowers. Clusius called it Admirabilis. We from the same cause call it Marvel of Peru. The French botanists still call the genus by Van Royen's name, Nyctago; derived from *νὺξ*, night, and *ago*, to act, on account of the flowers expanding at night. M. dichotoma is called the four-o'clock flower in the West Indies, from the flowers opening regularly at that time of the afternoon. M. jalapa is a very ornamental plant in warm borders. When cultivated, it sports into many agreeable varieties. It flowers best when treated as a tender annual, and then planted out; but if sown at once in the open air, it will flower late in the season in favorable summers. Its large tuberous roots, if taken up and preserved during winter like those of Dahlia, or even covered well with litter in the open garden, will flower perennially. The powder of these roots washed, scraped, and dried, is one of the substances which form the jalap of druggists.

323. *Abronia*. Derived from *ἁβρος*, delicate. The little plant produces flowers surrounded by an involucrum of a charming rose color.

324. *Plumbago*. Pliny says this plant was so called from *plumbum*, because it possessed the power of curing a disorder in the eyes called by that name, which appears to have been the same as what we call cataract. There

Order 6. POLYGYNIA. 5 Stamens. Many styles.

707. ***Myosurus.*** **Pet. 5, with tubular honey-bearing claws. Seeds naked. Cal. spurred at the base.**
708. ***Ceratocephalus.*** **Cal. 5-leaved, persistent. Petals 5, with a honey pore at base covered by a scale. Seeds several, naked, attached to a bearded receptacle.**
709. ***Xanthorhiza.*** **Cal. O. Petals 5. Nectaries 5, stalked. Caps. 5, 1-seeded.**
710. ***Sibbaldia.*** **Cal. 10-cleft. Petals 5, inserted in the calyx. Styles from the side of the ovary. Seeds 5.**

MONOGYNIA.

1855 Flowers sessile erect axillary solitary
1856 Flowers clustered stalked, Leaves smooth

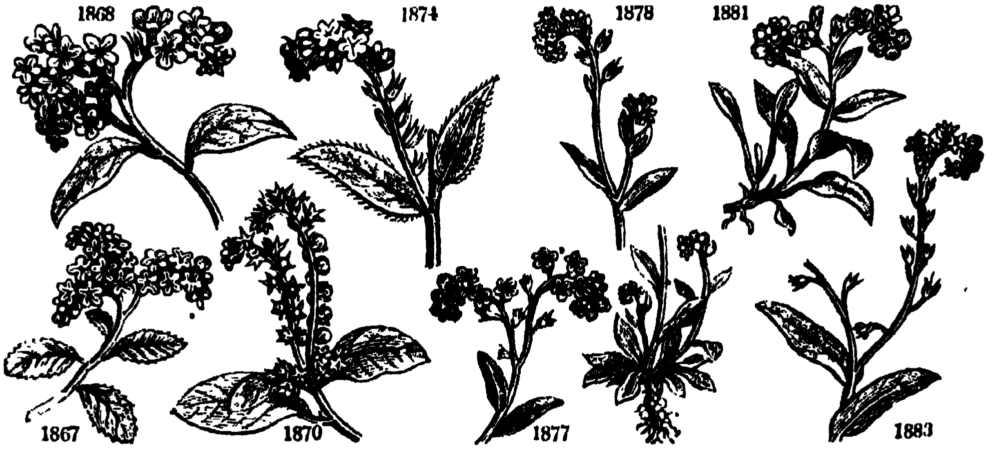
1857 Flowers clustered somewhat stalked, Tube of cor. 4 times as long as limb, Leaves cordate smooth
1858 Flowers clustered sessile, Leaves pubescent

1859 The only species, resembling Primula farinosa. Very beautiful

1860 Leaves stem-clasping lanceolate rough, Stem erect
1861 Leaves stalked ovate smooth, Stem filiform
1862 Leaves stalked ovate smooth somewhat toothed, Stem with swollen joints
1863 Leaves stalked ovate smooth, Stem flexuose climbing
1864 Leaves obovate retuse smooth
1865 Leaves stalked oblong entire glaucous beneath, Stem erect
1866 Leaves stem-clasping lanceolate smooth, Stem divaricating

1867 Leaves lanceolate ovate, Stem shrubby, Spikes numerous aggregate corymbose
1868 Leaves oblong lanceolate, Stem shrubby, Spikes terminal aggregate corymbose, Sepals long subulate
1869 Leaves ovate rugose scabrous opposite and alternate, Spikes in pairs
1870 Leaves ovate entire tomentose rugose, Spikes in pairs
1871 Leaves stalked oblong obtuse entire rough with scattered hairs
1872 Leaves lanceolate glaucous smooth obsoletely veined opposite and alternate, Spikes in pairs
1873 Leaves linear lanceolate glaucous smooth opposite and alternate, Spikes in pairs or compound
1874 Leaves ovate lanceolate villous, Spikes solitary lateral stalked
1875 Leaves cordate ovate subserrate rugose, Spikes terminal simple solitary, Stem herbaceous
1876 Leaves ovate entire tomentose plaited, Spikes solitary and in pairs

1877 Cal. 5-toothed smoothish, Teeth nearly equal obtuse as long as the tube of cor. Leaves lanceolate obtuse smooth, Limb of cor. more than twice as long as cal.
1878 Stem hairy, Calyx with dense spreading hairs hooked at the end
1879 Seeds smoothish sawed at edge, Stem simple few-flowered and oblong, Leaves villous
1880 Stem nearly sim. with lanc. nearly acute somew. repand lvs. hispid, Sp. in pairs somew. corym. Cal. very obt.
1881 Seeds naked, Radical leaves stalked, Racemes without bracteæ, Hairs of calyx spreading.
1882 Stem diffuse, Branches and flower-stalks much shorter than cal. Leaves oblong ovate obtuse upright
1883 Cal. spreading 5-parted, Segments unequal acute, Hairs long downy



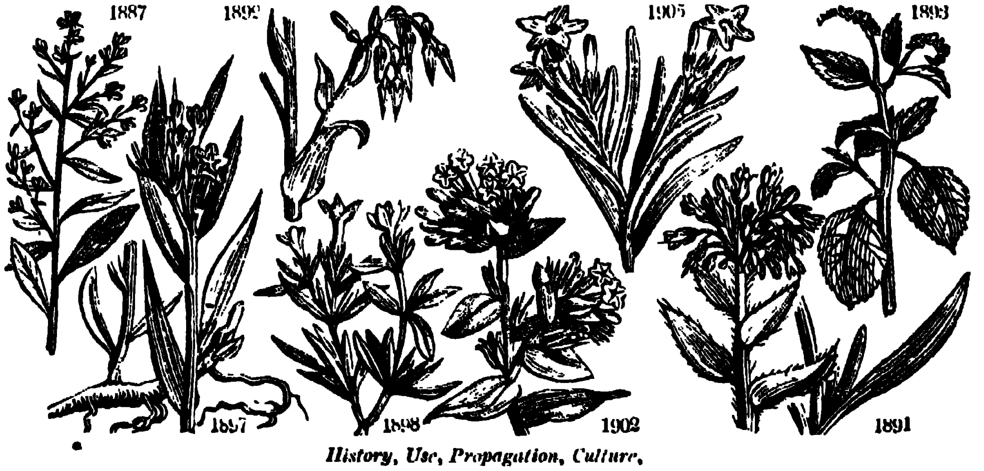
and Miscellaneous Particulars.

is also a modern reason for the application of the name to this genus. P. europæa is called toothwort, and *dentelaire*, Fr., from its curing the tooth-ach, for which purpose the bruised root is chewed, when it excites by its causticity a healthy salivation, but stains the teeth of a lead color. The species are all pretty, easily cultivated, and almost always in flower.

325. *Heliotropium.* From ἡλιος, the sun, and τρεπω, to turn. Both Pliny and Dioscorides assert that the flowers are always turned towards the sun. It was called *Verrucaria* by the Latins, because the juice of the leaves mixed with salt was said to be excellent in removing warts, *verrucæ*. H peruvianum and europæum are popular plants, with the smell of new hay: the former is rather tender; but both keep flowering during most of the summer months. Curtis recommends keeping H. peruvianum in a stove during winter.

326. *Myosotis.* So named from μυς, a rat, and ὠς, ὠτος, an ear. Its oval velvety leaves are like the ear of a rat or mouse. M scorpioides, Forget-me-not, has its specific name from the racemes of flowers, which, when young, bend in at the top like a scorpion's tail. It is a well known sentimental flower, will grow any where, and varies more than most plants with situation. On dry walls and rubbish, it is dwarfish, rough, and hairy, not rising when in flower more than two or three inches; in muddy ditches it is smooth all over, of a shining light

1884 suavéolens *Poir.*	sweet-scented	♃	△	or	½	jn.jl	B	Hungary	1823.	D	co	
1885 sparsiflóra *Mik.*	scattered		○	or	1	my.jn	B	S. France	1822.	S	co	
1886 peduncularis *Trev.*	stalked		○	or	1½	my.jn	B	Astracan	1824.	S	co	
327. ECHINOSPER'MUM. *Sw.*	Echinospermum.					*Boragineæ.*		*Sp.* 4—16.				
1887 virginiánum *P. S.*	Virginian	♃	◐	or	2	jn.jl	W	Virginia	1699.	S	co	M. h. s.11.t.30.f.9
1888 Láppula *P. S.*	common		○	or	1	ap.au	B	Europe	1656.	S	co	Fl. dan. 692
1889 squarrósum *P. S.*	squarrose		○	or	2	ap.au	B	Siberia	1802.	S	co	
1890 barbátum *Lehm.*	bearded		○	or	1½	jn.jl	B	Tauria	1823.	S	co	
328. MAT'TIA. *Sch.*	Mattia.					*Boragineæ.*		*Sp.* 2—4.				
1891 umbelláta *Sch.*	umbelled	♃	△	or	1	my.jn	R	Hungary	1822.	D	s.l	Pl.rar.hun. t.148
1892 lanáta *Sch.*	woolly	♂	⌊△⌋	or	2	jn	Pk	Levant	1800.	D	s.l	Ann.mus.10.t.37
329. TIARI'DIUM. *Lehm.*	Tiaridium.					*Boragineæ.*		*Sp.* 1—3.				
1893 índicum *Lehm.*	Indian		⌊○⌋	or	1	jn.jl	B	W. Indies	1820.	S	s.l	Plk. phyt.245.f.4
330. LITHOSPER'MUM. *W.*	Gromwell.					*Boragineæ.*		*Sp.* 10—35.				
1894 officinále *W.*	officinal	♃	△	cu	2	my.au	Y	Britain	ch.hil.	D	co	Eng. bot. 134
1895 arvénse *W.*	corn		○	w	2	my.jn	W	Britain	cor.fi.	S	co	Eng. bot. 123
1896 ápulum *W.*	small		○	cu	½	jn.jl	Y	S. Europe	1768.	S	co	Col. ecph 1. t.185
1897 purp.-cærúleum *W.*	creeping	*♃	△	or	1	my	Pu	England	ch so.	D	co	Eng. bot. 117
1898 fruticósum *W.*	shrubby	ħ		or	2	my.jn	B	S. Europe	1683.	C	co	Barr. ic. 1168
1899 dístichum *P. S*	two-rowed		⌊△⌋	or	1½	my.jn	W	Cuba	1806.	D	co	
1900 tenuiflórum *W.*	slender-flower'd		○	or	½	my.jn	B	Egypt	1796.	S	co	Jac. ic. 2. t. 313
1901 dispérmum *W.*	two-seeded		○	or	½	jn jl	B	Spain	1799.	S	co	Linn. dec. 1. t. 7
1902 orientále *W.*	yellow	♃	△	or	2	jn.jl	Y	Levant	1713.	D	co	Bot. mag. 515
1903 canéscens *Lehm.*	hoary	♃	△	or	1	jn jl	Y	N. Amer.	1823.	D	co	Mich. am. t. 14
331 BAT'SCHIA. *Mich.*	Batschia.					*Boragineæ.*		*Sp.* 2—4.				
1904 Gmelíni *Ph.*	Gmelin's	♃	△	or	½	my.jl	Y	Carolina	1812.	D	co	
1905 longiflóra *Ph.*	long-flowered	♃	△	or	½	my.jl	Y	Missouri	1812.	D	co	
332 ONOS'MA. *W.*	Onosma.					*Boragineæ.*		*Sp.* 7—23.				
1906 simplicissimum *W.*	linear-leaved	♃	△	or	1	ap jn	Y	Siberia	1768.	D	s.l	Bot. mag. 2248
1907 taúricum *H. K.*	golden-flowered	♃	△	or	½	ap jn	Y	Caucasus	1801.	D	s l	Bot mag 889
1908 orientále *W.*	oriental	♃	⌊△⌋	or	½	my.jn	Y	Levant	1752.	D	s.l	
1909 echioídes *W.*	hairy	♃	△	or	1	mr.jn	W	S. Europe	1683.	D	s.l	Jac. aust. 3. t.295
1910 seríceum *W.*	silky-leaved	♃	△	or	½	jn jl	Y	Levant	1752.	D	co	Lehm ic.asp t.10
1911 arenárium *W. K.*	sand	♃	△	or	1	ap.jn	Y	Hungary	1804.	D	s l	W.et.K hu.t.279
1912 trinérvium *Lehm.*	three-nerved	♃	[△]	or	1	...	Y	S. Amer.	1824.	C	s l	Lehm. ic.asp. t.9
333. ANCHU'SA. *W.*	Bugloss					*Boragineæ*		*Sp.* 11—50.				
1913 paniculáta *W.*	panicled	♃	◐	or	2	my.jn	B	Madeira	1777.	C	p.l	Fl. græc 163
1914 capénsis *W.*	Cape	♂	⌊◐⌋	or	½	jl	B	C. G. H.	1800	S	p.l	Bot. rep. 336
1915 officinális *W.*	common	♂	△	or	2	jn.o	Pu	Britain	sea co.	D	co	Eng. bot. 662
1916 ochroleúca *Bieb*	pale-flowered	♃	△	or	2	jl.au	Pa.Y	M.Caucas.	1810.	D	co	Bot. mag. 1608
β itálica W.	Italian	♃	◐	or	4	jn.o	R.Pu	S. Europe	1597.	S	co	Bot reg 483
1917 angustifólia *W*	narrow-leaved	♂	△	or	2	my.jn	Pu	S. Europe	1640.	D	co	Bot. mag. 1897
1918 Barrelieri *Dec.*	Barrelier's	♃	△	or	2	my.jn	B	S Europe	1820.	D	co	Bot mag. 2349
1919 rupéstris *R Br.*	rock	♃	△	or	½	jl	B	Siberia	1802.	D	co	P.i.3.a.71. t E.f.3
1920 unduláta *W.*	waved-leaved	♃	△	or	2	jn.au	B	Spain	1752.	D	co	Bot. mag. 2119
1921 tinctória *W.*	dyer's	♃	△	or	1½	jn.o	Pu	Montpel.	1596.	D	co	Bot. rep. 576
1922 sempervirens *W.*	evergreen	♂	△	or	1½	my.jn	B	Britain	rub	D	co	Eng. bot. 45
1923 Milléri *W. en.*	pink	♃	△	or	1½	my.jn	Pk	Levant	1713.	D	co	



History, Use, Propagation, Culture,

green, and two or three feet high. In common soils, as in a garden or loamy corn-field, it assumes an intermediate character. Linnæus considers the plant as deadly to sheep. In gardens it does well in pots in the shade, or treated as a bog-plant, than which few better deserve the name of pretty.

327. *Echinospermum.* Named by Lehmann from εχινος, a hedgehog, and σπερμα, seed, the seeds being very prickly, by which character, and their being compressed, not depressed, and the bracteæ of the inflorescence, the genus is principally distinguished from Myosotis and Cynoglossum.

328 *Mattia.* A genus divided by Professor Schultes from Cynoglossum, with which it agrees in general character. Named after some unknown botanist.

329. *Tiaridium.* From τιαρα, an episcopal head-dress, and ειδος, similar; on account of the resemblance between its seeds and a mitre. Three species have been described, of which one is the H. indicum of Linn., a plant of no beauty or merit.

330. *Lithospermum.* From λιθος, a stone, and σπερμα seed, the seeds being hard and shining, like little pebbles. L. officinale has stony, brittle, egg-shaped nuts, exquisitely polished, grey or yellowish; and being considered like a stone, were for that reason used as a cure for the disease so named. The bark of L. arvense abounds with a deep red dye, which stains paper, linen, &c. and is easily communicated to oily substances, like the alkanet root, and hence is called bastard alkanet. The country girls in the north of Sweden stain their faces with the root on days of festivity.

1884 Stem nearly simple hispid, Leaves lanc. acute hairy ciliated at base, Cal. very spreading
1885 Stem branched diffuse, Lvs. lanc. acute hispid, Racemes simple elongated, Flow. very remote, Cal. acute
1886 Stem branched, Leaves obovate obtuse mucr. Fl.-stalks in fruit much spreading thickened under calyx

1887 Seeds all over prickly, Leaves ovate oblong, Racemes divaricating
1888 Seeds with a double row of marg. prickles, Lvs. lanc. with incumb. hairs, Limb of cor. camp. longer than cal.
1889 Seeds with a single row of marginal prickles, Leaves obl. obtuse with spreading hairs, Cal as long as cor.
1890 Seeds with a doub. row of very short mar. prickl. Lvs. lanc. with incum. hairs, Cor. twice as long as cal. with a flat limb

1891 Stam. as long as cor. Segments of cor. obtuse, Racemes terminal umbelled, Leaves hoary
1892 Cal. woolly, Limb of cor. acute deeply 5-cleft, Racemes cernuous

1893 Stem herbaceous erect hairy, Leaves ovate cordate acute hairy, Tube of cor. twice as long as calyx

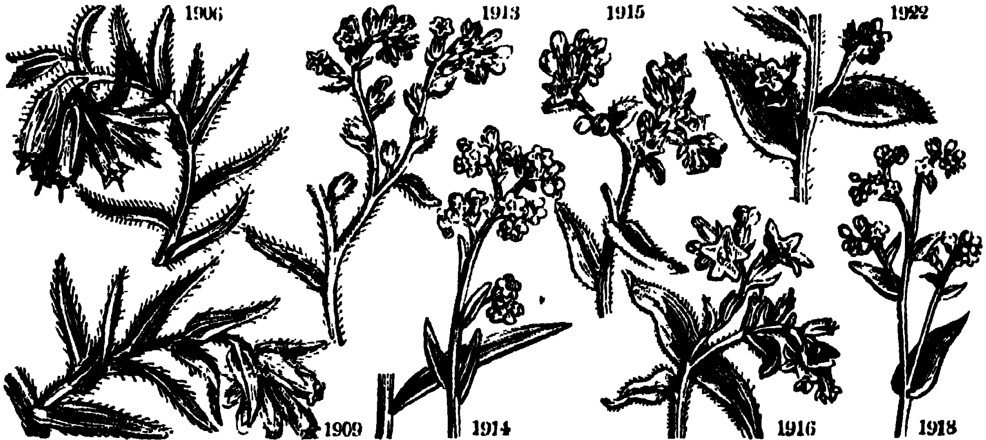
1894 Seeds smooth, Cor. scarcely longer than calyx, Leaves lanceolate acute veiny
1895 Leaves lanceolate linear strigose, Cal the length of cor. spreading in fruit
1896 Leaves linear lanceolate acute, Spikes terminal 1-sided, Bractes lanceolate, Seeds muricated
1897 Seeds smooth, Cor. much longer than cal. Leaves lanceolate acute at each end, Stem herbaceous
1898 Leaves linear hispid revolute at edge, Stamens as long as corolla
1899 Seeds smooth, Cor. twice as long as cal. Lvs. obl. lanc. acute, Spikes leafy distichous term. and axillary
1900 Leaves linear lanceolate strigose, Cal. as long as tube of cor. in fruit conniving
1901 Seeds smooth, Cal. spreading incurved, Leaves linear
1902 Flower branches lateral, Bractes cordate stem-clasping
1903 Stem nearly simple villous, Leaves oblong obtuse hoary, Tube of cor. twice as long as calyx

1904 Hairy, Floral leaves ovate, Cal. long lanceolate
1905 Silky, Leaves linear, Cal. long linear, Corolla crenate, Tube long

1906 Hirsute, Hairs prost. scattered, Fl.-stems simp. aggregate, Lvs. lin. acute, Anthers shorter than filaments
1907 Flowers ventricose, Fruit erect, Leaves lanceolate hispid, Hairs stell[illegible]
1908 Flowers cylindrical acute, Fruit pendulous, Leaves linear hairy
1909 Hispid, Hairs erect scattered, Stem branched, Leaves lanceolate, Anthers as long as filaments
1910 Silky, Hairs prostrate very minute, Stems branched, Leaves spatulate, Anthers as long as filaments
1911 Flowers clavate cylindrical, Leaves oblique the lower lanceolate obtuse, Fruit erect, Seeds smooth
1912 Stem simple leafy, Leaves linear lanceolate very long acute 3-nerved above hispid beneath closely hairy

1913 Leaves lanceolate strigose entire, Panic. dichotomous divar. Flower stalked, Cal. 5-parted subulate
1914 Leaves lanceolate callous villous, Racemes trichotomous
1915 Leaves lanceolate strigose, Spikes 1-sided imbricated, Cal. as long as tube of corolla
1916 Leaves linear-lanceolate coarsely dotted hispid, Calyx in fruit camp. nodding

1917 Racemes nearly naked in pairs
1918 Leaves oblong entire narrowed at both ends with the simple stem hispid, Peduncles trifid
1919 Leaves linear lanceolate villous, Racemes alternate
1920 Strigose, Leaves linear toothed, Stalks less than bracteæ, Cal. in fruit inflated
1921 Leaves oblong. Bractes longer than the 5-parted calyx, Valves of corol. shorter than stamens
1922 Leaves ovate strigose, Racemes somewhat capitate in pairs leafy, 2-leaved at base, Cal. 5-cleft
1923 Leaves obl. toothed hispid the lower stalked the upper sessile, Flowers single lateral, Stems diffuse



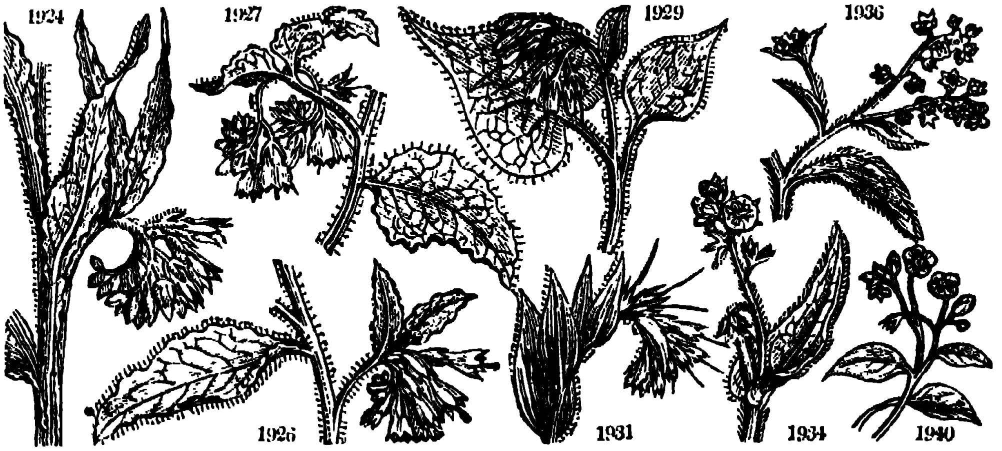
and Miscellaneous Particulars.

331. ***Batschia.*** Named in honor of John George Batsch, a German professor of botany in the university of Jena, in the latter part of the last century. His works upon Fungi are still quoted. The three species known are natives of North America, and are very pretty plants.

332. ***Onosma.*** An ancient name, the origin of which, from *ονος*, an ass, and *οσμη*, smell, as being a plant with flowers grateful in their smell to asses, is not very certain. What was intended by Pliny and Dioscorides as Onosma has not been satisfactorily ascertained. It was undoubtedly a plant of this family. This genus in its wild state is found chiefly on rocks; and, like most temporary rock-plants, is not easily preserved otherwise than on dry walls, heaps of rubbish, or artificial rock-work. The species are pretty, and all have yellow flowers.

333. ***Anchusa.*** Derived from *αγχουσα*, paint. In early times, the root of A. tinctoria was used for staining the features when more delicate colors were unknown. The English name Bugloss has been formed from *βυς*, an ox, and *γλωσσα*, a tongue, in allusion to the long rough leaves. A. officinalis is nearly allied in qualities to Borago. The tube of the corolla is melliferous, and very attractive to bees; the leaves are juicy, and the roots mucilaginous, and used in China for promoting the eruption of the small-pox. A. tinctoria is cultivated in the south of France for the roots, which communicate a fine deep red to oils, wax, and all unctuous substances, as well as to spirits of wine. It is used chiefly by the apothecaries for coloring plaisters, lip-salves, &c. and by vintners for staining the corks of their port wine bottles, or for coloring and flavoring the spurious compounds sold as port wine.

334. SYM'PHYTUM. *W.*	COMFREY.					*Boragineæ.*		*Sp.* 6—10.				
1924 officinále *W.*	common	✲	△	or	4	my.jl	W	Britain	wet. pl.	D	co	Eng. bot. 817
β *patens* Sibth.	*spreading*	✲	△	or	4	my.jl	Pk	Britain	wet. pl.	D	co	
γ *bohémicum* Sch.	*red-flowered*	✲	△	or	3	my.jl	R	Bohemia	...	D	co	
1925 tuberósum *W.*	tuberous	✲	△	or	4	my.o	Y	Scotland	m.s.pl.	D	co	Eng. bot. 1502
1926 orientále *W. en.*	eastern	♃	△	or	3	my.jl	W	Turkey	1752.	D	co	Bot. mag. 1912
1927 tauricum *W. en.*	blistered	♃	△	or	3	my.jl	W	Tauria	1806.	D	co	Bot. mag. 1787
1928 aspérrimum *H. K.*	roughest	♃	△	or	4	my.s	R.B	Caucasus	1799.	D	co	Bot. mag. 929
1929 cordátum *W.*	heart-leaved	♃	△	or	2	my.jl	Y	Transylv.	1813.	D	s.l	Pl. rar. hung. t.7
335. ONOSMO'DIUM. *Mich.*	ONOSMODIUM.					*Boragineæ.*		*Sp.* 2—3.				
1930 hispidum *M.*	Virginian	♃	△	or	1	jn	Y	N. Amer.	1759.	D	s.l	M.h.3.s.11.t.28f.2
1931 mólle *M.*	soft	♃	△	or	½	jn.au	W	N. Amer.	1812.	D	s.l	Mich. amer. t.15
336. CYNOGLOS'SUM. *W.*	HOUND'S-TONGUE.					*Boragineæ.*		*Sp.* 8—40.				
1932 officinále *W.*	common	♃	⊙	or	2	jn.jl	P.B	Britain	rub.	S	co	Eng. bot. 921
1933 sylváticum *E. B.*	green-leaved	♃	⊙		3	jn.jl	B	Britain	sha. la.	S	co	Eng. bot. 1642
1934 pictum *W.*	Madeira	£	⊡	or	2	au	L.B	Madeira	1658.			Bot. mag. 2134
1935 amplexicaúle *Ph.*	stem-clasping	♃	△		2	my.jl	B	N. Amer.	1812.	D	p.l	
1936 cheirifólium *W.*	silvery-leaved	♃	⊙	or	1	jn.jl	B	Levant	1596.	S	co	
1937 apennínum *W. en.*	Apennine	♃	⊙		6	ap.jl	R	Italy	1731.	D	co	Col. ecph.1. t. 70
1938 hirsútum *W.*	hirsute		○		1	jl.au	L.B	C. G. H.	1806.	S	co	Jac. Schön. t.489
1939 glomerátum *Fraz.*	clustered	♃	△			...		N. Amer.	1812.	D	co	
337. OMPHALO'DES. *Lehm.*	VENUS' NAVEL-WORT.					*Boragineæ.*		*Sp.* 3—10.				
1940 vérna *Lehm.*	blue	£	△	el	½	mr.ap	B	S. Europe	1633.	D	co	Bot. mag. 7
1941 linifólia *Lehm.*	common		○	or	1	jn.au	W	Portugal	1648.	S	co	
1942 nítida *Lehm.*	shining	♃	△	or	3	ap.jn	W	Portugal	1812.	D	co	H.&L.fl.p.1. t.23
338. PULMONA'RIA. *W.*	LUNGWORT.					*Boragineæ.*		*Sp.* 10—19.				
1943 angustifólia *W.*	narrow-leaved	♃	△	or	¾	ap.my	V	Britain	woods.	D	p.l	Eng. bot. 1628
1944 officinális *W.*	common	♃	△	or	1	my	Pk	England	woods.	D	p.l	Eng. bot. 118
1945 davúrica *Fisch.*	Daurian	♃	△	or	1	my	Li	Dauria	1812.	D	s.l	Bot. mag. 1743
1946 paniculáta *W.*	panicled	♃	△	or	1½	my.jn	L.B	Hud. Bay	1778.	D	p.l	Bot. mag. 2680
1947 lanceoláta *Ph.*	spear-leaved	♃	△	or	1	my.jn	Pu	Louisiana	1813.	D	s.l	
1948 virgínica *W.*	Virginian	♃	△	or	1½	mr.my	B	N. Amer.	1699.	D	p.l	Bot. mag. 160
1949 sibírica *W.*	Siberian	♃	△	or	3	jn.jl	Pu	N. Amer.	1801.	D	s.l	G. sib. t.n.15 t.39
1950 marítima *E. B.*	sea	♃	△	or	¼	jn.jl	B	Britain	sea sh.	D	s.p	Eng. bot. 368
1951 móllis *Wulf.*	soft	♃	△	or	¾	ap.my	B	N. Amer.	1805.	D	co	Bot. mag. 2422
1952 azúrea *Bess.*	sky-blue	♃	△	or	1½	ap.jn	B	Poland	1823.	D	co	
339. CERIN'THE. *W.*	HONEYWORT.					*Boragineæ.*		*Sp.* 4—6.				
1953 májor *W.*	great		○	or	3	jl.au	Y.P	S. France	1596.	S	co	Bot. mag. 333
1954 áspera *W.*	rough		○	or	2	jl.au	Y.P	S. France	1633.	S	co	Fl. græc. t. 170
1955 minor *W.*	small		○	or	1½	jn.o	Y	Austria	1570.	S	co	Jac. aus. 2. t. 124
1956 maculáta *W.*	spotted	♃	⊙	or	2	jn.o	Y.R	S. France	1804.	S	co	
340. BORA'GO. *W.*	BORAGE.					*Boragineæ.*		*Sp.* 4—7.				
1957 officinális *W.*	common		○	cul	3	jn.s	B	England	rub.	S	co	Eng. bot. 36
1958 orientális *W.*	oriental	♃	△	or	2	mr.my	B	Turkey	1752.	D	co	Bot. reg. 288
1959 laxiflóra *B. M.*	bell-flowered	♃	⊙	or	1	my.au	B	Corsica	1813.	C	s.l	Bot. mag. 1798
1960 crassifólia *Vent.*	thick-leaved	♃	△	or	2	jn.jl	Pk	Persia	1822.	C	s.l	Vent. cels. 100
341. TRICHODES'MA. *R. Br.*	TRICHODESMA.					*Boragineæ.*		*Sp.* 3—4.				
1961 indicum *R. Br.*	Indian		○		1	jn.o	B	E. Indies	1759.	S	co	Pl. al.30. t.76. f.3
1962 africánum *R. Br.*	African		○		1	jl.au	B	C. G. H.	1759.	S	co	Is. ac. p.1718 t.11
1963 zeylánicum *R. Br.*	Ceylon		⊡		1½	jl.au	W	E. Indies	1799.	S	co	Jac. ic. 2. t. 314



History, Use, Propagation, Culture,

334. *Symphytum.* Named from *συμφυσις*, a union or junction, the plant having for a long time passed for a famous vulnerary. The French name for the plant, *Consoude*, has the same meaning; but that of the English term Comfrey is obscure. S. officinale abounds in mucilage, and may be substituted for Althæa officinalis. All the species are large, coarse, but showy shrubbery plants, flowering for two or three months together, and S. asperrimum the whole season.

335. *Onosmodium.* From *Onosma* and *ειδος*, similar to Onosma; from which it is not very different either in habit or characters.

336. *Cynoglossum.* From *κυων κυνος*, a dog, and *γλωσσα*, a tongue. Its long soft leaves have been compared to the tongue of a dog. C. officinale smells like mice, was considered anti-scrophulous, and is disliked by cattle.

337. *Omphalodes.* From *ομφαλος*, a navel, and *ειδος*, resemblance; the round seeds, which are depressed in the centre, may be compared to a little navel; for the same cause it is called Navelwort in English. O. linifolia is a common border annual. O. verna is a beautiful little plant with blue flowers, like the Forget-me-not, peeping from among the snow in every cottager's garden in the early spring.

338. *Pulmonaria.* Derives its name, some say, from the speckled appearance of the leaves resembling diseased lungs; but others think that its name has arisen from the plant having been used with success in pulmonary complaints; whence also, perhaps, the English name Lungwort. It must not, however, be inferred from

1924 Leaves ovate lanceolate decurrent

1925 Leaves ovate oblong narrowed at base the lower stalked, Segments of flower very short obtuse
1926 Leaves ovate obl. narr. at base hairy the lower stalked the flor. opp. sess. Cal. spread. Segm. of fl. acute
1927 Leaves cordate ovate hairy stalked the floral opp. sess. Segments of flower obtuse, Stem branched
1928 Lvs. cord. ovate or lanc. acumin. stalked very rough, Stem muric. with reversed bristles, Limb of fl. camp.
1929 Leaves cordate ovate acuminate hairy, floral sessile nearly opposite, Stem simple

1930 Hispid, Leaves oval lanceolate acute papillose, Segments of cor. very acute
1931 Hoary, Leaves oblong about 3-nerved, Segments of cor. oval

1932 Leaves broad lanceolate wavy hoary on each side sessile close together, Seeds warted
1933 Leaves spatulate lanceolate shining nearly naked scabrous beneath
1934 Leaves lanceolate tomentose the upper obovate lanceolate cordate stem-clasping, Sepals ovate
1935 Very hairy, Leaves oval the upper stem-clasping, Corymb. terminal leafless on a long stalk
1936 Leaves villous, Cal. hairy, Stamens longer than corolla
1937 Stamens longer than corolla, Cal. villous, Radical leaves ovate stalked very large
1938 Leaves lanceolate villous, Seeds with hooked prickles
1939 Leaves spatulate obtuse, Flowers heaped

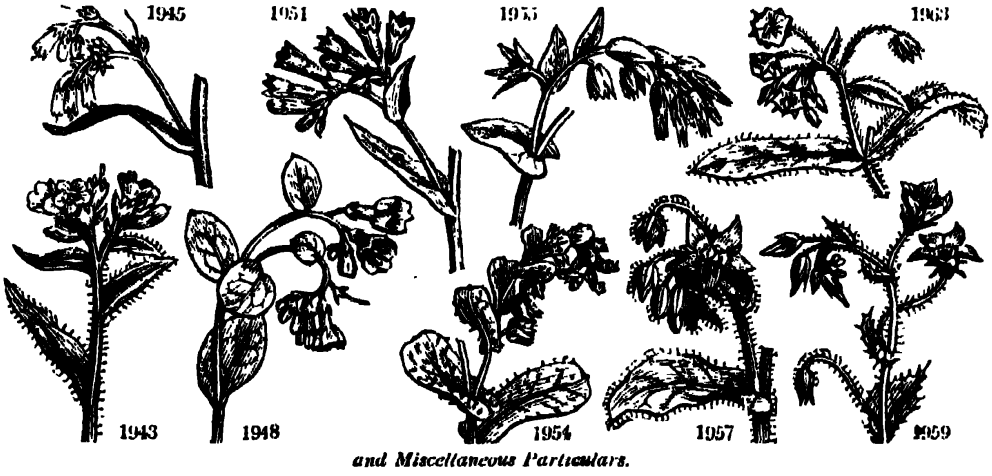
1940 Radical leaves ovate cordate, Cauline ovate stalked, Shoots creeping
1941 Leaves linear lanceolate smooth roughish with little teeth at the edge, Seeds urceolate rugose
1942 Leaves obl. lanc. nerved smooth and shining above pubesc. beneath the lower on long stalks the upper sess.

1943 Cal. length of the tube of the cor. Leaves oblong lanceolate the radical sessile cauline stalked
1944 Cal. length of the tube of the cor. Radical leaves ovate cordate scabrous cauline ovate sessile
1945 Cal. short 5-parted hispid, Radical lvs. ovate cordate stalked, cauline half stem-clasping, Flowers panicled
1946 Cal. short 5-parted hispid, Leaves ovate oblong acuminate hairy
1947 Smooth erect, Radical leaves on long stalks lanceolate, cauline linear oblong, Flowers panicled, Cal. short
1948 Cal. much shorter than tube of cor. which is longer than limb, Radical leaves ovate elliptical cauline ob-
1949 Cal. short, Rad. leaves cordate [ovate lanceolate obtuse
1950 Smooth, Leaves ovate glaucous fleshy, Stem branching procumbent
1951 Leaves ovate lanceolate acuminate downy decurrent radical stalked, Cal. longer than tube
1952 Leaves hispid radical obl. lanc. acuminate narr. into the stalk, Cauline decurrent, Cor. campanulate

1953 Cor. obtuse spreading ventricose campanulate at end, Stamens shorter than corolla, Leaves smooth
1954 Cor. obtuse spreading cylindrical, Stamens as long as cor. Leaves rough
1955 Leaves stem-clasping entire, Cor. acute closed whole colored, Segm. of cal. unequal
1956 Leaves stem-clasping entire, Cor. acute closed with a red band in middle, Seg. of cal. uneq. Stems many

1957 Leaves ovate the lower stalked all alternate, Cal. spreading, Pedunc terminal many-flowered
1958 Leaves cordate stalked, Pedunc. many-flowered, Stamens exserted villous
1959 Leaves alternate oblong sessile, Pedunc. axillary 1-flowered, Cor campanulate nodding
1960 Glaucous, Stem smooth, Leaves decurrent rough above, Segments of cor. lin. lanc. spreading unequal

1961 Leaves of stem and branches lanc half stem-clasping, Pedunc. 1-flowered, Sepals auriculated at base
1962 Leaves opposite stalked ovate, Pedunc. many-flowered, Sepals ovate acute erect
1963 Sepals not auriculated, Nuts smooth without an edge, Leaves sessile attenuated at the base



and Miscellaneous Particulars.

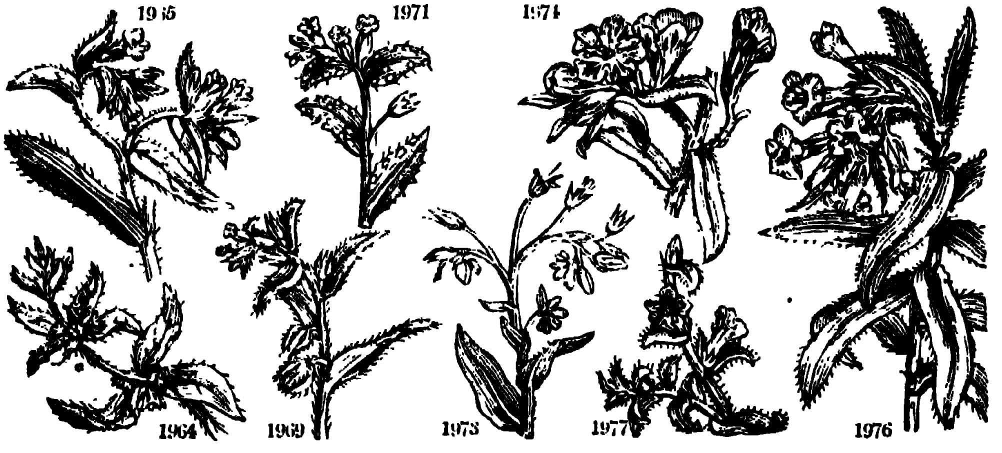
English names of this sort having been applied to plants, either that lungwort was ever used in this country for the lungs, or liverwort for the liver. The truth is, that the old herbalists, or translators of the classical writers upon natural history, made English names after their Latin denominations, without enquiring whether such continued to be applicable or not, and their less informed successors had no difficulty in finding those virtues in the plants which were indicated by the names of the translators. P. virginica, sibirica, and maritima are elegant plants, greatly resembling each other, and considered by some as most probably only varieties. They are among the most elegant ornaments of the flower-garden in dry springs; but they require some care in keeping, unless in a soil almost entirely of sand.

339. *Cerinthe.* From κηρος, wax, and ανθος, flower, because there is great attraction for bees in the flowers. The French word *melinet* and the English honeywort have been formed in the same sense. C. major is a shewy border annual, much frequented by bees. In Italy and Sicily it is very common, and a biennial.

340. *Borago*, is said by Apuleius to be an alteration of *corago*, and to have been named on account of its cordial qualities. Pliny says that wine, with this infused in it, cheers the spirits. B. officinalis was formerly in great repute as a cordial. According to Withering, the young leaves may be used as a salad or as a pot-herb, and the flowers form an ingredient in cool tankards.

341. *Trichodesma.* From θριξ τριχος, hair, and δεσμη, a bond, the stamens being united by interwoven hairs;

342. ASPERU'GO. *W.*	German-madwort.					*Boragineæ.*		*Sp.* 1.				
1964 procúmbens *W.*	procumbent	✱	○	w	3	ap.my	B	Britain	rub.	S	co	Eng. bot. 661
343. NO'NEA. *Mönch*	Nonea.					*Boragineæ.*		*Sp.* 6—8.				
1965 púlla *Dec*	dark-flowered	⚘	△	cu	¾	jn.jl	Dk	Germany	1648.	D	s.l	Jac. aust. 2. t.188
1966 lútea *Dec.*	yellow		○	cu	2	jn.jl	Y	Crimea	1805.	S	s.l	Nocca tr. 3
1967 rósea *Lk.*	rose-colored		○	cu	2	jn.jl	Pk	Crimea	1823.	S	s.l	
1968 nigricans *Dec.*	black-flowered		○	cu	3	my.jn	Dk	Barbary	1822.	S	s.l	Zanon. hist. t.33
1969 violácea *Dec.*	violet		○	cu	2	jn.jl	Pu	S. Europe	1686.	S	co	Mor.h.3.t.26.f.11
1970 ciliáta *W.*	ciliated		○	cu	1	jn.jl	Pu	Levant	1804.	S	co	
344. LYCOP'SIS. *W.*	Wild-bugloss.					*Boragineæ.*		*Sp* 3—12.				
1971 variegáta *W.*	variegated		○	cu	1	jn.jl	B	Candia	1683.	S	co	Mo. s.11.t.26.f.10
1972 arvénsis *W.*	small		○	w	1	my.au	B	Britain	cor. fi.	S	co	Eng. bot. 938
1973 orientális *W.*	oriental		○	cu	1½	jn.jl	B	Levant	1796.	S	co	Bux. cent. 5. t.30
345. E'CHIUM. *W.*	Viper's-bugloss.					*Boragineæ.*		*Sp.* 24—80.				
1974 fruticósum *W.*	shrubby	♣	⊔	or	3	my.jn	Pk	C. G. H.	1759.	C	p.l	Bot. reg 86
1975 cándicans *W.*	hoary-tree	♣	⊔	or	3	my.jn	Pu	Madeira	1777.	S	p.l	Bot. reg 43
1976 grandiflórum *H. K.*	great-flowered	♣	⊔	or	3	jn.jl	Pk	Madeira	1787.	S	p.l	Bot. reg. 124
1977 ferocíssimum *B. R.*	prickly-stalked	♣	⊔	or	6	jn jl	B	Madeira	1794.	C	s.l	Bot. rep. 39
1978 gigantéum *W.*	gigantic	♣	⊔	or	10	jl.n	W	Canaries	1779.	C	p.l	Vent. mal. 71
1979 strictum *W.*	upright		⊙	or	3	my.d	B	Canaries	1779.	C	s.l	Jac. schœn. 1. t.35
1980 argen'teum *W.*	silvery	♣	⊔	or	3	jn.jl	B	C. G. H.	1789.	S	p.l	Bot. rep. 154
1981 lævigátum *W.*	smooth-stalked	♣	⊔	or	1	jn.jl	B	C. G. H.	1774.	C	s.l	Lehm. ic. asp. t.3
1982 glábrum *W.*	sea-green	♣	⊔	or	1	my jn	W	C. G. H.	1791.	C	s.l	Bot. rep 165
1983 fastuósum *H. K.*	noble	♣	⊔	or	4	ap.au	Pu	Canaries	1779.	C	s.l	Jac. ecl. 41
1984 nervósum *H. K.*	sinewy	♣	⊔	or	4	jn.au	Pu	Madeira	1777.	S	p.l	
1985 spicátum *W.*	spiked-dwarf	¥	⊔	or	¼	mr.my	W	C. G. H.	1799.	C	s.l	Lehm. ic. asp t.1
1986 glaucophýllum *Jacq*	glaucous	♣	⊔	or	2	jl	B	C. G. H.	1792.	C	s.l	Jacq ic. 2. t. 312
1987 plantagíneum *W.*	Plantain-leaved		○	or	1	jl.o	V	Italy	1776.	C	s.l	Barr. ic. t. 1026
1988 itálicum *W.*	white	⚘	⊙	or	4	jl	W	Jersey	...	S	s.l	Eng bot 2081
1989 rúbrum *W.*	red	⚘	⊙	or	4	jl.au	R	Hungary	1791.		co	Jac. aus. 5. t ap.3
1990 vulgáre *W.*	common	⚘	⊙	or	2	jl.au	R	Britain	sto. fi.	S	l.p	Eng. bot. 181
1991 violáceum *W.*	violet-flowered		○	or	3	jl.au	B	Austria	1658.	S	co	
1992 marítimum *W.*	sea		○	or	½	jl.au	B	Italy	1815.	S	co	Boc. mus. 2. t.78
1993 pyrenáicum *W. en.*	Pyrenean	⚘	⊙	or	1	jl.au	W	Pyrenees	1815.	S	co	
1994 créticum *W.*	Cretan		○	or	1	jl s	V	Levant	1683.	S	s.l	Bot. mag. 1934
1995 orientále *W.*	oriental		○	or	3	jl.au	F	Levant	1780.	S	co	Trew pl rar. 1 t. 1
1996 lusitánicum *W.*	Portugal		○	or	3	jl.au	V	S. Europe	1731.	S	co	
1997 parviflórum *H. K*	small-flowered		○	or	2	jl.au	V	Barbary	1798.	S	co	
346. TOURNEFOR'TIA. *R. Br.*	Tournefortia.					*Boragineæ.*		*Sp.* 8—36				
1998 Messerchmídia *R. Br.*	shrubby	♣	⊔	or	6	jn.o	G	Canaries	1779.	C	s.l	Bot. reg. 464
1999 Argúzia *R. & S.*	herbaceous	¥	△	or	¼	jn.o	W	Siberia	1780.	C	s.l	
2000 fœtidíssima *W.*	Tobacco-leaved	♣	□	or	9	s	Pk	Jamaica	1739.	C	p.l	Plu. ic. 226. t.230
2001 cymósa *W.*	broad-leaved	♣	□	or	9	jl	Pk	Jamaica	1777.	C	p.l	Jac. ic 1. t. 31
2002 bícolor *W.*	two-colored	♣	□	or	6	...	G	Jamaica	1812.	C	p.l	
2003 suffruticósa *W.*	hoary-leaved	♣	□	or	4	...	W	Jamaica	1759.	C	p.l	Slo. jm. 2. t.162. f.4
2004 volúbilis *W.*	climbing	♀	□	or	12	jl.au	G	Jamaica	1752.	C	p.l	Slo jm. 1. t. 143 f.2
2005 laurifólia *Vent.*	laurel-leaved	♀	□	or	12	jn.jl	Y	Porto Rico	1819.	C	p.l	Vent. chx. t. 2
347. NOLA'NA. *W.*	Nolana.					*Boragineæ.*		*Sp.* 1—7.				
2006 prostráta *W.*	trailing	✱	○	or	¼	jl.s	B	Peru	1761.	C	p.l	Bot. mag. 731
348. ARE'TIA. *W*	Aretia.					*Primulaceæ*		*Sp.* 3—9.				
2007 helvética *W.*	imbricated	¥	△	or	¼	my jn	W	Switzerl.	1775.	D	s.p	Schk. han. 1. t 32
2008 alpína *W.*	linear-leaved	¥	△	or	¼	my jn	Pk	Switzerl.	1775.	D	s.p	Bot. cab 297
2009 Vitaliána *W.*	Grass-leaved	¥	△	or	¼	my.jn	Y	Pyrenees	1787.	D	s.p	Par. lond. 107



History, Use, Propagation, Culture,

the principal feature in the generic character. This has been separated from Borago by modern botanists; it is a plant of no beauty.

342. *Asperugo.* So called from its asperity. The only species is a procumbent annual with small blue flowers, found all over Europe, from Lapland to the Mediterranean.

343. *Nonea* A name contrived by Monch, in his Methodus Plantarum, to distinguish the dark flowered species of Lycopsis. The genus was long neglected, but has recently been adopted by both Decandolle and Lehmann.

344. *Lycopsis.* From λυκος, a wolf, and ωψ, the eye. Ingenious people have found a similarity between the small blue flowers of this plant and the eye of a wolf. All the species are weed-like plants.

345. *Echium*, is an ancient name applied to some plant of this family, and derived from ἐχις, a viper, from the resemblance between its seeds and the head of a viper. The spotted stem, which may be likened to a snake's skin, affords a reason for the application of the name. All the species are beautiful in their flowers, but rough and unpleasant in their foliage. The common E. vulgare of our downs is perhaps the handsomest of European plants.

1964 The only species. Stem climbing very rough, Flowers small axillary

1965 Leaves entire, Stem erect, Cal. of fruit inflated pendulous
1966 Leaves obl. lanc. strigose floral cordate longer than the cal. Cal. acute, in fruit inflated pendulous
1967 Cal. 5-cleft, in fruit inflated pendulous, Leaves obl. hispid floral cordate longer than cal. Stems procumb.
1968 Stem procumbent, Leaves entire, Cal. of fruit pendulous, Cor. shorter than calyx
1969 Leaves lanceolate, Stem prostrate, Cal. of fruit inflated nodding 10-angular, Cor. longer than calyx
1970 Leaves lanceolate denticulated hispid ciliated, Cal. of fruit inflated pendulous

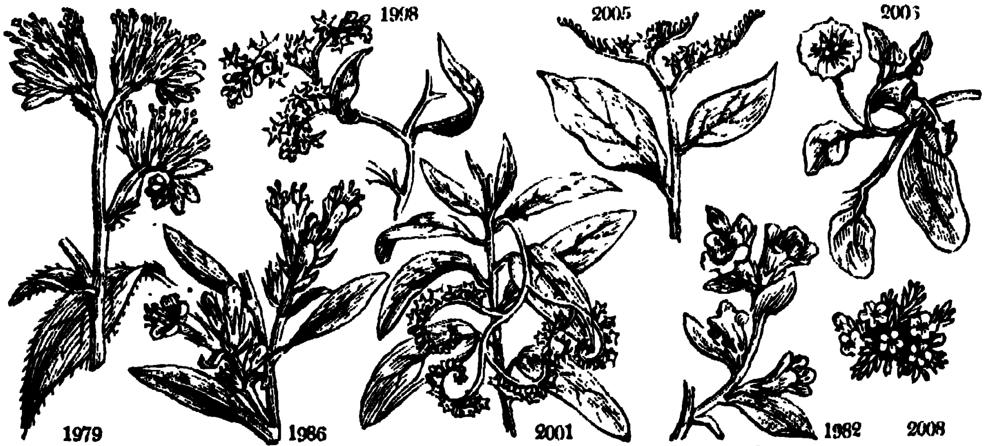
1971 Leaves repand toothed callous, Stem decumbent, Corollas nodding
1972 Leaves lanceolate hispid, Cal. always erect
1973 Leaves ovate entire scabrous, Cal. erect

1974 Pubescent, Fl. in loose corymb. Pan. at end of branches, Tube closed by a 5-lobed fringe, Stam. included
1975 Stem shrubby, Leaves lanc. nervose and branches hairy, Sepals oblong and lanceolate acute, Styles hairy
1976 Stem smooth, Leaves lanceolate rough above, Flowers cymose equal, Tube of flower very long
1977 Stem shrubby, Branches and leaves prickly, Flowers in spikes, Corollas nearly equal
1978 Stem shrubby, Leaves lanc. atten. at base hairy, Hairs very short, Bract. and cal. strigose, Stam. exserted
1979 Stem shrubby upright branched, Leaves oblong lanc hairy, Cor. campanulate small, Stamens exserted
1980 Stem and lanceolate acute leaves silky, Spike terminal nearly simple leafy
1981 Stem smooth, Leaves lanceolate smooth ciliated prickly, Cor. equal
1982 Stem smooth, Leaves lanceolate smooth scabrous at edge
1983 Stem branched, Leaves lanceolate nerved and branches silky, Styles hairy, Racemes cylindrical
1984 Leaves lanceolate nerved and branches silky, Styles hairy, Racemes ovate
1985 Stem villous, Leaves sword-shaped elliptical villous, Spike compound linear oblong
1986 Stem shrubby, Branc. and cal. smooth, Lvs. lanc. glauc. vein. smooth above with a few coarse hairs at back
1987 Leaves radical ovate lined stalked [towards the end
1988 Stem herbaceous hairy, Leaves linear lanc. strigose hairy lower nerved, Cor. equal, Stamens exserted
1989 Stem erect hispid, Leaves linear lanceolate hispid, Spike compound terminal, Cor. nearly equal
1990 Stem warted hispid, Cauline leaves lanceolate hispid, Flowers spiked lateral
1991 Cor. as long as stamens, Tube shorter than calyx
1992 Leaves spatulate lanceolate villous, Stam. shorter than corolla
1993 Stem herb. erect panic. hisp. dotted, Lvs. lin. lanc. strigose, Flowers remote, Stamens ½ as long again as cor.
1994 Stem herb. echinate, Lvs obl. lanceol. hispid little narrowed at base, Stam. as long as cor. Cal. of fr. distant
1995 Stem branched, Cauline leaves ovate, Flowers solitary lateral
1996 Stem nearly simple, Lvs. lanc. rather silky, the radical very long on stalks, Spikes axillary bent backwards
1997 Stamens shorter than cor. Cal. as long as limb, Leaves lanceolate strigose

1998 Stem shrubby, Leaves stalked, Flowers hypocrateriform
1999 Stem herbaceous, Leaves sessile, Flowers funnel-form
2000 Leaves ovate-lanceolate hairy, Peduncles branched, Spikes pendulous
2001 Leaves ovate entire naked, Spikes in cymes
2002 Leaves ovate acuminate smooth above rugose, Spike cymose erect recurved
2003 Leaves nearly lanceolate hoary, Stem half shrubby
2004 Leaves ovate acuminate nearly smooth, Leafstalks hairy, Stem climbing, Cal. 5-parted
2005 Stem climbing, Leaves ovate oblong acute repand smooth, Berry with 4 projections bipartible

2006 Leaves ovate oblong, Cal. pyramidal, Sepals triangular sagittate

2007 Stems rounded, Leaves imbricated, Flowers sessile
2008 Villous, Scapes 1-flowered
2009 Stem branching, Leaves smooth above, Pedunc. short, Petals conniving



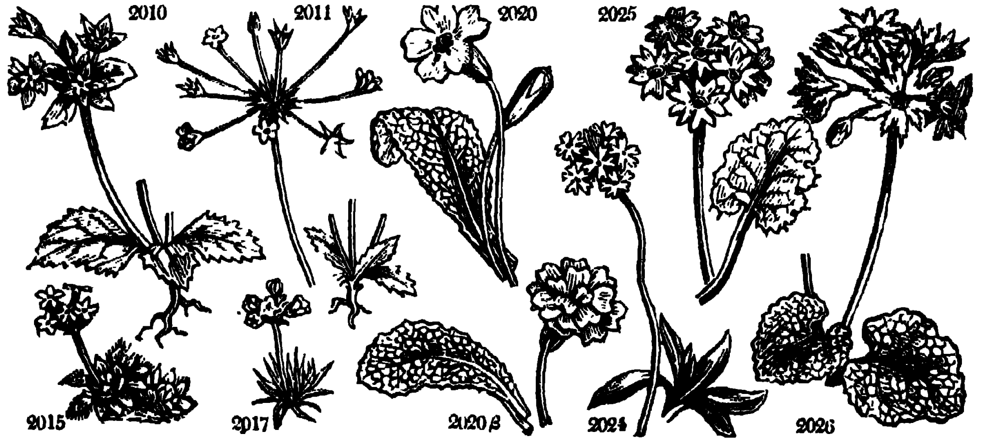
and Miscellaneous Particulars.

346. *Tournefortia.* So named by Linnæus, after Joseph Pitton de Tournefort, author of an elegant arrangement of plants under the title of *Institutiones rei Herbariæ*, and the father of the French school of botany. The system of Jussieu is founded upon that of Tournefort, or is rather an adaptation of the principles of that botanist to the actual state of the science. The species are by no means handsome either in flowers or foliage, and in some cases the latter is even fetid.

347. *Nolana.* Is a diminution of *nola*, signifying a bell in low Latin. The name has been applied to this plant on account of its bell-shaped corolla. The species are hardy annuals, of beautiful appearance when in flower. They may be sown in the spring in the open border, where they will grow without protection.

348. *Aretia.* In honor of Benoit Aretio, a Swiss, professor in the university of Berne. He died in 1574. He published a work upon alpine plants, and his name has been applied to a charming alpine genus, said by some, with little reason, not to be distinct from Primula. The species are very delicate, and require good air and skilful cultivation to succeed well. They are peculiarly suitable for rock-work or growing in pots, well drained, and filled with turfy loam and peat.

349. ANDROSA'CE. *W.*	Androsace.					*Primulaceæ.*		*Sp.* 10—35.				
2010 máxima *W.*	oval-leaved		O	or	½	mr.jn	W	Austria	1597.	S	p.l	Jac. aus. 4. t. 331
2011 elongáta *W.*	cluster-flowered		O	or	½	ap.my	W	Austria	1776.	S	p.l	Jac. aus. 4. t. 330
2012 septentrionális *W.*	tooth-leaved		O	or	½	ap.my	W	Russia	1755.	S	p.l	Bot. mag. 2021
2013 villósa *W.*	villous	¥	Δ	or	¼	jn.jl	Pk	Pyrenees	1790.	D	s.p	Bot mag. 743
2014 lactiflóra *Fisch.*	Buckshorn-lvd.	¥	⦶	or	¼	jn.s	W	Siberia	1806.	D	s.p	Bot. mag. 2022
2015 Chamajásme *W.*	Grass-leaved	¥	Δ	or	¼	jn.au	Pk	Austria	1768.	D	s.p	Bot. cab. 232
2016 láctea *W.*	white-flowered	¥	Δ	or	½	jn.au	W	Austria	1752.	D	s.p	Bot. mag. 868
2017 cárnea *W.*	awl-leaved	¥	Δ	or	¼	jl.au	F	Switzerl.	1768.	D	s.p	Bot. cab. 40
2018 obtusifólia *W.*	blunt-leaved		O	or	¼	ap.jn	Pk	Italy	1817.	S	s.p	All. ped.1.t46.f.1
2019 nána *Horn.*	dwarf		O	or	½	ap.my	W	Denmark	1803.	S	p.l	
350. PRI'MULA. *W.*	Primrose.					*Primulaceæ.*		*Sp.* 23—55.				
2020 vulgáris *E. B.*	common	£	Δ	or	¼	mr.my	Y	Britain	woods.	D	s.l	Eng. bot. 4
β *plena-cárnea* B. M.	*flesh-col.-double*	£	Δ	or	¼	mr.my	Pk	Britain	...	D	s.l	Bot. mag. 229
γ *plena-álba*	*double-white*	£	Δ	or	¼	mr.my	W	Britain	...	D	s.l	
δ *plena-sulphúrea*	*doub.-brimstone*	£	Δ	or	¼	mr.my	Y	Britain	...	D	s.l	
ε *plena-rúbra*	*double-red*	£	Δ	or	¼	mr.my	R	Britain	...	D	s.l	
ζ *plena-cúprea*	*double-copper*	£	Δ	or	¼	mr.my	O	Britain	...	D	s.l	
η *plena-atropurpúrea*	*doub.-drk-purp.*	£	Δ	or	¼	mr.my	Pu	Britain	...	D	s.l	
ϑ *plena-violácea*	*double-lilac*	£	Δ	or	¼	mr.my	Li	Britain	...	D	s.l	
2021 elátior *W.*	Oxlip	£	Δ	or	1	mr.my	Y	Britain	woods.	D	s.l	Eng. bot. 518
2022 véris *W.*	Cowslip	£	Δ	or	½	my.jn	Y	Britain	m. pa.	D	s.l	Eng. bot 5
2023 farinósa *W.*	Bird's-eye	¥	Δ	or	¼	jn.jl	R	Britain	m. pa.	D	p.l	Eng. bot. 6
2024 davúrica *Fisch.*	Siber. bird's-eye	¥	Δ	or		my.jn		Siberia	1806.	D	p.l	Bot. mag. 1219
2025 cortusoides *W.*	Cortusa-leaved	¥	Δ	or	1	my.jl	R	Siberia	1794.	D	p.l	Bot mag. 399
2026 dentiflóra *Andr.*	tooth-flowered	¥	Δ	or	1	my.jl	R	Siberia	1806.	D	p.l	Bot. rep. 405
2027 longifólia *H. K.*	long-leaved	¥	Δ	or	½	ap.my	R	Levant	1790.	D	p.l	Bot. mag. 392
2028 villósa *W.*	villous-leaved	¥	Δ	or	¼	ap.my	Pu	Switzerl.	1768	D	p.l	Bot. mag. 14
β *flore-albo*	*white-flowered*	¥	Δ	or	¼	ap.my	W	Switzerl.	1768.	D	p.l	Bot mag. 1161
2029 nivális *W.*	snowy	¥	Δ	or	½	ap.my	Pu	Dauria	1790.	D	s.l	Pal. it. t. G.* f. 2
2030 margináta *W.*	silver-edged	¥	Δ	or	¼	mr.ap	Pk	Switzerl.	1777.	D	s.l	Bot. mag. 191
2031 Auricula *W.*	Auricula	¥	Δ	or	¼	ap.my	Y	Switzerl.	1596.	D	h.l	Jac. aus. 5. t 415
2032 Palinúri *W. en.*	flat-flowered	¥	Δ	or	½	ap.my	Y	Naples	1816.	D	h.l	Sweet fl. gard 8
2033 integrifólia *W.*	entire-leaved	¥	Δ	or	¼	jn.jl	Pk	Pyrenees	1792.	D	p.l	Bot. mag. 942
2034 finmárchica *W.*	Norwegian	¥	Δ	or	¼	my.jn	Y	Norway	1798.	D	p.l	Flor. dan. 188
2035 mínima *L.*	least	¥	Δ	or	½	ap	Pk	S. Europe	1819.	D	s.l	Bot. reg. 581
* 2036 sinénsis *Lindl.*	Chinese	¥	⌂	or	1	ja.d	Pk	China	1820.	S	s.l	Lind. coll. t. 7
2037 stricta *Horn*	upright	¥	Δ	or	¼	ap.my	Pk	Denmark	1822.	D	s.l	Fl. dan. t 1385
2038 scótica *Hook.*	Scotch	¥	Δ	or	¼	jn.jl	R	Scotland	al.hea.	D	s.l	Bot. cab. 652
2039 Pallásii *Lehm.*	Pallas's	¥	Δ	or	¼	...	Y	Altai	1823.	D	s.l	Lehm. mon. t. 3
2040 pusílla *Hook.*	little	¥	Δ	or	¼	jn	Pu	N. Amer.	1822.	D	s.l	Hook. ex. fl. 68
2041 viscósa *W.*	clammy	¥	Δ	or	¼	ap	P	Piedmont	1792.	D	p.l	All.ped.1. t.5. f.1
2042 decóra *B. M.*	comely	¥	Δ	or	¼	ap	P	......	1800.	D	p.l	Bot. mag. 1922



History, Use, Propagation, Culture,

349. *Androsace.* From *ανηρ ανδρος*, a man, and *σακος*, a buckler; the large round hollowed leaf of the common Androsace has been compared to the buckler of the ancients. The Androsace of Pliny and others must have been something very different. These are elegant mountaineers which may be treated in all respects as Aretia.

350. ***Primula***, is derived from *primus*, the first, — to flower; the delicate blossoms of many of the species appearing when all nature is otherwise inert. This genus consists of beautiful dwarf alpine plants, valuable in horticulture, on account of their flowering early in spring, and being prolific in variation.

P. vulgaris is a native of most parts of Europe in woods and hedges on a moist clayey soil. It is generally found with brimstone-colored flowers, and single; but in some places, though rarely, it is found of a white, and again, of a purple hue, and occasionally double. The leaves and roots, which smell of anise, when dried, ground, and used as snuff, act as a sternutatory, and, taken internally, as an emetic. The varieties and subvarieties of this plant are very numerous. Some consider P. veris and elatior as sprung from it, and only more permanent varieties. The Hon. W. Herbert says, he raised from the seed of one umbel of a highly-manured red cowslip, a primrose, a cowslip, and oxlips, of the usual and other colors; a black polyanthus, a hose-in-hose cowslip, and a natural primrose bearing its flower on a polyanthus stalk; and from the seed of the hose-in-hose cowslip he raised a hose-in-hose primrose. (*Hort. Trans.* iv. 19.) But this requires confirmation, as the circumstance was never before recorded. For distinction's sake we shall consider them as species or subspecies.

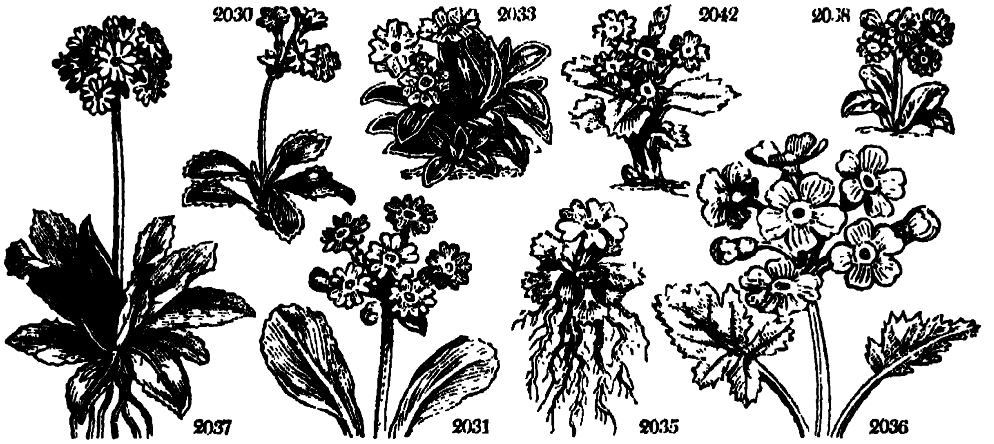
The varieties of P. vulgaris are arranged by florists in two classes; the first contains all those whose flowers are on separate pedicels, rising from the root upon a common stem, so short as not to be seen without separating the leaves of the plant, and are called primroses. The second class includes all those whose flowers are in umbels on a scape or flower-stalk rising from three to six inches or more, and are called polyanthuses. Of the primroses there are about a dozen beautiful varieties in cultivation; and of the polyanthus an astonishing number, readily added to by propagation from seed. The names of the varieties, with the exception of the double sorts given above, are entirely arbitrary. The rules for judging of the beauty or merits of a variety are also wholly artificial, and founded on an imaginary form far removed from ordinary nature. These rules or canons are

2010 All villous, Leaves ovate oblong and sepals toothed, Involucres very large, Flowers very small
2011 Much branched rough, Branches spreading, Leaves obl. somew. toothed, Sepals lanc. ent. Fl. very small
2012 Roughish erect, Lvs. lanc. tooth atten. at base, Prop. ped. elong. upright, Cor. longer than cal. Pet. ov. ent.
2013 Leaves lanceolate entire villous, Umb. few-flowered, Cor longer than the ovate campanulate calyx
2014 Smooth, Lvs. lanc. lin. tooth. at end, Ped. sprdg. elon. Cor. longer than cal. pet. obcord. (*A. coronopif.* B. M.)
2015 Pubescent, Leaves lanc. nearly entire ciliated, Umb. few-flowered, Cor. longer than the turb. calyx
2016 Caulesc. smooth, Lvs. lin. shining ent. cil. at end, Umb. few-fl. Stalks elong. Cor. longer than turb. calyx
2017 Caulesc. pubesc. Lvs. scattered lin. subulate ciliat. Umb. few-fl. Stalks short, Cor. longer than turb. calyx
2018 Leaves elliptical lanceolate smooth, Scapes umbellate
2019 Lvs. ov. lanc. from middle to end acutely toothed, Scape lvs. and stalks rather long. than invol. Cor. shorter than angular cal. (*A. Bocconi* of Gardens.)

2020 Leaves obovate oblong toothed rugose villous beneath, Umb. radical, Flower-stalks as long as lvs. Cor. flat

2021 Leaves toothed rugose hairy on both sides, Umbel many-flowered with outer flowers nodding, Cor. flat
2022 Lvs. toothed rugose hairy beneath, Umb many-flowered, Flowers all nodding, Cal. angular, Cor. concave
2023 Lvs. cuneate lanc. rug. cren. tooth. powdery, Umb. many-fl. Ped spread. Tube gland. at end, Limb flat the
2024 Leaves sessile lanc. spatul. entire smooth on both sides, Outer fl. nodding [length of tube
2025 Lvs. cordate stalked doubly crenate smooth beneath hairy at the veins, Stalks villous, Umb many-fl. erect
2026 Leaves cordate crenate-lobed very rugose, Corolla acutely toothed
2027 Leaves oblong spatulate toothed green on each side, Leaves of involucre auricled at base
2028 Leaves obl. oval serrulate villous pale green, Scape 2-3-fl. erect rounded, Cal. globose, Tube of cor. villous

2029 Leaves lanc. flat finely toothed smooth, Umb. many-fl. erect, Leaves of invol connate at base
2030 Leaves smooth on each side crenate powdery at edge, Cal. very short (*P. crenata*, Lehm.)
2031 Leaves obov. cut. or serr. fleshy, Scape central as long as lvs. Umb. erect, Inv. with short lvs Cal. powdery
2032 Leaves spatulate serrated smooth, Scape lateral, Umbel nodding, Involucre with large leaves
2033 Leaves elliptical nearly entire thickish cartilaginous at edge, Umb 2-3-fl erect, Cal. tubular obtuse
2034 Leaves ovate entire stalked smooth, Umb. erect 3-fl. Cal. campanulate, Cor. cyathiform
2035 Leaves wedge-shaped shining many-toothed at end, Scape about 1-fl. Petals half bifid like a Y
2036 Leaves stalked ovate cordate rugose, Umbel proliferous, Cal. inflated
2037 Lvs. lan. obov tooth. stlk. beneath nearly nak. Um. few-fl. erect, Lvs. of inv. lan Pet. obov. short. than tube
2038 Resembles P. farinosa. Distinguished by its flat corolla, and more robust habit
2039 Leaves obovate oblong close toothed smooth somewhat wavy, Umb. pubesc. Cal. ovate gaping, Cor. flat
2040 Leaves obovate spatulate beneath and scape mealy, Segments obcordate toothed
2041 Leaves obovate tongue-shaped entire vill. viscid, Umb. many-fl. erect, Leaves of inv. ovate short membr.
2042 Leaves flat coarsely serrated acute, Cal. viscid, Pedicels longer than scape



and Miscellaneous Particulars.

agreed on by the general consent of florists; they were first brought forward by the Dutch, and are now to be found in the treatises on florists' flowers of all countries: one of the best in this country is Maddocks's Florist's Directory.

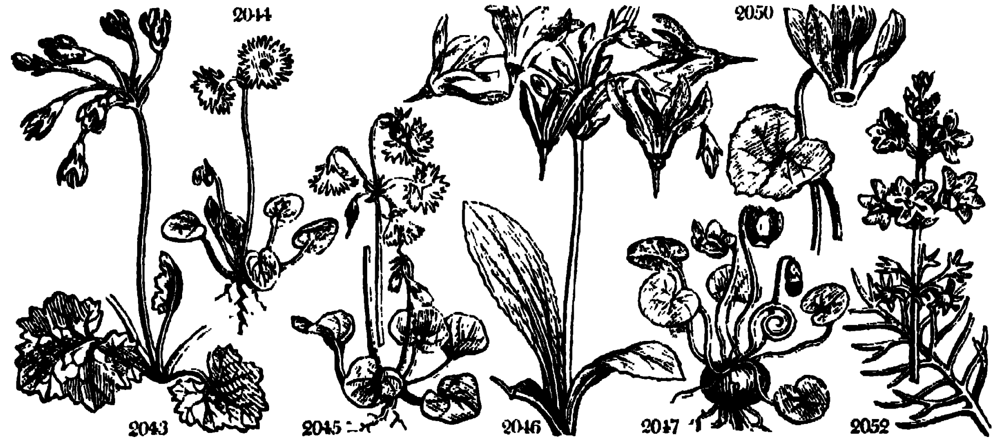
The culture of P. veris as a border flower is abundantly simple, as it will grow any where, but best in a situation shaded from the mid-day sun, and in a loamy soil; but its culture as a florists' flower, the crossing to procure new varieties, and all the various cares of the florist involve details much too tedious for this work, if they were to be given at such length as to be of real use. We refer to Maddocks, Emerton, and Hogg, and to the Encyclopedia of Gardening.

P. elatior is found in the same situations as the primrose, but is much less common than either it or P. veris, It has little or no smell. Sir J. E. Smith considers it as probably a hybrid between the cowslip and primrose. There are two or three varieties of oxlip, but they are not considered as florists' flowers.

P. veris smells more strongly of anise than the primrose. Its leaves have been used as a pot-herb, and in salads, and are recommended for feeding silk-worms The flowers make a pleasant wine, flavored like muscadel, but considered somniferous. Liquors and syrups are sometimes tinctured with the leaves. Having been less cultivated than the primrose, there are but few varieties of this plant in gardens. They may be raised from seed, however, to any extent, as Messrs. Gibbs, of the Brompton nursery, and others, have lately proved.

P. auricula is a well known favorite of the florist. It is a native of the alpine regions of Italy, Switzerland, and Germany, and found also about Astracan. The most common colors in its wild state are yellow and red, sometimes purple, and occasionally variegated or mealy. The cultivated are innumerable, and many of them of exquisite beauty and fragrance. The leaves in different varieties differ almost as much as the flowers, a circumstance which does not take place to the same extent in the variations of P. vulgaris or veris. Near most of the manufacturing towns of England, and many in Scotland, the culture of this flower forms a favorite amusement of weavers and mechanics. Lancashire has been long famous for its auriculas: it is no uncommon thing there for a working man who earns, perhaps, from 18*s.* to 30*s.* per week, to give two guineas for a new variety of auricula, with a view to crossing it with some other, and raising seedlings of new properties.

351. CORTU'SA. *W.*	**BEAR'S-EAR SANICLE.**					*Primulaceæ.*		*Sp.* 1.				
2043 Matthioli *W.*	common	♃	△	or	½	ap.jn	R	Austria	1596.	D	s.l	Bot. mag. 987
352. SOLDANEL'LA. *W.*	**SOLDANELLA.**					*Primulaceæ.*		*Sp.* 2—3.				
2044 alpina *W. en.*	Alpine	♃	△	or	¼	ap	Pu	Switzerl.	1656	D	p.l	Bot. mag 49
2045 montána *W. en.* *S. Clusii* B M.	mountain	♃	△	or	½	ap	Pu	Bohemia	1816.	D	p.l	Bot. mag. 2163
353 DODECA'THEON.	**AMERICAN COWSLIP.**					*Primulaceæ.*		*Sp.* 1.				
2046 Méadia *W.*	Mead's	♃	△	or	1	ap.jn	L.Pu	Virginia	1744.	D	p.l	Bot. mag. 12
354. CY'CLAMEN. *W.*	**CYCLAMEN.**					*Primulaceæ.*		*Sp.* 5.				
2047 cóum *W.*	round-leaved	♃	△	or	¼	ja.ap	L.R	S. Europe	1596.	S	s.p	Bot. mag. 4
2048 europæ'um *W.*	common	♃	△	or	¼	au	L.R	Britain	banks.	S	s.p	Eng. bot. 548
2049 pérsicum *W.*	Persian	♃	└┘	or	¼	f.ap	R.w	Cyprus	1731.	S	p.l	Bot. mag. 44
2050 héderafólium *W.*	Ivy-leaved	♃	△	or	¼	ap	W	Austria	1596.	S	p l	Bot. mag. 1001
2051 ver'num *Mill.*	spring	♃	△	or	¼	mr	Pu	......	...	S	s.l	Sweet fl. gard. 9
355. HOTTO'NIA. *W.*	**WATER-VIOLET.**					*Primulaceæ.*		*Sp.* 1—2.				
2052 palústris *W.*	marsh	♃	△	or	1	jl.au	F	England	dit.	S	aq	Eng. bot. 364
356. LYSIMA'CHIA. *W.*	**LOOSE-STRIFE.**					*Primulaceæ.*		*Sp.* 16—29.				
2053 vulgáris *W.*	common	♃	△	or	3	jl.s	Y	Britain	wat.sh.	D	co	Eng. bot. 761
2054 Ephémerum *W.*	Willow-leaved	♃	△	or	2	jl.s	W	Spain	1730.	D	p.l	Bot. mag. 2346
2055 angustifólia *Mich.*	narrow-leaved	♃	△	or	1½	jl.s	Y	N. Amer.	1803.	D	p.l	
2056 dúbia *W.*	purple-flowered	♃	⊖	or	1½	jl.s	Pu	Levant	1759.	D	p.l	M co go.1782 t.1
2057 stricta *W.*	upright	♃	△	or	1½	jl.au	Y	N. Amer.	1781.	D	p.l	Bot mag 104
2058 thyrsiflóra *W.*	tufted	♃	△	or	1	my jl	Y	England	bog. pl.	D	co	Eng. bot. 176
2059 capitáta *Ph.*	headed	♃	△	or	1	my jl	Y	N. Amer.	1813.	D	co	
2060 punctáta *W.*	dotted	♃	△	or	1½	jl.au	Y	Holland	1658.	D	co	Jac. aus 4. t. 366
2061 verticilláta *Pall.*	whorled	♃	△	or	1	jl.au	Y	Crimea	1820.	D	co	Bot. mag 2295
2062 quadrifólia *Ph.*	four-leaved	♃	△	or	2	jl.au	Y	N. Amer.	1794.	D	p.l	Lm ill 1 t.101.f 2
2063 ciliáta *Ph.*	ciliated	♃	△	or	2	jl au	Y	N. Amer.	1732.	D	m.s	Walth. hort t.12
2064 longifolia *Ph.*	four-flowered	♃	△	or	2	jl.au	Y	N. Amer.	1798.	D	p.l	Bot. mag. 660
2065 hýbrida *Ph.*	hybrid	♃	△	or	1½	jl.au	Y	N. Amer.	1806	D	co	
2066 Linum-stellátum *W.*	small	♃	○	or	½	jn	G	Italy	1658.	S	s l	Mag. b. mo t.162
2067 némorum *W.*	wood	♃	△	or	½	my.jl	Y	Britain	m s.pl.	D	m.s	Eng. bot. 527
2068 Nummulária *W.*	Moneywort	♃	△	or	½	jn jl	Y	Britain	m.me.	D	m.s	Eng. bot. 528
357. ANAGAL'LIS. *W.*	**PIMPERNEL**					*Primula*		*Sp.* 4—12.				
2069 arvénsis *W.*	common	⊙	○	w	½	jn.s	S	Britain	cor. fi.	S	co	Eng. bot. 529
2070 cærúlea *E. B*	blue	⊙	○	w	½	jn.s	B	Britain	cor fi.	S	co	Eng. bot 1823
2071 fruticósa *H. K.*	large-flowered	♃	⊡	or	3	my.jl	Ve	Morocco	1803.	L	p.l	Bot. mag. 831
2072 latifólia *W.*	broad-leaved	♃	⊡	or	1	my jl	Pu	Spain	1759.	L	p l	Meerb. ic. 1. t.22



History, Use, Propagation, Culture.

As to the soil proper for auriculas and polyanthuses, much has been written, and some highly artificial compositions of bullock's blood, sugar-baker's scum, night-soil, fuller's earth, &c. recommended. Many of the most successful growers, however, use nothing more than a loam from an old pasture or hedge-row, kept and turned over occasionally during a year, and then mixed with hot-bed dung rotten to a mould, or with leaf-mould, and some sand to keep it open. The soil and manure must be well mellowed by time before using, and not mixed till it is wanted, as that is said to generate worms. (See *Encyc. of Gard.* art. *Primula*.)

P. auricula, helvetica, nivalis, and viscosa, are considered by Herbert as only varieties of one original, for he says he raised a powdered auricula and a P. helvetica from P. nivalis, and a P. helvetica from P. viscosa. (*Hort. Trans.* iv. 20.) These, and the other species of this genus, are well adapted for being kept in pots of loam and leaf-mould, or loam and peat well drained, and in frosty or wet weather during winter, protected by a frame to imitate their natural covering of snow in alpine regions. Sweet says, "they require to be shifted and parted frequently, for if left too long without these being done, they will dwindle away and die." The best time for parting and shifting is after they have done flowering.

P. scotica, a pretty plant, resembling P. farinosa, has lately been discovered in Scotland by Dr. Hooker, professor of botany at Glasgow.

351. *Cortusa.* So named by Mathiolus, in honor of his friend J. A. Cortusus, who first noticed it. This is a handsome little alpine, requiring a similar treatment to the Swiss Primulæ.

352. *Soldanella.* The diminutive of *solidus*, a shilling. The round leaves of these plants are very like pieces of money. They are among the least and most beautiful of alpine plants, and remarkable for the manner in which their corolla is cut or lacerated. Culture as in the Swiss Primulæ.

353. *Dodecatheon.* A name of the Romans, signifying 12 gods or divinities, applied with apparent inaptitude by Linnæus to a plant, native of a world the Romans did not know, and resembling in no particular that of their writers. It was originally named Meadia by Mark Catesby, in honor of Dr. Mead, but the name was continued only as a specific appellation by Linnæus. It is very ornamental when in flower; afterwards the leaves die away, and the root only remains till next season. It is not easily kept; but thrives better in a bed of light loamy soil, in a shady and rather moist situation, than in pots.

354. *Cyclamen.* Derived from *κυκλος*, a circle, on account of the numerous coils of the fruit-stalks. This genus consists of humble plants with very beautiful flowers. In the north of Italy wild swine feed on its

2043 The only species

2044 Cor. funnel-shaped spreading out beyond the middle, Calyx erect, Style shorter than corolla
2045 Cor. cylindrical bell-shaped not cut so far as the middle, Cal. spreading, Style longer than corolla

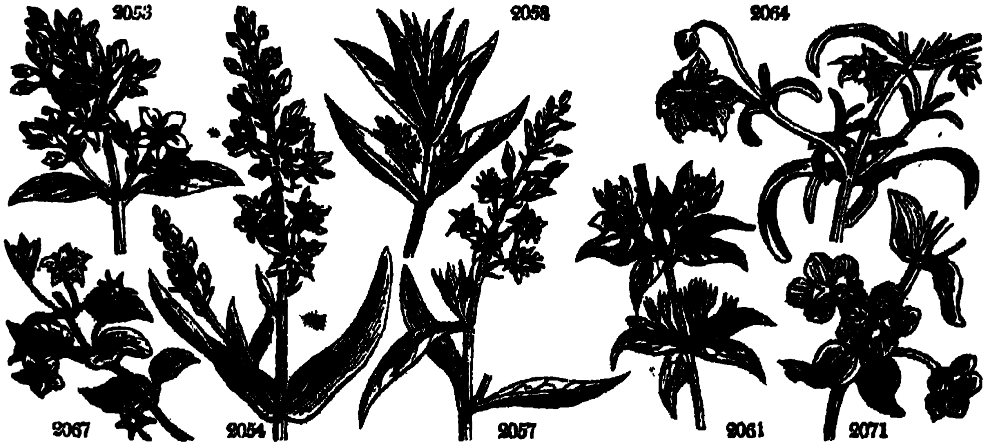
2046 The only species. Leaves radical flat on the ground, Scape bearing at top an umbel of drooping flowers

2047 Leaves orbicular cordate entire, Segments of cor. ovate
2048 Leaves orbicular cordate crenate or toothed, Segm. of cor. lanceolate
2049 Leaves oblong ovate cordate or reniform-cordate crenated, Segm. of cor. oblong obtuse
2050 Leaves cordate oblong acuminate angular toothed, Segm. of cor. oblong lanceolate rather acute
2051 Leaves cordate crenulate emarginate, with the base overlapping, Flower short, Style exserted

2052 Flowers vertical stalked, Leaves under water all finely cut

2053 Racemes terminal compound, Leaves opposite 3-4 together oblong lanceolate
2054 Racemes terminal, Petals obovate spreading, Leaves linear lanceolate sessile
2055 Smooth branching, Leaves opp. or whorled long linear spotted, Raceme terminating a short scape
2056 Racemes terminal, Petals conniving, Stam. shorter than corolla, Leaves lanceolate stalked
2057 Racemes terminal, Petals lanceolate spreading, Leaves lanceolate sessile
2058 Racemes axillary stalked ovate compact, Leaves opp. lanceolate
2059 Smooth, Stem simple spotted, Leaves opp. sess. lanc. acute spott. Flowers in close heads
2060 Leaves 3-4 together ovate lanc. stalked pub. beneath, Ped. axill. whorled, Pet. ovate fringed with glands
2061 Leaves whorled obl. lanc. stalked, Pet. ovate acute glandular, Stem pubescent
2062 Leaves subsessile 4-5 together oval acuminate dotted, Peduncles four, 1-flowered, Petals oval entire
2063 Pub. Lvs. opp. on long stalks cord. ovate, Fl.-stalks axill. in pairs, Fl. cernuous, Petals rounded crenulate
2064 Smooth much branched, Leaves linear very long, Segments of cor. serrulate
2065 Smooth, Leaves opp. on long stalks lanc. Petioles ciliated, Fl. cernuous, Cor. shorter than cal. Pet. cren.
2066 Leaves lanc. sessile, Peduncles axillary opp. Stem much branched smooth, Cal. longer than corolla
2067 Leaves ovate acute, Flowers solitary, Stem procumbent, Stamens smooth
2068 Leaves opposite roundish cordate, Pedunc. axillary 1-flow. Stem smooth creeping, Stamens glandular

2069 Stem procumbent, Leaves 3-nerved ovate lanceolate petals dilated at end crenate with glands
2070 Leaves 5-nerved ovate lanceolate, Stem erect a little winged, Petals toothed at end
2071 Leaves lanceolate about 3 together sessile, Stem shrubby at base rounded, Branches diffuse angular
2072 Leaves cordate stem clasping, Stem brachiate erect



and Miscellaneous Particulars.

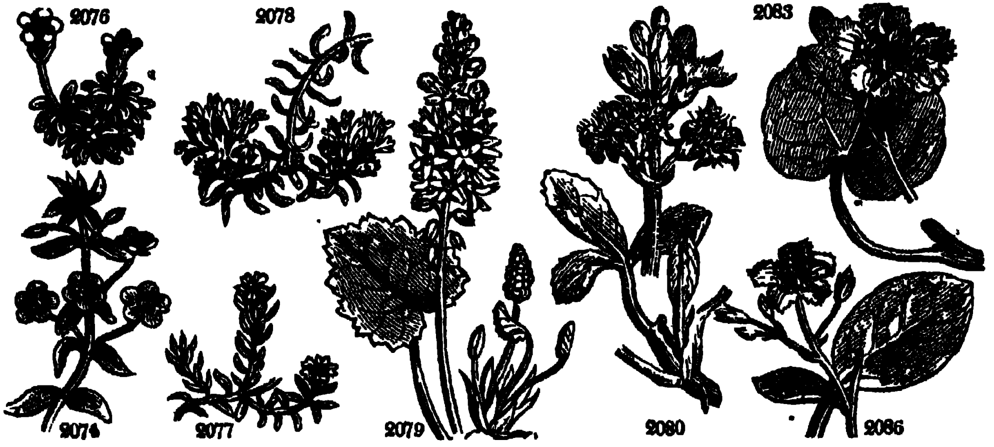
bulbs, which are round, flattened, and solid, and as large as pigeons' eggs. When the flowers fade the pedicels twist up like a screw, inclosing the germen in the centre, and, lying close to the ground among the leaves, remain in that position till the seeds ripen. The plant is peculiarly adapted for pots, and for chamber decoration in spring. C. hederæfolium is very scarce, and agreeably fragrant. C. persicum is tender; the others are quite hardy.

355. *Hottonia.* In honor of Peter Hotton, a professor in the university of Leyden, born in 1648, died in 1709. He wrote several academical dissertations, and published remarks upon medicinal plants, valuable in their day. *Plume d'eau*, Fr. *Wasserviole*, Ger., and *Mirifillo aquatica*, Ital.* This singular aquatic has roots consisting of white capillary fibres, which strike deep into the mud. The leaves grow in tufts under the water, and only the upper part of the flowering stem rises above it, producing a showy spike of white and blue flowers. It affords refuge to the fresh-water periwinkle (*Turbo Littoreus*), and other small shellfish. The seeds being sown in a pond when ripe, the plants will rise in the water the spring following.

356. *Lysimachia.* From *λυειν μαχην*, of which the English name Loose-strife is a translation; it has been given to this plant from the quality absurdly ascribed to it by the ancients, of quieting restive oxen when put upon their yokes. Linnæus says it was named after king Lysimachus of Sicily, who first used it, which account is nearly the same as that of Pliny. Most of the species are bog or fen plants, of the easiest culture. L. nummularia is ornamental on moist rock-work or hanging from a pot in a northern exposure. Though one of the hardiest natives, it seldom produces ripe seeds, like most plants which multiply themselves much by the roots or stem. The flowers of L. thyrsiflora come out in lateral bunches from the axils towards the top of the stem, which Linnæus notices as a singular circumstance in an upright plant. L. stricta, after flowering, throws out bulbs from the axils of the leaves, which, if allowed to lie on a moist surface, will produce young plants the following spring. L. dubia requires to be treated like a tender annual.

357. *Anagallis.* From *αναγελαω*, to laugh; the name expressing the medicinal qualities of the plant, which, by removing obstructions of the liver, removed a cause of low spirits and despondency; so at least say Pliny and Dioscorides. A. arvensis is a beautiful trailing weed, and one of the Floræ horologicæ, opening its flowers regularly about eight minutes past seven o'clock in our latitude, and closing about three minutes past two o'clock. It also serves as an hygrometer, for if rain fall, or there be much moisture in the atmosphere, the flowers either do not open, or close up again. Small birds are very fond of the seeds. A. monelli is a very

2073 Monélli *W.*	blue-Italian	♃	⌊△⌋	or	1	my.s	B	Italy	[illegible]	L	p.l	Bot. mag. 319
2074 linifólia *W.*	Flax-leaved	♃	⊡	or	1	jn.jl	B	Portugal	[illegible]	C	s.l	Bot. mag. 2389
2075 tenélla *W.*	bog	♃	△	or	¼	au.s	Pk	Britain	bog.pl.	D	l.p	Eng. bot. 530
358. DIAPEN'SIA *W.*	DIAPENSIA.					*Ericeæ.*		*Sp.* 1.				
2076 lappónica *W.*	obtuse-leaved	£	△	or	¼	f.mr	W	Lapland	1801.	D	s.l	Bot. mag. 1108
359. PYXIDANTHE'RA. *Mi.*	PYXIDANTHERA.					*Ericeæ.*		*Sp.* 1.				
2077 barbuláta *Mi.*	bearded	ħ.		or	¼	jl	W	Carolina	1806.	D	l.p	Mich. amer. t.17
360. CO'RIS. *W.*	CORIS.					*Primulaceæ.*		*Sp* 1.				
2078 monspeliénsis *W.*	Montpelier	♃	⊡	or	¼	jn.jl	Li	S. Europe	1640.	S	s.p	Bot. mag. 2131
361. GA'LAX. *W.*	GALAX.					*Saxifrageæ.*		*Sp.* 1.				
2079 aphýlla *W.*	heart-leaved	♃	△	or	¼	jn.jl	W	N. Amer.	1786.	D	s.p	Bot. mag. 754
362. MENYAN'THES. *W.*	BUCK-BEAN.					*Gentianeæ.*		*Sp.* 1—2.				
2080 trifoliáta *W.*	common	♃	△	or	1	jl	W	Britain	moi.pl.	C	p	Eng. bot. 495
363. VILLAR'SIA. *R. Br.*	VILLARSIA.					*Gentianeæ.*		*Sp.* 6—12.				
2081 nymphoides *W.*	fringed	♃	△	or	1	jn.jl	Y	England	rivers.	S	p.l	Eng. bot. 217
2082 lacunósa *V.*	smooth-flower.	♃	⌊△⌋	or	1	jn.jl	W	N. Amer.	1812.	S	p.l	Vent. choix. 9
2083 sarmentósa *B. M.*	running	♃	⌊△⌋	or	1	jn.jl	Y	N. Holl.	1806.	S	p.l	Bot. mag. 1328
2084 índica *W.*	Indian	♃	[△]	or	1	my.au	W	C. G. H.	1792.	S	p.l	Bot. mag. 658
2085 parnassiifólia *R. Br.*	tall	♃	⌊△⌋	or	2	jn.o	Y	N. S. W.	1805.	S	p.l	Bot. mag. 1029
2086 ováta *V.*	oval-leaved	♃	⌊△⌋	or	1	my.jl	O	C. G. H.	1786.	S	p.l	Bot. mag. 1909
364. CHIRO'NIA. *L.*	CHIRONIA.					*Gentianeæ.*		*Sp.* 7—14.				
2087 jasminoides *Thunb.*	Jasmine-leaved	ħ.	⌴	or	2	ap.jl	Pu	C. G. H.	1812.	C	p.l	Bot. reg. 197
2088 lychnoides *Thunb.*	Lychnis-flower	ħ.	⌴	or	2	...	Pu	C. G. H.	1816.	C	p.l	
2089 linoides *W.*	Flax-leaved	ħ.	⌴	or	2	jl.s	R	C. G. H.	1787.	C	s.p	Bot. mag. 511
2090 baccifera *W.*	berry-bearing	ħ.	⌴	or	2	jn.jl	Y	C. G. H.	1759.	S	s.p	Bot. mag 233
2091 angustifólia *H. K.*	narrow-leaved	ħ.	⌴	or	1	jn.au	R	C. G. H.	1800.	C	s.p	Bot. mag 818
2092 frutéscens *W.*	shrubby	ħ.	⌴	or	1½	jn.s	R	C. G. H.	1756.	C	s.p	Bot. mag. 37
2093 decussáta *H. K.*	cross-leaved	ħ.	⌴	or	1½	jn.s	R	C. G. H.	1789.	C	s.p	Bot. mag 707
365. EUSTOMA. *P. L.*	EUSTOMA.					*Gentianeæ.*		*Sp.* 1.				
2094 sileniifólium *P. L.*	silene-leaved		○	or	1	jl	W	I. Provid.	1804.	S	s.l	Par. lond. 241
366. ERYTHRÆA. *P. S.*	ERYTHRÆA.					*Gentianeæ.*		*Sp.* 5—20.				
2095 Centaúrium *P. S.*	common		○	or	½	jl.au	Pk	Britain	heaths.	S	s.l	Eng. bot. 417
2096 pulchella *E. B.*	dwarf-branched		○	or	¼	au.s	[illegible]	England	sea co.	S	s.l	Eng. bot. 458
2097 littorális *E. B.*	dwarf-simple		○	or	¼	jn.jl	[illegible]	Britain	sea co.	S	s.l	Eng. bot. 2305
2098 marítima *P. S.*	procumbent	£	⌊△⌋	or	¼	jl.au	[illegible]	S. Europe	1777.	S	s.l	Cav. ic 3. t. 296. f. 1
2099 conférta *Pers.*	clustered	£	⌊△⌋	or	¼	jl.au	Pk	Spain	1821.	S	s.l	
367. SABBA'TIA. *P. L.*	SABBATIA.					*Gentianeæ.*		*Sp.* 4—6.				
2100 grácilis *Ph.*	slender	♂	◑	or	1	jl	Pu	N. Amer.	...	C	co	Par. lond. 32
2101 calycósa *Ph.*	dichotomous	♂	◑	or	1	jn.au	Pk	N. Amer.	1812.	C	co	Bot. mag. 1600
2102 chloroides *Ph.*	chlora-like	♂	◑	or	¼	jl.au	Pk	N. Amer.	1817.	S	co	
2103 paniculáta *Ph.*	panicled	♂	△	or	1½	my.jn	W	N. Amer.	1817.	C	co	
368. LOGA'NIA. *R. Br.*	LOGANIA.					*Gentianeæ.*		*Sp.* 2—11.				
2104 latifólia *R. Br.*	broad-leaved	ħ.	⌴	or	3	...	W	N. Holl.	1816.	C	l.p	Lb. nov. ho. 1. t. 51
2105 floribúnda *R. Br.*	many-flowered	ħ.	⌴	or	2	ap.my	W	N. S. W.	1797.	C	l.p	Bot. rep. 520
Euosma albiflora B. Rep.												



History, Use, Propagation, Culture,

beautiful small plant, and, with A. latifolia and linifolia, require the protection of a frame during winter. A. tenellà is a delicate bog-plant, but not a very certain tenant of the genus. It is probably botanically distinct.

358. *Diapensia.* An ancient Greek name of the Sanicle, and signifying a plant which removes pain; the Sanicle being a vulnerary. Linnæus applied the name to this plant, which is neither a Sanicle nor a vulnerary, but a pretty alpine species, requiring the same cultivation as similar things, and retaining its deep green leaves through the severest winters.

359. *Pyxidanthera.* From πυξις, a box, and ἀνθηρά, an anther, the anthers bursting across like a little box. A small plant resembling Azalea procumbens, with heath-like leaves and minute white flowers. It is found on the White-Mountains of New Hampshire, and in Pine-barrens in other parts of North America, but is very rare in cultivation.

360 *Coris.* A name of Dioscorides, for which even the etymological ingenuity of a Linnæus or a De Théis have been unable to provide a meaning. It was given to a plant analogous to Hypericum, and resembling the heath. Tournefort applied the name to this plant, whose fine leaves, and purple or pink flowers, clothe, like the heath, the places where it grows wild.

361. *Galax.* From γαλα, milk, in allusion to its milk-white spikes of flowers. This is a neat little plant, and thrives best in a moist situation; where alone it flowers freely.

362. *Menyanthes.* From μηνη, a month, and ανθος, flower, in allusion to the power which the plant is supposed to possess of exciting menstruation. *Buck-bean or Bog-bean*, Eng., *Backsbohne*, Ger. An infusion of the leaves is bitter, and is frequently recommended in dropsy and rheumatism. In Sweden the plant is used

2073 Leaves linear [illegible]lied, Stems ascending
2074 Leaves sessile opposite 3-4 [illegible] lanceolate 3-nerved, Sepals linear acute, Cor. twice as big as calyx
2075 Leaves ovate [illegible] creeping, Stigma acute

2076 The only species. Plant growing in dense tufts

2077 A small plant resembling Azalea procumbens

2078 The only species

2079 The only species. Roots deep red. Flowers in long slender spikes

2080 Leaves ternate

2081 Leaves cordate orbicular floating, Flowers umbelled, Corollas fringed
2082 Leaves reniform subpeltate beneath full of holes floating, Petioles flower-bearing, Corollas smooth
2083 Runners creeping, Leaves cordate roundish repand dotted beneath, Panic. opp. the leaves, Seeds smooth
2084 Leaves cordate roundish nerved floating, Petioles flower-bearing, Corolla hairy within
2085 Leaves radical cordate roundish spreading toothed, Stem long naked, Flowers panicled
2086 Leaves ovate erect, Flowers in panicled racemes fringed

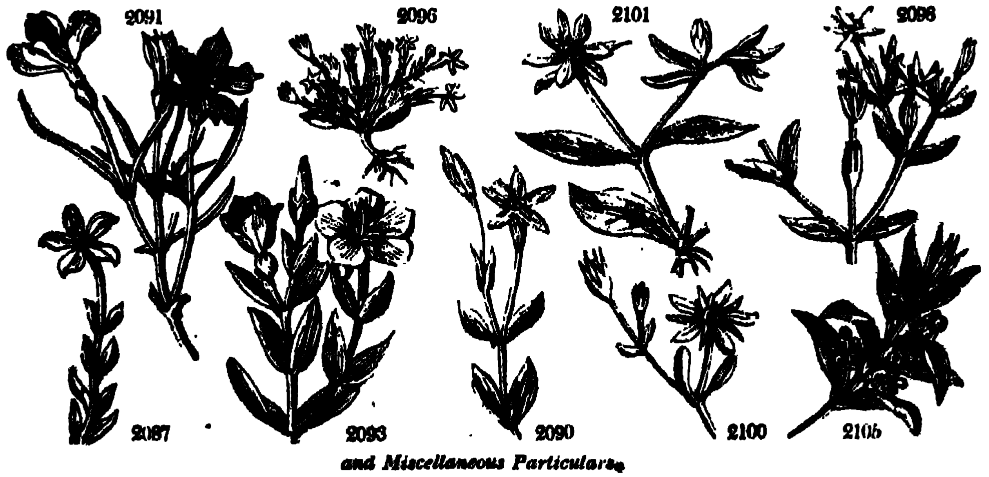
2087 Leaves lanceolate smooth, Stem herbaceous 4-cornered cernuous
2088 Stem simple, Leaves linear-lanceolate
2089 Herbaceous, Leaves linear erect, Branches fastigiate, Peduncles elongated
2090 Leaves linear-lanceolate smooth spreading, Stem much branched shrubby, Fruit a berry
2091 Leaves linear spreading, Cal. ovate closed, Cor. clammy, Segm. cuneate pointed
2092 Shrubby, Leaves lanceolate subtomentose, Calyxes campanulate
2093 Shrubby subtomentose, Leaves close together decussate oblong obtuse, Cal. globose 5-parted

2094 The only species

2095 Stem herbaceous dichotomously panicled, Leaves ovate lanceolate, Cal. shorter than tube
2096 Flowers stalked, Segments of cal. shorter than tube, Style simple, Leaves ovate
2097 Stem nearly simple dwarf, Flowers clustered sessile, Cal. as long as tube of cor. Leaves lin. lanc.
2098 Herbaceous, Leaves oblong-lanceolate, Stem dichotomous corymbose rounded, Flowers stalked digynous
2099 Dwarf upright much branched, Lvs. oval obtuse, Fl. sessile fasc. clustered, Cal. ½ as long as tube of cor.

2100 Weak, Branches lax elongated 1-flowered, Leaves linear ellipt. Pet. obovate, Stem angular
2101 Erect leafy, Leaves oblong, Flowers solitary about 7-parted, Cal. leafy longer than cor.
2102 Weak, Leaves lanc. erect, Branches few 1-flowered, Flowers 7-13-parted, Sepals linear shorter than cor
2103 Erect, Leaves lanc. linear, Pan. many-flowered brachiate, Cal. subulate thrice as short as cor.

2104 Leaves obovate acute at each end, Flowers corymbose, Branches smooth, Stem erect
2105 Leaves lanceolate attenuate at each end smooth, Stipules lateral setaceous, Racemes axillary compound



and Miscellaneous Particulars.

as a substitute for hops, two ounces of the leaves being substituted for a pound of hops. The powdered roots are sometimes eaten in Lapland. The only species cultivated is the wild plant of our rivulets.

363. *Villarsia.* A genus divided from the last, and named after Villars, a French botanist of repute, who wrote the Flora of Dauphiny, in 1786, a work used even at the present day. This is an aquatic genus of easy culture, and increased by seeds or dividing at the root. V. nymphoides is one of the most elegant of British water-plants.

364. *Chironia.* Named after Chiron, one of the fathers of medicine, botany, and surgery. He is mythologically represented to have been the son of Saturn, or of Time and Experience. Many plants, the virtues of which he is believed to have first discovered, have borne his name. The genus, however, to which it is now applied, is probably not one of those. It consists of pretty plants of short duration, generally with pink flowers. The species are not long-lived plants, and therefore require to be frequently raised from cuttings. Peat mould suits them best, and a little loam mixed with it; and young cuttings planted in the same kind of soil, under hand-glasses, strike root readily.

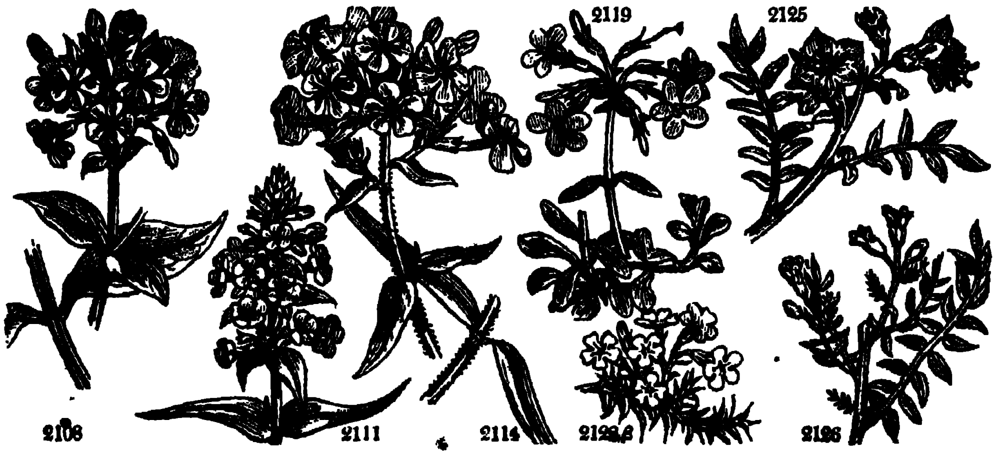
365. *Eustoma.* From ευ, well, and στομα, mouth or orifice, in allusion to the colored aperture of the tube of the flower. A pretty little plant rarely seen in gardens. It resembles a Sabbatia.

366. *Erythræa.* From ερυθρος, red, in allusion to the color of the flowers. This is a pretty genus of herbaceous and annual flowers, but impatient of cultivation, and therefore rarely seen in gardens.

367. *Sabbatia.* Named after Liberatus Sabbati an Italian botanist, author of many works on botany. In 1772 he published the first volume of the Hortus Romanus, a fine work, in folio, of which the seventh and last volume appeared in 1784. A pretty N. American genus of plants resembling Chironia.

368. *Logania.* Named by Mr. Brown, after a Mr. James Logan, said to have been the author of some experi-

369. PHLOX. *W.*	Lychnidea.					*Polemoniaceæ.* *Sp.* 18—24.						
2106 paniculáta *W*	panicled	⚘	△	or	3	au.s	Pk	N. Amer.	1732.	D	p.l	Mill. ic. 2. t. 205. f. 2
β alba	*white*	⚘	△	or	3	au.s	W	N. Amer.	1813.	D	p.l	
2107 unduláta *W.*	waved-leaved	⚘	△	or	3	jl.au	R	N. Amer.	1759.	D	p.l	
2108 acumináta *Ph.*	Lyons's	⚘	△	or	4	my.au	Pu	N. Amer.	1812.	D	p.l	Bot. mag. 1880
2109 suavéolens *W.*	white-flowered	⚘	△	or	2	jl.au	W	N. Amer.	1766.	D	p.l	
2110 maculáta *W.*	spot-stalked	⚘	△	or	4	jl.au	R	N. Amer.	1740.	D	p.l	Jac. vind. 2. t. 127
2111 pyramidális *H. K.*	pyramidal	⚘	△	or	4	jn.au	F	N. Amer.	1800.	D	p.l	Bot. cab. 342
2112 pilósa *W.*	hairy-leaved	⚘	△	or	1	my.jn	Pk	N. Amer.	1759.	D	p.l	Bot. mag. 1307
2113 amœ'na *B. M.*	Fraser's-hairy	⚘	△	or	½	jn.jl	Pk	N. Amer.	1809.	D	p.l	Bot. mag. 1308
2114 Carolína *W.*	rough-stemmed	⚘	△	or	1	jl.s	D.Pu	Carolina	1728.	D	p.l	Bot. mag. 1344
2115 triflóra *Mi.*	pubescent	⚘	△	or	1	jl.s	Pu	Carolina	...	D	p.l	Sweet fl. gard. 29
2116 suffruticósa *Vent.*	shining-leaved	⚘	△	or	1½	jl.s	D. Pu	N. Amer.	1790.	D	p.l	Bot. reg. 68
2117 glabérrima *W.*	smooth	⚘	△	or	3	jn.au	R	N. Amer.	1725.	D	p.l	D. elt. t. 166. f. 202
2118 divaricáta *W.*	early-flowering	⚘	△	or	1	ap.jn	L.B	N. Amer.	1746.	D	p.l	Bot. mag. 163
2119 stolonífera *H. K.*	creeping	⚘	△	or	¼	jn.s	R	N. Amer.	1800.	D	p.l	Bot. mag. 563
2120 ováta *W.*	ovate-leaved	⚘	△	or	1½	my.jl	Pu	N. Amer.	1759.	D	p.l	Bot. mag. 528
2121 subuláta *W.*	awl-leaved	⚘	△	or	½	ap.jn	F	N. Amer.	1786.	D	p.l	Bot. mag. 411
2122 setácea *W.*	fine-leaved	⚘	△	or	½	ap.my	F	N. Amer.	1786.	D	p.l	Bot. mag. 415
β nivális	*snow-white*	⚘	△	or	½	ap.my	W	N. Amer.	1820.	D	p.l	Bot. cab. 780
2123 cárnea *B. M.*	flesh-colored	⚘	△	or	1	au.s	Pk	N. Amer.	1816.	D	p.l	Bot. mag. 2155
370. POLEMO'NIUM. *W.*	Greek-valerian.					*Polemoniaceæ.* *Sp* 3—12.						
2124 réptans *W.*	creeping	⚘	△	or	½	ap.my	L.B	N. Amer.	1758.	D	co	Mill. ic. 2. t. 209
2125 cærúleum *W.*	blue-flowered	⚘	△	or	2	jn	B	Britain	bu. pl.	D	co	Eng. bot. 14
β álbum	*white-flowered*	⚘	△	or	2	jn	W	......	...	D	co	
γ maculátum	*spotted-flowered*	⚘	△	or	2	jn	St	......	...	D	co	
2126 mexicánum *Cav.*	Mexican	⚘	[△]	or	1	ap.my	B	Mexico	1817.	D	co	Bot. reg. 460
371. VES'TIA. *W. en.*	Vestia.					*Polemoniaceæ.* *Sp.* 1.						
2127 lýcioides *W. en.*	Box-thorn-like	♣	⊔	or	3	jn	Y	Chili	1815.	C	s.p	Bot. reg. 299
372. HYDROPHYL'LUM. *W.*	Water-leaf.					*Boragineæ.* *Sp.* 3—6.						
2128 appendiculátum *Ph.*	appendaged	⚘	△	cu	½	my.jn	P.B	N. Amer.	1813.	D	p.l	
2129 virgínicum *W.*	Virginian	⚘	△	cul	½	my.jn	W	N. Amer.	1739.	D	m.s	Bot. reg. 331
2130 canadénse *W.*	Canadian	⚘	△	cu	½	my.jn	W	Canada	1759.	D	m.s	Bot. reg. 242
373. PHACE'LIA. *Mich.*	Phacelia.					*Boragineæ.* *Sp.* 1—4.						
2131 bipinnatífida *Mich.*	bipinnatifid	⚘	△	cul	2	jn.jl	B	N. Amer.	1824.	D	co	Mich. am. 1. t. 16
374. RAMON'DA. *P. S.*	Ramonda.					*Solaneæ.* *Sp.* 1.						
2132 pyrenáica *W. en.*	Borage-leaved	⚘	△	or	½	my	Pu	Pyrenees	1731.	D	s.l	Bot. mag. 236
Verbáscum Myconi Linn.												
375. VERBAS'CUM. *W.*	Mullein.					*Solaneæ.* *Sp.* 31—70.						
2133 thápsus *W.*	Shepherd's-club	⚘	⊙	or	6	jl.au	Y	Britain	ro. sid.	S	co	Eng. bot. 549
2134 thapsifórme *Schr.*	bastard	⚘	⊙	or	2	jl.au	L.Y	Europe	...	S	co	
2135 phlomoídes *W.*	woolly	⚘	[⊙]	or	3	jn.jl	Y	Italy	1739.	S	co	Mœnch. n. 170. t. 4
2136 sinuátum *W.*	scollop-leaved	⚘	⊙	or	2	jl.au	Y	S. Europe	1570.	S	co	Fl. græc. t. 227
2137 bipinnatífidum *B. M.*	cut-leaved	⚘	⊙	or	2	jl.au	Y	Tauria	1813.	S	p.l	Bot. mag. 1777
2138 austrále *Schr.*	southern	⚘	⊙	or	4	jl.au	Y	S. Europe	1815.	S	co	Schr. mon. t. 2
2139 condensátum *Schr.*	close-flowered	⚘	⊙	or	4	jl.au	Y	Austria	1824.	S	co	Schr. mon. t. 3
2140 níveum *Ten.*	snow-white	⚘	⊙	or	3	jl.au	P.Y	Naples	1823.	S	co	Ten. neap. t. 22
2141 cuspidátum *Schr.*	pointed	⚘	⊙	or	4	my.jn	Y	Vienna	1817.	S	co	Schr. mon. t. 1. f. 1
2142 macránthum *Hgg.*	large-flowered	⚘	⊙	or	3	jn.jl	Y	Portugal	1820.	S	co	Fl. port. t. 27



History, Use, Propagation, Culture,

ments upon the generation of plants. Small bushes or herbaceous plants with opposite entire leaves, and terminal or axillary bunches of white flowers. Eleven species, natives of New Holland, are described. Ripened cuttings may be struck in sand under a hand-glass.

369. ***Phlox.*** From φλοξ, flame. The plant so named by the ancients is supposed to have been an Agrostemma. The genus now so called is a native of North America only, and is one of the handsomest in cultivation. It consists of most elegant border flowers, valuable for blossoming late in the season, and for their lively colors of red, white, and purple, while the majority of plants that flower in autumn have yellow, and generally syngenesious blossoms. Most of the species delight in a rich moist soil, or loam and leaf mould or peat. The dwarf species are admirably adapted for pots, or a select rock-work: they require some protection in severe winters.

370. ***Polemonium.*** From πολεμος, war. Pliny relates, that the plant which he called by this name received its appellation from having been the cause of a war between two kings, who could not agree which of them first discovered its virtues. It was also called Chilodynamia (from χιλιοι, a thousand, and δυναμις, power), on account of its extraordinary merit. The plant which possessed all these good qualities is now forgotten. Its name has descended to a flower which ornaments the garden, but which preserves nothing of the virtue of its progenitor, beyond a slight vulnerary quality. P. cæruleum is a border flower of long standing, and of the easiest culture.

371. ***Vestia.*** Named by Willdenow, in his Enumeratio Plantarum, in honor of his friend Dr. Vest of Clagen-

2106 Leaves lanc. flat rough at edge, Stem smooth, Corymbs panicled, Segments of cor. rounded

2107 Leaves obl. lanc. somewhat wavy rough at edge, Stem smooth, Corymbs panicled, Segm. of cor. blunt
2108 Erect pubescent, Leaves ovate acum. beneath pubescent decussate, Cor. panic. Segm. of Cor. rounded
2109 Erect, Stem smooth not spotted, Leaves ovate lanc. quite smooth, Raceme panic. Teeth of cal. erect
2110 Erect, Stem rough spotted, Leaves obl. lanc. smooth rough at edge, Pan. obl. close, Teeth of cal. recurved
2111 Leaves cordate ovate acute smooth, Flowers densely pyramidal, Teeth of cal. upright, Stem spotted
2112 Hairy, Stem erect, Leaves linear-lanceolate, Sepals subulate, Tube of cor. curved pubescent
2113 Hairy, Stems assurgent, Leaves ovate lanceolate, Sepals subulate, Tube of cor. smooth straight
2114 Leaves lanceolate sessile smooth thick, Stem erect rough, Flowers whorled terminal
2115 Stems erect subpubescent, Leaves lanc. smooth, Branches of corymb 3-flowered, Teeth of cal. linear
2116 Leaves lanc. shining on both sides acute nearly without veins, Stem smooth trifid above shrubby at base
2117 Tufted assurgent smooth, Leaves linear lanceol. smooth, Corymb term. fastigiate, Teeth of cal. mucron.
2118 Dwarf diffuse pubescent, Leaves ovate lanc. chiefly alternate, Branches few-fl. lax, Cal. subul. Pet. cord.
2119 Stoloniferous pubescent, Fertile stems erect simple few-leaved, Leaves oval, Corymb few-flowered
2120 Leaves ovate, Flowers solitary
2121 Dwarf tufted pubescent, Leaves fascicled subulate pungent ciliated, Pedicels few terminal
2122 Leaves ciliated lowest setaceous upper lin. lanc. Branches 3-5-fl. at end, Cal. spreading hairy, Pet. retuse

2123 Stem erect rounded, Leaves lanc. smooth half stem-clasp. Cal. edged, Tube of cor. twice as long as limb

2124 Pinnæ 7, Flowers terminal nodding
2125 Leaves pinnate, Flowers erect, Cal. longer than tube of corolla

2126 Pinnæ many the terminal 3-lobed, Flowers nodding, Cal. viscid

2127 The only species

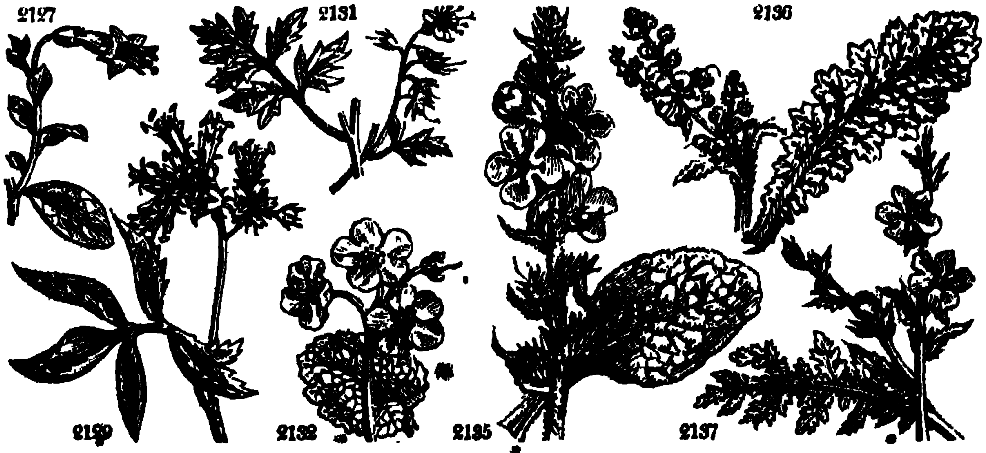
2128 Very hairy, Radical leaves subpinnatifid, cauline lobed angular, Sinus of calyx with reflexed appendages
2129 Leaves pinnate or pinnatifid, Segm. ovate lanceol. cut serrate, Fascicles of flowers clustered
2130 Smoothish, Leaves lobed angular, Fascicles of flowers close together

2131 Erect, Leaves pinnatifid, Segments cut lobed, Racemes generally bifid

2132 A stemless plant with hoary leaves and short scapes of purple flowers. The only species

Leaves decurrent.

2133 Lvs. cren. toment. upper acute, Raceme spiked dense, Cor. rotate with obl. obt. segm. Anth. nearly equal
2134 Lvs. cren. toment. upper acumin. Raceme spiked dense, Cor. rotate with obov. round segm. 2 of anth. obl.
2135 Lvs. cren. tom. radic. ell. stlkd. Caul. obl. ac. upper brd. ov. cusp slightly decur. Fasc. remotish, Two an. obl.
2136 Leaves toment. radical and lower cauline sinuated upper crenate slightly decurr. Spikes pan. Fl. clustered
2137 Leaves bipinnatifid [Fasc. of rac. remote, Two anth. obl.
2138 Leaves crenate tom. Radic. obl. lanc. narr. to stalk, Caul. obl. acute decurr. upper broad ov. cusp. ½ decur.
2139 Leaves tom. radic. ellipt. narr. at base uneq. doubly crenate, Caul. obl. acute simply crenate upper round. ovate cusp. slightly decurr. Racemes dense, Two anthers oblong
2140 Leaves ½ decurrent crenate snow-white, Raceme spiked dense, Anthers equal
2141 Leaves crenulate tomentose the upper cuspidate, Fascicles of raceme remote, Two anthers oblong
2142 Leaves cren. tom. rad. ellipt. obl. narr. at base caul. obl. acute ½ decurr. Fasc. of rac. rem. Two anth. obl.



and Miscellaneous Particulars.

furth. A native of Chili, with pale-green smooth leaves, and pale yellow flowers. It is very nearly related to Lycium.

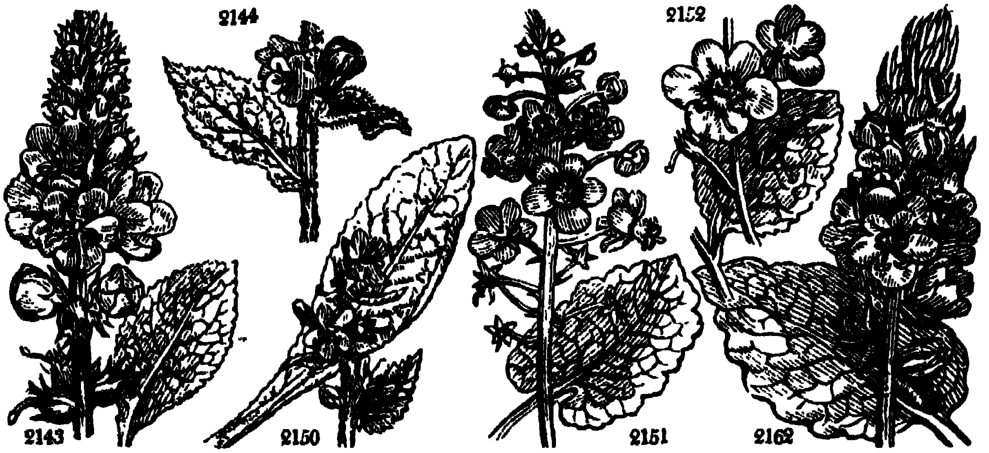
372. *Hydrophyllum.* From ὕδωρ, water, and φυλλον, a leaf. This plant grows in the marshes of North America, and in the spring time has a small quantity of water in the cavity of each leaf. The species are two only, both humble plants, with neat foliage, which protects the small white flowers. H. virginicum is used as a salad, under the name of Shawanese salad in North America.

373. *Phacelia.* From φακελος, a bundle, the flowers being disposed in fascicled spikes.

374. *Ramonda.* Named after M. L. Ramond, a French botanist, who discovered many new plants in France. A very pretty dwarf plant, kept in a frame with other alpine plants. Formerly a species of Verbascum, (V. myconi.)

375. *Verbascum.* An alteration of *barbascum*, on account of the beard (barba) with which all the leaves and stems are closely covered. The species are all very fine looking plants, well calculated for shrubberies, among other tall plants. They have been well illustrated by M. Schrader in a learned Monograph. V. thapsus has been so called from its native place, the Isle of Thapsos. V. blattaria is said to have the power of driving away the blatta or cockroach. V. pulverulentum is one of the most magnificent of native herbaceous plants, sending up a stem a yard high, covered with many hundreds of gold colored flowers. Correa observes of this golden rod, that in still weather two or three blows with a stick will bring down all the corollas. The nap of

2143 ovalifólium	*H. K.*	oval-leaved	♃	△	or	1	jl.s	O	Caucasus	1804.	D	p.l	Bot. mag. 1037
2144 Boerhaávii	*W.*	annual		○	or	2	jl.au	Y.Pu	S. Europe	1731.	S	co	Mill. ic. 2. t. 273
2145 elongátum	*W. en.*	long-stalked	♂	◎	or	5	jl.au	[illegible]	[illegible]	1813.	S	co	
2146 pyramidátum	*W. en.*	pyramidal	♂	◎	or	3	jl.au	[illegible]	Caucasus	1804.	S	co	Sweet fl. gard. 31
2147 hæmorrhoidále	*W.*	Madeira	♂	[◎]	or	2	jn.au	W.pu	Madeira	1777.	S	co	
2148 floccósum	*P. S.*	wool-bearing	♂	◎	or	3	jn.jl	Y	Hungary	1805.	S	co	Fl. rar. hung. t.79
2149 Lýchnitis	*W.*	white	♂	◎	or	3	jn.au	C	Britain	roads.	S	co	Eng. bot. 58
2150 pulveruléntum	*E. B.*	powdered	♂	◎	or	3	jn.au	Y	England	bor.f.	S	co	Eng. bot. 487
2151 ferrugíneum	*W.*	rusty	♂	△	or	3	my.au	Br	S. Europe	1688.	D	p.l	Bot. rep. 162
2152 cúpreum	*B. M.*	copper-colored	♂	△	or	3	my.au	Br	Caucasus	1798.	D	p.l	Bot. mag. 1226
2153 nígrum	*W.*	black-rooted	♂	△	or	2	my.au	Y	England	ch. so.	D	p.l	Eng. bot. 59
2154 phœníceum	*W.*	purple-flowered	♂	△	or	3	my.au	Pu	S. Europe	1596.	D	p.l	Bot. mag. 885
2155 virgátum	*E. B.*	slender	♂	◎	or	5	au	Y	Britain	gra.pl.	S	co	Eng. bot. 550
2156 Blattária	*W.*	moth	♂	◎	or	4	jl.au	Y	Britain	gra.pl.	S	co	Eng. bot. 393
2157 glábrum	*W. en.*	smooth	♂	◎	or	2	jl.au	Y	......	1805.	S	co	
2158 repándum	*W. en.*	waved	♂	◎	or	3	jl.au	Y	......	1813.	S	co	
2159 pinnatífidum	*W.*	pinnatifid	♂	[△]	or	1	my	Y	Archipel.	1788.	S	p.l	
2160 Osbéckii	*W.*	Osbeck's	♂	◎	or	1	jl.au	G	Spain	1752.	S	p.l	Tourn. it. 2. t. 83
2161 orientále	*M. B.*	eastern	♂	△	or	2	jn.jl	Y	Caucasus	1821.	S	co	
2162 spectábile	*M. B.*	shewy	♂	◎	or	2	jn.jl	Y.Pu	Tauria	1820.	S	co	Bot. reg. 558
2163 spinósum	*L.*	spiny	♄	⌊⌋	or	1	my.jn	Pu	Crete	1824.	S	co	Alp. exot. t. 36
376. DATU'RA.	*W.*	Thorn-apple.					*Solaneæ.*		*Sp.* 7—10.				
2164 férox	*W.*	Chinese		○	or	3	jl.s	W	China	1731.	S	s.l	Zano.h.212.t.162
2165 Stramónium	*W.*	common		○	clt	3	jl.s	W	England	rub.	S	s.l	Eng. bot. 1288
2166 Tátula	*W.*	blue		○	or	3	jl.s	B	N. Amer.	1629.	S	s.l	Meerb. ic. 2. t.13
2167 fastuósa	*W.*	purple		○	or	3	jl.s	Pu	Egypt	1629.	S	r.m	Kno.the.1.t.S.11
2168 Métel	*W.*	downy		○	or	2	jn.s	W	Asia	1596.	S	r.m	Bot. mag. 1440
2169 læ'vis	*W.*	smooth-fruited		○	or	2	jn.s	W	Africa	1780.	S	r.m	Jac. vind. 3. t. 82
2170 ceratocaúlon	*Ort.*	horn-stalked		○	or	2	jl.s	W	S. Amer.	1805.	S	r.m	Jac. sch. 3. t. 339
377. BRUGMAN'SIA.	*P. S.*	Brugmansia.					*Solaneæ.*		*Sp.* 2—3.				
2171 suavéolens	*W. en.*	smooth-stalked	♄	☐	or	15	au.s	W	Peru	1733.	C	l.p	
2172 arbórea	*W. en.*	downy-stalked	♄	☐	or	10	au.s	W	Peru	1813.	C	l.p	Fl. peruv. 2. t.128
378. LISIAN'THUS.	*W.*	Lisianthus.					*Gentianeæ.*		*Sp.* 4—29.				
2173 longifólius	*W.*	long-leaved	♄	☐	or	1½	jn.jl	Y	Jamaica	1793.	C	l.p	Brow. jam. t.9. f.1
2174 glaucifólius	*Jac.*	glaucous-leaved	♄	☐	or	2	jn.jl	Pu	...	...	C	l.p	Jac. ic. rar. 1. t.33
2175 exsértus	*W.*	oval-leaved	♄	☐	or	12	...	Y	W. Indies	1793.	C	l.p	
2176 cordifólius	*W.*	heart-leaved	♄	☐	or	2	...	Y	Jamaica	1816.	C	l.p	Br. jam. t. 9. f. 2
379. SPIGE'LIA.	*W.*	Worm-grass.					*Gentianeæ.*		*Sp.* 2—4.				
2177 Anthélmia	*W.*	annual		[○]	w	1½	jl	G.R	W. Indies	1759.	S	s.l	Bot. mag. 2359
2178 marilándica	*W.*	perennial	♃	△	or	1	jl.au	S	N. Amer.	1694.	D	l.p	Bot. mag. 80
380. NICAN'DRA.	*J.*	Nicandra.					*Solaneæ.*		*Sp.* 1—2.				
2179 physalódes	*P. S.*	blue-flowered		○	or	2	jl.s	Pu	Peru	1759.	D	s.l	Bot. mag. 2458



History, Use, Propagation, Culture,

this species, of V. lychnitis, and of several others, may be used as tinder, and to make wicks for lamps; whence the name Lychnitis applied to one of the species, from λυχνος, a lamp. Several mules have been produced between the species of this genus; and it has been questioned whether those accounted species are not productions of this kind.

376. *Datura.* An alteration of the Arabic name *tâtôrah*, Forskahl. About Goa and Canara, it is called Daturo, Rumphius. *Stramonium* is an abbreviation of the Greek word στρυχνομανικον, or mad-apple, on account of the dangerous effects of the fruit of that species. *Metel* or *Methel*, is an Arabic name employed by Serapion, ch. 375, and expresses the narcotic effect of the plant. *Tatula* is altered from Datula, a name given to the Datura by the Turks and Persians. D. stramonium is an instance of a South American plant, naturalized within a comparatively short time, the seeds having been introduced from Constantinople in Gerarde's time, and by him "dispersed through this land." Kalm says, that this plant and a species of Phytolacca are the worst weeds in America. Professor Martyn observes, that "in the earth brought with plants from various parts of that extensive country, we are sure to have the thorn-apple come up." At night, the leaves next the flowers rise up and enclose them. The whole plant smells strongly of bean meal. Every part of the plant is poisonous, bringing on delirium, tremors, &c. but under proper regulations it is a useful medicine in asthma, &c.

D fastuosa has a fine polished purple stalk, varied with dots or lines; the leaves are large, the flowers of a beautiful purple outside, and a satiny white within; some are single, others semidouble. They have an agreeable odor at first, but if long smelt to become less agreeable, and are narcotic. D. ceratocaulon is a fine species; its seed will sometimes remain in the ground several years before it will vegetate.

377. *Brugmansia.* So named by Persoon, in honor of Professor S. J. Brugmans, author of some botanical works, and especially of a dissertation "De Plantis Inutilibus, et Venenatis," published at Groningen, in 1783.

B. arborea is one of the greatest ornaments of the gardens of Chili. The flowers which come out at the

Leaves sessile.

2143 Stem erect simple, Leaves ov[illegible]sile tooth-crenate smooth above, Flowers spiked
2144 Leaves sublyrate, Flowers s[illegible]
2145 Leaves ½ decurrent tomentose [illegible] both [illegible], Stem branched, Three filaments hairy in the middle
2146 Leaves nearly naked lower oblo[illegible]ted at base upper cord. acum. sess. Racemes panic. Stam. beard.
2147 Leaves ovate oblong at base [illegible] obsoletely cren. Racemes spiked elongate, Fl. without bractes
2148 Leaves ovate sessile beneath [illegible] woolly, Stem branched, Filaments bearded
2149 Leaves wedge-shaped oblong [illegible] above, Stem angular panicled
2150 Leaves [illegible] oblong subserrate powdery on both sides, Stem rounded panicled, Hairs of stamens white
2151 Leaves subvillous rugose cauline subsessile equally crenate, Radical oblong cordate doubly crenate
2152 Stems virgate simple, Leaves cordate ovate rugose crenate woolly beneath, Pedunc. with 1 bract. solitary
2153 Leaves oblong cordate stalked wavy crenate subpubescent
2154 Leaves naked radical uneq. toothed, Caul. lanc. toothed wedge-shaped at base, Stem naked, Rac. elong.
2155 Leaves oblong lanc. toothed sessile radical sublyrate pubescent, Stem branched, Flowers aggreg. sessile
2156 Leaves stem-clasping oblong smooth doubly serrated, Peduncles 1-flowered solitary
2157 Leaves naked lower obl. stalked upper obl. lanc. Stem simple pub. Raceme term. Stalks altern. very short
2158 Leaves naked radical sinuated cauline oblong cordate stem-clasping coarsely toothed, Pedunc. alternate
2159 Leaves tomentose radical bipinnatifid cauline pinnatifid, Flowers clustered sessile
2160 Leaves cut naked, Stem leafy, Calyxes woolly, Pedunc. 2-flowered
2161 Leaves ovate oblong beneath hoary the lower narrowed at base upper subcordate, Racemes lax panicled
2162 Leaves cordate acuminate, Spike lax downy, Two lower stamens declinate smooth
2163 Stem leafy prickly shrubby

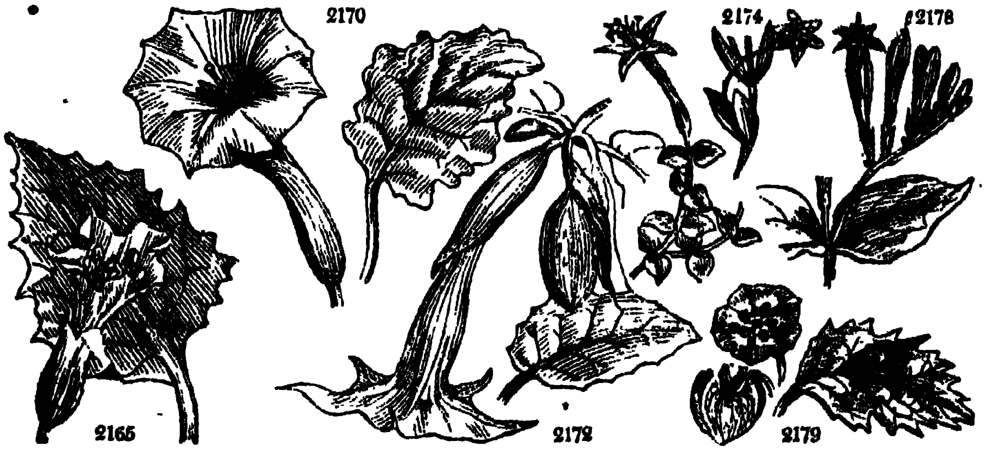
2164 The upper spines very large converging at the top of the pericarp
2165 Leaves ovate smooth angular toothed, Pericarp prickly
2166 Leaves ovate subcordate smooth angular toothed, Stem spotted, Pericarp prickly
2167 Leaves ovate angular, Pericarps tuberculated nodding
2168 Leaves cordate nearly entire pubescent, Pericarps prickly globose nodding
2169 Leaves ovate angular toothed smooth, Stem hollow herbaceous, Pericarps smooth erect
2170 Leaves ovate lanceolate wavy beneath hoary, Stems dichotomous cornute, Pericarps obovate pendulous

2171 Leaves oblong entire smooth, Calyxes 5-toothed
2172 Leaves oblong entire powdery, Stalks and branches pubescent, Cal. spathaceous acuminate

2173 Leaves lanceolate acute pubescent, Stem rounded
2174 Leaves ellipt. lanceolate obtuse smooth, Stem rounded, Peduncles long 1-flowered
2175 Leaves ovate lanc. pedunc. trichotomous, Genitals very long
2176 Leaves cordate

2177 Stem herbaceous the upper leaves 4 together
2178 Stem simple, All the leaves opposite sessile lanceolate oval

2179 Leaves sinuated, Calyxes closed acute-angled



and Miscellaneous Particulars.

divisions of the branches, have a loose tubular calyx nearly four inches long, which, opening like a spathe, a corolla is protruded, with a narrow trumpet-shaped tube, which spreads wide at the brim, where it is divided into five angles, which terminate in very long points: they are white within, pale yellow outside, and one tree will perfume the air of a large garden. It flowers freely in the bark-stove, in a moist heat.

378. *Lisianthus.* From λυσις, dissolution, and ανθος, a flower; a name given to the plant on account of the medical virtues possessed by it of dissolving humours. It is a powerful cathartic. The species are very handsome stove plants. Cuttings root readily in sand under a bell-glass.

379. *Spigelia.* So named by Linnæus, in honor of Adrian Spigelius, born at Brussels in 1578; professor of anatomy and surgery at Padua; author of Isagoge in rem Herbariam; died in 1625.

S. anthelmia is so named from its peculiar efficacy in destroying worms, for which it has been long in use among the negroes in the West Indies. Dr. Browne, after a number of successful experiments, says it operates in so extraordinary a manner, that no other simple can be of equal efficacy in any other disease, as this is in those which proceed from these insects. (*Hist. of Jamaica.*) The same plant procures sleep almost as certainly, and in an equal degree with opium.

S. marilandica is used as a vermifuge in North America, and according to Dr. Garden, (*Letters to Dr. Hope,*) with very powerful effects. The annual plant may be treated like other tender annuals; but S. marilandica is rather difficult to preserve; according to Sweet, "it requires to be grown in a pot, that it may be protected from severe frosts, or too much wet: it will sometimes survive the winters when planted in the open ground in a bed of peat: the best soil for it is an equal mixture of loam and peat, and young cuttings, planted under a hand-glass, root readily." (*Bot. Cult.* 424.)

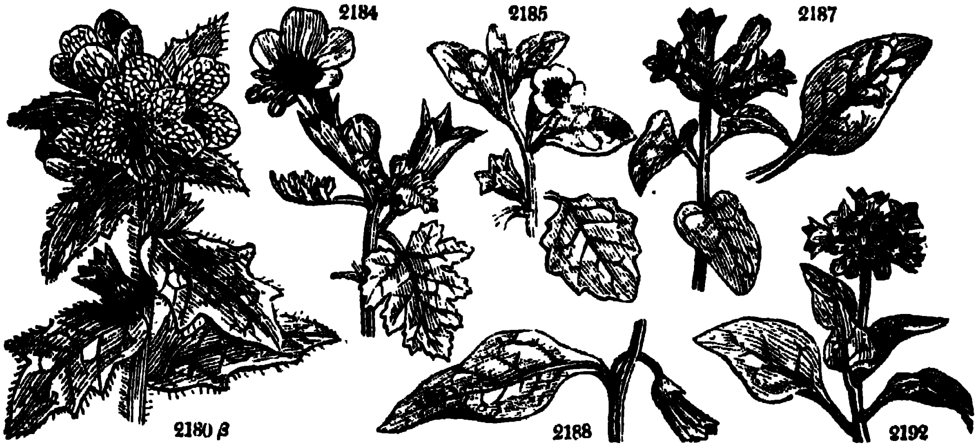
380. *Nicandra.* Nicander was a Greek physician, who lived about a century and half before Christ. The genus was formed by Adanson; it consists of the Atropa physaloides of Linnæus. The Indians of Peru make use of the berries of this plant to bring away gravel, and to relieve persons who have a stoppage of urine.

381. HYOSCY'AMUS. *W.* Henbane. *Solaneæ.* *Sp.* 13—14.

2180	niger *W.*	common	⚘ ⊖	p	1	jn.jl	St	Britain	rub.	S	a.l	Eng. bot. 591
	β annuus	*annual*	○	p	1	jn.jl	St	Europe	1818.	S	a.l	Bot. mag. 2394
2181	álbus *W.*	white	○	w	2	jl.au	Pa.W	S. Europe	1570.	S	co	Blackw. t. 111
2182	reticulátus *W.*	Egyptian	○	w	1	jl.au	R	Egypt	1640.	S	co	Com.hort.77.t.22
2183	Seneciónis *W. en.*	yellow-flowered	⚘ ⌊△⌋	w	1½	mr.o	Y	Egypt	1812.	C	a.l	
2184	aúreus *W.*	golden	⚘ ⌊△⌋	w	1	mr.o	Y	Levant	1640.	S	r.m	Bot. mag. 87
2185	canariénsis *Ker.*	various-leaved	⸙ ⌊ ⌋	cu	1½	ja.d	Y	Canaries	1816.	D	a.l	Bot. reg. 180
2186	pusíllus *W.*	dwarf	○	w	½	jl	Y	Persia	1691.	D	s.l	Plk. alm. t.37. f.5
2187	physaloídes *W.*	purple-flowered	⚘ △	w	1	mr.ap	Pu	Siberia	1777.	D	p.l	Bot. mag. 852
2188	Scopólia *W.*	Nightsh.-leav'd	⚘ △	w	1	ap.my	D.Pu	Carolina	1780.	D	p.l	Bot. mag. 1126
2189	agréstis *Kit.*	field	○	w	1	ap.my	Y.Vy	Hungary	1820.	S	p.l	Sweet fl. gard.27
2190	pállidus *W. & K.*	pale	○	w	1	ap.my	Y	Hungary	1815.	S	p.l	
2191	múticus *L.*	blunt-calyxed	⚘ ⊖	w	1	mr.ap	Y.Pu	Egypt	1822.	S	p.l	
2192	orientális *Bieb.*	eastern	⚘ △	or	1½	ap	Pu	Iberia	1821.	D	a.l	Bot. mag. 2414

382. NICOTIA'NA. *W.* Tobacco. *Solaneæ.* *Sp.* 14—26.

2193	Tabácum *W.*	Virginian	○	clt	4	jl.au	Pk	America	1570.	S	r.m	Blackw. t. 146
2194	macrophýlla *W. en*	large-leaved	○	or	6	jl.au	Pk	America	...	S	r.m	
2195	fruticósa *W.*	shrubby	⸙ ⌊ ⌋	or	3	jl.au	Pk	China	1699.	C	r.m	
2196	unduláta *R. Br.*	sweet-scented	£ ⌊△⌋	clt	2	my.s	W	N. S. W.	1800.	D	r.m	Bot. mag. 673
2197	rústica *W.*	common-green	○	clt	3	jl.s	G	America	1570.	S	co	Blackw. t. 437
2198	paniculáta *W.*	panicled	○	or	3	jl.s	G	Peru.	1752.	S	r.m	Flor. per.2. t.129
2199	glutinósa *W.*	clammy	○	or	4	jl.s	S	Peru	1759.	S	r.m	Bot. rep. 484
2200	plumbáginifólia *W. en.*	curled-leaved	⚘ ⌊△⌋	or	2	my.jn	W	America	1816.	D	r.m	Jacq. fragm. t.84
2201	pusílla *W.*	Primrose-leav'd	⚘ [○]	or	3	au	W	Vera Cruz	1733.	S	r.m	Mil. ic.2.t.185.f.2
2202	quadriválvis *Ph.*	four-valved	○	or	2	jl.au	W	N. Amer.	1811.	S	r.m	Bot. mag. 1778
2203	nána *Lindl.*	Rocky-mount.	⌊○⌋	cu	¼	jn	W	N. Amer.	1823.	S	co	Bot. reg. 833
2204	Langsdorffii *W. en.*	Langsdorff's	○	or	5	au	G	Chili	1819.	S	co	Bot. mag. 2221
2205	cerinthoídes *Lehm.*	Honeywort	○	or	2	au	G	......	1821.	S	co	Lehm. nic. t. 2
2206	repánda *W.*	Havannah	○	clt	2	jn.jl	W	Havannah	1823.	S	co	Bot. mag. 2484


2184 2185 2187

2180 β 2188 2192

History, Use, Propagation, Culture.

381 *Hyoscyamus.* From ὑς ὑος, a pig, and κυαμος, a bean; the fruit has been thought to resemble a bean, and, although dangerous to other animals, is said to be eaten by pigs with safety. H. niger is a well-known fœtid weed, which follows civilized man, growing on rubbish of old houses, dunghills, &c. It has a strong peculiar odor, greatly affecting the heads of some persons, and the whole plant is reputed poisonous. Sir J. E. Smith and Professor Martyn say they have often eaten the seeds without suffering inconvenience. Lightfoot, on the contrary, says, a few of them have been known to deprive a man of his reason and limbs. A species of bug (Cimex) and of beetle (Chrysomela) take their specific names from feeding on the plant; but no quadruped is known to eat it, unless the goat and sheep, and that very rarely and sparingly. As a medicine, henbane is of immemorial use, and is still continued in the Pharmacopœias. It is given with or without opium in coughs, epilepsy, convulsions, &c. Country people sometimes smoke the leaves for the toothach.

382. *Nicotiana.* So named from John Nicot of Nismes, in Languedoc, ambassador from the king of France to Portugal, who procured the seeds from a Dutchman who had received them from Florida. The first plant was said to have been presented to Catherine de Medicis, whence the French name *Herbe à la Reine.* The name tobacco, which has superseded all others, is the appellation of a district of Mexico. *Petum* or *Petume,* Bras., *Tabac,* Fr., *Taback,* Ger., and *Tabac,* Ital. The species grown as tobacco are the N. tabacum and rustica; the former greatly preferred. The popular narcotic which it furnishes is probably in more extensive use than any other, and its only rival is the betel of the east. According to Linnæus, tobacco was known in Europe from 1560. It was brought to England from Tobago in the West Indies, or Tobasco in Mexico, (and hence the name,) by Ralph Lane, in 1586, but only the herb for smoking. Afterwards, according to Hakluyt, seeds were introduced from the same quarter. Sir Walter Raleigh first introduced smoking; in the house in which he lived at Islington are his arms on a shield, with a tobacco plant on the top. Smoking has consequently been common in Europe for upwards of two centuries. It is a powerful narcotic, and also a strong stimulant with respect to the whole system, but especially to the stomach and intestines, to which, in small doses, it proves emetic and purgative. The smoke thrown up the anus acts as a glyster: an infusion of the leaves forms a powerful lotion for obstinate ulcers: the oil applied to a wound, is said by Redi to be as fatal as the poison of a viper. The decotion, powder, and smoke of tobacco, are used in gardening to destroy insects, and in agriculture for the same purpose, and to cure cutaneous eruptions in domestic animals.

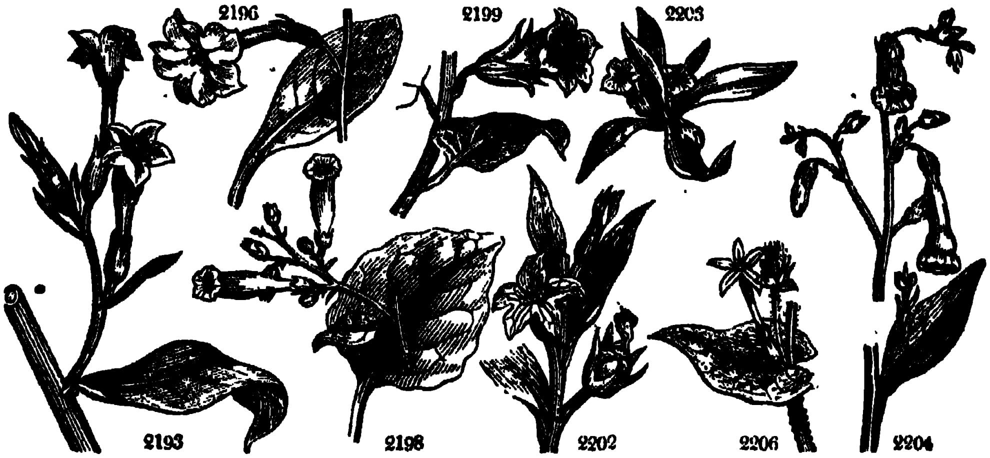
Tobacco, as used by man, says Du Tour, (*Nouveau Cours d'Agriculture,* &c.) gives pleasure to the savage and the philosopher, to the inhabitant of the burning desert and frozen zone. In short, its use either in powder, to chew, or to smoke, is universal; and for no other reason than a sort of convulsive motion (sneezing) produced by the first, and a degree of intoxication by the two last modes of usage. A hundred volumes, he adds, have been written against it, of which a German has preserved the titles. Among these books is that of James Stuart, king of England, who violently opposed it. The Grand Duke of Moscow forbade its entrance into his territory under pain of the knout for the first offence, and death for the next. The emperor of the Turks, king of Persia, and Pope Urban VIII. issued similar prohibitions, all of which were as ridiculous as those which attended the introduction of coffee or Jesuit's bark. At present, all the sovereigns of Europe, and most of those of other parts of the world derive a considerable part of their revenue from tobacco.

Tobacco is cultivated in Europe as far north as Sweden, and is also grown in China, Japan, and other eastern

2180 Radic. leaves sinuated pinnatifid upper stem-clasping, Flowers nearly sess. Cor. netted

2181 Leaves stalked the lowest rounded entire the rest cordate ovate sinuate toothed, Fl. axill. sess. or stalked
2182 Cauline leaves stalked cordate sinuate acute, Flowers entire inflated
2183 Leaves stalked 3-lobed cut-toothed, Flowers stalked, Segm. of cor. equal flat
2184 Leaves stalked ovate acute angular toothed, Flowers stalked, Three upper segm. of cor. wavy
2185 Lower leaves cordate ovate angular obtuse, floral ovate entire
2186 Leaves stalked oblong lanc. toothed, Flowers stalked, Calyx teeth mucronate
2187 Leaves stalked ovate cordate entire, Flowers stalked axillary solitary terminal in umbels, Cal. inflated
2188 Leaves stalked ovate obl. entire, Flowers axillary stalked nodding, Cor. camp. trunc. (*Scopolina*, Schul.)
2189 Stem simple pubescent, Leaves sessile ½ decurrent sinuate toothed smoothish, Flowers sessile
2190 Leaves stem-clasping angular, radical angular toothed, Flowers sessile 1-colored
2191 Leaves stalked ovate acute angular, Cal. pointless, Bractes undivided
2192 Leaves deltoid ovate repand, Cal. of fruit tumid, Stamens exserted

2193 Leaves sessile obl. lanc. acumin. the lower decurr. Mouth of cor. inflated, Segm. acuminate
2194 Leaves stem-clasping ovate acute auricled at base, Mouth of cor. inflated, Segm. short acuminate
2195 Stem shrubby simple, Lvs. stalked lanc. obliquely acuminate, Coroll. inflated at mouth, Segm. acumin.
2196 Stem nearly sim. Lvs. somew. stlkd. ov. lanc. wavy, Tube of cor. cyl. much longer than cal. Seg. uneq. round
2197 Stem rounded, Leaves stalked ovate entire, Tube of cor. cylind. longer than cal. Segment rounded obtuse
2198 Stem nearly sim. Lvs. stlkd. ov. subcord. entire, Tube of cor. clav. very sm. much longer than cal. Seg. obt.
2199 Leaves stalked cordate entire, Fl. racemose 1-sided, Cal. 2-lipp. upper lip longest, Cor. ringent, Segm. acute
2200 Leaves sessile lower obovate spatulate obtuse upper ½ stem-clasping wavy, Tube of cor. very long clavate
2201 Stem dichot. Lvs. sess. radic. obl. oval. Cal. very short, Tube of cor. cyl. thrice as long as cal. Segm. acute
2202 Stem herbac. branching, Lvs. stalked obl. Tube of cor. twice as long as cal. Segm. obt. Caps. 4-valv. round
2203 Leaves lanceolate hairy, radical longer than the solitary flowers, Petals obtuse
2204 Lower leaves ovate obtuse stalked upper sessile decurrent, Tube of cor. clavate long, Limb obtuse
2205 Stem branc. at base, Lvs. stlkd. all cord. ent. Tube of cor. clav. pub. much long. than cal. Seg. very sh. acute
2206 Leaves stem-clasping cord. spat. roundish repand, Tube of cor. slender very long, Segm. ovate acute plic.



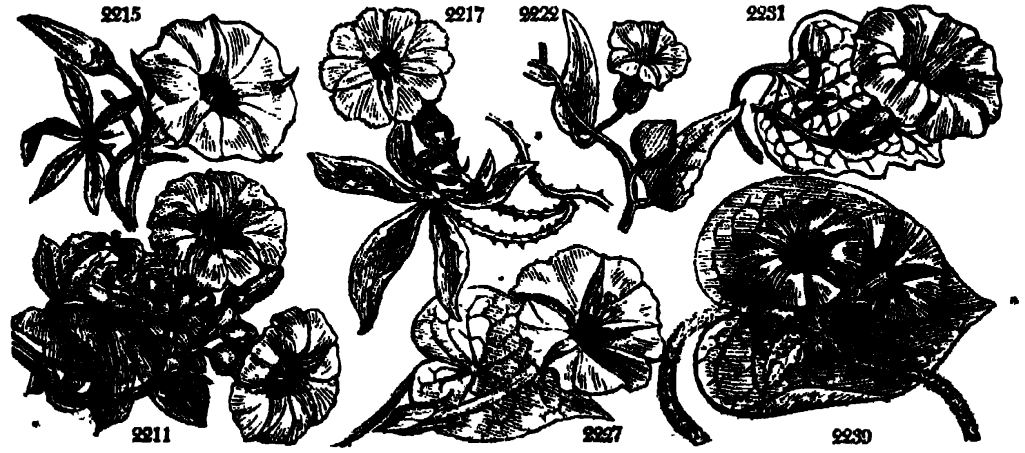
and Miscellaneous Particulars.

and hot countries. The sort preferred is the N. tabacum, which is an elegant plant, grown also in gardens as a border flower. N. rustica, *fausse tabac*, Fr., *Baurn taback*, Ger., and *Tabacca cimarosa*, Span., is also frequently cultivated, especially in Europe, it being considered hardier than the Virginian sort. Parkinson says, he has known Sir Walter Raleigh, when prisoner in the Tower, prefer it to make good tobacco, "which he knew so rightly to cure." Tobacco has been successfully cultivated and cured in this country, but its growth is prohibited to encourage our commerce with America. It is now only grown for curiosity as a border flower, or by gardeners for the destruction of insects. In Germany and other northern countries, most families who have gardens grow enough of N. rustica for their own use; but as they do not know how to cure it, it is not much valued, and is never made into chewing tobacco or snuff.

In the culture of Tobacco in America, the plants are raised on beds early in spring, and when they have acquired four leaves, they are planted in the fields in well prepared earth, about three feet distance every way. Every morning and evening the plants require to be looked over, in order to destroy a worm which sometimes invades the bud. When four or five inches high they are moulded up. As soon as they have eight or nine leaves, and are ready to put forth a stalk, the top is nipped off, in order to make the leaves longer and thicker, by directing all the energies of the plant to them. After this, the buds which sprout from the joints of the leaves are all plucked, and not a day is suffered to pass without examining the leaves, to destroy a large caterpillar, which is sometimes very destructive to them. When they are fit for cutting, which is known by the brittleness of the leaves, they are cut with a knife close to the ground, and, after lying some time, are carried to the drying shed, where the plants are hung up by pairs upon lines, having a space between, that they may not touch one another. In this state they remain to sweat and dry. When perfectly dry, the leaves are stript from the stalks and made into small bundles tied with one of the leaves. These bundles are laid in heaps, and covered with blankets. Care is taken not to over-heat them, for which reason the heaps are laid open to the air from time to time, and spread abroad. This operation is repeated till no more heat is perceived in the heaps, and the tobacco is then stowed in casks for exportation. (*Long. Jam.* iii. 719.)

In the manufacture of tobacco, the leaves are first cleansed of any earth, dirt, or decayed parts; next, they are gently moistened with salt and water, or water in which salt along with other ingredients has been dissolved, according to the taste of the fabricator. This liquor is called tobacco sauce. The next operation is to remove the midrib of the leaf; then the leaves are mixed together, in order to render the quality of whatever may be the final application equal; next, they are cut into pieces with a fixed knife, and crisped or curled before a fire; the succeeding operation is to spin them into cords, or twist them into rolls by winding them with a kind of mill round a stick. These operations are all performed by the grower, and in this state (rolls) the article is sent from America to other countries, where the tobacconists cut it into chaff-like shreds for smoking, by a machine like a straw-cutter; form it into small cords for chewing; or dry and grind it for snuff. In manufacturing snuff, various matters are added for giving it an agreeable scent, and hence the numerous varieties of snuffs. The three principal sorts are called Rappees, Scotch or Spanish, and Thirds. The first is only granulated, the second is reduced to a very fine powder, and the third is the siftings of the second sort. The best Havannah segars are made from the leaves of N. repanda. The Indians of the Rocky Mountains of N. America prepare their tobacco from N. quadrivalvis and N. nana.

383. **IPOMÆ'A.** *R. Br.*	Ipomæa.				*Convolvulaceæ.*	*Sp.* 52—170.					
2207 **quamóclit** *W.*	wing-leaved	⚘ [○]	or	6	jl.s	D.R	E. Indies	1629.	S	r.m	Bot. mag. 244
2208 **dissécta** *Ph.*	cut-leaved	⚘ ⌊△⌋	or	10	jn.s	S	Georgia	1813.	C	a.p	Wil.phy.1.t.2.f.3
2209 **carolina** *Ph.*	Carolina	⚘ △	or	10	jl.au	Pu	Carolina	1732.	C	r.m	Dill. elt. t.84.f.98
2210 **tuberósa** *W.*	tuberous-rooted	✣ [△]	or	10	...	Pa.Y	W. Indies	1731.	C	a.p	Bot. reg. 768
2211 **paniculáta** *B. Reg*	panicled	✣ [△]	m	20	jn.s	Pk	E. Indies	1799.	C	a.p	Bot. reg. 62
2212 **pentaphýlla** *Jac.*	five-leaved	⚘ [○]	or	20	au.s	W	W. Indies	1739.	S	a.p	Jac. ic. 2 t. 319
2213 **umbelláta** *L.*	umbel-flowered	⚘ [△]	or	20	jn.jl	S	W. Indies	1739.	R	r.m	Plu. am.88. t.102
2214 **tuberculáta** *B Reg.*	tubercled	⚘ ▭	or	10	au.s	Pu	E. Indies	1815.	C	l.p	Bot. reg. 86
2215 **péndula** *R. Br.*	pendulous	⚘ ⌊△⌋	or	10	my.o	Pk	N. S. W.	1808.	R	l.p	Bot. rep. 613
2216 **Pes-tigridis** *W.*	palmated	⚘ [○]	or	6	au	R	E. Indies	1732.	C	a.p	Dil.el.t.318.f.411
2217 **platénsis** *Ker.*	Plata	⚘ [△]	or	10	jn.s	V	S. Amer.	1817.	S	r.m	Bot. reg. 333
2218 **chrysóides** *Ker.*	Mr. Herbert's	⚘ ⌊△⌋	or	4	jn.s	Y	China	1817.	S	r.m	Bot. reg. 270
2219 **cærúlea** *Ker.*	pale-blue	⚘ ○	or	9	jn.s	L.B	E. Indies	1818.	S	r.m	Bot. reg. 276
2220 **setósa** *Ker.*	bristly	⚘ [○]	or	9	au	Pu	Brazil	1817.	S	r.m	Bot. reg. 335
2221 **scábra** *Gm.*	rough	⚘ [○]	or	10	s	W	S. Amer.	1804.	S	r.m	
2222 **Turpéthum** *Br.*	square-stalked	⚘ ▭	or	5	jl.s	W	Ceylon	1759.	S	r.m	Bot. mag. 2093
2223 **lutéola** *W. en.*	crimson-scarlet	⚘ ○	or	10	jn.s	S	Carolina	1759.	S	r.m	Bot. mag. 221
2224 **coccínea** *W. en.*	bright-scarlet	⚘ [○]	or	10	jn.s	D.R	W. Indies	1713.	S	r.m	Bot. rep. 499
2225 **lacunósa** *W.*	starry	⚘ ○	or	10	jl.au	W	N. Amer.	1640.	C	r.m	Dill.elt.t.87.f.102
2226 **gossypiifólia** *W.* *I. insignis* B. R.	splendid	⚘ ▭	or	15	jn.s	Pu	......	...	C	a.p	Bot. reg. 75
2227 **Bona-nox** *W.*	prickly	⚘ [○]	or	10	jl.au	W	W. Indies	1773.	S	s.l	Bot. mag. 752
2228 **sanguinea** *Vahl.*	blood-flowered	⚘ ▭	or	10	f.n	D.R	W. Indies	1812.	C	s.l	Bot. reg. 9
2229 **mutábilis** *R. Reg.*	changeable	⚘ ⌊_⌋	or	10	my.s	Pu	S. Amer.	1812.	C	p.l	Bot. reg. 39
2230 **cándicans** *B. M.*	hoary	⚘ ⌊△⌋	or	15	jn.au	W	N. Amer.	1776.	R	p.l	Bot. mag. 1603
2231 **Jálapa** *Ph.*	Jalap	⚘ ⌊△⌋	m	10	au.s	Li	America	1733.	C	r.m	Bot. mag. 1572
β rosea	*rose-colored*	⚘ ⌊△⌋	m	10	au.s	R			C	r.m	Bot. reg. 621
2232 **hepaticifólia** *W.*	Hepatica-leav'd	⚘ ○	or	10	au.s	Pu	E. Indies	1759.	S	co	Bu. in.50.t.20.f.2
2233 **solanifólia** *W.*	Nightshade-lvd.	⚘ [○]	or	8	jl.au	Pk	America	1759.	C	s.p	Plum. ic. t.94 f.1
2234 **campanuláta** *W.*	bell-flowered	⚘ [○]	or	8	au.s	Pu.w	E. Indies	1800.	S	s.l	Rhd. mal.11.t 56
2235 **violácea** *W.*	purple-flowered	⚘ [○]	or	8	au.s	Pu	S. Amer.	1732.	S	s.l	Plum. ic. t.93. f.1
2236 **cárnea** *W.*	flesh-colored	⚘ [○]	or	10	au.s	F	S. Amer.	1790.	S	s.l	Jac. am. 26. t. 18
2237 **repánda** *W.*	scolloped	⚘ [△]	or	10	au	S	W. Indies	1793.	C	s.p	Par. lond. 81
2238 **sibírica** *P. S.*	Siberian	⚘ ○	or	8	jl.au	F	Siberia	1779.	S	co	Pa.it.3.p 723.t. K
2239 **speciósa** *P. S.*	broad-leaved	⚘ ▭	or	8	jl.au	Pu	E. Indies	1778.	C	p.l	Bot. mag. 2446
2240 **purpúrea** *P. S.*	great-purple	⚘ ○	or	10	jn.s	D.Pu	America	1629.	S	co	Bot. mag. 113
β incarnáta	*flesh-colored*	⚘ ○	or	10	jn.s	F	America	1629.	S	co	
γ vária	*striped*	⚘ ○	or	10	jn.s	St	America	1629.	S	co	Bot. mag. 1682
2241 **díscolor** *Jac.*	spotted	⚘ ○	or	20	jn.s	B.w	......	...	S	co	Bot. mag. 1005
2242 **tríloba** *W.*	three-lobed	⚘ ○	or	10	jn.jl	V	W. Indies	1752.	S	s.l	
2243 **hederifólia** *W.*	Ivy-leaved	⚘ ○	or	10	jl	V	S. Amer.	1773.	S	s.l	Pl. ic.82. t.93. f.2
2244 **Nil** *P. S.*	blue	⚘ [○]	or	10	jl.s	L.B	America	1597.	S	s.p	Bot. mag. 188
2245 **hederácea** *B. Reg.*	five-lobed	⚘ ○	or	10	jl.s	B	N. Amer.	1729.	S	s.p	Bot. reg. 85
2246 **cuspidáta** *P. S.*	sharp-pointed	⚘ ○	or	10	jn.jl	L.Pu	S. Amer.	1732.	S	s.p	Fl.per.2.t.110.f.a
2247 **tamnifólia** *W.*	Tamnus-leaved	⚘ ○	or	10	jl	B	Carolina	1732.	S	co	D. elt. t.318 f.410
2248 **grandiflóra** *B. Rep.*	great-flowered	⚘ ▭	or	8	s	W	E. Indies	1802.	S	s.l	Bot. rep. 403
2249 **muricáta** *Jac.*	rough-stalked	⚘ [○]	or	8	jl.au	Pu	E. Indies	1777.	S	co	Jac. schœ.3.t.323
2250 **obscúra** *B. Reg.*	hairy	⚘ [○]	or	8	jn.au	W	E. Indies	1732.	S	s.p	Bot. reg. 239
2251 **sagittifólia** *Ker.*	Catesby's	⚘ △	or	3	jn.s	Pu	Carolina	1819.	S	co	Bot. reg. 437
2252 **médium** *W.*	arrow-headed	⚘ [○]	or	6	jl.au	Pa	E. Indies	1778.	S	co	
2253 **denticuláta** *R. Br.*	denticulate	⚘ [○]	or	6	jl.au	Y	E. Indies	1778.	S	co	Bot. reg. 317
2254 **glaucifólia** *W.*	glaucous-leaved	⚘ [△]	or	6	my.jl	Pk	Mexico	1732.	R	s.p	Dil. elt.t.87.f.101
2255 **angustifólia** *Jac.*	narrow-leaved	⚘ [○]	or	6	jl.au	Pk	India	1800.	S	s.l	Jac. ic. rar. t.317
2256 **tridentata** *P. S.*	trifid	⚘ [○]	or	10	jl.au	Y	E. Indies	1778.	C	a.p	Rhd. mal.11.t.65
2257 **maritima** *R. Br.*	thick-leaved	✣ [○]	or	10	jn.jl	Pu	E. Indies	1770.	S	a.p	Bot. reg 319
2258 **brasiliénsis** *L.*	Brazilian	⚘ [△]	or	10	jn.jl	Pu	S. Amer	1726.	R	a.p	Plu. am.89. t.104



History, Use, Propagation, Culture.

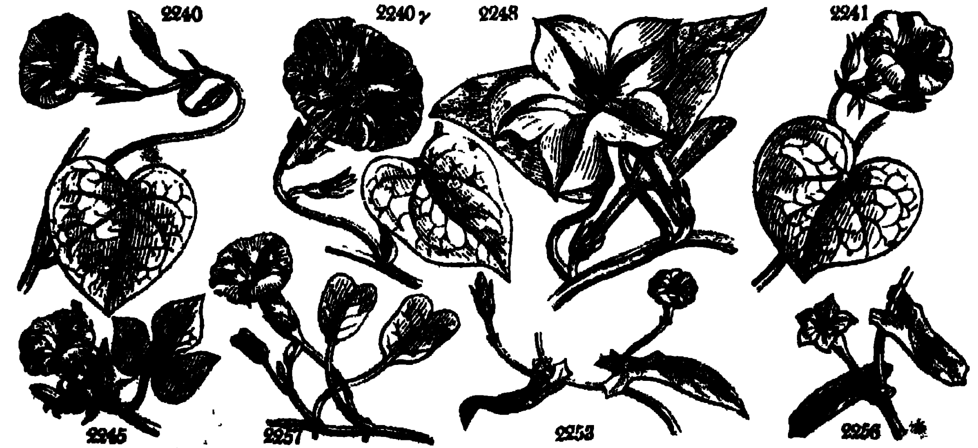
383. *Ipomæa.* From ἴψ ἰπὸς, a bindweed, or something analogous, and ὅμοιος, similar. This genus is nearly allied to Convolvulus and Calystegia. It consists chiefly of twining stove plants, free flowerers, and of the easiest culture. I. tuberosa is a plant of great beauty and fragrance. In Jamaica it is evergreen, thickly covered with leaves and large flowers, and much used to shade arbors. Browne says it may be carried over an arbor of 300 feet in length. Every part of the plant abounds with milk, and is purgative. Long thinks Scammony might be made from its tubers, and Loureiro affirms them to be edible.

§ 1. *Leaves pinnate, digitate, or palmate.*
2207 Leaves pinnate pinnæ filiform, Pedunc. a little longer than leaf 1-flowered
2208 Leaves palmate, Segments narrow pinnatifid toothed, Pedunc. about 2-flowered
2209 Leaves digitate, Leaflets stalked, Pedunc. 1-flowered
2210 Leaves palmate, Lobes 7 lanceolate acute entire, Pedunc. 3-flowered
2211 Smooth, Leaves palmate, Lobes 7 oblong lanc. entire, Cymes dichotomous, Cal. equal obtuse, Caps. erect
2212 Leaves digitate in 5s hairy entire, Seeds smooth
2213 Leaves digitate in 7, Peduncles umbelled very short
2214 Leaves digitate or nearly pedate 7-parted smooth, Stalks warted rough, Pedunc. 1-flowered
2215 Leaves palmate pedate, Lobes ciliate mucronate at end, Pedunc. 1-flowered
2216 Leaves palmate, Flowers aggregate
2217 Branches peduncles and petioles tubercled, Leaves palmate, Lobes 7 narrow oblong with a short point
§ 2. *Leaves cordate, angular, or lobed.*
2218 Leaves obl. cordate rarely obsoletely 3-lobed, Pedunc. 1-fl. shorter than leaf, Calyx very smooth
2219 Leaves cordate 3-lobed villous, Pedunc. 2-3-fl. Edge of cor. nearly entire, Stigmas 3-lobed
2220 Branches petioles peduncles and calyxes bristly, Leaves naked cordate 3-lobed, Lobes tooth sinuated
2221 Stem twining, Leaves cordate 3-lobed, Pedunc. longer than petiole, Fruit nodding
2222 Leaves cordate angular, Stem membranous square, Peduncles many-flowered
2223 Leaves cordate acuminate angular, Pedunc. first dichotomous afterwards branching
2224 Downy, Lvs. cord. acum. at base angular, Pedunc. 5-flowered, Cal. warted bearded, Limb. of cor. entire
2225 Smooth, Lvs. cord. below obscurely repand or ang. Pedunc. short 1-fl. Cal. hairy ciliated, Cor. small short
2226 Leaves cordate at the end 5-lobed smooth, Peduncle many-flowered corymbose

2227 Very smooth, Leaves cordate entire or angular, Pedunc. 1-3-fl. Cal. aristate, Cor. undiv. Tube very long
2228 Pedunc. upwards cymose trichotomous longer than the 5-lobed cordate or hastate leaves
2229 Leaves cordate entire or 3-lobed acuminate above pubescent beneath villous, Flowers numerous in cymes
2230 Smooth, Leaves cordate acuminate entire, Peduncles many-flowered without bracteæ
2231 Stem warted, Leaves cord. ovate rugose villous beneath entire or lobed, Pedunc. 1 many-fl. Seed woolly

2232 Leaves 3-lobed, Flowers aggregate
§ 3. *Leaves cordate entire.*
2233 Leaves cordate acute entire, Pedunc. 1-flowered solitary as long as leaves
2234 Leaves cordate, Pedunc. many-fl. Outer calyx orbicular, Cor. campanulate lobed
2235 Leaves cordate entire, Flowers close together, Cor. undivided
2236 Leaves roundish cordate smooth, Pedunc. many-flowered, Cor. edged
2237 Leaves cordate oblong repand acuminate, Peduncles branched cymose
2238 Leaves cordate acuminate smooth, Peduncles 2-flowered
2239 Leaves cordate ovate acute above hairy, beneath silky, Pedunc. longer than the stalks in umbels
2240 Leaves cordate undivided, Fruit cernuous, Stalks thick, Leaves cordate entire, Ped. many-fl. Cal. hispid

2241 Stem very tall, Leaves orbicular rounded, Flowers spotted with eyes
2242 Leaves 3-lobed cordate, Peduncles 3-flowered
2243 Leaves 3-lobed cordate, Peduncles many-flowered racemose
2244 Leaves cordate 3-lobed, Flowers half 5-cleft, Peduncles shorter than the petioles
2245 Hairy, Leaves cordate 3-lobed, lateral lobes acuminate intermediate acute, Pedunc. 1-fl. Cal. hairy
2246 Leaves cordate 3-lobed, Lobes cuspidate, Peduncles 1-fl. Sepals linear very hairy at base
2247 Leaves cordate acuminate hairy, Flowers aggregate
2248 Leaves cordate ovate obtuse entire, Pedunc. about 2-fl. Cal. coriaceous, Stem and petioles pubescent
2249 Leaves cordate roundish with a long point smooth, Pedunc. thick 3-fl. and cal. smooth, Stem muricated
2250 Leaves cordate acuminate, Pedunc. filiform 1-fl. and cal. smooth, Stem very hairy
§ 4. *Leaves sagittate or hastate.*
2251 Very smooth, Leaves oblong sagittate with a very deep sinus, Auricles acuminate, Pedunc. 1-flowered
2252 Leaves linear hastate pointed, Auricles toothed, Flowers solitary, Cal. sagittate
2253 Smooth, Leaves hastate lanceol. or linear acute, Lobes toothed, Pedunc. 1-fl. Sepals oblong lanc. ovate
2254 Leaves sagittate truncate behind, Peduncles 2-flowered
2255 Leaves linear hastate obtuse mucronate smooth, Auricles nearly entire, Peduncles 1-flowered
§ 5. *Leaves oblong, entire, or lobed.*
2256 Leaves oblong 3-pointed dilated at base toothed, Pedunc. 1-fl. thick 4-cornered
§ 6. *Leaves rounded.*
2257 Creeping smooth, Lvs. roundish emarginate or 2-lobed thickish at base beneath with 2 glands, Cal. obt.
2258 Leaves emarginate with 2 glands at base, Peduncles 3-flowered



and Miscellaneous Particulars.

I. bona-nox, like most of the species of this genus and Convolvulus, varies much in the leaves, which it produces cordate, lobed, or panduriform.

I. nil is a highly beautiful plant, with the corollas of a clear blue color, whence its name of Anil or Nil (Indigo.)

I. quamoclit is a most beautiful tender annual. Its name has been formed from κυαμος, a bean, and κλιτος, dwarf, because it resembles the kidney-bean in its climbing stem, but is less tall.

I. jalapa is found wild near Mexico, at Xalapa, whence probably the name of the drug which its root affords It is said to have been first brought to Europe in 1610. Its virtue as a purge resides chiefly in the resin.

384. CONVOL'VULUS. *W.* Bind-weed.							*Convolvulaceæ.*	*Sp.* 34—185.				
2259 arvénsis *W.*	small	§	△	w	1½	jn.s	F	Britain	cor. fl.	R	co	Eng. bot. 312
2260 scammónia *W.*	scammony	§	△	m	2	jl.au	W.pu	Levant	1596.	R	s.l	Mill. ic. 1. t. 102
2261 erubéscens *B. M.*	Maiden-blush	§	⊔○	or	6	jl.s	Pk	N. S. W.	1803.	C	r.m	Bot. mag. 1067
2262 japónicus *Vahl.*	Japanese	§	△	or	6	jl.au	Pu	China	1817.	D	co	Bot. reg. 322
2263 pannifólius *H. K.*	cloth-leaved	§	⊔	or	15	jn.s	B	......	1805.	R	s.l	Bot. reg. 222
2264 Batátas *W.*	tuberous	§	[△]	cit	12	...	W.pu	India	1597.	R	r.m	Rhed. mal. 7. t. 50
2265 bicolor *Vahl.*	involucrated	§	[○]	or	6	jn.au	W.pu	Isl. France	1818.			Bot. mag. 2205
2266 pandurátus *W.*	Virginian	§	△	or	12	jn.s	W.pu	N. Amer.	1732.	R	p.l	Bot. mag. 1939
2267 althæoides *W.*	Althæa-leaved	✱	△	or	1	jn.s	Pk	Levant	1597.	R	s.l	Bot. mag. 359
2268 bryoniæfólius *B. M.*	Bryony-leaved	✱	⊔	or	1½	jl.au	Pk	China	1802.	R	s.l	Bot. mag. 943
2269 macrocárpus *W.*	long-fruited	§	[○]	or	10	jl.au	Pu	S. Amer.	1752.	S	co	Plum. ic. t. 91. f. 1
2270 gláber *W.*	smooth	§	□	or	12	my.jn	W	Cayenne	1806.	C	p.l	Aub. gui. t. 53
2271 pentánthus *B. M.*	five-flowered	§	□	or	6	jl.s	I.B	E. Indies	1808.	C	s.l	Bot. mag. 2151
2272 canariénsis *W.*	Canary	§	⊔	or	20	my.s	Pu	Canaries	1690.	R	s.l	Bot. mag. 1292
2273 farinósus *W.*	mealy-stalked	§	⊔△	or	6	my.jn	Pk	Madeira	1777.	R	s.l	Par. lond. 45
2274 ciliátus *W. en.*	hairy	§	○	or	6	jl.s	Pk	......	1816.	S	co	
2275 máximus *W.*	great-Ceylon	§	[△]	or	20	jl	Pk	Ceylon	1799.	R	r.m	Rhd. mal. 11. t. 53
2276 Hermánniæ *W.*	Peruvian	§	⊔△	or	5	au.s	W	Peru	1799.	R	r.m	Jac. ic. 2. t. 316
2277 siculus *W.*	small-flowered	✱	○	or	1	jn.au	L.B	S. Europe	1640.	S	co	Bot. reg. 445
2278 elongátus *W. en.*	long-peduncled	✱	○	or	1	jl.au	W	Canaries	1815.	S	co	Bot. reg. 498
2279 Imperáti *Vahl.*	Imperati's	✱	△	or	1	...	Y	Naples	1824.	D	co	Cyrill. fasc. 1. t. 5
2280 réptans *W.*	creeping	✱	□	or	1	...	Pu	E. Indies	1806.	R	p.l	Rum. 5. t. 155. f. 1
2281 hirtus *W.*	hairy-stalked	✱	[○]	or	3	jn.au	B	E. Indies	1804.	S	s.l	
2282 suffruticósus *H. K.*	shrubby	✱	⊔	or	1	jl	Pk	Madeira	1788.	R	r.m	Bot. reg. 133
2283 pentapetaloides *W.*	Majorca	✱	○	or	½	jn	L.B	Majorca	1789.	S	co	Jac. col. 4. t. 22. f. 2
2284 lineátus *W.*	dwarf	✱	△	or	½	jn	Pu	S. Europe	1714.	R	s.l	Tri. ob. 91. t. 91. f. 2
2285 saxátilis *W.*	rock	✱	⊔△	or	½	jn	W	S. Europe	1796.	R	s.l	Bo. mus. 138. t. 96
2286 Cneórum *W.*	silvery-leaved	✱	⊔	or	3	my.s	Pk	Levant	1640.	C	p.l	Bot. mag. 459
2287 lineáris *W.*	narrow-leaved	✱	⊔	or	1½	my.s	[illegible]	......	1770.	C	l.p	Bot. mag. 289
2288 cantábrica *W.*	Flax-leaved	✱	△	or	1	my.s	[illegible]	S. Europe	1680.	R	s.l	Jac. aus. 3. t. 296
2289 Dorýcnium *W.*	silky-leaved	✱		or	1½	jn.jl	Pk	Levant	1806.	C	s.l	
2290 scopárius *W.*	Broom	✱	⊔	or	2	au.s	W	Canaries	1733	C	s.l	Vent. choix. 24
2291 flóridus *W.*	many-flowered	✱	⊔	or	1½	au.s	Pk	Canaries	1779.	C	p.l	Jac. ic. 1. t. 34
2292 tricolor *W.*	three-colored	✱	○	or	3	jl.au	St	S. Europe	1629.	S	co	Bot. mag. 27
385. ARGYREIA. *Lour.* Silver-weed.							*Convolvulaceæ.*	*Sp.* 1—4.				
2293 cuneáta *Ker.*	wedge-leaved	ħ.	□	or	2	au.s	Pu	E. Indies	1822.	C	s.l	Bot. reg. 661
386 NEMO'PHILA.	Nemophila.						*Borragineæ.*	*Sp.* 1.				
2294 phacelioides	shady	✱		cu	1	jl.au	B	N. Amer.	1822.	S	co	Bot. mag. 2373
387. CALYSTEGIA. *R. Br.* Bearbind.							*Convolvulaceæ.*	*Sp.* 3—7.				
2295 sépium *R. Br.*	great-hedge	§	△	or	6	jn.s	W	Britain	m.hed.	R	s.l	Eng. bot. 313
β incarnáta	*red-flowered*	§	△	or	6	jn.s	R	N. Amer	...	R	co	Bot. mag. 732
2296 sylvéstris *W. en.*	wood	§	△	or	18	jn.s	W	Hungary	1815.	R	co	
2297 spithamæ'a *Ph.*	small-upright	§	△	or	1	jl	W	N. Amer.	1796.	R	co	Hook. ex. fl. 97
2298 Soldanélla *R. Br.*	sea	§	△	or	1	jn.jl	F	Britain	sea sh.	R	s.l	Eng. bot. 314

History, Use, Propagation, Culture,

384. *Convolvulus.* From *convolvere*, to entwine. This is an extensive genus of some beauty, and the C. batatas is of known utility as an edible root. The stems in the greater number of species are herbaceous and twining, a few are shrubby, and one or two very low herbs.

C. arvensis has white jointed worm-like roots, very difficult to eradicate in gardens or corn-fields: it is considered as a certain indication of a dry soil.

C. scammonia, named in Arabia *Scamunià* (*Forsk. Golius*), affords the gummy resin of that name from the roots, which are three or four feet long, from nine to twelve inches in circumference, and contain a milky juice. The top of the root being bared of earth, it is cut through in a sloping direction, and a shell or cup placed close to the section for the juice to run into. This juice hardened is the true scammony, chiefly used as a stimulating cathartic.

C. turpethum is derived from *turbid*, its name in Arabia (*Golius.*)

C. batatas, (Batatas is Malay according to Rumphius, Mexican according to Niesomberg) skirrets of Peru, or Spanish potatoes, is a native of both Indies and China. It came first to Spain from the West Indies, from thence it was imported here annually, and sold as a delicacy. It is the potatoe of Shakspeare and contemporary writers, the Solanum tuberosum being then scarcely known in Europe. The batatas is cultivated in all the tro-

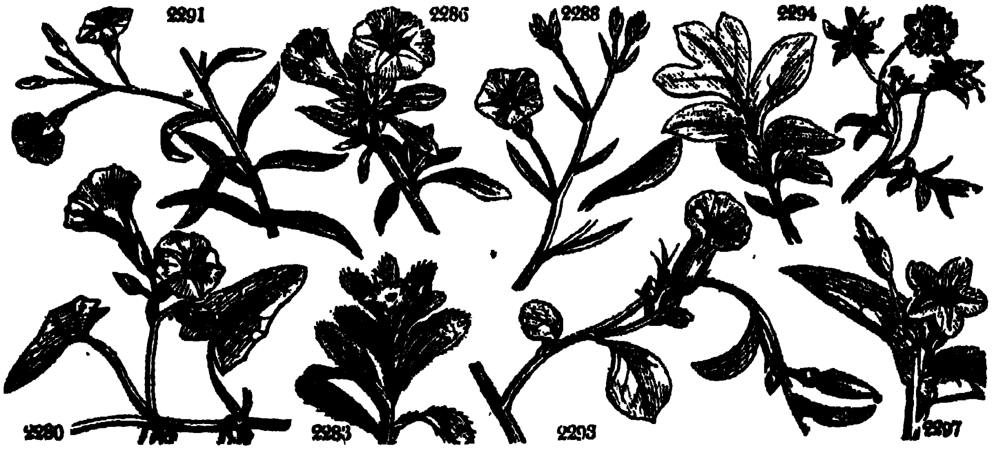
§ 1. *Climbing; leaves sagittate or hastate.*
2259 Leaves sagittate acute at each end, Peduncles about 1-flowered
2260 Leaves sagittate truncate behind, Peduncles rounded 3-flowered
2261 Leaves cordate sagittate behind sinuate repand, Pedunc. axillary solitary about 2-flowered
2262 Leaves lanceolate hastate acute, Auricles 1-toothed behind, Stem simple, Peduncles 1-flowered
§ 2. *Climbing; leaves cordate hastate.*
2263 Leaves cordate hastate hirsute, Pedunc. about 3-flowered, Bract. linear remote from calyx
2264 Leaves cordate hastate angular lobed 5-nerved smoothish, Ped. long, Fl fasc. Sepals lanceol. acuminate
§ 3. *Climbing; leaves cordate lobed.*
2265 Leaves cordate villous at the base angular lobed, Peduncles 1-flowered, Outer sepals bract-like
2266 Pubescent, Leaves broad cordate entire or lobed fiddle-shaped, Pedunc. long, Flowers fascicled
§ 4. *Climbing; leaves quinate or palmate.*
2267 Leaves cordate sinuate silky lobes repand, Pedunc. 2-flowered
2268 Leaves 7-lobed palmate hispid middle lobe sinuated drawn out, Pedunc. axill. solitary very long jointed
2269 Leaves palmate pedate 5-parted, Pedunc. 1-flowered
2270 Very smooth, Leaves digitate quinate, Leaflets stalked acuminate entire, Pedunc. branched divaricating
§ 5. *Climbing; leaves cordate or subcordate.*
2271 Leaves oblong cordate acuminate subrepand smooth, Pedunc. umbelled 5-flowered, Flowers sessile
2272 Leaves cordate pubescent, Stem perennial villous, Pedunc. many-flowered
2273 Leaves cordate acuminate repand, Pedunc. 3-flowered, Stem mealy
2274 Leaves cordate ovate acuminate ciliated, Heads stalked very hairy with an involucrum
2275 Leaves cordate ovate acuminate entire smooth, Stem and leaf-stalks smooth
2276 Tomentose, Leaves cordate oblong obtuse subrepand, Pedunc. longer than stalk, Limb acute
§ 6. *Prostrate; leaves cordate.*
2277 Leaves cord. ovate upper acute, Ped. 1-fl. shorter than leaves, Bractes obl. lanc. longer than ciliated cal.
2278 Leaves cordate ovate cusp. Ped. 2-fl. longer than leaves, Bractes lin. subul. shorter than parted peduncle
§ 7. *Prostrate; leaves cordate lobed or hastate.*
2279 Leaves panduriform or entire emarginate cordate at base, Peduncles 1-flowered, Stem creeping
2280 Leaves hastate lanceolate, Auricles rounded, Stem creeping, Peduncles 1-flowered
2281 Leaves cordate and somewhat hastate villous, Stem and leaf-stalks hairy, Peduncles many-flowered
§ 8. *Prostrate; leaves ovate or oblong and linear.*
2282 Leaves linear lanceolate, Stem ascending villous, Peduncles axillary 1-flowered 3 times as long as leaf
2283 Leaves lanceolate obtuse naked lined, Branches declinate, Flowers silky ½ 5-cleft
2284 Leaves lanceolate silky lined stalked, Peduncles 2-fl. Cal. silky [illegible]
2285 Very hairy, Leaves linear, Flowers capitate, Calyxes acuminate
2286 Leaves lanceolate tomentose, Flowers capitate, Calyxes hairy, Stem nearly erect
2287 Stems erect shrubby, Leaves linear acute silky, Flowers terminal umbelled panicled, Cal. hairy
2288 Leaves linear lanc. acute, Stem branched nearly erect, Cal. hairy, Pedunc. 2-flowered
2289 Leaves nearly linear silky, Stem panicled, Cal. naked obtuse
2290 Leaves linear hairy, Peduncles about 3-flowered, Cal. silky ovate acute, Branches twiggy
2291 Prostrate hoary, Leaves linear lanceolate smooth, Thyrse terminal pyramidal compound
2292 Leaves lanceolate ovate smooth, Stem declinate, Flowers solitary

2293 Leaves wedge-shaped emarginate beneath silky, Peduncles 2-flowered

2294 The only species

2295 Leaves sagittate very acute, behind obtuse or trunc. entire, Bract. ac. longer than cal. twice as short as cor.

2296 Leaves cordate, Lobes angular truncated, Pedunc. rounded 1-fl. Bract. ovate obt. inflated, Sepals obtuse
2297 Leaves cordate pubescent, Stem erect, Peduncles 1-flowered
2298 Leaves reniform, Peduncles 1-flowered, the angles winged



and Miscellaneous Particulars.

pical climates much in the same manner as our potatoe, but with more room for its trailing stalks. Not only the tubers, but the young leaves and tender shoots are boiled and eaten; and, as is the case with all plants long in cultivation, there are several varieties.

C. tricolor is a well known border-annual, commonly called C. minor, with reference to another border-flower, Ipomœa purpurea, which gardeners and seedsmen commonly call C. major.

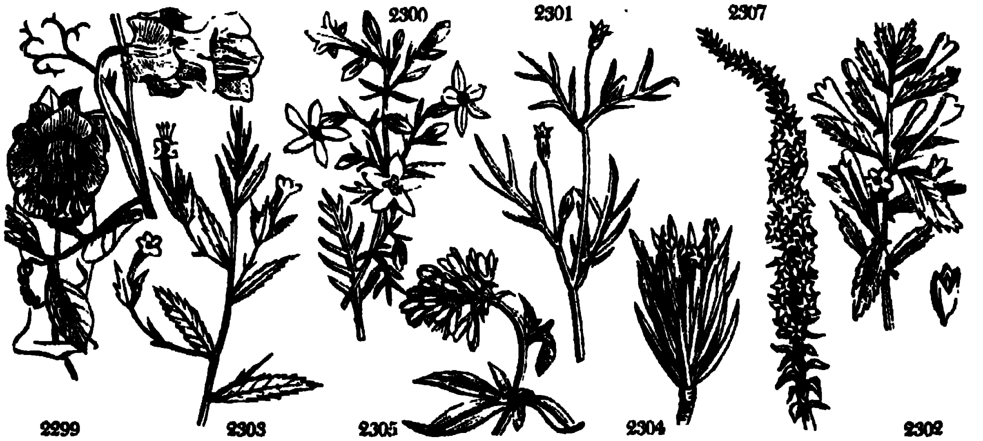
C. reptans, is a common potherb in the East Indies and in China.

385. *Argyreia.* From αργυρος, silver, in allusion to the silvery texture of the leaves of the plant. A beautiful genus nearly related to Convolvulus.

386. *Nemophila.* From νεμος, a grove, and φιλεω, to love; the species growing in shady woods. A small hardy N. American plant, with bright blue flowers and divided leaves.

387. *Calystegia.* From καλος, pretty, and στεγη, a covering, in allusion to the two bractes in which the calyx is inclosed. A very artificial genus, distinguished from Convolvulus and Ipomœa, only by the presence of bractes, and by its capsule being one-celled. C. sepium, the Convolvulus sepium of Willdenow, has medical properties similar to Scammony, for which Withering thinks it may serve as a substitute. Swine, it is said, eat the roots in large quantities, and yet are not purged by them. C. soldanella is an acrid purge.

388. COBÆ'A *Cav.*	COBÆA.			*Cobæaceæ.* *Sp.* 1.						
2299 scándens *Cav.*	climbing	⌇ △ or	20	my.o	Pu	Mexico	1792.	S	p.l	Bot. mag. 851
389. CAN'TUA. *W.*	CANTUA.			*Polemoniaceæ.* *Sp.* 2—16.						
2300 coronopifólia *W.*	scarlet	⚘ ◯ or	3	au.s	S	Carolina	1726.	C	l.p	Ex. bot. 1. t. 13
2301 inconspicua *H. K.*	small-blue	◯ or	2	a.n	B	America	1793.	S	co	Ex. bot. 1. t. 14
390. HOITZIA. *Cav.*	HOITZIA.			*Polemoniaceæ.* *Sp.* 2—5.						
2302 coccinea *Cav.*	scarlet	■ ⊔ or	3	...	S	Mexico	1824.	C	r.m	Cav. ic. 6. t. 365
2303 cærúlea *Cav.*	blue	■ ⊔ or	1	...	Pa.B	Mexico	1824.	C	r.m	Cav. ic. 6. t. 366
391. RET'ZIA. *Th.*	RETZIA.			*Convolvulaceæ.* *Sp.* 1.						
2304 spicáta *Th.*	spiked	■ ⊔ cu	4	my.jn	Br	C. G. H.	...	C	l.p	Lam. ill. t. 103
392. LUBI'NIA. *Comm.*	LUBINIA.			*Primulaceæ.* *Sp.* 1—3.						
2305 atropurpúrea *Lk.*	dark-purple	✱ △ cu	2	...	Pu	C. G. H.	1820.	C	l.p	H. ber. 27
393. EPA'CRIS. *R. Br.*	EPACRIS.			*Epacrideæ.* *Sp* 6—18.						
2306 purpuráscens *R. Br.*	rigid	■ ⊔ or	3	ja.mr	Pu	N. S. W.	1803.	C	s.p	Bot. mag. 844
2307 pulchélla *R. Br.*	sweet-scented	■ ⊔ or	4	ap.jn	Pk	N. S. W.	1804.	C	s.p	Bot. mag. 1170
2308 grandiflóra *R. Br.*	crimson	■ ⊔ or	3	ja.jn	S	N. S. W.	1803.	C	s.p	Bot. mag. 982
2309 obtusifólia *R. Br.*	blunt-leaved	■ ⊔ or	3	ap.jn	W	N. S. W.	1804.	C	s.p	Ex. bot. 1. t. 40
2310 exsérta *R. Br.*	exserted	■ ⊔ or	2	ap.jn	W	V. Di. L.	1812.	C	l.p	
2311 microphýlla *R. Br.*	small-leaved	■ ⊔ or	2	...	...	N. S. W.	1822.	C	l.p	
394. STYPHE'LIA. *R. Br.*	STYPHELIA.			*Epacrideæ.* *Sp.* 4—8.						
2312 longifólia *R. Br.*	long-leaved	■ ⊔ or	3	ap.jn	G	N. S. W.	1807.	C	l.p	Bot. reg. 24
2313 viridiflóra *R. Br.*	green-flowered	■ ⊔ or	4	ap.jn	G	N. S. W.	1791.	C	s.p	Bot. rep. 312
2314 triflóra *R. Br.*	three-flowered	■ ⊔ or	6	my.au	Pk	N. S. W.	1796.	C	s.p	Bot. mag. 1297
2315 tubiflóra *R. Br.*	crimson	■ ⊔ or	6	my.au	C	N. S. W.	1802.	S	s.p	Smith n. hol. t. 14
395. LISSAN'THE. *R. Br.*	LISSANTHE.			*Epacrideæ.* *Sp.* 1—6.						
2316 daphnoides *R. Br.*	Daphne-leaved	■ ⊔ or	3	jn.jl	W	N. Holl.	1818.	C	s.p	Bot. cab. 466
396. ASTROLO'MA. *R. Br.*	ASTROLOMA.			*Epacrideæ.* *Sp.* 1—6.						
2317 humifúsum *R. Br.*	Juniper-leaved	■ ⊔ or	2	my.o	S	N. S. W.	1807.	C	s.p	Bot. mag. 1439
397. SPRENGE'LIA. *R. Br.*	SPRENGELIA.			*Epacrideæ.* *Sp.* 1—2.						
2318 incarnáta *R. Br.*	flesh-colored	■ ⊔ or	2	ap.jn	F	N. S. W.	1793.	C	s.p	Bot. mag. 1719
398. ANDERSO'NIA. *R. Br.*	ANDERSONIA.			*Epacrideæ.* *Sp.* 1—6.						
2319 sprengelioides *R. Br.*	Sprengelia-like	■ ⊔ or	2	mr.jl	Pk	N. Holl.	1803.	C	s.p	Bot. mag. 1645
399. LYSINE'MA. *R. Br.*	LYSINEMA.			*Epacrideæ* *Sp.* 2—5.						
2320 púngens *R. Br.*	pungent	■ ⊔ or	2	f.ap	W	N. S. W.	1804.	C	l.p	Bot. mag. 844
β *rúbrum*	*red*	■ ⊔ or		f.ap	R	N. S. W.	1804.	C	l.p	Bot. mag. 1199
2321 attenuátum *Lk.*	narrow-flower'd	■ ⊔ or	2	f.ap	Pk	N. S. W.,	1812.	C	l.p	Bot. cab. 38
400. MONO'TOCA. *R. Br.*	MONOTOCA.			*Epacrideæ.* *Sp.* 2—5.						
2322 elliptica *R. Br.*	elliptic	■ ⊔ or	8	my.au	W	N. S. W.	1802.	C	l.p	
2323 lineáta *R. Br.*	lined	■ ⊔ or	6	my.au	W	V. Di. L.	1804.	C	s.p	L. nov. holl. 1. t. 61



History, Use, Propagation, Culture,

388. *Cobæa.* In honor of Barnadez Cobo, a Spanish Jesuit, who wrote upon subjects of natural history about the middle of the 17th century. The name arose with Cavanilles. This is the most rapid growing greenhouse climber known, having been found to grow 200 feet in length in one summer in a conservatory. It will thrive almost equally well in the open air during summer, but is destroyed by frost; and its shoots are only of annual, or at most of biennial duration. It strikes in sand in moist heat, but it generally ripens seeds, which, sown early in spring, and forwarded in a stove, will flower in the greenhouse or open air the same season.

389. *Cantua.* From *Cantu*, the native name of the genus among the Peruvians. Pretty greenhouse plants, rarely seen in gardens.

390. *Hoitzia.* Hoitzit is the name of this plant in Mexico. A handsome plant with brilliant scarlet flowers. It is occasionally raised from Mexican seed, but is very rare in collections.

391. *Retzia.* Named after John Retzius, professor of botany at Lund, in Sweden. His Observationes Botanicæ is a work of reputation. A small upright shrub with whorled lanceolate leaves, and clustered brown flowers, almost hidden among the leaves.

392. *Lubinia.* A genus dedicated by Commerson to M. de Saint Lubin, a French officer who travelled in the East Indies. A small plant with ascending stem and fleshy smooth leaves, of little merit.

393. *Epacris.* Named by Forster from ἐπι, upon, and ἄκρος, the top of a thing; because in New Zealand the species grow on the top of the mountains. A most ornamental genus, which Sweet observes, thrives "best in a sandy peat soil; the rougher and more turfy the soil is, the better the plants will thrive: these should always be shifted in fresh pots before they are turned out of doors in spring, as their roots are so very fine, and are generally matted round the pots, so that the hot sun coming against the pots destroys them, and they look brown all through the summer, and are very difficult to recover. Young cuttings planted in pots of sand under bell-glasses in autumn or winter, or early in spring, will strike root readily, but they will not strike so readily in summer: when rooted, they should be potted singly in small pots, and set in a close frame, and must be hardened to the air by degrees." (*Bot. Cult.* 186.)

394. *Styphelia.* A name derived from στυφελος, dense, in allusion to the compact habit of the genus. Erect

2299 The only species

2300 Lobes of leaves linear entire oblong, Flowers panicled terminal, Cor. tubular twice as long as cal.
2301 Plant smaller than the last, Leaves very narrow, Cor. short blue

2302 Stem half shrubby, Leaves sessile ovate acute pubescent
2303 Stem half shrubby, Leaves subsessile linear toothed spinous

2304 Leaves in fours linear sessile erect, Flowers clustered hidden among the leaves

2305 Leaves fleshy dark-green glabrous obovate, Stem ascending

2306 Sepals acuminate as long as tube of cor. Leaves cucullate subsess. with a recurved end longer than base
2307 Sepals acum. as long as tube of cor. Lvs. conc. their base longer than spreading point, Spike flow. at base
2308 Cor. cylindrical 4 times as long as cal. Flowers pendulous, Leaves acuminate flat
2309 Flowers nodding, Leaves lanceolate erect imbricated with a callous obtuse end, Stamens included
2310 Leaves lanceolate acute erect above flat beneath convex, Cal. obtuse as long as tube, Stamens exserted
2311 Sepals obtuse as long as tube of cor. Leaves cucullate acute spreading, Spike flowering at end

2312 Leaves long lanceolate attenuated at end, above concave smooth at edge, Branches pubescent
2313 Leaves obovate oblong obtuse mucronate flat smooth above roughish at edge, Flowers spreading.
2314 Leaves oblong lanceolate flat glaucous smooth, Branches smooth, Flowers corymbose, Ped. 1-3-flowered
2315 Leaves linear obovate mucronate rough above revolute at edge, Flowers nodding

2316 Leaves ellipt. lanceolate concave with a short callous point, Segm. of cor. smooth

2317 Prostrate much branched, Leaves lanceolate linear convex above ciliated at edge

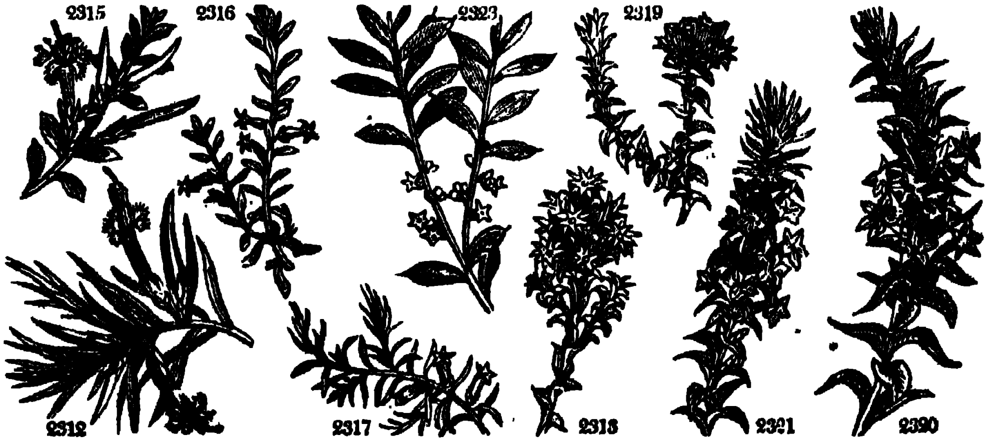
2318 Anthers connate bearded, Cal. colored, Leaves long acuminate

2319 Leaves spreading with a flat point

2320 Cor. monopetalous, Tube entire as long as cal. Leaves ovate acuminate spreading

2321 Leaves sessile cordate acuminate pungent recurved, Cal. imbric. as long as narrow tube of cor.

2322 Spikes erect subterminal aggregate or axillary solitary, Leaves ellipt. oblong 4 times broader than long
2323 Spikes axillary few-flowered nodding stalked, Leaves oblong acute flat mucronate



and Miscellaneous Particulars.

branched shrubs, natives of New Holland, with scattered mucronate leaves, and axillary, nodding, very showy flowers. Culture as for Andersonia.

395. *Lissanthe.* A New Holland genus of shrubs with small white flowers, the segments of which are smooth, not bearded as in Leucopogon, to which the genus is next. From this difference its name has been contrived; *λισσος*, smooth, and *ανθος*, a flower.

396. *Astroloma.* From *αστρον*, a star, and *λῶμα*, a fringe, in allusion to the stellate disposition of the little bundles of hairs at the bottom of the tube. A genus of neat little bushes, with axillary erect flowers. Culture as for Andersonia.

397. *Sprengelia.* So called in honor of Curt Sprengel, professor at Halle, in Saxony, a learned man and respectable botanist. His Historia Rei Herbariæ is a monument of industry and information. This is a handsome half-hardy genus, delighting in a shady aspect, sandy peat soil, and dry bottom. They must be watered sparingly when not growing freely. Cuttings root in sand under a bell-glass.

398. *Andersonia.* Named by Mr. Browne, first, after William Anderson, a navy surgeon, who died in Cook's last voyage; secondly, after Dr. Anderson, formerly director of the botanical garden, St. Vincents; and lastly, after William Anderson, the curator of the apothecaries' garden, Chelsea. According to Sweet, this genus "grows freely in a sandy peat soil with the pots well drained; and care should be taken not to over-water it, as they are very liable to get sodden, when they seldom recover. The very young tops put in for cuttings, under a bell-glass in sand, will root readily. When first potted off, they should be put singly in small thumb-pots, and kept close in a frame for a few days, and hardened to the air by degrees." (*Bot. Cult.* 133.)

399. *Lysinema.* Perhaps derived from *λυσις*, a separation or solution, and *νημα*, a stamen; but the application of the name is not obvious. Shrubs with the habit of Epacris. They prefer rough turfy soil, and cuttings root readily in sand under a bell-glass.

400. *Monotoca.* From *μονος*, one, and *τοκος*, birth, because only one ovulum is borne by the ovarium, a remarkable circumstance in the natural order of the genus. The species are little shrubs, with axillary or terminal spikes of white flowers. They require well drained pots, and their cuttings must be taken off when very young, and planted in sand under a bell-glass.

401. LEUCOPO'GON. *R. Br.*	Leucopogon.					*Epacrideæ.*		*Sp.* 4—48.				
2324 lanceolátus *R. Br.*	small-flowered	♣	⊔	or	12	my.au	W	N. S. W.	1790.	C	s.p	Bot. reg. 987
2325 ericoides *R. Br.*	Heath-leaved	♣	⊔	or	6	...	Pk	N. S. W.	1815.	C	l.p	Cav. ic. 4. t. 367. f. 1
2326 amplexicaúlis *R. Br.*	stem-clasping	♣	⊔	or	3	...	W	N. S. W.	1815.	C	l.p	Linn. trans. 6. t. 8
2327 juniperinus *R. Br.*	Juniper-leaved	♣	⊔	or	3	ap.jn	W	N. S. W.	1804.	C	l.p	Bot. cab. 467
402. STENANTHE'RA. *R. Br.*	Stenanthera.					*Epacrideæ.*		*Sp.* 1.				
2328 pinifólia *R. Br.*	Pine-leaved	♣	⊔	or	6	my.jl	S	N. S. W.	1811.	C	s.p	Bot. reg. 218
403. AZA'LEA. *W.*	Azalea.					*Rhodoraceæ.*		*Sp.* 10—14.				
2329 indica *W.*	Indian	♣	⊔	or	4	mr.my	S	China	1808.	C	p.l	Bot. mag. 1480
β purpúrea pléna	*double-purple*	♣	⊔	or	4	mr.my	Pu	China	1819.	C	p.l	
γ variegáta	*variegated*	♣	⊔	or	4	mr.my	St	China	1824.	C	p.l	
δ álba	*pure-white*	♣	⊔	or	4	mr.my	W	China	1819.	C	p.l	Bot. reg. 811
ε aurantiaca	*orange*	♣	⊔	or	4	mr.my	O	China	1822.	C	p.l	Bot. cab. 1235
2330 póntica *W.*	yellow	♣		or	6	my.jn	Y	Turkey	1793.	L	s.p	Bot. mag. 433
β glaúca	*glaucous*	♣		or	6	my.jn	Y	......	...	L	s.p	Bot. mag. 2383
γ albiflóra	*white-flowered*	♣		or	6	my.jn	W	......	...	L	s.p	
2331 calendulácea *Ph.*	orange	♣		or	4	my.jn	O	N. Amer.	1806.	L	s.p	Bot. mag. 1721
β flammea	*flame-colored*	♣		or	4	my.jn	R	N. Amer.	1812.	L	s.p	Bot. reg. 145
2332 canéscens *Ph.*	downy	♣		or	3	my.jn	Pk	N. Amer.	1812.	L	s.p	
2333 nudiflóra *W.*	naked-flowered	♣		or	3	my.jn	Pk	N. Amer.	1734.	L	s.p	
α coccinea	*small-scarlet*	♣		or	4	my.jn	S	N. Amer.	1734.	L	s.p	Bot. mag. 180
β speciósa	*large-scarlet*	♣		or	4	my.jn	S	N. Amer.	1734.	L	s.p	Bot. cab. 624
γ aurántia	*orange*	♣		or	3	my.jn	O	N. Amer.	1734.	L	s.p	
δ cuprea	*copper-colored*	♣		or	3	my.jn	Ful	N. Amer.	1734.	L	s.p	
ε rútilans	*deep-red*	♣		or	4	my.jn	D.R	N. Amer.	1734.	L	s.p	
ζ cárnea	*pale-red*	♣		or	3	my.jn	L.R	N. Amer.	1734.	L	s.p	Bot. reg. 120
η álba	*early-white*	♣		or	3	my.jn	W	N. Amer.	1734.	L	s.p	
ϑ papilionácea	*variegated*	♣		or	4	my.jn	St	N. Amer.	1734.	L	s.p	
ι partíta	*five-parted*	♣		or	4	my.jn	W	N. Amer.	1734.	L	s.p	
κ semipléna	*semi-double*	♣		or	4	my.jn	W	N. Amer.	1734.	L	s.p	
λ flore pleno	*double-flowered*	♣		or	4	my.jn	W	N. Amer.	1734.	L	s.p	
2334 bicolor *Ph.*	two-colored	♣		or	4	my.jn	St	N. Amer.	1734.	L	s.p	Trew. ehret. t. 48
2335 viscósa *Ph.*	viscid	♣		or	2	jl.au	W	N. Amer.	1734.	L	s.p	Meerb. ic. 2. t. 9
α odoráta	*common-white*	♣		or	3	jl.au	W	N. Amer.	1734.	L	s.p	
β vittáta	*striped-flowered*	♣		or	3	jl.au	St	N. Amer.	1734.	C	l.p	
γ fissa	*narrow-petaled*	♣		or	3	jl.au	Pk	N. Amer.	1734.	L	s.p	
2336 nítida *Ph.*	shining-leaved	♣		or	4	jl.au	Pk	N. Amer.	1812.	C	l.p	
2337 glaúca *Ph.*	dwarf-glaucous	♣		or	2	jn	W	N. Amer.	1734.	L	s.p	Bot. reg 414
2338 híspida *Ph.*	tall-glaucous	♣		or	15	jn	Pk	N. Amer.	1734.	L	s.p	Dend. brit. 6
404. CHAMÆLE'DON. *Lk.*	Chamæledon.					*Rhodoraceæ.*		*Sp.* 1.				
2339 procúmbens *Lk.*	trailing	♣		or	½	ap.my	Pk	Britain	sc. mo.	L	s.p	Eng. bot. 865
405. BREX'IA. *Nor.*	Brexia.					....		*Sp.* 1—3.				
2340 madagascariénsis *P.s.*	Madagascar	♀	☐	or	30	jn	G	Mauritius	1812.	C	s.p	Bot. reg 730
406. OPHIORHI'ZA. *L.*	Snake-root.					*Rubiaceæ.*		*Sp.* 1.				
2341 Múngos *L.*	common	♣	☐	or	3	my.d	W	E. Indies	1820.	C	s.p	

History, Use, Propagation, Culture,

401. *Leucopogon.* From λευκος, white, and πωγων, a beard, because the segments of the white flowers are bearded. A very extensive genus of small shrubs, with spiked axillary or terminal flowers. Culture as for Andersonia.

402. *Stenanthera.* From στενος, narrow, and ανθηρα, an anther; the anther being in this genus not so broad as its filament. A bush with pine-like leaves, and erect large scarlet blossoms. Culture as in Andersonia.

403. *Azalea.* From αζαλεος, dry, arid; either in allusion to the places where the plant grows, or to the brittle dry nature of its wood. This is a very ornamental genus, from its abundance of flowers of almost all colors, and the fragrant smell of most of the species. A. indica is the most delicate, but flowers well in a moist heat in rough peat well drained. According to Sweet, "it thrives best in a sandy peat, and the pots to be well drained with small pieces of potsherd: it should be set in an airy part of the greenhouse in winter, and great care must be taken not to over-water it: in summer it should be exposed to the open air, but not in a very sunny situation. Young cuttings taken off close to the plant, and planted in pots of sand, will root readily, if plunged in heat under a bell-glass." (*Bot. Cult.* 144.) T. Blake keeps his plants "in peat and leaf-mould, always in the greenhouse till they are in a flowering state, and then he removes them to the hothouse, the sudden heat causing the blossom to open the better." (*Hort. Trans.* iv. 133.) J. Nairn uses the most fibrous part of peat-earth and sand; he places them in a considerable heat, and always in the shade, and when the plants exhibit blossom buds in March, he then raises the temperature from 50° to 60°. This species strikes by cuttings of the young wood, taken off close to that which is ripened, planted in pots of sand, and plunged under a bell-glass.

The hardy Azaleas are best grown in compartments or groups by themselves, or with other American or European plants requiring a moist peat soil, and rather shady situation. Where peat is not to be had, the

2324 Spikes nodding aggregate, Ovaries 2-celled, Drupes oval, Leaves lanceolate flat 3-nerved
2325 Spikes axillary close together 3-4-flowered, Leaves [illegible] moderately spreading mucronate
2326 Spikes axillary and terminal spreading stalked longer than the leaves, Leaves cordate stem clasping
2327 Flowers subsessile solitary or 2 together, Leaves divaricating lanceolate linear bristly pointed

2328 The only species. Leaves like those of a fir very close together

2329 Flowers nearly solitary, Calyx hairy

2330 Leaves oblong narrowed at the end shining ciliated smooth, Corymb. terminal, Tube of cor. glandular

2331 Nearly naked flowered, Leaves oblong pubescent on both sides, Flowers large not viscid, Cal. teeth obl

2332 Leaves beneath thinly downy nerve not bristly, Flowers rose-colored not viscid, Cal. very minute
2333 Leaves oblong narrowed at the base ciliated smooth, Corymb terminal, Cor. hairy outside, Stam. exsert

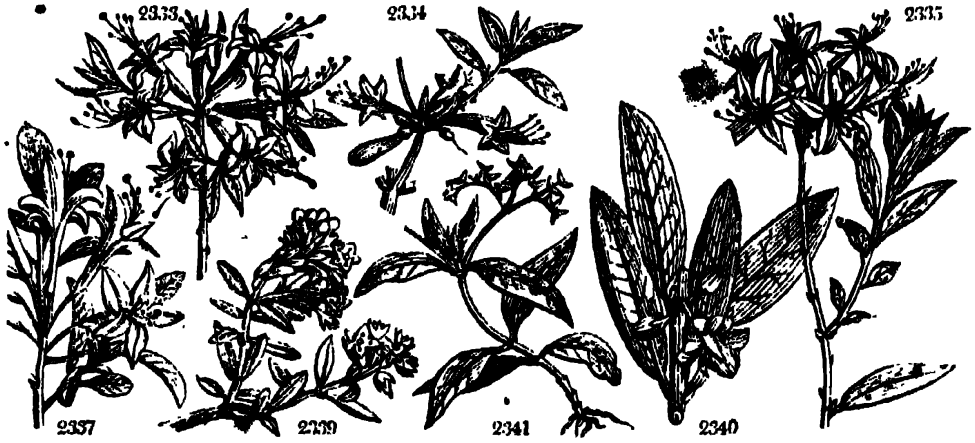
2334 Naked flowered, Leaves oblong slightly pubescent on both sides, Flowers small not viscid, One segment of corolla linear 4 times as long as the others
2335 Branches hispid, Leaves same color on both sides with the nerve hispid, Cal. teeth very short round

2336 Branches smooth, Leaves small oblanceolate mucronate coriaceous with a hispid nerve, Flowers viscid
2337 Branches hispid, Leaves acute smooth on both sides glauc. beneath with a hispid nerve, Fl. very viscid
2338 Branches upright very hispid, Leaves long lanceolate hispid above, Flowers very viscid

2339 The only species

2340 Leaves long narrow entire with a brown edge

2341 The only species



and Miscellaneous Particulars

next best soil is a soft black sandy loam with leaf-mould, or mould from any decayed vegetable matter unmixed with animal remains, as the mould of decayed thatch, or the sweepings of stack-yards, wood-piles, &c. Seeds are obtained from many of the sorts, and should be sown in pans or shallow wide pots thinly covered, placed in a shady situation, and kept moderately moist. When fit to transplant, they should be pricked into other pots, and placed under a glass, and shaded till they have struck roots afresh. They may then be hardened by degrees, and, when their roots fill the pots, planted out in beds, or where they are finally to remain. Most of the hardy Azaleas are well adapted for growing in pots, and for forcing early in spring. The deciduous sorts flower better than those which are subevergreens.

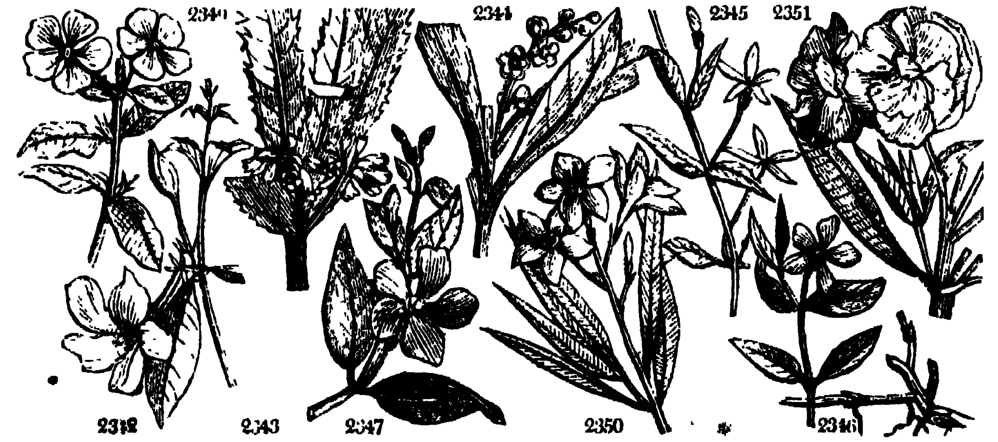
By intercrossing with Azalea and Rhododendron, some new and curious varieties or hybrid species have been produced, especially in Colvill's nursery, under the direction of Mr. Sweet: and from some thousands of seedlings which have not yet flowered, many more are expected. (See *Encyc. of Gard.* part II. b. i. ch. viii. sect. 7. The juice in the bottom of the flower of A. pontica is poisonous, and communicates its bad properties to the unwholesome honey of Pontus. Several fine varieties of the Azalea indica have lately been brought to this country; but many of the best varieties are still among the desiderata of English cultivators.

404. *Chamæledon.* From χαμαι, dwarf, and λιδον, a kind of cistus. This has been formed from the well known Azalea procumbens of Linnæus, one of the most interesting of our northern plants.

405. *Brexia.* So named by Noronha, perhaps from βρεξις, rain, in allusion to the protection afforded by the fine large leaves of the genus against rain. Fine stove plants with firm, spiny, or entire leaves, and axillary green flowers. In the garden they are commonly called Theophrastas.

406. *Ophiorhiza.* From οφις, a snake, and ῥιζα, a root, from the use which is made of the roots in the East Indies for curing the bites of dangerous snakes. Mungos is an Indian name. A pretty stove plant, whose white flowers are well relieved by the dark red back ground of the calyxes and pedicels.

407. **ALLAMAN'DA.** *W.*	ALLAMANDA.					*Apocyneæ.*		*Sp.* 1.				
2342 cathártica *W.*	willow-leaved	♣	☐	or	12	jn.jl	Y	Guiana	1785.	C	r.m	Bot. mag. 338
408. **THEOPHRAS'TA.** *L.*	THEOPHRASTA.					*Myrsineæ.*		*Sp.* 1.				
2343 Jussiæ'i *Lindl.*	prickly	♣	☐	or	3	...	W	Hispanio.	1818	S	r.m	Lind. coll. 26
409. **CLAVIJA.** *Fl. per.*	CLAVIJA.					*Myrsineæ.*		*Sp.* 1—4.				
2344 macrophýlla *Fl. per.*	long-leaved	♠	☐	or	30	...	W	S. Amer.	1816.	C	r.m	
410. **VIN'CA.** *W.*	PERIWINKLE.					*Apocyneæ.*		*Sp.* 5—6.				
2345 herbácea *W. en.*	herbaceous	⌣		or	1½	jn.jl	Pu	Hungary	1816.	D	s.l	Bot. mag. 2002
2346 minor *W.*	lesser	⌣		or	4	mr.s	V	Britain	bu. pl.	S	co	Eng. bot. 917
β *argenteo variegáta*	*silver-striped*	⌣		or	4	mr.s	V	Britain	...	S	co	
γ *aureo variegata*	*gold-striped*	⌣		or	4	mr.s	V	Britain	...	S	co	
δ *flore pleno*	*double*	⌣		or	4	mr.s	V	Britain	...	S	co	
2347 májor *W.*	greater	⌣		or	6	mr.s	B	England	groves.	S	co	Eng. bot. 514
β *variegáta*	*variegated*	⌣		or	6	mr.s	B	......	...	S	co	
2348 parviflóra *W.*	small-flowered		(☐)	or	¼	au	B	E. Indies	1778.	S	s.l	M.co. got. t.2. f.1
2349 rósea *W.*	Madagascar	♯	☐	or	1	mr.o	R.w	E. Indies	1756.	C	r.m	Bot. mag. 248
β *alba*	*white-flowered*	♯	☐	or	1	mr.o	W	E. Indies	...	C	r.m	
γ *ocelláta*	*red-eyed*	♯	☐	or	1	mr.o	St	E. Indies	...	C	r.m	
411. **NE'RIUM** *R. Br*	OLEANDER.					*Apocyneæ.*		*Sp.* 2—5.				
2350 oleánder *W.*	common	♣	⊔	or	8	jn.o	R	S. Europe	1596.	L	r.m	Lam. ill. t. 174
β *álbum*	*white-flowered*	♣	⊔	or	8	jn.o	W	S. Europe	...	L	r.m	Bot. cab. 700
γ *splendens*	*double-hybrid*	♣	⊔	or	7	jn.o	R	......	1814.	L	r.m	
δ *variegátum*	*variegated*	♣	⊔	or	8	jn.o	St	......	...	L	r.m	Bot. cab. 666
2351 odórum *W.*	sweet-scented	♣	⊔	or	6	jn.au	Pa.R	E. Indies	1683.	C	r.m	Rheed. mal.9.t.2
β *cárneum*	*flesh-colored*	♣	⊔	or	6	jn.au	Pk	E. Indies	1683.	C	r.m	
γ *plénum*	*double-flowered*	♣	☐	or	5	jn.au	Pa.R	E. Indies	1683.	C	r.m	Bot. reg. 74
412. **WRIGH'TIA.** *R. Br.*	WRIGHTIA.					*Apocyneæ.*		*Sp.* 3—5.				
2352 antidysentérica *R. br.*	oval-leaved	♠	☐	or	10	...	W	E. Indies	1778.	C	r.m	Rhed. mal.1.t.47
2353 zeylánica *R. Br.*	spear-leaved	♠	☐	or	10	...	W	E. Indies	...	C	r.m	Bur. zeyl.t.12.f.2
2354 tinctória *R. Br*	dyer's	♠	☐	or	15	...	W	E. Indies	1812.	L	l.p	Bot. reg. 933
413. **ECHI'TES.** *R. Br*	ECHITES.					*Apocyneæ.*		*Sp.* 10—60.				
2355 biflóra *W.*	twin-flowered	$	☐	or	20	jl	W	W. Indies	1793.	C	p.l	Jac.amer.30.t.21
2356 suberécta *W.*	Savanna-flower	$	☐	or	10	jn.au	Y	Jamaica	1759.	C	p.l	Bot. mag. 1064
2357 torósa *W.*	climbing	$	☐	or	10	jn.au	Y	Jamaica	1778.	C	p.l	Jac.amer.30.t.27
2358 umbelláta *W*	umbelled	$	☐	or	15	jl	Y	Jamaica	1733.	C	p.l	Jac.amer.30.t.22
2359 difórmis *Ph*	deformed	$	⊔	or	8	jl	Y	Carolina	1806.	C	p.l	
2360 bispinósa *W.*	twin-spined	$	☐	cul	1	jl.n	Pk	C. G. H.	1795.	C	p.l	
2361 caryophylláta *Roxb.*	clove-leaved	$	☐	or	6	o	Pa.Y	E. Indies	1812.	C	p.l	Bot. mag. 1919
2362 grandiflora *Rth.*	large-flowered	$	☐	or	8	...	Pk	E. Indies	1823.	C	p.l	
2363 antidysentérica *Rth.*	Medicinal	$	☐	m	6	...	Pk	E. Indies	1821.	C	p.l	
2364 sanguinolénta *Tuss.*	red-veined	$	☐	or	20	jn.au	Y	W. Indies	1821.	C	p.l	Bot. mag. 2473
414. **ICHNOCAR'PUS.** *R. Br*	ICHNOCARPUS.					*Apocyneæ.*		*Sp.* 1—2.				
2365 frutéscens *H. K.*	shrubby	♣	☐	or	10	jl.au	Pu	E. Indies	1759.	C	p.l	Bur. zeyl.t.12.f.1



History, Use, Propagation, Culture,

407. *Allamanda.* In memory of Dr. Frederick Allamand, a professor of natural history in the university of Leyden, who went to Guiana about 1769, and to Russia about 1776, and sent descriptions, figures, and specimens of plants to Linnæus. It is a milky shrub, of cathartic qualities; flowers freely, and strikes with ease in a moist heat.

408. *Theophrasta.* Theophrastus was born at Eresus in Lesbos, 310 years before Christ, and died at the age of 83. Linnæus has justly termed him the prince of botanists. The genus which has been selected to commemorate his name, is a curious prickly-leaved, low plant, native of St. Domingo, where it is called by the negroes wild cocoa. In the collections of this country it is rare, and no means has yet been discovered of propagating it, except by seeds.

409. *Clavija.* Named in honor of Joseph Clavijo Faxardo, a Spanish naturalist, who translated into his own language the works of Buffon. A fine genus of plants, exceedingly rare both in gardens and herbaria.

410. *Vinca.* From *vinculum*, a bond, in allusion to its twining shoots. The origin of its English name is, however, quite unknown. The Anglo-Saxons called it *perwince*; the English, *periwinkle*; the French, *pervenche*. This is a genus of well-known little shrubs, valued for their early and long continued flowering, and the hardy species as being evergreens which thrive under the shade and drip of trees. V. minor and major, like other plants which run much at the root, very rarely produce seeds. V. rosea is continually in flower, and is easily propagated by cuttings under a hand-glass.

411. *Nerium.* From *νηρος*, damp, the plant growing upon the borders of rivulets, in the southern parts of Europe. This is a genus of beautiful evergreen shrubs of easy culture and propagation, and free flowerers great part of the year. N. tinctorium affords a blue equal to that of indigo, and it is thought by Dr. Roxburgh might be cultivated for that purpose.

N. oleander is very common in the Levant, and especially in the Isle of Candia, and in Sicily, Magna Græcia, 2342 The only species. Leaves 4 together subsessile ovate oblong, Flowers in villous fascicles

2343 A small prickly-leaved bush without branches and with terminal clusters

2344 Leaves very long lanceolate retuse toothed spinous

2345 Stems herbaceous prostrate, Leaves oblong lanceolate smooth, Flowers stalked, Cal. ciliated
2346 Stems procumbent, Leaves ellipt. lanc. smooth at edge, Flowers stalked, Teeth of cal. lanceolate

2347 Stems nearly erect, Leaves ovate ciliated, Flowers stalked, Teeth of calyx setaceous elongated

2348 Stem herbaceous erect square, Leaves lanceolate, Flowers twin or solitary stalked
2349 Stem erect, Flowers twin sessile, Leaves ovate oblong, Stalks 2-toothed at the base

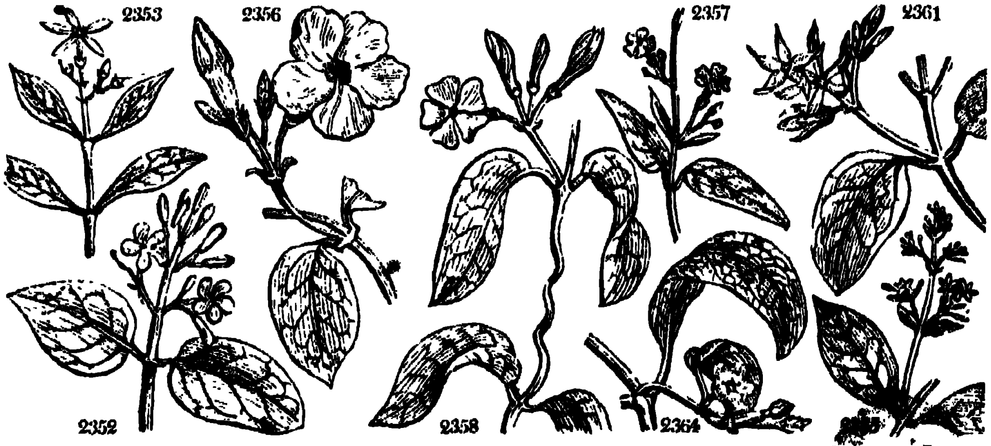
2350 Leaves lin. lanc. 3 together ribbed beneath, Sepals squarrose, Nect. flat 5-toothed

2351 Leaves linear lanc. 3 together, Corona filamentose, Anthers at end feathery

2352 Leaves ovate oblong shortly acuminate smooth, Corymbs terminal, Tube of cor. 6 times as long as calyx
2353 Leaves obl. lanceol. subacuminate smooth, Corymbs terminal, Tube of cor. 4 or 5 times as long as calyx
2354 Leaves ellipt. lanc. and ovate acum. smooth, Branches and corymbs divar. Tube of cor. twice as long as cal.

2355 Stems sarmentose, Leaves oblong, Pedunc. 2-flowered
2356 Pedunc. many-flowered, Cor. cylindrical hairy outside, Leaves ovate mucronate pubescent beneath
2357 Pedunc. racemose, Leaves lanceolate acuminate, Follicles torulose very long
2358 Pedunc. umbelled, Leaves ovate obtuse mucronate
2359 Leaves oval lanceolate acute at base the lowest linear, Flowers in fascicled corymbs
2360 Prickles two extra-foliaceous, Leaves lanceolate smooth, Cor. hypocrateriform
2361 Panicle terminal, Cal. spreading as long as corolla, Leaves ovate mucronate
2362 Stem erect rounded, Leaves oval acuminate smooth, Flowers terminal in threes
2363 Stem erect angular, Leaves ovate lanceolate obsoletely crenate, Corymbs axillary dichotomous
2364 Leaves ovate lanceolate entire strongly marked with crimson veins

2365 Stem erect shrubby, Leaves lanceolate oval, Cor. acute, Throat villous



and Miscellaneous Particulars.

&c. by rivers and torrents: the leaves are acrid and poisonous. Young cuttings planted under a hand-glass, and placed on a little heat, root freely.

N. odorum and its varieties, though treated as a greenhouse plant, requires a stove to make it flower freely.

412. *Wrightia.* Named after Dr. William Wright, a Scotch physician, who resided some years in the West Indies at the end of the last century, and the author of one or two botanical tracts. W. antidysenterica is reputed to be a specific in the dysentery. The wood is well adapted for the turner, and to make cabinets and other elegant furniture. It is very white, and of a fine grain like ivory, only much lighter. It mixes admirably with ebony.

W. zeylanica is an elegant branched shrub, with whitish yellow flowers and an agreeable odor. Both species may be treated like Nerium.

413. *Echites.* A name employed by Pliny as the designation of a kind of Clematis; it is derived from *εχις*, a viper, on account of the twisting nature of its shoots. This is a genus of plants somewhat singular in habit, with opposite, veined, shining leaves, and flowers in peduncles void of scent. They all flower freely, and root readily under a hand-glass in sand.

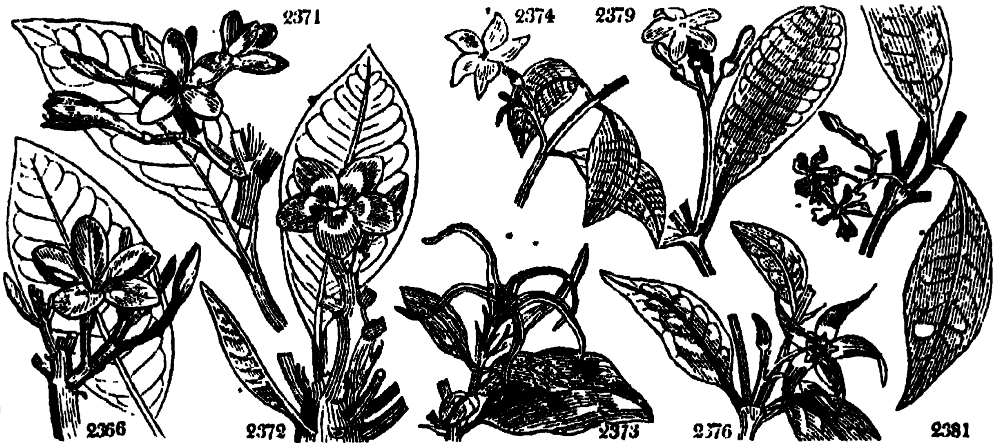
E. biflora supports itself partly by stems, and partly by twining on trees, hence frequently acquiring the air of a tree. It grows in salt marshes.

E. suberecta climbs: when it grows in savannahs it does not rise above three feet, and sometimes not more than one foot high.

E. sanguinolenta is remarkable for the beauty of its foliage, the veins of which are stained with crimson.

414. *Ichnocarpus.* From *ichnos*, a vestige, and *carpos*, fruit. Climbing shrubs of Sierra Leone and the East Indies, with long branches covered with smooth entire leaves, and white sweet-scented flowers. Cuttings root freely in sand under a hand-glass.

415. PLUMIE'RIA. *W.*	PLUMIERIA.				*Apocyneæ.*		*Sp.* 7—14.				
2366 **rúbra** *W.*	red	♀	☐ or	15	jl.au	R	Jamaica	1690.	C	r.m	Bot. mag. 279
2367 **acumináta** *H. K.*	acuminated	♀	☐ or	20	jn.s	R.y	E. Indies	1790.	C	r.m	Bot. reg. 114
2368 **álba** *W.*	white	♀	☐ or	15	jl.au	W	Jamaica	1733.	C	r.m	Jac. am. t.174.f.2
2369 **obtúsa** *W.*	blunt-leaved	♀	☐ or	10	jl.au	W	W. Indies	1731.	C	r.m	Cat. car. 1. t. 93
2370 **pudíca** *Jac*	wax-flowered	♣	☐ or	5	jl.au	Y	S. Amer.	...	C	r.m	
2371 **bícolor** *Fl. per.*	two-colored	♀	☐ or	15	jl.o	W.y	S. Amer.	1815.	C	r.m	Bot. reg. 480
2372 **trícolor** *Fl. per.*	three-colored	♀	☐ or	15	jl.o	Va	W. Indies	1815.	C	r.m	Bot. reg. 510
416. STROPHAN'THUS. *Dec.*	STROPHANTHUS.				*Apocyneæ.*		*Sp.* 1—5.				
2373 **dichótomus** *Dec.*	yellow	♣	☐ or	3	f.mr	Y	China	1818.	C	r.m	Bot. reg. 469
417. CAMERA'RIA. *W.*	BASTARD-MANCHINEEL.				*Apocyneæ.*		*Sp* 4—6.				
2374 **latifólia** *W.*	broad-leaved	♀	☐ or	30	au	W	Havannah	1733.	C	r.m	Bot. rep. 261
2375 **Tamaquárina** *Aub.*	yellow-flowered	♣	☐ or	4	o n	Y	Cayenne	1793.	C	r.m	Aub. gui. 1. t.102
2376 **dúbia** *B M.*	doubtful	♣	☐ or	6	my.au	Or	E. Indies	1813.	C	r.m	Bot. cab. 406
2377 **angustifólia** *W.*	narrow-leaved	♣	☐ or	8	s	W	S. Amer.	1752.	C	r.m	Plum. ic. t.72. f.2
418. TABER'NÆMONTA'NA. *W.*	TABERNÆMONTANA				*Apocyneæ.*		*Sp.* 4—34.				
2378 **citrifólia** *W.*	Citron-leaved	♀	☐ or	15	...	Y	Jamaica	1734.	C	r.m	Plum. ic. t. 248. f.2
2379 **laurifólia** *W.*	Laurel-leaved	♀	☐ or	13	my	Y	W. Indies	1768	C	r.m	Bot. reg. 716
2380 **coronária** *H. K.*	Rose-bay-like	♣	☐ or	4	my.s	W	E. Indies	1770	C	r.m	Bot. mag. 1865
2381 **amygdalifólia** *Jacq.*	almond-leaved	♣	☐ or	6	my.s	W	S. Amer.	1780	C	r.m	Bot reg. 338
419. AMSO'NIA. *Mich.*	AMSONIA.				*Apocyneæ.*		*Sp.* 3—4.				
2382 **latifólia** *Ph.*	broad-leaved	⚘	△ or	2	my.jn	B	N. Amer.	1759.	D	co	Bot. reg. 151
2383 **salicifólia** *Ph.*	Willow-leaved	⚘	△ or	2	my.jn	B	N. Amer.	1812.	D	co	Bot. mag. 1873
2384 **angustifólia** *Ph.*	hairy-stalked	⚘	△ or	2	my.jn	B	N. Amer.	1774.	D	co	Vent. choix. 29
420. CER'BERA. *W.*	CERBERA.				*Apocyneæ.*		*Sp.* 6—10.				
2385 **Ahoúai** *W.*	oval-leaved	♀	☐ or	20	jn.jl	Y	Brazil	1739.	C	r.m	Bot. mag. 737
2386 **Mánghas** *W.*	spear-leaved	♀	☐ or	20	s	W	India	1759.	C	r.m	Bot. rep. 655
2387 **maculáta** *W.*	waved-leaved	♣	☐ or	4	jn.jl	W	Bourbon	1782.	C	r.m	Bot. rep. 130
2388 **ováta** *Cav.*	oval-leaved	♣	☐ or	3	...	Y	N. Spain	...	C	r.m	Cav. ic. 3 t. 270
2389 **Thevétia** *W.*	linear-leaved	♀	☐ or	12	jn.jl	Y	S. Amer.	1735.	C	r.m	Bot. mag. 2309
2390 **fruticósa** *Roxb.*	shrubby	♣	☐ or	4	my	R	Pegu	1819.	C	r.m	Bot. reg. 391
421. TEC'TONA. *W.*	TEAK-WOOD.				*Verbenaceæ.*		*Sp.* 1.				
2391 **grándis** *W.*	great	♀	☐ tm	100	...	W	E. Indies	1777.	S	l.p	Roxb. cor. 1. t. 6
422. CALDA'SIA. *W. en.*	CALDASIA.				*Verbenaceæ.*		*Sp.* 1.				
2392 **heterophýlla** *W. en.*	various-leaved		▣ or	2	my d	B	N. Spain	1813.	S	r.m	Bot. reg. 92
423. BUME'LIA. *W.*	BUMELIA.				*Sapoteæ.*		*Sp.* 8—26.				
2393 **lycioídes** *Ph.*	Boxthorn-leav	♣	or	10	au	W	N. Amer.	1758.	L	s.l	Duha. arb.2. t.68
2394 **ténax** *W.*	silvery-leaved	Ψ	tm	20	jl.au	W	Carolina	1765.	C	p.l	Jac. obs. 3. t. 54



History, Use, Propagation, Culture

415. *Plumieria.* So named by Tournefort, in honor of Charles Plumier of Marseilles, a Franciscan friar, who travelled into South America. He is distinguished for the accuracy of his observations, and for the fidelity of his drawings, which are the only representations of many of the most curious plants of the West Indies and South America. His drawings of flowers have seldom, even in these days of pictorial excellence, been equalled. He was the author of Plantæ Americanæ, 1693, and other excellent works. This is a fine flowering genus. "It succeeds best in a light loamy soil, and requires but little water. Large cuttings taken off and laid to dry for a considerable time, may be stuck in the tan in a moderate heat, or planted in pots, and they will root freely; they must not be covered with a glass, or it will rot them. To have the plants flower well, they should be kept very dry when not in a growing state, which will throw them into bloom." (*Bot. Cult.* 95.)

416. *Strophanthus.* From στρεφω, to turn or twist, and ανθος, a flower; in allusion to the manner in which the segments of the corolla are twisted together before expansion. A most beautiful genus of tropical shrubs, with bright yellow flowers more or less spotted with red. They require the same treatment as Echites.

417. *Cameraria.* So named by Plumier, from Joachim Camerarius, a physician and botanist of Nuremberg, who was born in 1534, and died in 1598. He published an edition of Matthiolus, in Latin and German, with new figures, and many observations; but the most celebrated man of the name was Ralph James Camerarius, a German botanist, who published in 1719, a tract, in which the first principles of the arrangement of plants by their seeds were propounded. This is a fine flowering genus, of easy culture, and cuttings root freely under a hand-glass in a pot of sand.

418. *Tabernæmontana.* So named by Plumier, in memory of James Theodore, surnamed Tabernæmontanus, from Berg-Zabern, the place where he was born. He published "Krauterbuch," and figures of plants in 1589-90; was physician to the Elector Palatine, and died in 1590. This is a genus of easy culture but little beauty. All the species root in sand under a hand-glass.

419. *Amsonia.* So named by Clayton in his Flora Virginiana; referred to Tabernæmontana by Linnæus, now separated again. These are pretty plants, which grow in any soil; and may be propagated by cuttings under a hand-glass, or dividing at the root.

420. *Cerbera.* A poetical name formed in allusion to the mythological dog Cerberus, whose bite was poisonous, as is the juice of this genus. Ahouai and Manghas are vernacular names of the countries where the spe-

2366 Leaves ovate oblong flat, Leaf-stalks with two glands
2367 Leaves scattered lanceolate acute, Flowers corymbose terminal
2368 Leaves lanceolate revolute, Peduncles tuberous above
2369 Leaves lanceolate stalked obtuse
2370 Flowers always with the limb closed very sweet-scented
2371 Leaves oblong acuminate flat at edge, Cor. white and yellow
2372 Leaves oblong acute, margins flat veiny, Cor. tube red, throat yellow, limb white

2373 Branches dichotomous, Leaves mucronate-acuminate, Cor. infundibuliform

2374 Leaves rounded ovate acuminate at the base transversely striated, Flowers terminal corymbose
2375 Leaves ovate oblong netted, Umbel stalked few-flowered, Flowers large yellow sweet (*C. lutea.*)
2376 Leaves ovate lanceolate wavy, Corona 10-cleft: alternate segm. shorter obtuse
2377 Leaves linear

2378 Leaves ovate, Flowers lateral in clustered umbels
2379 Leaves ovate, Peduncles few-flowered, Stamens included
2380 Leaves lanceolate ovate, Branches divaricating
2381 Leaves oval lanceolate, Stamens longer than tube of corolla

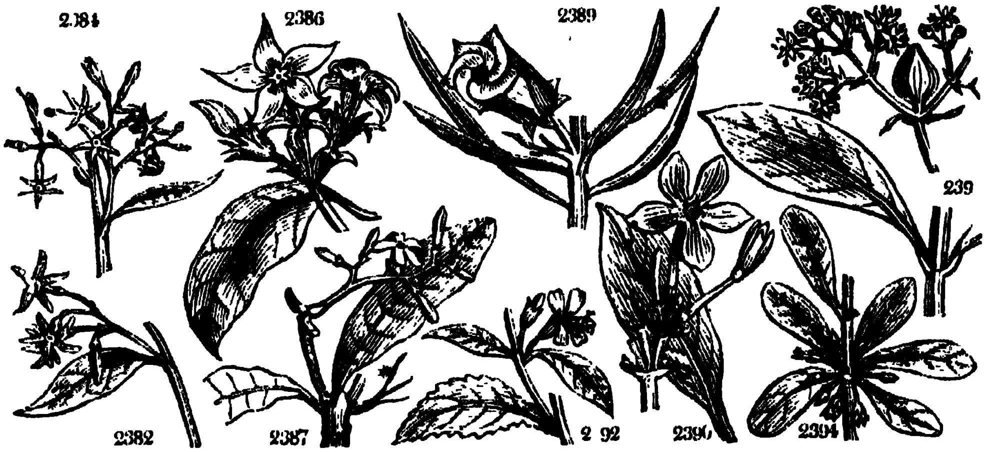
2382 Stem smoothish, Leaves oval lanceolate the upper acuminate beneath a little hairy
2383 Stem smooth, Leaves linear lanceolate acute at each end quite smooth
2384 Leaves narrow lanceolate close erect pubescent, Stem obviously pubescent

2385 Leaves ovate acute
2386 Leaves lanceolate, Nerves transverse
2387 Leaves lanceolate attenuate at each end veiny spotted, Cymes axillary branched
2388 Leaves ovate scattered subsessile, Flowers terminal about 5
2389 Leaves linear very long, Flowers subsolitary axillary, Fruit roundish
2390 Dichotomous, Leaves broad lanceolate, Corymbs terminal, Drupes obliquely cup-shaped gaping

2391 Leaves obovate scabrous very large whitish beneath

2392 The only species. A pretty stove annual

2393 Prickly, Leaves lanceolate obtuse acute at base attenuate smooth
2394 Leaves obovate lanceolate beneath silky, Peduncles axillary clustered



and Miscellaneous Particulars.

cies so called are found. Thevetia is named after André Thevet, a French monk, who travelled in Brazil about 1530. C. Ahouai has thick succulent leaves about three inches long, and near two broad, of a lucid green, smooth, and very full of a milky juice, as is every part of the shrub. The flowers are in loose bunches at the ends of the branches, and are succeeded by nuts, the kernels of which are a most deadly poison. The wood stinks abominably, and is not used even by the Indians for fuel. They put small stones into the empty nuts, string them, and fasten them about their legs when they dance.

C. Manghas is a milky tree with broad lanceolate leaves a foot in length; flowers in terminal racemes, and the drupe ovate, the size of a goose's egg, inclosing two seeds resembling two large chestnuts, poisonous and emetic.

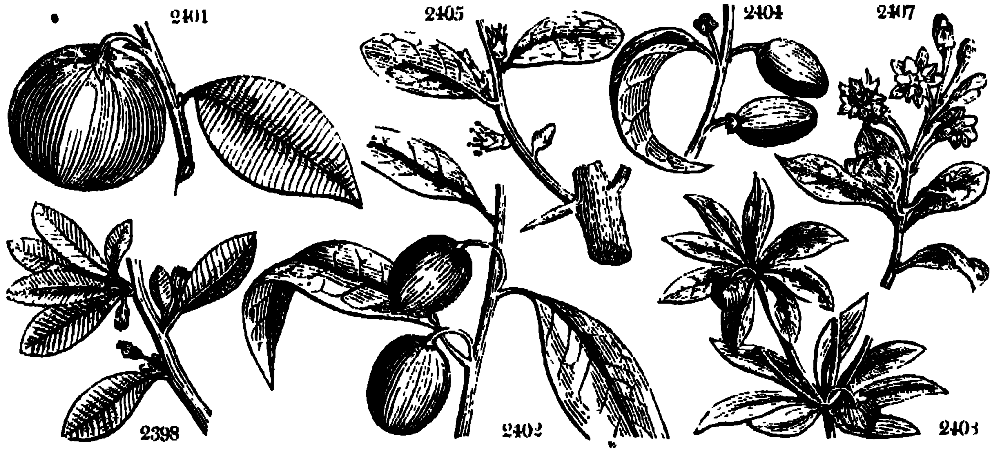
C. Thevetia is an elegant shrub or small tree, with acuminate leaves, and large, specious, nodding, yellow, sweet-smelling flowers. The fruit is a green drupe, containing a nut with a single kernel in it. Cuttings of all the species strike very readily in sand under a hand-glass.

421. *Tectona.* Altered by Linnæus from *Tekka*, its name in Malabar. This is a timber-tree of immense size and great durability, and is justly called the oak of the east. The trunk is erect, and the bark ash-colored; the leaves are obovate, downy underneath, and on young trees from 12 to 24 inches long, and from 8 to 16 broad. The flowers are in panicles, small, white, and fragrant. The seeds are lens-shaped in 4-celled drupes. The tree abounds in the vast forests of Java and Ceylon, Malabar, Coromandel, &c., and especially in the empires of Birman and Pegu. The wood has, by long experience, been found to be the most useful in Asia. It is easily worked, and at the same time both strong and durable. It is considered superior to all others for ship-building. Calcutta and Madras draw all their supplies of wood for ship-building from the teak forests of Ava and Pegu. Some of the finest vessels that have ever arrived in the Thames have been of teak tree, built in Bengal. The tree was introduced to the British possessions by Lord Cornwallis, and is now planted with a view to timber in the mountainous parts of Bengal. In our stoves it thrives in loam and peat, and ripened cuttings root freely in sand under a hand-glass.

422. *Caldasia.* A pretty stove herbaceous plant, with handsome small blue flowers. It was named by Willdenow, after the MSS. of Baron Humboldt, in honor of Joseph Caldas, a meritorious Spanish botanist, residing at Popayan in South America. It may be propagated by cuttings.

423. *Bumelia.* A name given by the Greeks to our common ash. Swarts applied the name to this West Indian

2395 salicifólia *W.*	Willow-leaved	♀	☐	tm	20	...	W	S. Amer.	1758.	C	p.l	Cat. car. 2. t. 75
2396 nigra *W.*	black	♀	☐	tm	30	...	W	W. Indies	1806.	C	r.m	
2397 lanuginósa *Ph.*	woolly-leaved	♣		or	6	...	W	Carolina	1806.	C	r.m	
2398 reclináta *Ph.*	reclinate	♣		or	3	jn	W	Carolina	1806.	C	r.m	Vent. choix. 22
2399 serráta *Ph.*	serrated	♣		fr	12	...	W	Missouri	1812.	C	r.m	
2400 rotundifólia *Swz.*	round-leaved	♣	☐	or	12	...	W	Jamaica	1823.	C	r.m	
424. CHRYSOPHYL'LUM. *W.*	Star-apple.					*Sapoteæ.*	*Sp.* 4—14.					
2401 Cainito *W.*	common	♀	☐	fr	50	my.jn	W	W. Indies	1737.	C	r.m	Jc.am.51. t.37. f.1
2402 argénteum *W.*	narrow-leaved	♀	☐	fr	20	...	W	Martiniq.	1758.	C	r.m	Jc.am.53. t.38. f.1
2403 monopyrénum *Swz.*	one-seeded	♀	☐	fr	30	...	Br	W. Indies	1812.	C	r.m	Burm.amer.t.69
2404 glábrum *Jacq.*	smooth	♀	☐	fr	15	...	W	Martiniq.	1823.	C	r.m	Jacq. am. t.38. f.2
425. SIDERO'XYLON. *W.*	Iron-wood.					*Sapoteæ.*	*Sp.* 1—8.					
2405 inérme *W.*	smooth	♣	⊔	or	5	jl	W	C. G. H.	1692.	L	p.l	Lm.ill.2.t.120.f.1
426. JACQUI'NIA. *W.*	Jacquinia.					*Sapoteæ.*	*Sp.* 3—8.					
2406 armilláris *W.*	obtuse-leaved	♣	☐	or	6	jn.jl	W	W. Indies	1768.	C	p.l	Jac.amer.53.t.39
2407 aurantiaca *H. K.*	orange-flower'd	♣	☐	or	4	ap.s	O	Sandw. I.	1796.	C	p.l	Bot. mag. 1639
2408 ruscifólia *W.*	prickly	♣	☐	or	3	...	W	S. Amer.	1729.	C	p.l	D.elt. t.129. f.149
427. A'CHRAS. *W.*	Sapota.					*Sapoteæ.*	*Sp.* 3—4.					
2409 mammósa *W.*	Mammee	♀	☐	fr	40	...	W	S. Amer.	1739.	C	r.m	Jac.am.t.182.f.19
2410 Sapóta *W.*	common	♀	☐	fr	30	...	W	S. Amer.	1731.	C	r.m	Jac. am. 57. t. 41
2411 Zapotilla	Naseberry-tree	♀	☐	fr	10	...	W	S. Amer.	1731.	C	l.p	Jac.am.57. t.41.b
428. COR'DIA. *W.*	Cordia.					*Cordiaceæ.*	*Sp.* 9—60.					
2412 Mýxa *W.*	smooth-leaved	♀	☐	or	30	...	W	E. Indies	1640.	C	p.l	Rhed.mal.4. t.37
2413 monoica *Roxb.*	Birch-leaved	♀	☐	or	15	mr.ap	W	E. Indies	1799.	C	p.l	Roxb. cor.1. t.58
2414 Sebesténa *W.*	rough-leaved	♀	◬	or	15	jn.au	O	W. Indies	1728.	C	p.l	Bot. mag. 794
2415 Geraschánthus *W.*	Spanish-elm	♀	☐	tm	30	my	Pk	W. Indies	1789.	C	p.l	Bro. jam. t.29 f.3
2416 macrophýlla *W.*	broad-leaved	♀	☐	tm	60	...	W	W. Indies	1752.	C	p.l	Sl.jam.2.t.221 f.1
2417 Collocócca *W.*	long-leaved	♀	☐	tm	30	...	G	Jamaica	1759.	C	p.l	Sl.jam.2.t 203.f.2
2418 nodósa *Lam.*	hairy	♣	☐	or	6	jn.jl	W	Guiana	1803.	C	p.l	Aub. guia.1. t.86
2419 ellíptica *Sw.*	elliptic	♀	☐	tm	50	...	W	W. Indies	1804.	C	s.l	
2420 Patagónula *W.*	spear-leaved	♀	⊔	tm	20	jn.au	W	S. Amer.	1732.	C	p.l	Lam. ill. t. 96
429. VARRONIA. *W.*	Varronia.					*Cordiaceæ.*	*Sp.* 4—30.					
2421 lineáta *W.*	round-spiked	♣	☐	or	4	...	W	W. Indies	1793.	C	s.l	Bro. jam. t.13.f.2
2422 mirabiloídes *W.*	jointed	♀	☐	or	12	s	W	Hispaniola	1798.	C	s.l	Jacq. am.41. t.33



History, Use, Propagation, Culture,

genus. These are plants with good foliage, but no beauty of blossom. Some of the species are robust enough to bear our winters in the open air; but they are rather tender, and require to be placed in a sheltered situation or against a warm wall, and covered with mats during winter. Cuttings root in sand under a hand-glass. The stove species are low West Indian trees, and known there under the name of Bully tree. They thrive well in loamy soil, or loam and peat, and cuttings will root, but, according to Sweet, "not freely, in sand under a hand-glass," being well ripened before they are taken off.

424. *Chrysophyllum.* From χρυσος, gold, and φυλλον, a leaf; all the species having their leaves covered on the under surface with dense shining hairs of a bright yellow or white color. C. cainito has large elegant leaves, ferruginous underneath; it forms a tree of considerable size, with slender flexible branches. The leaves and fruit, like the Achras, to which the tree is very nearly allied, are full of milk, which the fruit retains even in the most perfect state. This milk is rough and astringent before the fruit ripens; but when it grows to full perfection, it becomes sweet and gelatinous, with an agreeable clamminess. Being mixed with a small quantity of orange juice, it binds the body extremely. The tree is of general and easy culture in Jamaica, and is here grown chiefly for its foliage. Sweet says, ripened shoots of all the species taken off and planted in sand, will root under a hand-glass with a strong moist heat.

425. *Sideroxylon.* From σιδηρος, iron, and ξυλον, wood; in allusion to the hardness of the wood. The specific name melanophleum (μελας φλοιος) means black-bark. The wood of this tree is very close and hard, and so heavy as to sink in water. It grows well in loam and peat; and cuttings somewhat ripened may be struck in sand under a hand-glass.

426. *Jacquinia.* So named by Linnæus, in honor of James Nic. Jos. de Jacquin, professor of botany at Vienna, born at Leyden, in 1727, author of many splendid works. A noble genus, well devoted to perpetuating the memory of one of the first of botanists. The name of one of the species armillaris, (from *armilla*, a garland,) has been applied in consequence of the shoots being used by women in America as garlands. This beautiful genus requires some care in propagation, but is of easy culture in the bark-stove, in loam and peat, and with a moist heat. "Cuttings," Sweet observes, "will strike root with ease in sand, under a hand-glass, in heat."

427. *Achras.* The Greek name of the wild pear. The root of the word has been thought to have been found in *ac*, the Celtic for a point, in allusion to the many stout spines with which the tree is covered. The word Sapota, applied to one of the species, is derived from its Mexican name Cochit-zapotl. This is a genus of fruit-bearing timber-trees, chiefly natives of the West Indies. A. mammosa, or American marmalade, grows in America to the height of 35 or 40 feet, having a straight trunk covered with an ash-colored bark. The branches form a regular head; the leaves a foot in length, and near three inches broad in the middle. The flowers are

2395 Leaves lanceolate ovate acuminate, Peduncles clustered axillary and lateral
2396 Leaves terminal oblong lanceolate smooth wavy at edge, Branches lax
2397 Spiny, Branches spreading pubescent, Leaves oval lanceolate smooth above beneath woolly
2398 Spiny bushy loosely reclinate, Sterile branches divaricate divided, Leaves small obovate smooth
2399 Unarmed, Leaves evergreen oblong lanceolate acute at each end prickly serrate, Berries large
2400 Leaves rounded edged veiny coriaceous smooth on both sides

2401 Leaves ovate with parallel veins beneath tomentose shining
2402 Leaves falcate ovate beneath downy shining
2403 Leaves oblong acuminate beneath downy gold color, Fruit ovate 1-seeded
2404 Leaves ovate oblong smooth on both sides, Fruit elliptical smooth

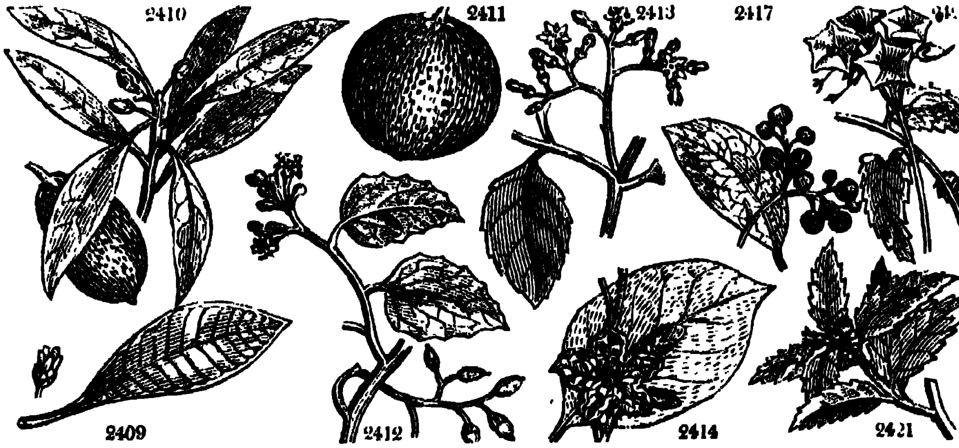
2405 Leaves oblong ovate obtuse, Flowers lateral and axillary

2406 Leaves wedge-shaped, Branches at the ramifications nodose whorled
2407 Leaves obovate lanceolate acuminate pungent
2408 Leaves lanceolate acuminate

2409 Flowers solitary, Leaves cuneiform lanceolate
2410 Flowers solitary, Leaves lanceolate ovate
2411 Brachiate diffuse, Fruit rounded with the mucro of the hilum shorter

2412 Leaves ovate smooth above, Corymbs lateral, Calyxes 10-striated
2413 Leaves roundish ovate toothed veiny scabrous, Corymbs axillary monoecious
2414 Leaves ovate subcrenate subrepand rough, Cal. cylindrical shorter than the tube
2415 Leaves lanceolate ovate rough, Panicle terminal, Cal. tomentose 10-striated
2416 Leaves ovate villous a foot and half long .
2417 Leaves oblong ovate entire, Flowers corymbose, Cal. downy inside
2418 Leaves in 3s ovate oblong acuminate, Branches nodose hispid, Cal. bearded
2419 Leaves oblong attenuated at the end entire coriaceous, Racemes comp. diffuse
2420 Leaves oblong lanceolate smooth on each side the upper serrate, Branches pilose

2421 Leaves lanceolate linear acuminate hoary beneath, Pedunc. lateral axillary naked
2422 Leaves ovate on long stalks, Stalk above the base bent inwards and jointed, Cor. hypocrateriform



and Miscellaneous Particulars.

cream-colored, and are succeeded by large oval or top-shaped fruit, covered with a brownish skin, under which is a thick pulp of a russet-color, very luscious, called natural marmalade, from its likeness to marmalade of quinces. It is commonly planted in gardens for the fruit in Jamaica, Barbadoes, Cuba, and most of the West India islands. In this country it has been hitherto grown only as a part of botanic collections, but some attempts have been lately made to cultivate it as a stove fruit, and we have no doubt they will be attended with success. "Cuttings root readily in a pot of sand plunged in heat, under a common hand-glass. The cuttings should be taken off as near the stem of the plant as possible, not being so apt to rot as when cut off in the middle of the shoot. No leaves should be taken off or shortened above the sand." (*Sweet.*)

A. sapota is a large, tall, straight tree, without knots or branches, for twenty feet or more. The head spreads into many small branches; the bark is dark-grey and full of cracks; the fruit is bigger than a quince, round, and covered with a thick grey rind, yellow when ripe. The flesh is as yellow as a carrot, with two stones the size of almonds, of a rich smell and taste. The variety called the Naseberry has fruit as big as a bergamot pear, and similarly shaped. When it is green or first gathered, the juice is white and clammy, and will stick like glue; then the fruit is hard; but when it has been gathered two or three days, it grows soft and juicy, and then the juice is clear as spring-water and very sweet; in the midst of the fruit are two or three black stones or seeds, about the bigness of a pompion seed. It is esteemed an excellent fruit in the West Indies. In our stoves it is propagated like the mammee tree.

428. *Cordia.* So named by Plumier after E. Cordus, a German botanist of the 16th century Valerius Cordus, his son, was born in 1515, and died in 1544. He left a History of Plants, and was the author of some Observations upon Dioscorides. Sebestena, the name of a species, is *sebestan* in Persian. Myxa is derived from *μυξ*, a viscidity, on account of its viscid mucous juice, which is used for glue in the east. Geraschanthus, from *γηρασκω*, to grow old, and *ανθος*, a flower, is in allusion to the long duration of the flowers; collococca, (*κολλα*, glue, and *κοκκος*; glutinous fruit) in allusion to the fruit. This is not a delicate genus, but flowers freely. The timber of C. myxa is tough and solid, and used in the east for procuring fire by friction. The leaves bruised with those of Datura metel are applied to the forehead in the headach; children eat the fruit, from which also a glue is prepared. C. sebestena is very ornamental, on account of its large, tubular, scarlet flowers; the most beautiful and agreeable, says Browne, of any I have seen in America. A small piece of the wood put on a pan of lighted coals, will perfume a whole house. From the juice of the leaves, with that of a species of fig, is prepared the fine red color with which they dye their clothes in Otaheite. Poultry in the West Indies feed on the berries of C. collococca, which is there called the clammy cherry, or Turkey berry-tree. All the species grow readily in loam and peat, and cuttings strike in sand, under a glass, in heat.

429. *Varronia.* Named after Marcus Terentius Varro, a most learned Roman, born 116 years before Christ,

2423 martinicénsis *W.*	Martinique	♣	☐	or	6	au.s	W	Martinico	1795.	C	s.l	Jacq. am.41. t.32
2424 angustifólia *W.*	narrow-leaved	♠	☐	or	15	...	W	S. Cruz	1808.	C	s.l	
430. EHRE'TIA. *W.*	Ehretia.					*Cordiaceæ.*		*Sp.* 2—20.				
2425 tinifólia *W.*	Tinus-leaved	♠	☐	tm	30	jn.jl	W	Jamaica	1734.	C	p.l	Trew. ehr.4. t.25
2426 áspera *Roxb.*	rough-leaved	♠	☐	or	10	...	W	E. Indies	1795.	C	p.l	Roxb. cor. 1. t.55
431. BOURRE'RIA. *Gært.*	Bourreria.					*Cordiaceæ.*		*Sp.* 2.				
2427 succulénta *Jac.*	fleshy-fruited	♠	☐	tm	45	...	W	W. Indies	1758.	C	s.l	Ja. obs.2.p.2. t.26
2428 exsúcca *Jac.*	dry-fruited	♠	☐	or	15	...	W	W. Indies	1804.	C	s.l	Jac.am.t.173.f.17
432. ELLI'SIA. *W.*	Ellisia.					*Hydrophylleæ.*		*Sp.* 1—2.				
2429 Nycteléa *W.*	cut-leaved		○	cu	2	jl.au	W	Virginia	1755.	S	co	Eh.n.cu.2. t.7.f.1
433. SERSALI'SIA. *R. Br.*	Sersalisia.					*Sapoteæ.*		*Sp.* 1—2.				
2430 sericea *R. Br.*	silky-leaved	♣	⊔	or	6	...	W	N. Holl.	1772.	C	p.l	
434. MANGLILLA. *Juss.*	Manglilla.					*Sapoteæ.*		*Sp.* 1—11.				
2431 milleriána *Pers.*	Miller's	♠	⊔	tm	30	jn.jl	W	C. G. H.	...	C	co	Bot. mag. 1858
435. ARDI'SIA. *W.*	Ardisia.					*Myrsineæ.*		*Sp.* 13—28.				
2432 acumináta *W.*	acuminated	♣	☐	or	7	jl.au		Guiana	1803.	C	p.l	Bot. mag. 1678
2433 solanácea *Roxb.*	Nightsh.-like	♣	☐	or	10	jn.s	R	E. Indies	1798.	S	p.l	Bot. mag. 1677
2434 crenuláta *P. S.*	crenulated	♣	☐	or	10	jn.s	R	W. Indies	1809.	S	p.l	Vent. cholx. t. 5
2435 lateriflóra *W.*	side-flowering	♣	☐	or	6	...	W	W. Indies	1793.	S	p.l	
2436 littorális *B. R.*	sea-side	♣	☐	or	4	jl.au	R	E. Indies	1809.	C	p.l	Bot. rep. 630
2437 élegans *And.*	elegant	♣	☐	or	10	jl.au	R	E. Indies	1809.	S	p.l	Bot. rep. 49
2438 coloráta *Lk.*	red-flowered	♣	☐	or	10	jl.au	R	E. Indies	1816.	C	s.l	Bot. cab. 465
2439 excélsa *W.*	Laurel-leaved	♠	⊔	or	30	jl.au	Pk	Madeira	1784.	C	s.l	Gært.sem.1. t.77
2440 paniculáta *Roxb.*	panicled	♠	☐	or	12	jl.au	R	E. Indies	1818.	C	s.l	Bot. reg. 638
2441 pyramidális *Rth.*	pyramidal	♠	☐	tm	25	jl.au	R	SantaCruz	1818.	C	s.l	Bot. cab. 448
2442 lentiginósa *Ker.*	dusty	♣	⊔	or	6	ja.d	W	China	1814.	C	s.l	Bot. reg. 533
2443 punctáta *Lindl.*	dotted	♣	☐	or	10	jn.au	W	China	1823.	C	s.l	Bot. reg. 827
2444 coriácea *Swz.*	coriaceous	♣	☐	or	7	...	S	Antilles	1824.	C	s.l	
436. ARDUI'NA. *W.*	Arduina.					*Apocyneæ.*		*Sp.* 1.				
2445 bispinósa *W.*	two-spined	♣	⊔	cu	2	mr.au	W	C. G. H.	1760.	C	p.l	Bot. cab. 387
437. STRYCH'NOS. *W.*	Strychnos.					*Apocyneæ.*		*Sp.* 2—9.				
2446 Nux-vómica *W.*	Poison-nut	♠	☐	p	15	...	G.w	E. Indies	1778.	S	p.l	Roxb. cor. 1. t 4
2447 potatórum *W.*	Clearing-nut	♠	☐	m	15	...	W	E. Indies	1794.	S	p.l	Roxb. cor. 1. t. 5
438. CARIS'SA. *W.*	Carissa.					*Apocyneæ.*		*Sp.* 2—10.				
2448 Carándas *W.*	Jasmine-flow	♠	☐	fr	15	jl	W	E. Indies	1790.	C	s.p	Bot. cab. 663
2449 spinárum *W*	spiny	♠	☐	tm	20	au.d	W	E. Indies	1809.	C	s.p	Bot. cab. 162
439. PÆDE'RIA. *W.*	Pæderia.					*Rubiaceæ.*		*Sp.* 1—3.				
2450 fœ'tida *W.*	stinking	£	⊔	or	6	...	Pu	China	1806.	C	l.p	Icon. Kæmpf 9

History, Use, Propagation, Culture,

and lived a hundred years. The work he left upon the agriculture of his time is invaluable. In French a species is called *Monjoli*, (my beauty) on account of its beauty.

430. *Ehretia.* So named by Linnæus in honor of D. G. Ehret, a famous French botanist and draughtsman. He made all the drawings for Patrick Browne's History of Jamaica; and a large collection of his drawings is now extant in the Banksian collection. Large trees of the Tropics, with handsome foliage and white flowers, which are not often produced in Europe.

431. *Bourreria.* A genus divided from Ehretia, with which it nearly agrees. It was named after one Bourer, an apothecary at Nuremberg.

432. *Ellisia.* Joseph Ellis was an English naturalist, fellow of the London Royal Society, and correspondent of Linnæus. He published, besides his Natural History of Corallines, many papers in the Transactions of the Royal Society.

433. *Sersalisia.* Named after John Baptiste Sersalis, a Neapolitan clergyman, much praised by Fabius Columna. Culture the same as for Sideroxylon.

434. *Manglilla.* This genus is called in Dombry's Manuscript Papers, from which M. de Jussieu obtained his knowledge of it, Manglillo de Perou. The original species was a Peruvian shrub, with alternate leaves and bunches of numerous axillary flowers.

435. *Ardisia.* A name derived from *ἀκὶς*, a point, on account of the acute segments of the corolla. An ornamental genus of plants, much valued by collectors for the beauty of their foliage, flowers, and berries. They are of easy culture: cuttings strike root freely in a pot of sand, plunged in a moist heat, under a hand-glass.

436. *Arduina.* In honor of Pietro Arduini, curator of the economical garden of Padua. A genus scarcely distinct from Carissa. It is a pretty little plant not unlike the box, easily propagated by cuttings under a bell-glass in sand.

437. *Strychnos.* A name given by the Greeks to the Solanum. The root of the name has been found in the verb *στρώω*, to strew, to throw down; the property of the original and modern plants being narcotic. S. nux-vomica is a middling sized tree with a crooked trunk and smooth ash-colored bark: the leaves round, shining, smooth,

2423 Leaves broad ovate serrate rugose, Spikes terminal, Flowers clustered, Cal. large inflated
2424 Leaves linear toothed obtuse revolute at edge rough above tomentose beneath, Spikes linear oblong

2425 Leaves oblong ovate entire smooth, Flowers panicled
2426 Leaves ovate roughish, Flowers corymbose spiked 1-sided

2427 Leaves ovate entire smooth, Flowers corymbose, Cal. smooth
2428 Leaves ovate very smooth reflexed at edge, Berry juiceless 4-cornered

2429 The only species, resembling a Hydrophyllum

2430 Leaves ovate obtuse downy beneath, Cor. villous outside, Barren filaments lanceolate

2431 Leaves oblong acute at each end, Flowers solitary lateral

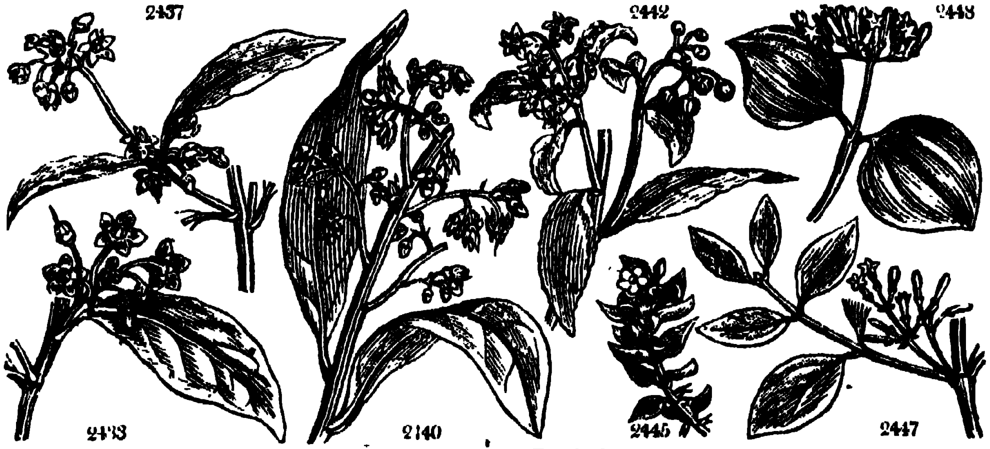
2432 Panicles axillary and terminal, Leaves oblong acuminate narrowed at base
2433 Corymbs axillary 3-parted, Leaves oblong narrowed towards each end
2434 Panicles terminal, Leaves lanceolate ovate repand crenate acuminate attenuated at base
2435 Racemes lateral axillary compound, Leaves oblong acuminate entire
2436 Corymbs axillary simple, Leaves entire ovate elliptical coriaceous
2437 Leaves oblong entire coriaceous shining, Pan. terminal, Sepals rounded, Cor. thrice as long as cal
2438 Leaves oblong entire coriaceous shining, Pan. terminal, Sepals round, Cor. twice as long as calyx
2439 Racemes axillary simple, Leaves obovate at the edge cartilaginous serrated
2440 Leaves wedge-shaped oblong nearly sessile entire smooth reflexed, Panicles decompound
2441 Raceme terminal pyramidal, Pedunc. altern. umbelliferous, Leaves oblong obtuse smooth entire
2442 Leaves lanc. crenate, Corymbs compound, Flowers spotted
2443 Leaves lanceolate coriaceous sinuate narrowed towards the base, Cor. campan. dotted: Lobes obtuse
2444 Flowers panicled, Leaves oblong entire veinless coriaceous

2445 Leaves cordate ovate mucronate subsessile, Spines bifid at end

2446 Unarmed, Leaves ovate stalked, Cymes subterminal
2447 Leaves opp. ovate acute 5-nerved veiny, Cymes axillary

2448 Leaves ovate mucronate netted veiny, Segm. of cor. lanceolate
2449 Leaves ovate acute veiny, Segments of cor. oblong

2450 Leaves cordate lanceolate, panicles short opp. few-flowered, Bractes very small



and Miscellaneous Particulars.

entire; and the berry the size of a pretty large apple. The wood is hard, durable, and very bitter. The seeds, which form the officinal nux-vomica, are employed in the distillation of country spirits, to render them more intoxicating. The pulp of the fruit seems perfectly innocent, being eaten greedily by many sorts of birds. The seed consists chiefly of a gummy matter with a little resin, the latter intensely bitter. It is reckoned amongst the most powerful poisons of the narcotic kind. It proves fatal to dogs in a very short time, and to most other quadruped vermin, and even some birds, as crows and ducks From dissections both of the human subject and of dogs that have been poisoned by it, no injury appears done to the stomach or intestines, which proves that it acts upon the nervous system, and destroys life by the virulence of its narcotic influence.

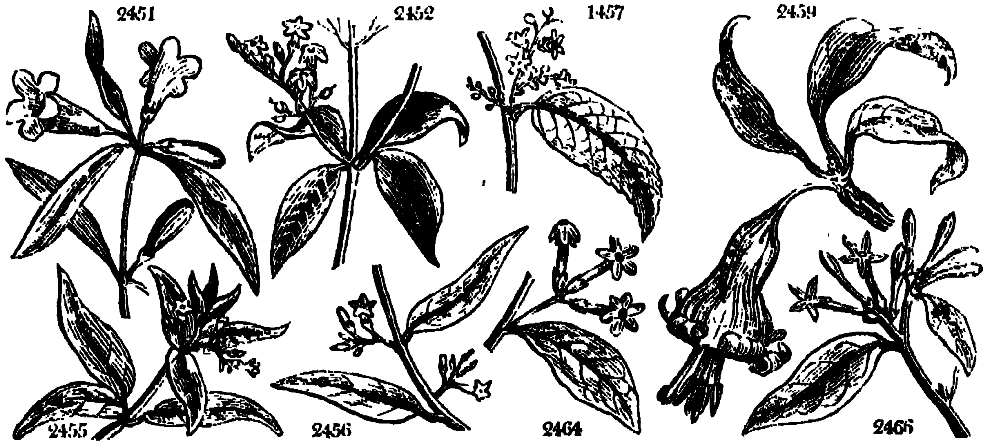
S. potatorum is a larger tree than the other. The pulp of the fruit when ripe is eaten by the natives: the ripe seeds are dried and sold in every market of the East Indies to clear muddy water. A precious quality in countries where the water is rarely of a good quality. Hence the English name of clearing-nuts. The natives never drink clear well-water, if they can get pond or river water, which is always more or less impure. One of the seeds is rubbed very hard for a minute or two round the inside of the vessel containing the water, which is generally an unglazed earthen one, and the water left to settle; in a very short time the impurities fall to the bottom, leaving the water clear, and perfectly wholesome. These nuts are constantly carried about by the more provident part of our officers and soldiers in time of war, to enable them to purify their water; they are easier to be had than alum, and are probably less hurtful to the constitution.

438. *Carissa.* A word of no known meaning. Carandas is a slight alteration of Caraunda, the Bengalese name of the tree. C. Carandas is a small tree, with dichotomous branches, and entire, glossy, ovate leaves, flowers like those of Jasminum grandiflorum, and berries black when ripe, eatable, and of a sweet acid flavor. Currant-jelly is made of them in the East Indies.

C. spinarum is a diœceous plant with horizontal branches, coriaceous glossy leaves, and terminal peduncles of five or six small flowers. Neither of the species require much water, and the pots should be well drained to prevent their getting sodden. Cuttings strike root freely under a bell-glass in sand plunged in heat.

439. *Pæderia.* From *pædor*, stink, in allusion to the fœtid smell of the flowers. A climbing smooth shrub, with opposite stalked entire leaves, and dull purple flowers.

440. GELSE'MIUM. *J.*	GELSEMIUM.				*Apocyneæ.*		*Sp.* 1.				
2451 sempervirens *H. K.*	evergreen	⌇		or	6 jn.jl	Y	N. Amer.	1640.	C	s.p	Cat. car. 1. t. 53
441. RAUWOL'FIA. *W.*	RAUWOLFIA.				*Apocyneæ.*		*Sp.* 4—12.				
2452 nítida *W.*	shining	🌳	□	cu	12 jn.s	W	S. Amer.	1752.	C	s.p	Bot. cab. 339
2453 canéscens *W.*	hoary	♣	□	cu	7 ...	Pk	Jamaica	1739.	C	l.p	Plum. ic. t 236. f. 2
2454 tomentósa *W.*	downy	♣	□	cu	3 ap.o	W	W. Indies	1823.	C	l.p	
2455 ternifólia *Kunth.*	three-leaved	♣	□	cu	3 my	W	W. Indies	1823.	C	l.p	Bot. mag. 2440
442. VALLE'SIA. *Fl. per.*	VALLESIA.				....		*Sp.* 1—2.				
2456 glábra *Lk.*	smooth	♣	□	or	3 my.jn	W	N. Spain	1822	C	r.m	Cav. ic. 3. t. 297
443. BŒOBO'TRYS. *Vahl.*	BŒOBOTRYS.				*Rhamneæ.*		*Sp.* 1.				
2457 indica *Roxb.*	Indian	♣	□	or	3 n	W	E. Indies	1817.	C	co	Bot. mag. 2052
444. SOLAN'DRA. *W.*	SOLANDRA.				*Solaneæ.*		*Sp.* 2—3.				
2458 grandiflóra *W.*	great-flowered	🌳	□	or	15 mr	Pa.Y	Jamaica	1781.	C	r.m	Jac. schœn. 1. t. 45
2459 viridiflóra *B. M.*	green	♣	□	or	3 my.jl	G	S. Amer.	1815.	C	r.m	Bot. mag. 1948
445. CES'TRUM. *W.*	CESTRUM				*Solaneæ.*		*Sp.* 19—30.				
2460 laurifólium *W.*	Laurel-leaved	♣	□	p	7 my.au	W	W. Indies	1691.	C	p.l	Smith spic. 2. t. 2
2461 macrophýllum *Vent.*	large-leaved	♣	□	p	7 my.au	W	W. Indies	1812.	C	p.l	Vent. choix. 18
2462 fœtidíssimum *W en.*	stinking	♣	□	p	10 my.au	Y	E. Indies	...	C	p.l	Jac. schœ. 3. t. 329
2463 noctúrnum *W.*	night-smelling	♣	□	p	7 n	W	E. Indies	1732.	C	p.l	Di. elt t. 153. f. 185
2464 Párqui *W.*	Willow-leaved	♣	⊔	p	7 jn.jl	Pa.Y	Chili	1787.	C	p.l	Bot. mag. 1770
2465 auriculátum *W.*	ear-leaved	♣	□	p	12 jn.jl	G	Peru	1774.	C	p.l	L'Her. s. n. 1. t 35
2466 vespertínum *W.*	cluster-flower'd	♣	□	p	12 my.jl	G	W. Indies	1759.	C	p.l	Jac. schœ. 3. t. 328
2467 fastigiátum *Jacq.*	Honeysuckle	♣	□	p	4 n	W	W. Indies	...	C	p.l	Bot. mag. 1729
2468 diúrnum *W.*	day-smelling	♣	⊔	p	10 n	W	W. Indies	1732.	C	p.l	Di. elt. t. 154. f. 186
2469 venenátum *W.*	poisonous	♣	⊔	p	7 f.ap	W	C. G. H.	1787.	S	p.l	
2470 salicifólium *Jacq.*	sallow-leaved	♣	□	p	5 ap.jn	G.w	Caraccas	...	C	l.p	Jac. schœ. 3. t. 326
2471 tomentósum *W.*	downy	♣	□	p	6 jn.jl	Y	S. Amer.	1790.	C	p.l	
2472 hirsútum *Jacq.*	hairy	♣	□	p	8 jn.jl	G	......	1818.	C	p.l	Jac. schœ. 3. t. 324
2473 pendulínum *Jacq.*	pendulous	♣	□	p	6 jn.jl	G.w	Caraccas	1824.	C	p.l	Jac. schœ. 3. t. 327
2474 odontospérmum *Jac.*	tooth-seeded	♣	□	p	6 jl au	W	W. Indies	1793.	C	p.l	
2475 tinctórium *Jacq.*	dyer's	♣	□	dy	4 ap jn	W	Caraccas	1823	C	p l	Jac. sch. 3. t. 332
2476 undulátum *Fl per.*	wavy	🌳	⊔	p	15 ...	Y	Peru	1822.	C	p.l	Fl. per. 2. t. 155
2477 cauliflórum *Jacq.*	stem-flowering	♣	⊔	p	4 my jn	W	......	1821.	C	p.l	Jacq. sch. 3. t. 325
2478 citrifólium *Retz.*	lemon-leaved	♣	⊔	p	6 jn.jl	Y	......	1820.	C	p.l	
446. A'TROPA. *W.*	ATROPA.				*Solaneæ.*		*Sp.* 4—14				
2479 Belladónna *W*	Deadly-Nights.	⚘	△	p	5 jn.jl	Y	Britain	rub.	R	co	Eng bot. 592
2480 frutéscens *W.*	shrubby	♣	⊔	p	5 ja.mr	Y	Spain	1737.	C	s.l	Cav. ic. 2. t. 102
2481 aristáta *Poir.*	bearded	♣	⊔	p	5 ...	Y	Canaries	1779.	C	s l	
2482 arboréscens *L.*	tree	🌳	⊔	p	15 jn.au	W	Jamaica	1733.	C	s.l	Plum. ic. 40 f. 1
447. MANDRAGO'RA. *W. en.*	MANDRAKE.				*Solaneæ.*		*Sp.* 1.				
2483 officinális *W. en*	officinal	⚘	△	p	3 mr.ap	W	Levant	1548.	R	co	Bull. herb. t. 145



History, Use, Propagation, Culture,

440. *Gelsemium.* One of the ancient names of the jasmine. A beautiful climbing evergreen shrub, rather too delicate to bear the cold of our winters; but with a little protection it produces in abundance its charming yellow flowers of delicious fragrance.

441. *Rauwolfia.* So named by Plumier, in honor of Leonhard Rauwolf, physican at Augsburg, who travelled through Palestine and other countries of the east, in 1753-5. His travels were translated into English, under the revision of Mr. Ray, and with additions by him. The species abound in a milky juice, which is considered more or less of a deleterious nature. They produce berries about the size and color of those of the privet. Cuttings root in sand under a hand-glass.

442. *Vallesia.* In honor of Fr. Vallesio, principal physician to Philip II., king of Spain. He wrote upon the plants of holy writ. Small Peruvian shrubs.

443. *Bœobotrys.* From βαιος, small, and βοτρυς, a bunch; the flowers growing in little bunches. An elegant shrub with white flowers, produced freely from the axillæ of the leaves.

444. *Solandra.* In honor of the celebrated and excellent Daniel Solander, whose botanical merits will never be forgotten in this country. He accompanied Sir Joseph Banks in his voyage with Captain Cook, and the information afforded by his manuscript notes made at that time has not yet been exhausted. The species are very beautiful, and remarkable for the extraordinary size of their flowers. Sweet observes, "if allowed plenty of room and moisture, they grow very rapidly, but produce no flowers. The best way is to plant them in a loamy soil, and allow them to grow fast at first, till they have made a great many shoots; then keep them very dry till their leaves drop off, and they will produce plenty of flowers. Cuttings taken off and stuck in a pot of mould, will root without any further care. The best way to have plants flower young, is to take the cuttings from the flowering shoots." (*Bot. Cult.* 107.)

445. *Cestrum.* A name given by the Greeks to the Betony, but having no relation whatever to the plant which bears the name now. *Cestreau*, Fr. This is a genus of easy cultivation, but of little beauty. The flowers are all white, and in some cases sweet-scented; the fruit of all poisonous.

446. *Atropa.* A mythological name. Atropos was one of the Fates, and it was her especial duty to cut the thread of human life. The fruit of this genus is well adapted to fulfilling her office. A. belladonna (fine lady) has

2451 Scandent quite smooth, Leaves lanceolate, Flowers axillary subsolitary

2452 Leaves 3 or 4 together lanceolate acuminate shining, Flowers terminal
2453 Leaves 4 together oblong ovate acuminate pubescent, Flowers terminal and axillary
2454 Leaves 4 together oblong narrowed both ways tomentose, Flowers terminal and axillary
2455 Leaves 3 together oblong acuminate smooth, Flowers between the petioles corymbose

2456 Leaves lanceolate cymbiform incurved at end

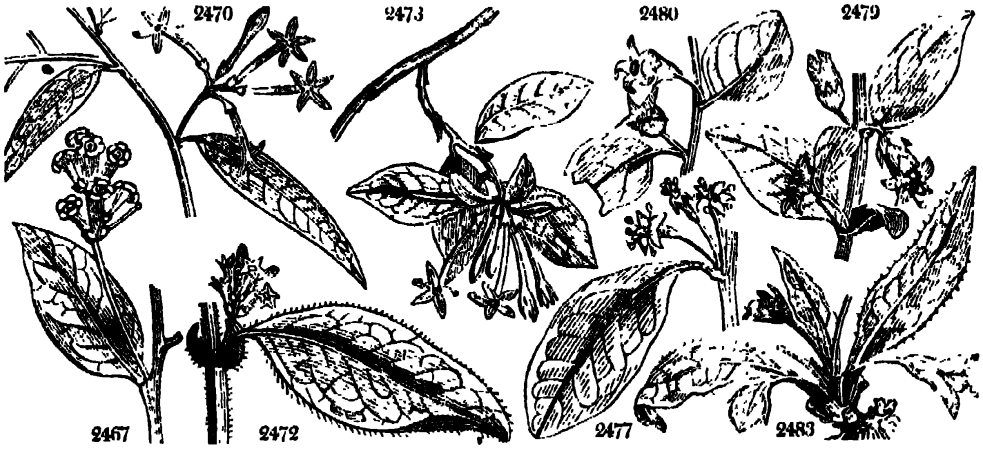
2457 Leaves oblong ovate acuminate coarsely serrated

2458 Leaves smoothish stalked, Anthers of the same shape
2459 Flowers stalked, Segm. of flower long acuminate revolute

2460 Filaments toothed or naked, Leaves elliptical coriaceous shining, Flowers fascicled stalked
2461 Filam. toothed, Leaves ovate oblong acuminate smooth, Flowers fascicled sessile
2462 Filam. naked, Segm. of cor. emarginate, Flowers racemose, Leaves ovate and lanceolate
2463 Filam. toothed, Peduncles racemose as long as leaves
2464 Filam. toothed or naked, Flower-bearing stem panicled, Stipules linear
2465 Filam. naked, Stipules amplexicaule lunate, Leaves ovate, Flowers panicled terminal
2466 Filam. naked shorter than throat of cor. Flowers aggreg. sessile terminal and lateral, Leaves elliptical
2467 Filam. naked, Pedunc. elong. as long as leaves spiked at end, Leaves oblong, Stip. elliptical
2468 Filam. naked, Segm. of cor. rounded reflexed, Leaves lanceolate
2469 Leaves lanceolate oblong coriaceous, Flowers sessile
2470 Filam. toothed, Flowers racemose, Leaves linear lanceolate
2471 Flowers clustered sessile terminal, Branches leaves and calyxes downy
2472 Filam. toothletted, Spikes axillary longer than leafstalks, Leaves obl pub. on both sides, Stip. falcate
2473 Filam. naked the length of the tube of the corolla, Flowers aggreg. sessile terminal, Leaves elliptical
2474 Filam. naked, Leaves lanceolate, Racemes short axillary and terminal, Cor. revolute
2475 Filam. naked, Leaves lanc. ovate, Racemes axillary and terminal, Flowers pedicellate, Cor. acum. reflex
2476 Filam. toothed, Leaves ovate acute wavy, Pedunc. axillary and terminal few flowered
2477 Filam. naked exserted, Flowers stalked clustered, Cor. campanulate, Leaves elliptical
2478 Leaves large ovate acute entire shining naked on both sides coriaceous nerved, Petioles black shining

2479 Stem herbaceous, Leaves ovate entire
2480 Stem shrubby, Peduncles clustered, Leaves cordate ovate obtuse
2481 Stem shrubby, Leaves oblong entire smooth, Branches downy, Sepals aristate
2482 Stem shrubby, Peduncles clustered, Cor. revolute, Leaves oblong

2483 The only species

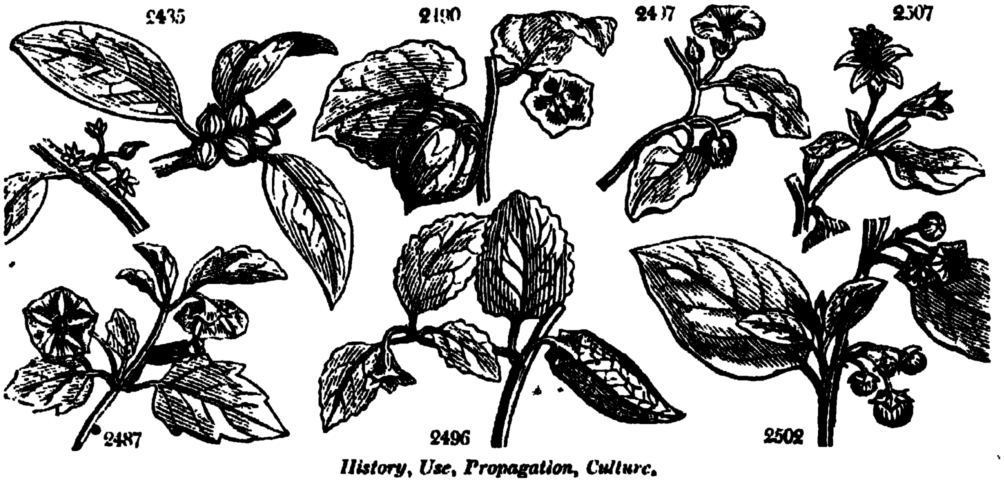


and Miscellaneous Particulars.

its specific name, according to some, from its being used as a wash among the ladies, to take off pimples or other excrescences from the skin; or, according to others, from its quality of representing phantasms of beautiful women to the disturbed imagination. The inspissated juice of the berries is used in the form of extract for anointing the eyelids in some opthalmic complaints. Its effect in dilating the pupil is quite remarkable. It has branching stems with the root leaves often a foot long and five inches broad, and the whole plant is more or less tinged with purple. The flowers are void of scent; the berries are larger than cherries, at first green, but when ripe of a beautiful shining black color, full of purple juice, with roundish dotted channelled seeds. The whole plant, and especially the berries, is poisonous. Buchanan relates the destruction of the army of Sweno the Dane, when he invaded Scotland, by the berries of this plant, which were mixed with the drink which the Scots, according to truce, were to supply the Danes with. The Danes became inebriated, and the faithless Scots fell on them in their sleep. Dr. Milne (*Indigenous Botany*) remarks, that nature has been more parsimonious in her warnings with respect to this plant, than to others of the same natural family. Neither the smell nor the taste is offensive; and if the color of the flowers proves in some degree a repellant, that of the fruit, on the other hand, is in an equal degree, at least, attractive and inviting.

447. ***Mandragora.*** From *μανδρα*, something relating to cattle, and *αγαυρος*, hurtful: dangerous to cattle. It is a venomous plant, and was an important engine in the days of medical charlatanry, from the roots being supposed to bear a resemblance to the human form. In old herbals the figures display the male mandrake with a long beard, and the female with a prolix head of hair. Miller says, "mountebanks carry about fictitious images, shaped from roots of bryony and other plants, cut into form or forced to grow through moulds of earthenware, as mandrake roots." Happily such mountebanks have ceased to exist in Britain. On the continent they are still common, and Box tells us (in 1810), that by means of a few cuts with a knife, they add the image of the exterior organs of generation, male or female, to mandrake roots, and then sell them to ensure boys or girls to pregnant women, procure happy births, &c. We have ourselves seen them exposed by mountebanks in sea-port towns of France. For an ingeniously indelicate figure of a mandrake root, see the Flora Græca, the plates for which have been all selected by Sir James Smith. The plant is of easy culture, but is the better for the protection of a frame or shelter of a south wall during winter.

448. PHY'SALIS. *W.*	WINTER CHERRY.				*Solaneæ.* *Sp.* 18—37.							
2484 somnífera *W.*	clustered	⚘	⊔	w	2	jl.au	G.Y	Mexico	1796.	C	co	Cav. ic. 2. t. 103
2485 flexuósa *W.*	flexuose	⚘	⊔	w	2	jl.au	G.Y	E. Indies	1759.	C	co	Rhed. mal.4.t.55
2486 curassávica *W.*	Curaçao	⚘	[△]	w	1½	jn.s	St.Y	S. Amer.	1699.	D	co	Plu.alm.t.111.f.5
2487 viscósa *W.*	clammy	⚘	△	w	2	jl	St.Y	America	1732.	D	co	Jac. vind.2. t.136
2488 pensylvánica *W.*	Pensylvanian	⚘	△	w	1	jl.s	Y	N. Amer.	1726.	D	p.l	
2489 Alkekéngi *W.*	common	⚘	△	or	1	jl.s	W	S. Europe	1548.	D	s.l	
2490 peruviána *W.*	eatable	⚘	⊔△	fr	1½	ap.o	W	S. Amer.	1772.	S	s.l	Bot. mag. 1068
2491 pubéscens *W.*	downy		○	w	2	jl.au	Y	America	1640.	S	s.l	Feuill. it. 3. t. 1
2492 anguláta *W.*	angular-branch		○	w	2	jn.s	W	India	1732	S	s.l	D elt.13.t.12.f.12
2493 chenopodifólia *W*	Goose-foot-lvd.	⚘	△	w	2	jl.au	Y	Peru	1798.	S	s.l	
2494 barbadénsis *W.*	Barbadoes		○	w	2	jl.au	Pa.Y	W. Indies	1798.	S	s.l	Jac. ic. 1. t. 39
2495 mínima *W.*	small		○	w	1½	jl.au	Pa.Y	E. Indies	1759.	S	s.l	Rhed.ma.10.t.71
2496 pruinósa *W.*	hairy-annual		○	w	1	jl.au	Pa.Y	America	1726.	S	s.l	Dill.elt.10.t.9.f.9
2497 prostráta *W.*	trailing		○	w	1	jl.au	L.B	Peru	1782.	S	s.p	Bot. rep. 75
2498 tuberósa *W. E.*	tuberous	⚘	△	w	2	jl.au	W	......	1815.	D	s.p	
2499 parviflóra *W. E.*	small-flowered		○	w	1½	jl.au	Y	......	1820.	S	s.p	
2500 dúbia *Lk.*	doubtful		○	w	2	jl.au	Y	Brazil	1821.	S	s.p	
2501 fœtidíssima *Lag.*	stinking		○	w	2	jl.au	Y	N. Spain	1820.	S	s.p	
449. SA'RACHA. *Fl. per.*	SARACHA.				*Solaneæ.* *Sp.* 2.							
2502 procúmbens *F. p.*	procumbent	⚘	⊔△	or	3	n.jl	Pa.Y	Peru	1822.	D	co	Fl. per. 2 t. 180
2503 umbelláta *Jacq.*	umbelled	⚘	[△]	or	4	jn.jl	Pa.Y	Peru	1822.	D	co	
450. LY'CIUM. *W.*	BOX-THORN.				*Solaneæ.* *Sp.* 12—28.							
2504 áfrum *W.*	African	⚘	☐	or	10	jn.jl	V	C. G. H.	1712.	C	p.l	Bot. reg. 354
2505 rígidum *W.*	rigid	⚘	⊔	or	4	ap my	V	C. G. H.	1795.	C	p.l	Tre. ehr. t.24. f.1
2506 ruthénicum *W.*	Russian	⚘		or	6	...	Pk	Siberia	1804.	C	p.l	M.co.go.1779. t.2
2507 bárbarum *P. S.*	Willow-leaved	⚘		or	12	my.au	V	Barbary	1696.	R	co	Dend. brit. 9
2508 turbinátum *P. S.*	top-shaped	⚘		or	12	my.au	V	China	1709.	C	co	Du.ed n.119.t.31
2509 europæ'um *P. S.*	European	⚘		or	12	my.au	Pk	S. Europe	1730.	C	co	Mic.gen.t.105.f.1
2510 lanceolátum *Poir.*	spear-leaved	⚘		or	12	my.au	Pk	S. Europe	...	C	co	Duh. ed n. t. 32
2511 chinénse *Mill.*	Chinese	⚘		or	6	my.au	Pu	China	...	C	co	Dend. brit. 8
2512 hórridum *W.*	succulent-lvd.	⚘	⊔	or	3	jl.au	W	C. G. H.	1791.	C	p.l	
2513 boerhaáviæfólium *W.*	glaucous-leaved	⚘	⊔	or	6	ap.my	P.Pu	Peru	1780.	C	p.l	L'He.s.n.45. t.23
2514 caroliniánum *Ph.*	Carolina	⚘		or	4	jl.s	B	Carolina	1806.	C	p.l	
2515 trewiánum *Duh.*	Trew's	⚘		or	15	my.au	Pu	China	1818.	C	co	Duh. ed. n. t. 30
451. SOLA'NUM. *W.*	NIGHTSHADE.				*Solaneæ.* *Sp.* 79—360.							
2516 peruviánum *L.*	Peruvian	⚘	△	w	2	my.jn	Y	Peru	1823.	D	co	Feuill. 3. t 25
2517 Lycopérsicum *W.*	Love-apple		○	elt	3	jl.s	G	S. Amer.	1596.	S	r m	R.am.5. t.154. f.1
2518 cerasifórme *Dun.*	Cherry		○	elt	3	jl.s	G	......	1800.	S	r.m	Jac. vind. 1. t. 11
2519 Humbóldti *W.*	Humboldt's		○	elt	2	jl.s	Y	S. Amer.	1822.	S	co	W.hort.ber. t.27
2520 pyrifórme *Dun.*	Pear-shaped		○	elt	2	jl.s	Y	......	1823.	S	co	Dun. sol. t. 26
2521 tuberósum *W.*	Potatoe	⚘	△	ag	2	jn au	W	Peru	1597.	R	r.m	Bau.prod.89.t.89
β *Commersoni* Poir.	Wild-Potatoe	⚘	△	cul	2	my.o	W	S. Amer.	1822.	R	co	Hort. trans.
2522 Seaforthiánum *And.*	Seaforth's	⚘	☐	or	20	jl.s	Pk	Barbadoes	1804.	C	l.p	Bot rep. 504
2523 betáceum *P. S.*	Beet-leaved	⚘	☐	or	4	jn.jl	Pk	S. Amer.	1803.	C	l.p	Bot. rep. 511
2524 muricátum *W.*	warted	⚘	☐	or	3	jl.au	V	Peru	1785.	C	l p	Feu. per.772.t.15
2525 laciniátum *W.*	cut-leaved	⚘	⊔	or	3	jl.au	V	N. Holl.	1772.	S	s.p	Bot. mag. 349
2526 quercifólium *W.*	Oak-leaved	⚘	△	or	2	jn jl	V	Peru	1787.	C	r.m	Feu.per.772. t.15
2527 radícans *W.*	rooting	⚘	⊔	or	3	jl.au	Pu	Peru	1771.	D	s.p	Lin.fil. dc.1. t.10



History, Use, Propagation, Culture.

448. *Physalis.* From φυσα, a bladder. The fruit is enclosed in an inflated calyx. The berries of P. alkekengi are acidulous and slightly bitter; they were esteemed detergent and aperient by the ancients. In Spain, Germany, and Switzerland, they are eaten as a common fruit. Phy. peruviana produces a pleasant fruit for tarts, and is in some countries, and even English gardens, cultivated for that purpose.

449. *Saracha.* A plant resembling Atropa, or Physalis, to which it is too nearly related. It was named by the authors of the Flora Peruviana after Isidore Saracha, a Spanish botanist.

450. *Lycium.* So called because the original species was a native of Lycia, a country of Asia Minor. Some of the Cape species of this genus have elegant flowers and merit cultivation, and L. barbarum is valuable for covering naked walls, arbors, &c. It grows four or six feet in a season, flowers freely, and is readily propagated by cuttings at any season of the year. L. europæum is used for hedges in Tuscany, being armed with small thorns. Clusius says they eat the small shoots in Spain with oil and vinegar. L. ruthenicum is an ornamental shrub from its very white bark. The greenhouse species root readily in sand under a hand-glass.

451. *Solanum* By some ingenious commentators this word has been derived from *solari*, to comfort. The derivation may be possible, but the application is not evident. This extensive genus, which belongs to the Luridæ of Linnæus's system of natural orders, does not contain many handsome plants, but it includes, besides the Tomato and egg plant, celebrated in cookery, the potatoe, whose tubers, as a human food, if equalled, are not surpassed by those of any other plant. Some of the species are singular on account of their leaves and

2484 Stem shrubby rounded, Branches upright, Flowers clustered
2485 Stem shrubby, Branches flexuose, Flowers clustered
2486 Stem shrubby, Leaves ovate tomentose
2487 Leaves in pairs repand obtuse subtomentose, Stem herbaceous panicled above
2488 Leaves ovate subrepand obtuse nearly naked, Flowers in pairs, Stem herbaceous
2489 Leaves in pairs entire acute, Stem herbaceous branching below
2490 Pubescent, Leaves cordate entire
2491 Pubescent, Stem angular, Leaves in pairs cordate nearly entire soft, Teeth of cal. acuminate
2492 Much branched, Branches angular smooth, Leaves ovate toothed
2493 Pubescent, Stem erect ½ shrubby, Leaves subcordate toothed angular, Petioles decurrent
2494 Much branched, Leaves ovate cordate pub. Flowers pendulous, Calyx in fruit ovate acuminate angular
2495 Much branched, stalk of fruit much longer than the villous leaf
2496 Much branched, Leaves villous, Peduncles erect
2497 Much branched, Stem procumbent rounded hairy. Leaves rather fleshy
2498 Pubescent, Leaves ovate angular, Stem herbaceous, Berries viscid, Root tuberous
2499 Hairy, Leaves cordate acute toothed, Pedunc. at length reflexed, Cal. with segm. twice as short as cor
2500 Leaves oval unequal acute toothed smoothish, Flowers solitary, Calyx powdered, Cor. tomentose
2501 Leaves in pairs toothed repand tomentose-viscid oval, Stem herbaceous panicled above

2502 Leaves in pairs unequal ovate smooth, Flowers in umbels
2503 Stem erect hairy, Umbels axillary stalked cernuous, Flowers plaited

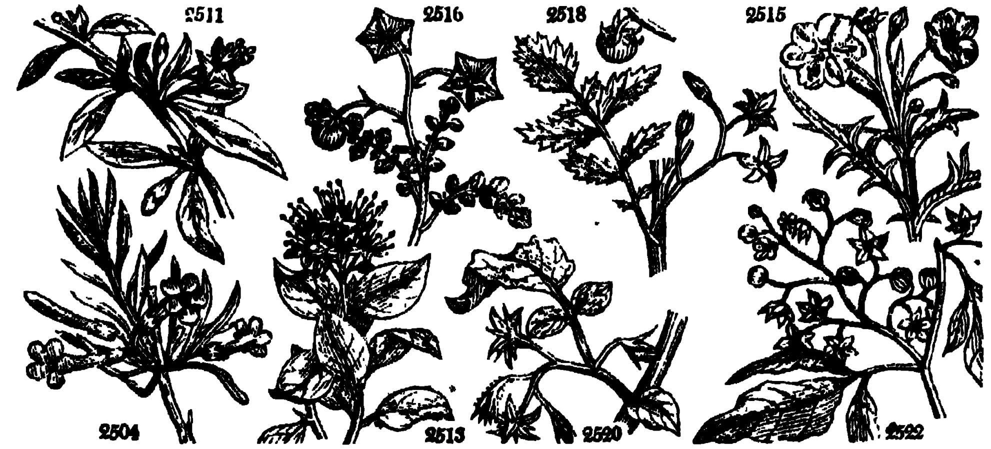
2504 Branches diffuse spiny, Leaves linear fleshy attenuated at base fascicled, Pedunc. longer than cal.
2505 Branches upright spiny, Leaves linear fascicled, Pedunc. shorter than calyx, Stam. as long as tube of cor.
2506 Branches droop. spiny, Lvs. lin. lanc. atten. at base fasc. Ped. longer than cal. Stam as long as limb of cor.
2507 Branches drooping, Buds spiny, Cal trifid, Stam. as long as limb of cor.
2508 Branches drooping spiny rounded, Leaves sessile lanceolate acuminate, Cal. trifid, Berry turbinate
2509 Branches lax spiny, Leaves oblong lanc. obtuse obliquely bent, Stam. shorter than limb of cor.
2510 Branches erect flexuose at end recurved rounded much spreading spiny, Leaves subsessile lanc. acute
2511 Stem and branc. droop. striated rarely spiny, Lvs. stalked ov. obt. Cal. 5-toothed, Style longer than stam.
2512 Spiny, Leaves obovate fleshy smooth, Peduncles very short
2513 Spiny, Leaves ovate entire acute glaucous, Flowers panicled
2514 Unarmed, Leaves narrow spatulate oblong, Flowers 4-cleft tetrandrous
2515 Erect spiny, Branc. dif. angular, Lvs. stalked lanc. acute, Cal. 2 or 3-fid, Style scarcely longer than stam.

§ 1. *Lycopersicon (Love Apples.) Anthers conical, joined at end. Berry many-celled.*

2516 Villous hoary, Leaves stipulaceous unequally pinnatifid, Segm. obtuse, Pedunc. and pedicel bracteated
2517 Hairy, Leaves unequally pinnatifid, Segments cut glaucous beneath, Berries torulose furrowed smooth
2518 Hairy, Lvs. unequally pinnat. Segm. cut glauc. beneath, Sepals as long as cor. Berries round rather hairy
2519 Hairy, Lvs. unequally pinnat. Segm cut glauc. beneath, Pedunc. with bract. Sepals twice as long as cor
2520 Hairy, Lvs. unequally pinnatifid, Segm. cut glaucous beneath, Pedunc. without bract. Berries obconical

§ 2. *Unarmed. Leaves pinnate, pinnatifid, or entire.*

2521 Root tuberous, Stem herbac. Segm. of lvs. unequal, the altern. ones minute, Pedicels stalked, cor. 5-ang
β Root tuberous, Stem herbaceous, Leaves pinnate sublyrate pilose, Pedic. jointed, Cor. 5-cleft
2522 Leaves pinnate waved, upper simple lanc. Racemes in panicled cymes sometimes longer than petioles
2523 Leaves cordate ovate oblong hairy on each side waved at edge, Racemes pendulous as long as petioles
2524 Stem half shrubby rooting ascending runners muricated, Lvs. obl. lanc. pubescent simple, Racemes 2-fid
2525 Smooth, Leaves pinnatifid segments linear lanceolate terminal elongated, Racemes lateral corymbose
2526 Stem angular wavy rough, Leaves pinnatifid, Racemes cymose
2527 Stem rounded prostrate rooting, Lvs. deeply pinnat. Sinuses obtuse, Racemes cymose as long as petioles



and Miscellaneous Particulars.

spines; and others retain their fruit in our stoves during winter, which may be a recommendation to some to admit them in collections.

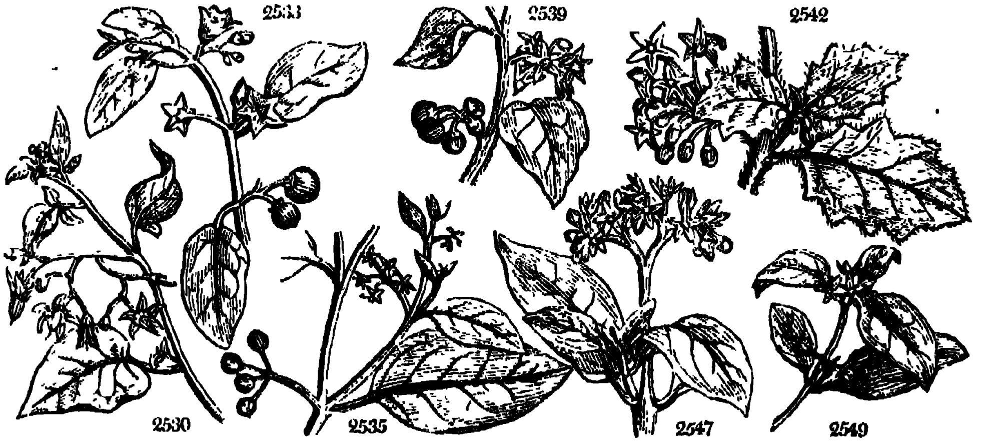
S. dulcamara has roots which smell like the potatoe; being chewed, a sensation of bitterness is first felt, and then of sweetness, whence the specific name. The berries excite vomiting and purging, and the twigs and leaves have been used in rheumatic and scorbutic cases with good effect.

S. tuberosum, *Pomme de Terre*, Fr., *Kartoffel*, Ger., *Pomo di Terra*, Ital., *Pdlades*, Span., &c. is supposed to be a native of South America, and to be found in a wild state in elevated places in the tropical regions, and in the more temperate districts of the western coasts of that country. Some tubers, said to be of the wild potatoe, have been received from these parts by the Horticultural Society, and cultivated by them; their produce differs very little, if at all, from that of the common cultivated sort; they are small, roundish, and pink and white colored. (*Hort. Trans.* 5. 257.) It appears probable that the potatoe was first brought into Europe from the mountainous parts of South America in the neighbourhood of Quito, where they were called *papas*, to Spain, early in the 16th century. From Spain, where they were called *battatas*, they found their way to Italy, and there received the same name as the truffle, *taratoufli*. From Italy they went to Vienna, through the governor of Mons in Hainault, who sent some to Clusius in 1598. To England the potatoe found its way from North America, being brought from Virginia by the colonists sent out by Sir Walter Raleigh in 1584, and who returned in July 1586; and, "probably," says Sir Joseph Banks, "brought with them the potatoe." Gerarde,

2528 corymbósum *W.*	corymbed	♣	☐	or	2	jl.au	V	Peru	1786.	D	co	Jac. ic. 1. t. 40
2529 oligánthum *Lk.*	few-flowered	♣	⊔	or	3	...	W	......	1824.	C	co	
2530 Dulcamára *W.*	Bitter-sweet	⚘		p	3	jn.jl	V	Britain	hed.	C	s.l	Eng. bot. 565
2531 macrocárpon *W.*	large-fruited	♣	⊔	or	1	my.s	B	Peru	1759.	C	s.p	Mill. ic. 2. t. 294
2532 æthiópicum *W.*	Ethiopian	-	○	or	1½	jl.s	W	Ethiopia	1597.	C	l.p	Jac. vind. 1. t. 12
2533 Zuccagniánum *Dun.*	scabrous		○	or	1½	jn.jl	W	......	1823.	S	co	Dun. sol. t. 11
2534 Pseudo-cápsicum *W.*	Winter-cherry	♣	⊔	or	4	jn.s	W	Madeira	1596.	S	r.m	Sabb. rom. t. 59
2535 nodiflórum *Jacq.*	thick-jointed		○	w	10	jn.jl	W	I. France	1822.	S	co	Jacq. ic. 2. t. 326
2536 guineénse *W. en.*	large-berried		○	p	4	jn.s	G	Guinea	...	S	s.l	Di.elt.t.274.f.354
2537 melanocérasum *W.en.*	small-berried		○	p	2	jn.s	W	Virginia	...	S	s.l	Di.elt.t 275.f.356
2538 suffruticósum *W.en.*	fringed-leaved	♣	⊔	or	4	my.s	W	Barbary	1804.	C	l.p	
2539 nigrum *W.*	black-berried		○	p	3	jn.s	W	Britain	rub.	S	s.l	Eng. bot. 566
2540 miniátum *Bern.*	red-berried		○	w	4	jn.jl	W	S. Europe	1823.	S	co	
2541 húmile *Bern.*	green-berried		○	w	1	jn.jl	W	S. Europe	1823.	S	co	
2542 villósum *W. en.*	orange-berried		○	w	5	jn.s	W	Barbadoes	...	S	s.l	Di.elt.t.274.f.353

2543 pátulum *W.*	spreading		○	or	4	jn.s	V	India	...	S	s.l	Di.elt.t.275.f.355
2544 críspum *Fl. per.*	Natre	⚲	⌟	or	18	jn.jl	W	Chili	1824.	C	co	Fl. per. 2. t. 158
2545 bombénse *Jacq.*	Bomba	♣	⊔	or	12	jn.jl	W	Mexico	1822.	C	co	
2546 Cervantésii *Lag.*	Cervantes's	♣	⊔	or	4	my.jn	W	Mexico	1818.	C	co	
2547 verbascifólium *W.*	Mullein-leaved	♣	☐	or	7	jn.jl	W	W. Indies	1749.	S	p.l	Jac. vind. 1. t. 13
2548 auriculátum *W.*	ear-leaved	♣	☐	or	4	...	V	Madagasc.	1773.	S	p.l	Scop. insub. 3. t. 8
2549 diphýllum *W.*	two-leaved	♣	☐	or	3	jn.jl	W	W. Indies	1699.	C	s.l	Jac. ic. 2. t. 322
2550 havanénse *W.*	Havannah	♣	☐	or	5	jl.au	B	W. Indies	1793.	C	co	Jac. amer. 49. t. 35
2551 lycioídes *W.*	spiny	♣	☐	or	4	my.jn	Pa.B	Peru	1791.	C	s.p	Jac. ic. 1. t. 46
2552 uniflórum *Lag.*	one-flowered	♣	⊔	or	3	my.jn	B	N. Spain	1820.	D	co	
2553 stellátum *Jacq.*	stellate	♣	⊔	or	6	jn.jl	B	......	1822.	C	co	Jac. ic. 2. t. 325

2554 elæagnifólium *Cav.*	Oleaster-leaved	♣	⌟	or	6	jn.jl	B	Chili	1823.	C	co	Cav. ic. 3 t. 243
2555 racemósum *W.*	wave-leaved	♣	☐	or	4	jl.au	W	W. Indies	1781.	C	co	Jac. amer 50. t. 36
2556 igneum *W.*	red-spined	♣	☐	or	3	mr.n	W	S. Amer.	1714.	C	s.p	Jac. vind. 1. t. 14
2557 subarmátum *W.*	half-armed	♣	☐	or	6	my.jn	W	......	1820.	C	co	
2558 bahaménse *W.*	Bahama	♣	⊔	or	6	jn.jl	V	Bahama	1732.	S	p.l	Di.elt.t.271.f.350
2559 tomentósum *W.*	woolly	♣	⊔	or	2	jn.jl	B	C. G. H.	1662.	C	p.l	Bocc. sic. 8. t. 5
2560 lanceæfólium *Jacq.*	lance-leaved	♣	☐	or	10	jl.au	W	W. Indies	...	C	co	Jacq. ic. 2 t. 239
2561 bonariénse *W.*	Buenos Ayres	♣	⊔	or	10	jn.s	W	B. Ayres	1727.	C	s.l	D.e.364.t272.f.351
2562 subinérme *W.*	spear-leaved	♣	☐	or	7	jl.au	B	W. Indies	1752.	C	l.p	Jac. amer. t. 40. f. 3
2563 lanceolátum *Cav.*	lanceolate	♣	☐	or	7	jn.jl	Pa.B	Mexico	...	C	s.l	Bot. mag. 2173
2564 gigantéum *W.*	tall	⚲	⊔	or	15	jn.jl	V	C. G. H.	1792.	C	s.p	Bot. mag. 1921



History, Use, Propagation, Culture,

in his Herbal, published in 1597, gives a figure of the potatoe, under the name of Potatoe of Virginia, whence he says he received the roots; and this appellation it appears to have retained, in order to distinguish it from the battatas or sweet potatoe (Convolvulus battatas) till the year 1640, if not longer. "The sweet potatoe," Sir Joseph Banks observes, "was used in England as a delicacy long before the introduction of our potatoes; it was imported in considerable quantities from Spain and the Canaries, and was supposed to possess the power of restoring decayed vigor. The kissing comfits of Falstaff, and other confections of similar imaginary qualities, with which our ancestors were duped, were principally made of these and of eringo roots." Gough says the potatoe was first planted by Sir Walter Raleigh on his estate of Youghall near Cork, and that they were soon after carried into Lancashire. Gerrarde and Parkinson, however, mention them as delicacies for the confectioner, and not as common food. Even so late as Bradley's time they are spoken of as inferior to skirrets and radishes

The use of potatoes, however, became more and more known after the middle of the 18th century, and has greatly increased in all parts of Britain within the last thirty years. It is also very general in Holland, and many parts of France and Germany, and is increasing rapidly in Russia. In Spain, and the East and West Indies they are not much cultivated, owing to the heat of the climate; but in all the temperate parts of North America, Australasia, and South America they are grown by the colonists. In China they are cultivated, but not extensively, owing to the slow progress which every thing new makes in that country. Indeed, no root hitherto discovered is so well adapted for universal use as the tubers of the potatoe; for, having no peculiarity of taste, and consisting chiefly of starch, their farina is nearly the same as that of grain. Hence, with the flower of potatoes, puddings, and such preparations as do not call the gluten of wheat-flower into action, may be made equal to those of millet or rice, and excellent bread with a moderate proportion of good wheat-flour. Potatoe starch, independently of its use in the laundry, and as a hair powder, is considered an equally delicate food as sago or arrow-root. As starch and sugar are so nearly the same, that the former is easily converted into the latter, the potatoe yields a spirit equal to that of malt by distillation, and a wine or beer by the fermentative process.

The varieties of the potatoe are very numerous, differing in earliness, lateness, form, size, color, and quality. The names for these are quite arbitrary or local. In general, every district has its peculiar or favorite varieties. Some of these degenerate, and others improve when removed from one district to another. New varieties

§ 3. *Unarmed. Leaves lobed, sinuate, angular, toothed, or entire.*

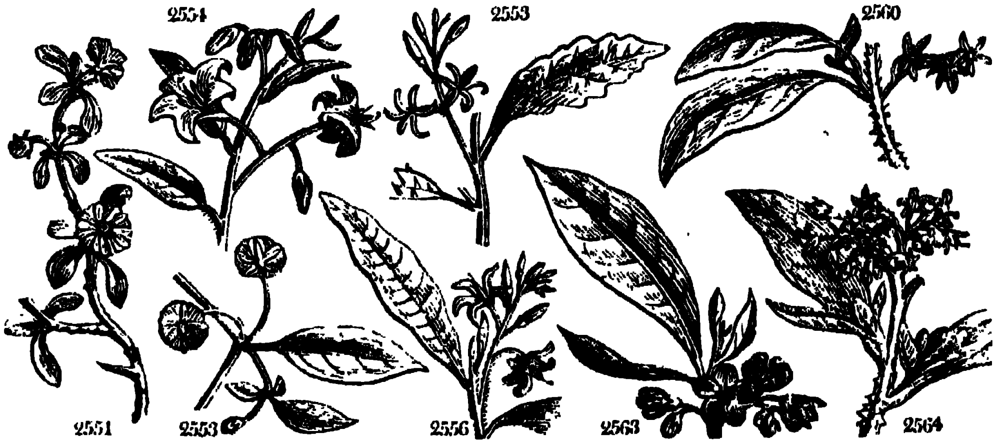
2528 Leaves ovate lanceolate entire or lobed, Racemes cymose opp. to the leaves, Cor. 5-parted
2529 Leaves lanceolate sinuate tomentose bright-green, Pedunc few-flowered, Sepals ovate acute
2530 Stem wavy, Leaves ovate cordate upper lanceolate, Corymbs opposite the leaves
2531 Stem smooth, Leaves cuneate at the base sinuate smooth, Peduncles few-flowered short
2532 Leaves ovate repand angular smooth, Peduncles 1-flowered cernuous, Berries torulose
2533 Leaves ovate angular repand smooth unequal at base, Pedunc. 1-flowered cernuous, Berries round
2534 Leaves oblong lanceolate subrepand, Peduncles 1-flowered outside the leaves
2535 Branches rounded, and leaves smooth ovate entire, Flowers umbelled
2536 Branches smooth angular toothed, Leaves ovate smooth entire, Flowers numerous umbelled
2537 Stem and branches angular toothed, Leaves subovate sinuate angular, Flowers umbelled
2538 Leaves ovate toothed angular ciliated, Umbels extrafoliaceous stalked
2539 Stem angular, Leaves ovate toothed naked, Flowers in umbels
2540 Branches strigose pubescent angular winged, Wings toothed, Leaves ov. rep smooth, Flowers in umbels
2541 Branches angular toothed pubescent, Leaves ovate repand upper entire, Flowers in umbels
•2542 Stem rounded villous, Leaves ovate angular toothed villous hoary, Flowers in umbels

§ 4. *Unarmed. Leaves quite entire.*

2543 Stem shrubby, Branches powdery, Leaves oblong lanceolate powdery on both sides, Racemes spreading
2544 Leaves ovate and subcordate waved curled acuminate, Flowers corymbose
2545 Leaves oval pointed at each end smooth, Racemes cymose
2546 Stem erect, Leaves ovate lanceolate attenuated at each end pubescent, Racemes 2 and 3-chotomous
2547 Leaves ov. obl. acuminate entire downy, Surface discol. Axils leafless, Corymbs terminal dichotomous
2548 Leaves ovate oblong acuminate woolly axillary, Leaflets semicircular, Corymbs di-trichotomous
2549 Lvs in pairs one obl. narrow. towards each end obt other smaller obov. ellipt. Cymes stalk opp. the lvs
2550 Leaves ovate lanceolate acute shining smooth, Peduncles 1-flowered, Berries oval
2551 Branches spiny, Leaves elliptical, Peduncles filiform 1-flowered
2552 Stalks axillary 1-flowered, Cal. 10-cleft, Leaves mostly in pairs subsessile elliptical
2553 Stem climbing flexuose, Lvs. ovate lanc. smooth acuminate, Pedunc. in pairs, Cal. unequally toothed

§ 5. *Prickly. Leaves entire or sinuate-angular.*

2554 Leaves discolored the lower sinuate prickly upper entire unarmed, Pedunc. few-flowered
2555 Stem unarmed, Leaves lanceolate repand undulated acute
2556 Leaves lanceolate acuminate revolute on both sides at the base
2557 Stem prickly, Leaves lanceolate pubescent beneath entire edge revolute at base
2558 Leaves lanceolate repand obtuse reflexed at edge
2559 Stem prickly, Prickles acerose, Leaves cordate unarmed repand wavy, the young ones purple
2560 Leaves lanceolate oblong attenuate at each end roughish beneath prickly, Raceme short unarmed
2561 Stem nearly unarmed, Leaves ovate oblong sinuate repand rough, Corymb extrafoliaceous stalked
2562 Stem nearly unarmed, Leaves lanceolate ellipt. entire above smooth beneath tomentose, Cymes mealy
2563 Stem downy, Leaves lanceolate long entire hoary beneath, Racemes terminal, Sepals subulate
2564 Stem with downy prickles, Leaves lanceolate acute unarmed above smooth beneath hoary



and Miscellaneous Particulars.

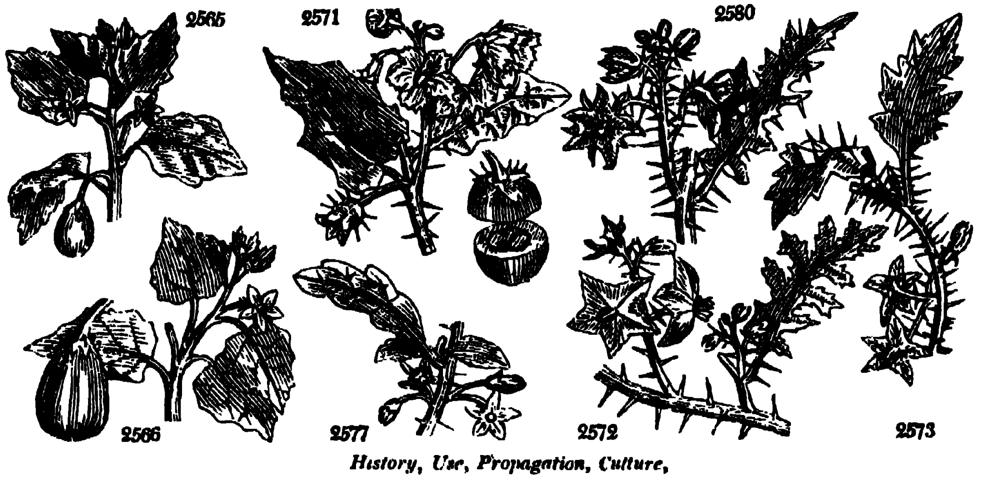
are readily procured by sowing the seeds, which, with care, will produce tubers the third year, and a full crop the fourth. As few of the early sorts produce blossoms, to procure seeds from them deprive the plant of its tubers as they appear, and keep the runners from which they proceed above ground, by not earthing up the plant, and blossoms and seeds will soon be produced This Mr. Knight completely proved, and the rationale is developed in the Philosophical Transactions for 1806. It appears that the same sap gives existence both to the tuber and blossom, and that whenever a plant of the potatoe affords either seeds or blossoms, a diminution of the crop of tubers, or an increased expenditure of the richness of the soil, must necessarily take place. This led Mr. Knight to attempt the practice adopted by the Dutch florists with their bulbous flowers, viz. to pinch off the flowers to strengthen the bulbs. This, in the potatoe, Mr. Knight thinks may add an ounce in weight to the tubers of each plant, or considerably above a ton per acre. The practice is now general among scientific cultivators even in field culture.

The curl is a well known disease of potatoes, which frequently disappoints the cultivator of a crop, or renders that produced of little value. A great variety of opinions exist as to this disease: without enumerating these, we may state, as the general result of experiments by different persons, that the curl arises in most, or at least in many cases, from using over ripe tubers as seed stock, or from the employment of seed stock which has been injured or improperly kept during the winter; that is, kept exposed to the light and air instead of being covered with earth, or sand, or straw, so as to preserve their juices. The experiments of various farmers and gardeners, as recorded in the Farmer's Magazine and Caledonian Hort. Mem., lead to the above conclusions.

The culture of the potatoe, both in the field and garden, is universally known. It may be forced in pots or on dung or tan beds; and, for this purpose, using sets from tubers that have been retarded a year in an ice-house or cold place, is found a great advantage. Thus, in planting in December 1823, use tubers of crop 1822. These, from the long period of repose which they have had, will be found highly exciteable by heat, and of much more rapid growth than sets of the preceding crop. As matter of curiosity, boxes containing alternate layers of light earth and potatoes of the last season but one may be placed in any dry covered place, free from frost, in November, and they will produce a brood of young tubers in contact with the old ones on the December following, without either leaves, roots, or runners. (*Hort. Trans.* i. 225.)

Potatoes are best preserved by burying in pits in dry ground, so deep as to be under the influence of surface temperature, or so enveloped with thatch as to produce the same effect. At a certain depth, they will keep

2565	Melongéna *W.*	Egg-plant	[○]	cul	2	jn.jl	B	Africa, &c.	1597.	C	l.p	Pluk.phy.266.f 2
2566	insánum *P. S.*	Mad-apple	○	or	2	au.s	B	E. Indies	1815.	S	l.p	Plu.alm.t.226.f.3
2567	ovigerum *Dun.*	oval-egg-plant	[○]	or	2	jn.jl	B	Arabia	1597.	S	co	
2568	sodómeum *W.*	black-spined	♣ ⌴	or	3	jn.jl	V	Africa	1688.	C	r.m	Her. lugd. t. 575
2569	indicum *W.*	Indian	♣ □	or	6	jl	Pu	India	1732.	S	p.l	Di.elt.t.270.f.349
2570	coágulans *W.*	scollop-leaved	[○]	or	3	jl	W	Arabia Fe.	1802.	C	s.p	Jac. schö.4. t.469
2571	marginátum *W.*	white-edged	♣ ⌴	or	4	jn.s	Pu	Africa	1775.	C	s p	Bot. mag. 1928
2572	campechiénse *W.*	purple-spined	[○]	w	2	jl	V	America	1732.	C	s p	Di.elt.t.268.f.347
2573	aculeatissimum *Jac.*	most-prickly	♣ ⌴	or	3	ap jl	Pa.B	S. Amer.	1816.	C	co	Jacq. ic. 1. t 41
2574	mammósum *W.*	nipple	[○]	or	4	jl.au	Pa.B	W. Indies	1699.	S	s.p	Plu.alm.t.225 f 1
2575	stramónifólium *W.*	broad-leaved	♣ ⌴	or	6	jn.s	Pu	W. Indies	1778.	C	s.p	Jac. ic. 1. t. 44
2576	férox *W.*	Malabar	¥ [△]	w	2	au s	Pu	E. Indies	1795.	C	l.p	
2577	Milléri *W.*	Miller's	♣ ⌴	or	3	jl.au	W	C. G. H.	1762.	C	s.l	Jac. ic. 2. t. 330
2578	trilobátum *W.*	three-lobed	♣ □	or	12	au	V	India	1759.	C	s p	Bu. in.57.t.22.f.2
2579	carolinénse *W.*	Carolina	[○]	w	2	jl.s	Pa.B	Carolina	1732.	S	p.l	Jac. ic. 2. t. 331
2580	Pyracántha *Sm.*	orange-thorned	♣ ⊡	or	4	au.s	Pu	Madagasc.	1789.	C	r.m	Ex. bot. 2. t. 64
2581	virginiánum *W.*	Virginian	○	w	1½	my.au	V	Virginia	1662.	S	s.p	Di.elt.t 267.f 346
2582	Jacquini *W.*	Jacquin's	[○]	w	2	s.n	Pu	E. Indies	1804.	S	s.p	Jac. ic. 2. t. 332
2583	Balbisii *Dun.*	decurrent	♣ ⌴	or	4	ap.s	W	S. Amer.	1816.	C	co	Bot. reg. 140
2584	tectum *P S.*	covered	♣ ⌴	or	3	ap.s	Y	Mexico	1824.	C	co	Cav. ic. 4. t. 309
452.	NYCTE'RIUM. *Vent.*	NYCTERIUM.				*Solaneæ.*	*Sp.* 4—7.					
2585	cordifólium *Vent.*	heart-leaved	♣ ⌴	or	2	ap.my	Pu	Can. Isl.	1779.	C	co	Vent. malm. 85
2586	amazonium	purple	♣ □	or	3	jn.au	Pu	Mexico	1800.	C	co	Bot. reg 71
2587	lobátum *Nutt*	yellow	○	or	2	jl.au	Y	Louisiana	1813.	S	co	Pursh. am.2. t.7
2588	fontanesiánum *Dun*	Desfontaines'	○	or	2	jl.s	Y	Brazil	1813.	S	co	Bot. reg. 177
453.	CAP'SICUM. *W.*	CAPSICUM.				*Solaneæ.*	*Sp.* 18—24.					
2589	ánnuum *W.*	common	○	cul	1	jn.jl	W	India	1548.	S	r.m	Knor. th. 2. t.c.6
2590	sphæ'ricum *W. en.*	globular-fruited	ħ □	cul	2	ap jl	W	......	1807.	C	r.m	
2591	baccátum *W.*	Bird-pepper	ħ □	cul	3	jn.s	W	......	1731.	C	r.m	Sl. ja. 1. t. 146.f.2
2592	sinénse *W.*	oval-fruited	ħ ⌴	cul	2	jn.s	W	China	1807.	C	r.m	Jac. vind. 3. t 67
2593	gróssum *W.*	large	[○]	cul	1	jl	W	India	1759.	S	r.m	B. ey. a. 1.t.11 f.1
2594	frutéscens *W.*	shrubby	ħ □	cul	1	jn s	Pa.Y	India	1656.	C	r.m	Ru. amb. 5. t. 88
2595	bicolor *Jacq*	dark-fruited	ħ □	cul	4	j s	Pu	W. Indies	1804.	C	r.m	Bot. mag 1835
2596	cerasifórme *W.*	Cherry-pepper	○	cul	1		Pa.Y	W Indies	1739.	S	r m	
2597	péndulum *W. en.*	pendulous	ħ □	cul	2	jl	W	......	1804.	C	r.m	
2598	lóngum *Dec.*	long-fruited	○	cul	1	jn jl	W	India	1548.	S	r.m	
2599	cordifórme *Mill.*	heart-fruited	○	cul	1	jn.jl	W	India	...	S	r.m	
2600	tetragónum *Mill.*	quince-fruited	○	cul	1	jn jl	W	India	...	S	r m	
2601	angulósum *Mill.*	angular-fruited	○	cul	1	jn jl	W	India	...	S	r m	
2602	conoídes *Mill.*	conical	ħ □	cul	2	ap jl	W	India	1750.	C	r.m	
2603	pyramidále *Mill.*	pyramidal	ħ □	cul	2	ap.jl	W	Egypt	1750.	C	r.m	
2604	microcárpum *Dec.*	small-fruited	ħ □	cul	2	ap.jl	W	......	1820.	C	r.m	
2605	cerasiflórum *Lk.*	cherry-flowered	ħ □	cul	2	jn.s	W	......	1823.	C	r.m	
2606	micránthum *Lk.*	small-flowered	ħ □	cul	3	my.jn	W	Brazil	1824.	C	r.m	



History, Use, Propagation, Culture,

for years without vegetation. Where there is an ice-house, they may, when taken out of the pits, be kept in small quantities in it till wanted for use.

S. lycopersicum. (From λυκος, a wolf, and *persica*, a peach, in poetical allusion to the beautiful appearance and deceitful value of the fruit.) *Tomate*, Fr., and *Pomo d'oro*, Ital., is cultivated extensively about Naples and Rome for the use of the berry in sauces, stewing, and soups. It is one of the most common articles used in Italian cookery, and makes an excellent sauce for fish, meat, and general purposes. Its use for sauce in this country is greatly on the increase, and it is cultivated to considerable extent near London, against walls and artificial banks, being raised on a hot-bed, and transplanted like other tender annuals

S. nigrum, a very common plant on dunghills, is narcotic and poisonous like S. dulcamara and Atropa belladonna. A Spanish cure for the consumption is burying up to the chin in garden earth, and afterwards rubbing the body over with an ointment made from the leaves of this plant.

S. æthiopicum is cultivated in China for the fruit, which is served at the tables of mandarins like our cherries.

S. melongena, (M. from *bydendjân*, its Arabic name, according to Forskahl) is cultivated both in Europe and the East and West Indies for its fruit, which is used boiled, stewed in sauces, &c. like that of the love-apple. The plant is more tender, and in this country requires to be matured under glass, like the balsam and other tender annuals. S. muricatum resembles it in habit, and may be cultivated for the same purpose.

452. *Nycterium.* From νυξ νυκτος, night. A small tribe of plants cut off from their ancient genus Solanum. N. amazonium is quite a beautiful shrub, growing well in pots in a moderate stove.

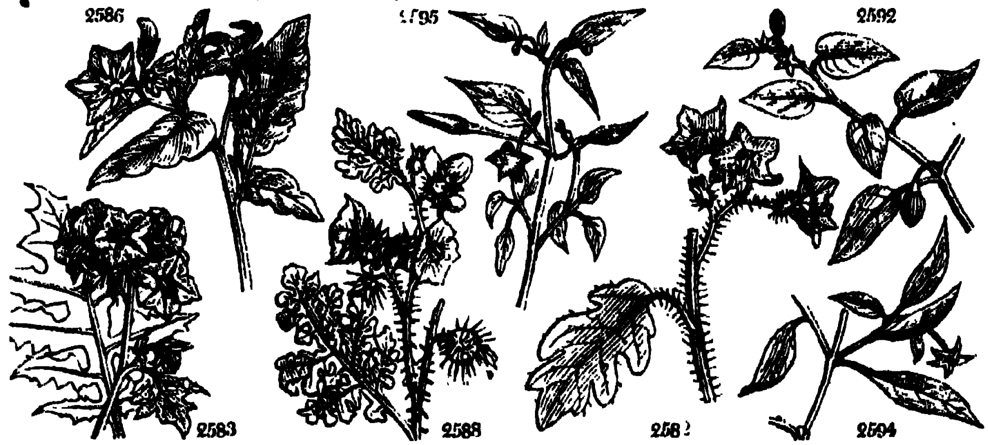
453. *Capsicum.* From κάπτω, *mordeo*, to bite, on account of the biting heat of the seed and pericarp *Poivre d'Inde ou de Guinée*, Fr. The fruit of C. baccatum, commonly called bird pepper, is gathered when

§ 6. *Prickly. Leaves sinuate, angular and lobed.*
2565 Stem prickly, Leaves ovate subsinuate downy prickly, Flowers many-parted, Seeds naked
2566 Stem prickly, Leaves ovate tomentose, Pedunc. pendulous thick, Cal. prickly
2567 Stem nearly unarmed, Leaves ovate subrepand tomentose unarmed, Berries ovate oblong, Seeds pulpy
2568 Stem diffuse, Prickles straight dilated at base, Lvs. obl. sinuate pinnatifid, Pedunc. 2-fid, Berries globose
2569 Stem prickly, Leaves oblong tomentose sinuate angular, Segm. sinuate toothed, Sepals reflexed
2570 Leaves ovate oblong sinuate repand downy white beneath, middle nerve beneath with smooth prickles
2571 Leaves subcordate sinuate lobed beneath hoary above white at edges, Berries 3-celled globose
2572 Stem very prickly hairy, Lvs. cord. obl. lob. Lobes tooth. Fertile cal. very prickly, Berries cher.-shaped
2573 Stem very prickly, Lvs. cordate lob. Lobes acute toothed villous and prickly on both sides, Berries round
2574 Stem vil. with scat. prickl. Lvs. subcord. lob. prickly on both sides very vil. Ber. like the teat of an animal
2575 Stem prickly, Lvs. cordate sinuate acutely lob. vil. and prickly on both sides, Pedunc. and cal. unarmed
2576 Stem prickly, Lvs. cord. angular toment. with the racemes and calyxes prickly, Ber. hairy cov. by calyx
2577 Stem prickly, Leaves smoothish lobed obtuse prickly, Peduncles in pairs
2578 Stem prickly, Leaves 3-lobed obtuse smooth, Flowers racemose violet
2579 Stem prickly, Leaves ovate oblong tomentose sinuate angular acuminate, Racemes simple ax
2780 Stem prickly, Leaves oblong acute sinuate pinnatifid downy, Prickles straight scarlet
2581 Stem erect prickly, Lvs. pinnat. sinuated prickly on both sides, Segm. sinuated obtuse, Racemes prickly
2582 Stem decumbent diffuse prickly, Leaves sinuate pinnatifid prickly on both sides smooth, Calyxes prickly

§ 7. *Prickly. Leaves pinnatifid or bipinnatifid, Berries covered by the enlarged and prickly calyx.*
2583 Stem villous prickly, Lvs. pinnatifid, Segm. acute sinuate toothed, Racemes cymose lateral and terminal
2584 Stem shrubby rounded prickly, Leaves bipinnatifid prickly on both sides villous

2585 Leaves cordate entire, Racemes divided, Cal. unarmed
2586 Leaves elliptical sinuate tomentose, Flowers several large terminal
2587 Stem and leaves prickly, Leaves ovate pinnatifid hairy on both sides
2588 Stem woody prickly hairy, Leaves deeply pinnatifid, Anthers small

2589 Fruit oblong pendulous and erect their stalks smooth, Stem herbaceous
2590 Fruit globose pendulous, Stalks smooth, Stem shrubby
2591 Fruit globose ovate erect in pairs, Stalks smooth, Stem shrubby
2592 Fruit ovate pendulous in pairs, Stalks pubescent, Stem shrubby
2593 Fruit oblong ovate subcompressed erect, Stalks smooth, Stem herbaceous
2594 Fruit oblong obtuse, Stalks smooth, Stem erect
2595 Fruit oblong mucronate, Stalks smooth, Stem shrubby
2596 Fruit globose, Stalks smooth, Stem shrubby
2597 Fruit oblong, Stalks pubescent, Stem shrubby
2598 Fruit oblong acuminate incurved, Stalks smooth, Stem herbaceous
2599 Fruit heart-shaped, Stem herbaceous
2600 Fruit very large angular obtuse, Stem herbaceous
2601 Fruit heart-shaped angular, Stem herbaceous
2602 Fruit ovate conical erect, Stem half shrubby
2603 Leaves linear lanceolate, Fruit pyramidal erect yellow, Stem shrubby
2604 Fruit ovate erect, Footstalks and leaves pubescent, Teeth of the calyx 5 subulate spreading
2605 Young stalks ciliated, Berries erect globose
2606 Leaves ovate acuminate, Stalks ciliated, Cal. obtuse



and Miscellaneous Particulars.

ripe, dried in the sun, pounded and mixed with salt: it is then kept stopt in bottles, and is commonly known by the name of Cayenne-pepper. A mixture of sliced cucumbers, shallots or onions cut very small, a little lime juice and Madeira wine, with a few pods of bird pepper, well mashed and mixed with the liquor, seldom fails to provoke the most languid appetite in the West Indies. It is there called Man-dram Gathered fresh from the plant, the pods of all the species are liberally used both in the East and West Indies, to assist digestion and correct flatulencies.

C. frutescens and minimum, the latter by many considered only a variety of the former, low shrubs with an oval red berry more sharp and biting than any of the others, furnish the Cayenne pepper of the shops. The ripe pods are dried in the sun, and then in an oven after bread is baked, in an earthen or stone pot, with flour between the strata of pods. When quite dry they are cleaned from the flour, and beaten or ground to fine powder. To every ounce of this, a pound of wheat flour is added, and it is made into small cakes with leaven; these are baked, cut into small pieces, baked again that they may be as dry and hard as biscuit, and then are beaten into powder and sifted. It is then fit for use as a pepper, or for being packed up, in a compressed state, and so as to exclude air, for exportation.

C. annuum, *Piment*, Fr., *Spanischer Pfeffer*, Ger., *Peberone*, Ital., is cultivated for its fruit, which is used in a green state for pickling, and ripe for mixing with other ingredients, as Tomatos, &c. to form sauces. They are also dried and ground, and used like Cayenne pepper. The seed is sown in the end of March or beginning of April on a moderate hot-bed, and covered a quarter of an inch. When the plants are two or three inches in growth, some are transplanted into a new slight hot-bed to forward them for final planting; or in default of such a hot-bed, they are placed in a bed of light rich earth, from twelve to eighteen inches apart, where they are finally to remain in the end of May, and protected during night by mats. They will flower in July, and

454. LEE'A. *W.*	Leea.							*Meliaceæ.*	*Sp.* 4—6.			
2607 sambucina *W.*	Elder-leaved	♣	□	cu	10	...	W	E. Indies	1790.	C	l.p	Cav. dis. 7. t. 218
2608 æquáta *W.*	shrubby	♣	□	cu	10	...	G	E. Indies	1777.	C	l.p	
2609 crispa *L.*	curled	♣	□	cu	3	o	W	C. G. H.	1767.	C	l.p	Bot. rep. 355
2610 macrophýlla *Roxb.*	long-leaved	♣	□	cu	4	o	G	E. Indies	1806.	C	l.p	
455. SPERMADICTYON. *Roxb.*	Spermadictyon.							*Rubiaceæ.*	*Sp.* 1—2.			
2611 suavéolens *Roxb.*	sweet-scented	♣	□	or	4	o	W	E. Indies	1818.	C	l.p	Bot. reg. 348
456. DENTEL'LA. *W.*	Dentella.							*Rubiaceæ.*	*Sp.* 1.			
2612 répens *W.*	creeping	♣	□	or	½	jl	W	N. Holl.	1802.	S	co	Lam. ill. t. 118
457. MACROCNE'MUM. *W.*	Macrocnemum.							*Rubiaceæ.*	*Sp.* 2—6.			
2613 jamaicénse *W.*	Jamaica	♀	□	or	14	...	W	Jamaica	1806.	C	p.l	Sw. obs.68.t.3.f 1
2614 strictum *Roxb.*	upright	♣	□	or	10	...	W	E. Indies	1804	C	p l	
458. EXOSTEM'MA. *Rich.*	Exostemma.							*Rubiaceæ.*	*Sp.* 2—12			
2615 caribæ'um *W.*	caribæan	♀	□	or	20	jn.s	W	W. Indies	1780.	C	l.p	Bot. rep 481
2616 floribúndum *W.*	many-flowered	♀	□	tm	40	...	W	W. Indies	1794.	C	l.p	Lamb. cin. 27.t.7
459. BURCHEL'LIA. *R. Br.*	Burchellia.							*Rubiaceæ.*	*Sp.* 1.			
2617 bubalina *R. Br.*	Cape	♣	⊔	or	3	my.ju	S	C. G. H.	1818.	C	r.m	Bot. mag. 2339
460. RONDELE'TIA. *W.*	Rondeletia.							*Rubiaceæ.*	*Sp.* 3—18.			
2618 americana *W.*	American	♣	□	or	10	au	W	W. Indies	1752.	C	s.p	Plu. ic. t. 242. f 1
2619 lævigáta *H. K.*	smooth-leaved	♣	□	or	12	jl.au	W	W. Indies	1790.	C	s.p	
2620 hirta *H. K.*	hairy	♣	□	or	10	jn.au	Pk	Jamaica	1776.	C	s.p	Bot. cab. 250
461. COUTARE'A. *Aub.*	Coutarea.							*Rubiaceæ.*	*Sp.* 1.			
2621 speciósa *Aub.* *Portlandia hexandra* W.	laurel-leaved	♣	□	or	12	...	Pu	Guiana	1803.	C	s.p	Aub. gui. t. 122
462. PORTLAN'DIA. *W.*	Portlandia							*Rubiaceæ.*	*Sp.* 2.			
2622 grandiflóra *W.*	great-flowered	♣	□	or	12	jn.au	W	Jamaica	1775	C	s.p	Bot. mag. 286
2623 coccinea *P. S.*	scarlet	♣	□	or	3	...	S	Jamaica	1812.	C	s.p	
463. CAMPA'NULA. *W.*	Bell-Flower.							*Campanulaceæ.*	*Sp.* 75—240.			
2624 ciliata *W.*	ciliated	♃	△	or	½	jn.jl	B	Switzerl.	1775.	R	co	All ped.1. t.6.f 2
2625 microphýlla *Kit.*	small-leaved	♃	△	or	½	jn.jl	B	Hungary	1820	R	co	
2626 Bellárdi *All.*	Bellardi's	♃	△	or	½	jn.jl	B	Italy	1813.	R	co	All.ped.1.t.85.f.5
2627 púlla *W.*	russet	♃	△	or	½	jn.jl	B	Austria	1779.	R	co	Bot cab 554
2628 Zoysii *W.*	blunt-leaved	♃	△	or	½	jn.au	D	Carniola	1813.	D	co	Jac ic 2. t. 334
2629 carpática *W.*	Carpathian	♃	△	or	½	jn.au	B	Carp. Alps	1774.	D	p l	Bot. mag. 117
2630 rotundifólia *E. B.*	round-leaved	♃	△	or	½	jn au	B	Britain	hea.	D	p l	Eng. bot. 866
2631 pusilla *Hanke.*	diminutive	♃	△	or	½	jn jl	P . B	Switzerl.	1821.	R	co	Bauh. pr. 34 t 34
2632 púmila *B. M.*	dwarf	♃	△	or	½	jn au	B	Switzerl.	...	D	p l	Bot. mag. 512
2633 pubéscens *W.*	pubescent	♃	△	or	1	jn au	B	Bohemia	1813.	D	co	
2634 grácilis *R. Br.*	slender	♃	♂	or	1	ap au	B	N. S. W.	1794.	R	co	Bot mag 691
2635 Scheuchzéri *Vill.*	Scheuchzer's	♃	△	or	¾	jn.au	B	Europe	1813.	D	co	Bot. cab 485
2636 pátula *W.*	spreading	♃	♂	or	1	jl.au	V	Britain	past.	S	p.l	Eng. bot. 42
2637 Rapúnculus *W.*	Rampion	♃	♂	cul	3	jl.au	Pu	Britain	hed. b.	S	r.m	Eng. bot. 283
2638 persicifólia *W.*	Peach-leaved	♃	△	or	3	jl s	B	Europe	1596.	D	p l	Fl. dan. 1087
β *máxima*	*large-peach-lvd*	♃	△	or	3	jl s	B	Europe	1596.	D	p l	Bot. mag. 397
2639 pyramidális *W.*	pyramidal	♃	△	or	4	jl.s	Pa.B	Carniola	1596.	D	p.l	
2640 obliqua *W. en.*	oblique	♃	♂	or	3	jn.jl	B	......	1813.	D	p l	Jac. sch. 3. t. 326
2641 americána *W.*	American	♃	♂	or	1	jl	B	Pensylv.	1763.	C	s.l	

History, Use, Propagation, Culture,

produce plenty of pods from August till the end of September. They may be also raised under hand-glasses, and in very warm situations treated as common annuals. C. cerasiforme is sometimes cultivated for the same purposes as the common capsicum.

454. *Leea.* Named after the first James Lee, of the Hammersmith Nursery, an excellent cultivator and most worthy man. The plants have little more beauty than a hemlock. Cuttings root easily under a hand-glass in heat.

455. *Spermadictyon.* From σπερμα, seed, and δικτυον, a net, on account of the manner in which the seeds cover the placenta. A pretty stove plant with sweet white flowers.

456. *Dentella.* A diminution of *dens*, a tooth; the divisions of the corolla having each three little teeth.

457. *Macrocnemum.* From μακρος, long, and κνημα, a stamen.

458. *Exostemma.* From εξ, out, and στεμμα, a crown, in allusion to the protrusion of the stamens; one of the characters on account of which the genus has been separated from Cinchona.

The genus Cinchona, which was so named after the Countess of Cinchon, who being cured by the use of this plant, first brought it into notice, is very nearly related to this, and is a most important genus, as furnishing the Peruvian or Jesuit's bark. The bark is taken from various species; but that which produces the best is said to be C. officinalis, a native of Peru, and not yet introduced to this country. The Jesuit's bark tree of Jamaica is the Exostemma caribæum, but land there is too valuable for its culture. Our species are not very common in collections, being of slow growth, and not very easily propagated. Sweet

2607 Stem furrowed angular smooth, Leaves nearly bipinnate
2608 Stem rounded pubescent, Leaves pinnated
2609 Stem angular fringed, Leaves pinnated
2610 Stem angular, Stalks smooth, Leaves broad ovate serrated

2611 Leaves opposite ellipt. Flowers terminal in umbels

2612 Stem creeping much branched smooth, Leaves stalked opposite oval flat entire

2613 Corymbs axillary long naked
2614 Leaves elliptical acute opposite, Flowers whorled sessile

2615 Peduncles axillary and terminal 1-flowered, Leaves ovate lanceolate
2616 Flowers terminal panicled smooth, Caps. terminal smooth, Leaves elliptical acuminate smooth

2617 The only species. A fine plant with tubular red flowers like a honeysuckle

2618 Leaves sessile, Panicle dichotomous
2619 Leaves stalked elliptical acute smooth
2620 Leaves oblong acuminate hairy rigid nerved beneath, Stalks axillary erect

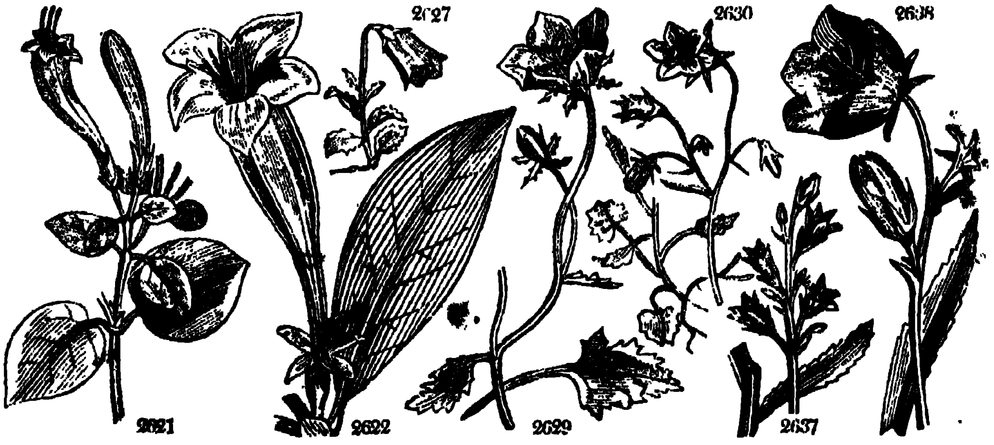
2621 The only species. An hexandrous plant

2622 Flowers pentandrous, Leaves lanceolate elliptical
2623 Flowers pentandrous, Leaves ovate coriaceous

§ 1. *Leaves smooth.*

2624 Stems 1-flowered, Leaves ovate smooth subciliated
2625 Lower leaves obovate wedge-shaped crenate, Upper linear entire, Stem simple 1-flowered
2626 Stem 1-flowered naked, Leaves stalked elliptical lanceolate deeply toothed
2627 Little stems 1-flowered, Radical and cauline leaves ovate subcrenate, Cal cernuous
2628 Stems about 3-fl. Lvs. entire, the rad. ov on long stalks, the cauline obl. ov. sessile obtuse, Fls. nodding
2629 Lvs. all cordate serrate stalked smooth, Branches filiform 1-flow. Cal reflex glutinous, Cor. spreading
2630 Smooth, Radical leaves oblong and kidney-shaped serrate : cauline linear entire
2631 Smooth, Leaves all serrate : radical cordate ovate firm shining ; cauline linear alternate remote
2632 Radical leaves ovate crenate with flattened stalks, Flowers racemose [illegible] cernuous
2633 Stem hairy decumb. angular, Lvs. stalk. ser. smooth, rad. cordate, lower cauline ovate, Cor. short large
2634 Stem filiform angular striated, Branches about 1-flowered, Leaves lanceolate or linear, Flowers 5-cleft
2635 Pubescent, Lvs. rather hairy : rad. obov. rounded serrated ; cauline clustered lin. entire, Sepals setaceous
2636 Leaves upright : radical lanceolate-oval, Panicle spreading
2637 Leaves wavy : radical lanceolate-oval, Panicle contracted
2638 Stem angular, Lvs. stiff obsoletely crenate serrate : rad. obl. obovate ; cauline lanc lin. Flow. large

2639 Lvs. smooth ov. cord. cartilaginous-serrated, the caul. lanc. Stem upright elong branch. Lower ped. 3 fl.
2640 Lvs. obl. lanc. point. at each end serr. with veins hairy beneath, Stem erect, Rac. term Seg of cor. obliq.
2641 Lvs. cord. and lanc. serr. lower stalks ciliated, Fls. axill. sessile, Cor. 5-parted flat, Style longer than cor



advises cuttings to be "taken off when ripe, planted in a pot of sand, plunged in moist heat, and covered with a bell-glass."

459. *Burchellia.* Named by Mr. Robert Brown, after William Burchell, a traveller in the southern part of Africa, from whom we have two volumes of travels, and the promise of other works hereafter. The species is a beautiful dwarf shrub with scarlet flowers in terminal clusters.

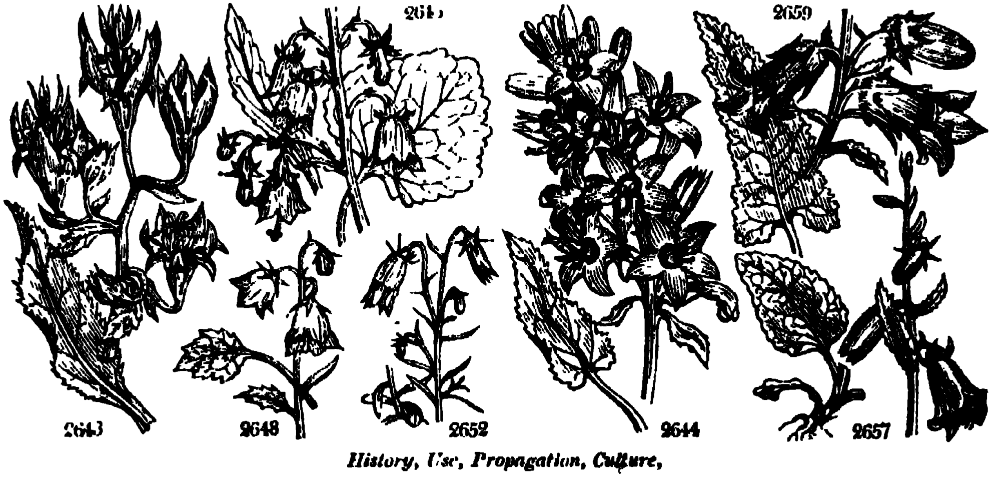
460. *Rondeletia.* Plumier established this genus in memory of William Rondelet, a scientific physician, whose attention was chiefly occupied by fishes and algæ. He was born in 1507, and died in 1566. Rabelais ridicules him under the name of Rondibilis. He is said to have given a disgusting proof of his fondness for anatomy by dissecting his own son.

461 *Coutarea.* So named by Aublet from its vernacular name in Guiana, *Coutari.* A most beautiful plant, requiring the utmost heat of the stove; but very rare in gardens, if it indeed exists in cultivation at all now.

462. *Portlandia.* In honor of the Duchess of Portland, once a famous patroness of botany. Splendid plants of the natural order Rubiaceæ. Portlandia grandiflora is common and easily grown. P. coccinea is perhaps not in the country, although stated to have been introduced in 1775.

463. *Campanula.* A diminution of *campana,* a bell ; on account of the form of the corolla, which resembles a little bell. Rapunculus is a diminution of *rapa,* a radish, in allusion to the nature of its root. C. speculum is so called because the corolla in its form resembles a little round and elegant mirror (speculum), whence in

2642	nítida *W.*	smooth-leaved	♃	△	or	½	jl	W	N. Amer.	1731.	D	p.l	Dod. me. 4. t.111
2643	aúrea *W.*	golden-flowered	■	⊔	or	3	jl.s	Y	Madeira	1777.	S	s.p	Bot. reg. 57
2644	versícolor *H. K.*	various-colored	♃	△	or	4	jl.s	St	Greece	1788.	D	s.l	Bot. rep. 396
2645	liliifólia *W.*	Lily-leaved	♃	△	or	2	my.s	Pa.B	Siberia	1784.	D	p.l	Bot. reg. 236
2646	stylósa *Lam.*	long-styled	♃	△	or	1½	my.jn	Pa.B	Siberia	1820.	R	co	Gmel. sib. 3. t. 27
2647	grandiflóra *W.*	great-flowered	♃	△	or	1	jn.au	B	Siberia	1782.	D	p.l	Bot. mag. 252
2648	rhomboídea *W.*	Germander-lvd.	♃	△	or	2	jl	Pa.B	Switzerl.	1775.	D	p.l	Bot. cab. 603
2649	verticilláta *W.*	whorled	♃	△	or	2	jn	L.B	Siberia	1783.	D	s.l	Pal. it. 3. t.G. f.1
2650	marsupiiflóra *Fisch.*	cernuous	♃	△	or	1½	jn.jl	Pa.B	......	1818.	R	co	
2651	Lobelioídes *W.*	small-flowered		○	or	1	jl.au	W.P	Madeira	1777.	S	s.l	
2652	excísa *Schl.*	bitten	♃	△	or	½	my.jn	B	Switzerl.	1820.	R	co	Bot. cab. 561
2653	latifólia *W.*	giant	♃	△	or	4	jl	Pu	Britain	s. m. p.	S	p.l	Eng. bot. 302
2654	eriocárpa *Bieb.*	woolly-fruited	♃	△	or	2	jn.jl	B	Caucasus	1823.	R	co	
2655	urticifólia *W.*	Nettle-leaved	♃	△	or	3	au	Pu	Germany	1800.	D	co	
2656	Trachélium *W.*	Throatwort	♃	△	or	4	jn.au	V	Britain	woods.	D	p.l	Eng. bot. 12
2657	Rapunculoídes *W.*	creeping	♃	△	or	3	jn.jl	B	England	woods.	D	p.l	Eng. bot. 1369
2658	macrostáchya *Panz.*	large-spiked	♃	⦶	or	1½	jn.jl	B	Hungary	1814.	S	co	
2659	sarmática *B. Reg.*	Betony-leaved	♃	△	or	2	jn.au	Pa.B	Siberia	1803.	D	co	Bot. reg. 237
2660	bononiénsis *W*	panicled	♃	△	or	2	au.s	B	Italy	1773.	D	co	M.h.2.s.5.t.4.f.38
2661	ruthénica *W. en.*	Russian	♃	△	or	2	jn.au	B	Caucasus	1815.	D	co	Bot. mag. 2653
2662	glomeráta *W.*	clustered	♃	△	or	2	my.s	V	Britain	ch. pl.	D	p.l	Eng. bot. 90
2663	speciósa *Horn.*	showy	♃	△	or	2	my.jn	Pu	Siberia	1824.	R	co	
2664	Cervicária *W.*	wave-leaved		⦶	or	3	jl	L.P	Germany	1768.	S	s.p	Bot. cab. 452
2665	collína *B. M.*	Sage-leaved	♃	△	or	1	jl.au	B	Caucasus	1803.	D	p.l	Bot. mag. 927
2666	azúrea *B. M.*	azure	♃	△	or	1½	jn.jl	L.B	Switzerl.	1778.	D	p.l	Bot. mag. 551
2667	lactiflóra *Bieb.*	milk-colored	♃	△	or	2	jl.s	W	Siberia	1814.	C	s.p	Bot. reg. 241
2668	aggregáta *W. en.*	crowded-flower.	♃	△	or	2	jl.s	Pa.B	Bavaria	1817.	C	s.p	Bot. cab. 505
2669	thyrsoídea *W.*	long-spiked		⦶	or	2	jn.au	B	Switzerl.	1785.	S	s.p	Bot. mag. 1290
2670	peregrína *W.*	rough-leaved	♃	⊔⦶	or	2	jn.au	B	C. G. H.	1794.	S	p.l	Bot. mag. 1257
2671	cérnua *Th.*	nodd.-flowered	♃	⊔⦶	or	½	jn.au	W	C. G. H.	1804.	S	p.l	
2672	capénsis *W.*	Cape		⊔○	or	1	jn.au	B	C. G. H.	1803.	S	s.p	Bot. mag. 782
2673	barbáta *W.*	bearded	♃	△	or	1½	jn.jl	L.B	Italy	1752.	R	p.l	Bot. mag. 1258
2674	punctáta *W.*	dotted-flowered	♃	△	or	1	my.jn	W	Siberia	1813.	D	co	Bot. mag. 1723
2675	Médium *W.*	Canterb.-bells	♃	⦶	or	4	jn.s	B	Germany	1597.	S	co	Knor. th. 1.t.G.2
2676	longifólia *La Peyr.*	long-leaved	♃	△	or	4	jn.s	D.B	Pyrenees	1820.	R	co	La peyr. pyr. t.6
2677	spicáta *W.*	spiked	♃	⦶	or	1	jl	B	Switzerl.	1786.	S	s.p	All. p. 1. t. 46. f.2
2678	alpína *W.*	alpine	♃	△	or	1½	jl		Switzerl.	1779.	D	p.l	Bot. mag. 957
2679	móllis *W.*	soft	♄	⊔△	or	1	my.au	Pu	Sicily	1788.	C	s.l	Bot. mag. 404
2680	saxátilis *W.*	rock	♄	⊔△	or	1	my.au	B	Candia	1768.	D	p.l	Barr. ic. 79. t.813
2681	alliariæfólia *W*	Alliaria-leaved	♃	△	or	1	jl.s	B	Caucasus	1803.	C	p.l	Bot. mag. 912
2682	lamiifólia *Bieb.*	Nettle-leaved	♃	△	or	3	jn.jl	Pa.Y	Iberia	1823	R	co	Buxb. cen. 5. t 18
2683	sibírica *W.*	Siberian	♃	⦶	or	1	jl.s	B	Siberia	1783.	C	s.p	Bot. mag. 659
2684	divérgens *W. en.*	spreading	♃	⦶	or	1½	jn.jl	B	Hungary	1814.	S	s.l	Sweet fl. g. 256
2685	linguláta *W. en.*	tongue-leaved	♃	△	or	1	jl.au	V	Hungary	1804.	D	co	Pl. rar. hun. t 64
2686	caucásica *Bieb.*	Caucasian	♃	△	or	¾	jl.au	V	Caucasus	1804.	D	co	
2687	laciniáta *W.*	jagged-leaved	♄	⊔△	or	2	my.au	S.B	Greece	1788.	D	p.l	Bot. rep. 385
2688	coronáta *B. Reg.*	crowned	♃	△	or	2	jl	B	Siberia	1815.	D	s.l	Bot. reg. 149
2689	cichorácea *Sibl.* *capitáta* B. M	headed	♃	△	or	2	jn.jl	B	Greece	1768.	D	co	Bot. mag. 811
2690	lanuginósa *W. en.*	woolly-leaved	♃	⦶	or	2	my.au	B	......	1814.	S	s.l	
2691	Erínus *W. en.*	forked		○	or	½	jl.au	Pa.B	S. Europe	1768.	S	s.l	M. h. s. 5. t.3. f 25
2692	hederácea *W.*	Ivy-leaved	♃	△	or	½	my.jn	B	England	m.s.p.	D	co	Eng. bot. 73



History, Use, Propagation, Culture,

English it is called Venus' looking-glass. Ancient mirrors were always round, on which account the astrological sign of Venus was ♀, or a figure of the antique mirror and its handle. This is a shewy genus; some of the species are beautiful, and all of them of easy culture in the borders of the flower garden or shrubbery. One or two species are used in dietetics, and probably the roots of the whole might be eaten. Almost all the species have long thick white roots, which abound in an acrid milky juice.

C. rapunculus is much cultivated in France and Italy, and sometimes in Britain, for the roots, which are boiled tender and eaten hot with sauce, or cold with vinegar and pepper. It is sown in Spring on deep light soil in drills, and will be ready for use by the autumn of the same year. *C. persicifolia* and *Rapunculoides* may also be cultivated for the same purpose.

C. pyramidalis was a very fashionable plant thirty years ago, and is still cultivated, but has given way to *Lobelia splendens* and *fulgens*. It is still in demand in Holland as an ornament to halls, staircases, and for being placed before fire-places in the summer season; for which purpose it is planted in large pots, and trained in the fan manner, so as to cover a large surface. In the shade it will continue in flower for two or three

2642 Leaves oblong crenulate rigid sessile, Flowers erect flat
2643 Caps. 5-celled, Leaves elliptical serrate smooth, Flowers panicled 5-parted, Stems shrubby fleshy
2644 Leaves cordate serrate smooth, Thyrse terminal, Sepals subulate, Corolla rotate spreading
2645 Leaves lanceolate: cauline acutely serrated, Flowers panicled nodding
2646 Leaves stalked subcordate acutely serrated, Flowers small nodding, Style exserted
2647 Leaves ternate oblong finely serrated, Stem 1-flowered, Flower spreading
2648 Leaves rhomboidal serrated, Spike one-sided, Cal. toothed
2649 Leaves about 6 lanceolate toothed, Flowers whorled [very long
2650 Stem erect, Lvs. altern. opp. and ternate lin. lanc. entire, Pan. pyram. Flowers cernu. glob. trunc. Style
2651 Stem branched upright twiggy, Lvs. lin. lanc. toothed, Pedunc. filiform long, Cor. funnel-shaped 3-4-cleft
2652 Smooth, Stem 1-fl. Lower lvs. obl. cauline lin. subsetaceous, Cor. cernuous with the bott. of seg. cut out

§ 2. *Leaves rough.*

2653 Stem rounded striated smooth, Lvs. ovate lanc. doubly serrated, Pedunc. axillary 1-fl. erect, Cal. smooth
2654 Stem furrowed pubescent, Leaves ovate-lanceolate doubly serrate, Pedunc. axillary solitary, Cal woolly
2655 Stem angular hispid, Lvs. ov. lanc. coarsely serrated, Pedunc. axillary 1-flowered cernuous, Cal. hispid
2656 Stem angular, Leaves stalked, Cal. ciliated, Peduncles trifid
2657 Leaves cordate-lanceolate, Stem branched, Flowers one-sided scattered nodding, Cal. reflexed
2658 Leaves oblong unequally toothed rough beneath, Stem panicled, Bractes and calyx ciliated
2659 Leaves downy: lower cord. lanc. stalked, Flower nodding, Germens woolly
2660 Leaves ovate lanceolate beneath scabrous sessile, Stem panicled [very long
2661 Stem rounded and lvs. beneath tomentose, Lower lvs. cordate lanc. stalked, upper sessile, Raceme term.
2662 Stem angular simple smooth, Leaves scabrous oblong lanceolate cordate sessile, Head clustered
2663 Stem angular subsimple hispid, Rad. lvs. ovate cordate stalked: cauline cordate sessile, Flowers clustered
2664 Hispid, Flowers sessile, Head terminal, Leaves lanceolate linear wavy
2665 Stem simp. few-fl. Lvs. hairy, lower cord. lanc. stalked, upper obl. sessile, Flowers nodding, Cal. hispid
2666 Leaves ovate-oblong sessile serrated, Stem simple angular, Flowers panicled
2667 Leaves lanc. twin serr. and branched stem hispid, Flowers panicled, Calyxes hispid, Seg. dilated serrated
2668 Stem angular smooth, Caul. leaves sessile equally toothed wavy lanceolate, Floral cordate, Cor. tubular
2669 Hispid, Raceme ovate oblong terminal, Stem quite simple, Leaves linear lanceolate
2670 Leaves ovate rugose, Leafstalks with a dilated and serrated edge, Stem simple hispid, Flowers spreading
2671 Leaves oblong waved hairy, Flowers terminal cernuous, Cal. smooth
2672 Leaves lanceolate toothed hispid, Pedunc. very long 1-flowered with strigose capsules

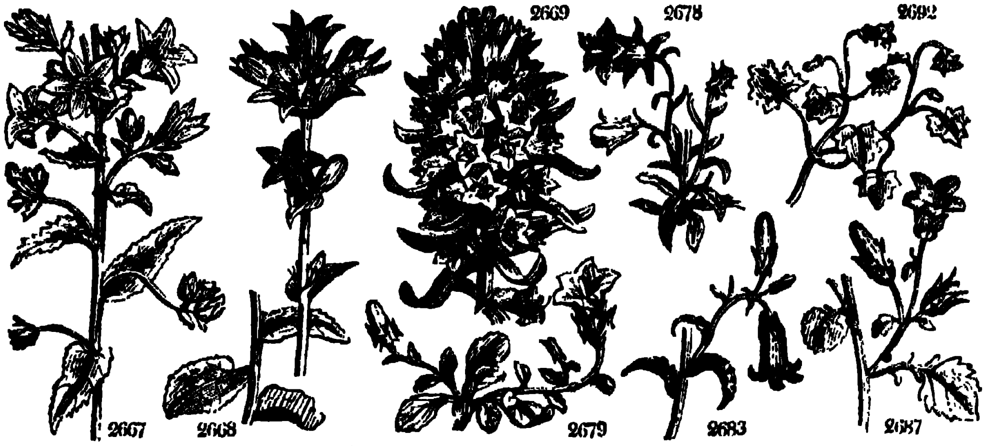
§ 3. *Capsules covered by the reflexed recesses of the calyx.* Medium.

2673 Stem simple erect pubescent, Lvs. lanc. crenate, Racemes simple with nodd. flowers, Cor. bearded inside
2674 Hairy, Radical leaves stalked ovate acute serrate, Flowers cernuous dotted inside villous
2675 Stem undivided erect hispid. Leaves lanceolate obtusely serrated sessile 3-nerved at base, Flowers erect
2676 Hispid, Caps. 5-celled, Branches pyramidal, Peduncles axillary, Flowers erect solitary
2677 Hispid, Spike lax, Flowers alternate, Leaves linear entire
2678 Stem simple, Pedunc. axillary 1-flowered 2-leaved
2679 Caps. 5-celled covered stalked, Stem prostrate, Leaves very soft nearly round
2680 Caps. 5-keeled covered, Flowers alternate nodding, Leaves obovate crenate
2681 Radical leaves reniform coarsely doubly serrate: cauline ovate toothed sessile
2682 Leaves reniform cordate doubly crenate stalked tomentose beneath, Flowers one-sided reflexed
2683 Stem panicled pubescent, Leaves lanceolate obtuse wavy
2684 Stem simple diverging pubes. Lvs. lanc. obtusely serrated sessile veiny, Pedunc. axill. 3-fl. and terminal
2685 Hispid, Stem simple, Flowers capitate terminal, Leaves lanceolate obtuse crenate
2686 Lvs. obovate wavy rough, Stem creeping, Branches erect few-flow Segm. of the hispid cal. nearly equal
2687 Caps. stalked, Leaves serrated: radical lyrate; cauline lanceolate nearly wedge shaped
2688 Radical leaves stalked cord. doubly serr. Raceme few-flowered lax
2689 Caps. covered, Leaves oblong wavy hispid; radical sinuated, Flowers clustered sessile terminal

2690 Leaves woolly: radical lyrate; cauline rounded ovate serrate, Flowers cernuous

§ 4. *Corolla in some degree unequal, Stigma nearly simple, Capsule opening at the end.*

2691 Stem dichotomous, Leaves sessile, the upper opp. 3-toothed
2692 Leaves cordate 5-lobed stalked smooth, Stem lax



and Miscellaneous Particulars.

months. The art of producing a very large plant is to begin with pots of a small size, and shift frequently during two years, till at last the plant occupies a pot of a foot or more in diameter. Rich light soil should be used, but no animal manures or recent dung, as these are found very injurious. Cuttings of the roots flower the second, and seedlings the third year. C. carpatica and grandiflora may be treated in a similar manner.

C. lilifolia has a singular anomaly in the leaves, which before the panicle is produced come out in a kind of rose on the summit of the stem, but are, through its prolongation, afterwards dispersed. The flowers vary much both in size and color, and the roots are eaten in China both raw and boiled.

C. glomerata is a handsome rock or pot plant; it requires a dry lean soil, otherwise, as in most plants, the flowers lose the intensity of their color in that which is very rich.

C. hederacea is a very small plant, with the leaves so much resembling those of Veronica hederifolia, that Linnæus suspected it to be a hybrid.

C. medium is a very ornamental border flower of the easiest culture, and with varieties, double and single,

2693	fruticosa *W.*	shrubby	♣ ⊔ or	1	au	B	C. G. H.	1787.	S	p.l	
2694	Prismatocárpus *W.*	shining	✱ ○ or	½	my.au	B	C. G. H.	1787.	S	s.l	L'Her. s.an 2.t.3
2695	Spéculum *W.*	Venus' Look.-gl.	✱ ○ or	1	my.au	Pu	S. Europe	1596.	S	s.l	Bot. mag. 102
	β *alba*	*white*	✱ ○ or	1	my.au	W					
2696	hýbrida *W.*	corn	✱ ○ or	1	my.au	Pu	England	cha. fi.	S	s.l	Eng. bot. 375
2697	pentagónia *W.*	five-angled	✱ ○ or	1	my.au	B p	Turkey	1686.	S	s.l	Bot. reg. 56
2698	perfoliáta *P. S.*	perfoliate	✱ ○ or	1	my.au	Pu	N. Amer.	1680.	S	s.l	M.h.2.s.5.t.2.f.23
464.	LOBE'LIA. *W.*	LOBELIA.			*Campanulaceæ.*	*Sp.* 46—170.					
2699	simplex *W.*	simple-stalked	♃ [○] or	½	my.au	B	C. G. H.	1794.	C	l.p	
2700	lineáris *W.*	linear-leaved	♣ ⊔ or	1	...	B	C. G. H.	1791.	C	l.p	
2701	pinifólia *W.*	Pine-leaved	♣ ⊔ or	1½	my.au	V	C. G. H.	1752.	S	s.p	Bot. rep. 273
2702	unidentáta *H. K.*	single-toothed	♃ [△] or	½	my.au	V	C. G. H.	1794.	R	l.p	Bot. mag. 1484
2703	Dortmánna *W.*	water	≛ △ or	1½	jl.au	B	Britain	lakes.	R	l.p	Eng. bot. 140
2704	salicifólia	willow-leaved	♣ ⊔ p	6	jn.au	S	Chili	1794.	R	s.p	Bot. mag. 1325
	Túpa H. K. *gigantéa* B. M.										
2705	Kálmii *L.*	Kalm's	○ or	1	jl.au	B	Carolina	1820.	S	co	Bot. mag. 2238
2706	racemósa *B M.*	racemose	♣ ⊔ or	5	jl.au	G	W. Indies	1818.	C	co	Bot. mag. 2137
2707	bellidifólia *W.*	Daisy-leaved	♃ [△] or	½	my.au	B	C. G. H.	1790.	C	s.p	
2708	triquetra *W.*	triangular	♃ [△] or	1	my.au	B	C. G. H.	1774.	C	s.p	
2709	longiflóra *W.*	long-flowered	♃ [⊼] or	1	my.au	W	Jamaica	1752.	S	s.p	Jac. vind. 1. t. 27
2710	secúnda *W.*	side-flowering	♃ [△] or	½	my.au	W	C. G. H.	1790.	S	s.p	
2711	goodenioides *H. K.*	Goodenia-like	⚘ △ or	1½	jn.au	Pa B	N. Amer.	1799.	D	s.l	Will. hor. ber.30
2712	assur'gens *W.*	purple	♣ ⊔ or	3	jn o	S	W. Indies	1787.	C	s.p	Bot. rep. 553
2713	fúlgens *W. en.*	fulgent	⚘ △ or	3	my.s	S	Mexico	1809.	C	s.p	Bot. rep. 659
2714	verbascifólia *Sm.*	Mullein-leaved	⚘ △ or	6	my.jn	R	Nepal	1822.	D	r.m	
2715	cardinális *W.*	Cardinal-flower	⚘ △ or	3	my.s	S	Virginia	1629.	C	s.p	Bot. mag. 320
2716	spléndens *W. en.*	splendid	⚘ △ or	3	my.s	S	Mexico	1814.	C	s.p	Bot. reg. 60
2717	débilis *W.*	feeble	[○] or	1	jl.au	B	C. G. H.	1774.	S	s.p	
2718	aláta *R. Br.*	winged-stalked	♃ [△] or	1½	my.au	B	N S W.	1804.	S	s.p	La. no.hol. 1.t.72
2719	siphilitica *W.*	blue-cardinal	⚘ △ or	2	au.o	L B	Virginia	1665.	C	s.p	Bot. reg 537
2720	surinaménsis *W.*	shrubby	♣ ⊔ or	2	ja jl	O	W. Indies	1786.	C	s.p	Bot mag. 225
	β *rubra*	*red*	♣ ⊔ or	2	ja.jl	R	W. Indies	1820.	C	s.p	Bot. cab. 749
2721	grácilis *R. Br.*	slender	[○] or	1	jl.o	D.B	N. S W.	1801.	S	s.p	Bot. mag. 741
2722	purpuráscens *R. Br.*	purplish	♃ [△] or	1	jn.au	B	N. S W.	1809.	D	s.p	
2723	infláta *W.*	bladder-podded	○ cul	1½	jl.au	L B	N. Amer.	1759.	S	s.p	Li.ac.up.1741,t.1
2724	cliffortiána *W.*	purple-flowered	○ or	1½	jl.au		N. Amer.	1733.	S	s.p	Li. h. cl. 426. t.26
2725	micrántha *Hook.*	small-flowered	○ cu	½	jl.au	[illegible]	Nepal	1822.	S	s p	Hook. ex. fl. 44
2726	úrens *W.*	acrid	⚘ △ cul	1½	jn jl	B	England	hea.	S	s l	Eng. bot. 953
2727	amœ'na *Mich.*	beautiful-blue	⚘ △ or	3	jn.au	B	N. Amer.	1812.	D	s.l	Ann. mus 18.t.1
2728	minúta *W.*	small	♃ [△] cul	1in	jn.s	W	C. G. H.	1772.	R	s p	Bot. mag. 2077
2729	Lauréntia *W.*	Italian	[○] or	½	jl	B	Italy	1778.	S	s.p	Mich. ge. 18.t.14
2730	tenélla *Biv.*	slender	⚘ △ or	½	my.jl	P v	Sicily	1821.	D	co	
2731	campanuloides *Th.*	chinese	♃ [⊼] or	½	my au	W	China	1820.	D	co	Bot. reg. 733
2732	Erinus *W.*	ascending	♃ [△] or	½	jn s	B	C. G. H.	1752.	S	s p	Bot. mag. 901
2733	erinoídes *W.*	trailing	♃ [○] or	½	jn.au	B	C. G. H.	1759.	R	s p	Her. lugd. t 109
2734	bicolor *H. K.*	spotted	[○] or	½	jn.au	Pa B	C. G. H.	1795.	C	s.p	Bot. mag 514
2735	ilicifólia *B M.*	Holly-leaved	♃ [△] or	½	my.s	Pk	C. G. H.	1815.	D	s p	Bot mag. 1896
2736	pubescens *W.*	downy-leaved	♃ [△] or	½	jn au	B	C. G. H.	1780.	R	s.p	Jac. sch. 2. t 178
2737	lútea *W.*	yellow	♃ [△] or	½	jn.jl	Y	C. G. H.	1774.	S	s.p	Bot. mag. 1319
2738	hirsúta *W.*	hairy	♃ [△] or	½	my.s	B	C. G. H.	1759.	C	s.p	Bot. rep. 444

History, Use, Propagation, Culture,

of blue, red, purple, and white flowers. Like other biennials, it may either be sown where it is to remain any time after midsummer, or sown in beds in spring for transplantation.

C. speculum and hybrida are annual border flowers of considerable beauty.

464. *Lobelia.* In honor of M. Lobel, author of various works, and particularly of that called Icones Plantarum; he was born at Lisle in 1538, became physician and botanist to James I., and died in London in 1616. This genus furnishes some of our most splendid herbaceous plants, as L. cardinalis, fulgens, and splendens. The predominant color of the corollas is red.

L. Dortmanna (from Dortmann, an apothecary, who first sent it to Clusius), is a beautiful aquatic with leaves reflected into an elegant curve at the end, and the flowers in loose spikes.

L. longiflora, which grows by moist places and rivulets in the West Indies, is a very poisonous plant. Taken internally it brings on an invincible purging. If the plant be handled, and the hand be unawares applied to the eyes or lips, it brings on an inflammation. In the Spanish West Indies it is called *Reventa-cavallos*, because horses are reported to burst with eating it.

L. fulgens, splendens, and cardinalis, are the three grand ornaments of the genus. They are readily multiplied by cuttings or slips, or by seeds when they ripen, and grow well in light rich soil. The culture of L. cardinalis is given at length by Justice, who designates it " a flower of most handsome appearance, and which should not be wanting in curious gardens, on account of the rich color of its flowers." The culture of L.

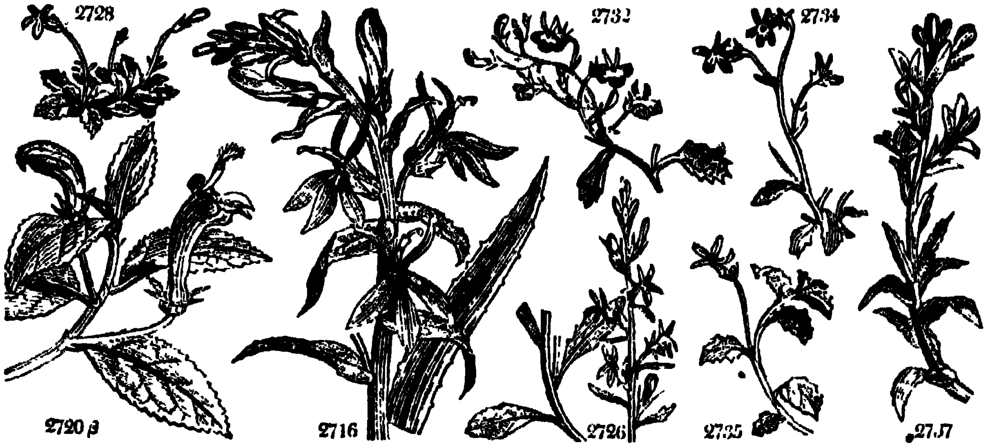
§ 5. *Capsules prismatical.* Prismatocarpus.
2693 Caps. columnar 5-celled, Stem shrubby, Leaves linear subulate, Peduncles very long, Panicles terminal
2694 Caps. linear 2-celled, Leaves lanceolate coarsely serrated smooth, Stem decumbent
2695 Stem very much branched diffuse, Leaves oblong crenate, Flowers solitary

2696 Stem branched at base upright, Leaves oblong crenate, Cal. aggregated longer than corolla
2697 Branching diffuse, Lower leaves oblong obtuse, Upper lanceolate, Flower solitary, Cor. longer than calyx
2698 Stem simple, Leaves cordate toothed stem-clasping, Flowers sessile clustered

2699 Leaves linear villous, Stem erect
2700 Leaves linear smooth, Stem erect
2701 Shrubby, Leaves linear erect close together
2702 Leaves linear one toothed on each side
2703 Leaves linear 2-celled, Scape simple naked racemose
2704 Leaves lanceolate, Raceme spiked

2705 Stem erect, Leaves lin. lanc. obtuse alternate entire, Raceme terminal
2706 Stem half shrubby erect, Leaves lanc. ovate serrate toothed, Rac. term. Pedic. as long as flowers
2707 Leaves ovate toothed hairy, Stem simple
2708 Leaves lanceolate pinnatifid toothed, Raceme terminal
2709 Leaves lanceolate toothed, Peduncles very short lateral, Tube of cor. filiform very long
2710 Smooth, Lower leaves oblong toothed, upper lanceolate entire, Peduncles racemose 1-sided
2711 Erect simple slightly pubescent, Lvs obl. obt. almost entire, the lower spatulate, Spike naked small flow
2712 Leaves broad lanceolate serrate below toothed decurrent, Racemes compound terminal
2713 Leaves narrow lanceolate toothed revolute at edge and stem pubescent, Raceme terminal
2714 A tall plant with rugose coarse leaves, and a long spike of fine red flowers
2715 Leaves oblong lanceolate cartilaginous-toothed and erect stem smooth, Raceme terminal 1-sided leafy
2716 Leaves narrow lanceolate toothletted flat at edge and stem quite smooth, Raceme terminal
2717 Leaves lanceolate serrated smooth, Peduncles lateral longer than the leaf
2718 Flowers axillary, Stem winged, Radical leaves ovate lanceolate with glandular reflexed teeth
2719 Lvs. ovate-obl. acute at each end unequally serrated, Flowers axillary solitary, Recesses of calyx reflexed
2720 Lvs. obl. acuminate serrated smooth, Pedunc. axill. 1-fl. Sepals linear lanc. spreading, Anthers bearded

2721 Leaves ovate cut, Stem divided, Racemes terminal naked, Upper lip of cor. bearded
2722 Smooth, Stem ascending 4-cornered, Leaves ovate-lanceolate cut serrate twice as short as leafstalk
2723 Stem hairy, Lvs. toothed serrate, the lower ov. obl the upper ovate, Pedunc. axillary 1-fl. Caps. inflated
2724 Stem erect, Leaves cordate obsoletely toothed stalked, Corymb terminal
2725 Smooth erect, Stem 3-cornered, Leaves ovate round repand, Pedunc. longer than leaves
2726 Stem erect, Lower leaves obovate toothletted, upper lanceolate serrate, Raceme terminal 1-sided
2727 Quite smooth, Lvs. broad lanc. serr. Spike many-flowered 1-sided, Sepals entire, Lower petals ov. acute
2728 Radical leaves ovate, Scapes capillary
2729 Stem prostrate, Leaves lanceolate oval-crenate, Stem branched, Peduncles solitary 1-flowered very long
2730 Radical leaves spatulate repand, Cauline setaceous, Stems simple 1-flowered erect
2731 Leaves somewhat stalked lanceolate oblong toothed, Stems decumbent, Peduncles elongated
2732 Stem spreading, Lvs. toothed, lower ellipt stalked, upper sess. narrow lanc. Pedunc. longer than leaves
2733 Stems prostrate filiform, Leaves stalked oblong toothed
2734 Stems spreading, Lower leaves oblong toothed pubescent subsessile, Upper lip of cor. reflexed
2735 Leaves ovate lanceolate deeply toothed, Peduncles axillary 2 or 3 times as long as leaves
2736 Stems angular prostrate and leaves lanceolate toothed hairy, Peduncles axillary 1-flowered
2737 Stems procumbent, Leaves lanceolate serrated, Flowers sessile spiked
2738 Shrubby hairy prostrate. Leaves ovate toothed, Flowers lateral with very long stalks 2 or 3-flowered



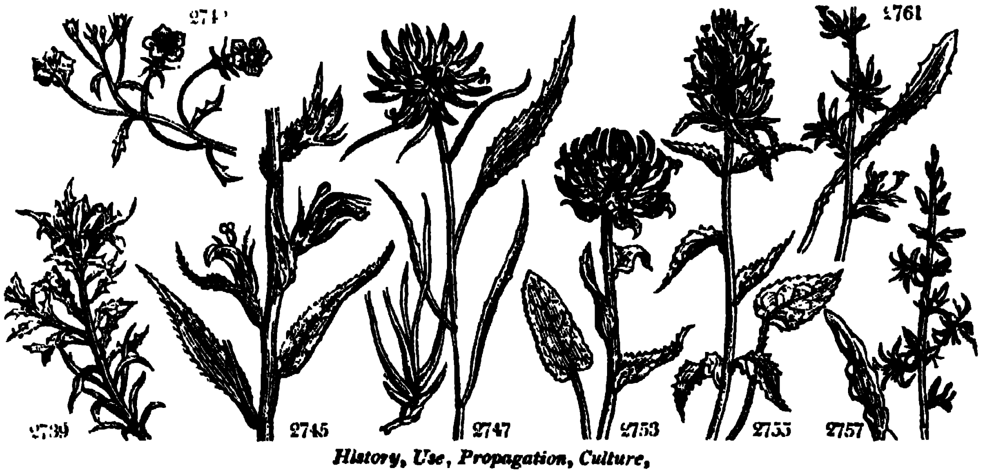
and Miscellaneous Particulars.

fulgens is given by J. B. Van Mons, and W. Hedges, in the Hort Trans. Both confess that very little art is required. Hedges, to procure strong flower stalks, keeps the plants in pots, shifts very frequently from a smaller to a larger size, places them first in cucumber frames, and when they begin to flower in a stove The pots in which they are allowed to flower are nine inches in diameter, and, in order to supply abundant moisture, pans are placed under the pots constantly filled with water. The soil used is equal parts of loam and leaf-mould, with a third of the whole of sand. They begin to flower in July, and continue flowering through the autumn. One plant so treated produced a flower-stalk which measured six inches in circumference at the base; the height of the centre spike of flowers was five feet and a half; the shoots from the bottom and sides of the main stem were in number seventeen, and rising four and a half feet.

L. splendens and cardinalis may either be treated as above, or as a tender border, or as frame plants. Van Mons observes, that L. cardinalis perishes in sandy soil, but becomes strong and multiplies in loam, while, at the same time, it produces the most brilliant colors in the former. The same thing may doubtless be predicted of the other species, it being a well known law of nature as to living beings, that their energies are concentrated in proportion to the obstacles thrown in the way of their expansion

L. siphilitica has its specific name from its supposed efficacy in the cure of siphilis, among the North American Indians. Sir William Johnston purchased the secret from them, but Woodville says, its virtues have not been confirmed by any instances of European practice.

2739 variifólia *B. M.*	various-leaved	£	⌊Δ⌋	or	1	jn.jl	Y	C. G. H.	1812.	C	s.p	Bot. mag. 1692
2740 corónopifólia *W.*	Buck's-horn	£	⌊Δ⌋	or	¾	jl.au	B	C. G. H.	1752.	S	s.p	Bot. mag. 644
2741 crenáta *W.*	notched-leaved	£	⌊Δ⌋	or	½	ap.my	B	C. G. H.	1794.	C	s.p	
2742 spéculum *B. M.*	Looking-glass		⌊○⌋	or	½	jl.au	Pu	C. G. H.	1812.	S	s.p	Bot. mag. 1499
2743 pedunculáta *B. M.*	long-stalked	£	⌊Δ⌋	or	1	o.n	B	C. G. H.	1819.	D	co	Bot. mag. 2251
2744 decúmbens *B. M.*	decumbent	£	⌊Δ⌋	or	½	o.n	B	C. G. H.	1820.	D	co	Bot. mag. 2277
2745 pyramidális *B. M.*	pyramidal	£	⌊Δ⌋	or	4	s	Pu	Nepal	1822.	D	co	Bot. mag. 2387
465. PHYTEU'MA. *W.*	RAMPION.					*Campanulaceæ.*		*Sp.* 16—35.				
2746 pauciflórum *L.*	few-flowered	¥	Δ	pr	¾	my.jn	B	Switzerl.	1823.	D	p.l	
2747 Scheuchzéri *W.*	Scheuchzer's	¥	Δ	pr	½	my.jn	B	Switzerl.	1813.		co	Bot. mag. 1797
2748 scorzonerifólium *Vil.*	scorzonera-lvd.	¥	Δ	pr	1	jl.au	B	Alps	1819.	D	p.l	Bot. mag. 2271
2749 Michélii *All.*	Micheli's	¥	Δ	pr	½	jn.jl	B	Switzerl.	1822.	D	p.l	All. ped. 1. t. 7. f. 5
2750 hemisphæ'ricum *W.*	linear-leaved	¥	Δ	pr	1	jl	B	Switzerl.	1752.		p.l	Jac. ic. 2. 333
2751 comósum *Wulf.*	tufted		⊙	pr	½	jn.jl	B	Austria	1752.	S	s.l	Jac. au. 5. t. ap 50
2752 orbiculáre *W.*	round-headed	¥	Δ	pr	1	jn.au	V	England	ch. pa.	D	p.l	Eng. bot. 142
2753 cordátum *B. M.*	heart-leaved	¥	Δ	pr	½	jl.au	B	Hungary	1804.		co	Bot. mag. 1466
2754 betonicifólium *Vill.*	Betony-leaved	¥	Δ	pr	2	jn.jl	Pa.B	S. Europe	1818.	D	p.l	Vill. del. 2. 12. 3
2755 spicátum *W.*	spiked	¥	Δ	pr	2	jn.au	B	Europe	1597.	D	p.l	Bot. mag. 2347
2756 ovátum *W.*	oval-spiked	¥	Δ	pr	2	jn.au	D.V	Europe	1814.	D	p.l	
2757 virgátum *W.*	twiggy		⊙	pr	1	my.jn	B	Lebanon	1820.	D	p.l	Bot. cab. 667
2758 campanuloideum *H. k.*	Campanula-fl.	¥	Δ	pr	1	jn.au	B	Caucasus	1804.	D	p.l	Bot. mag. 1086
2759 canéscens *W. en.*	hoary	¥	Δ	pr	2	jn.au	Li	Hungary	1804.	D	p.l	Pl. rar. hu. t. 14
2760 pinnátum *W.*	winged-leaved	£	⌊Δ⌋	pr	2	jn.au	B	Candia	1640.	D	p.l	Vent. cels. 52
2761 strictum *B. M.*	upright	¥	Δ	pr	2	jn.jl	B	S. Europe	1819.	D	p.l	Bot. mag. 2145
466. TRACHE'LIUM. *W.*	THROATWORT.					*Campanulaceæ.*		*Sp.* 2—4.				
2762 cærúleum *W.*	blue		⊙	or	2	jl.s	B	Italy	1640.	S	r.m	Bot. reg. 72
2763 diffúsum *W.*	spreading	£	⌊Δ⌋	cul	½	jl.s	B	C. G. H.	1787.	S	r.m	
467. ROEL'LA. *W.*	ROELLA.					*Campanulaceæ.*		*Sp.* 4—8.				
2764 ciliáta *W.*	ciliated	ħ.	⌴	or	1	jn.s	Pu	C. G. H.	1774.	S	s.p	Bot. mag. 378
2765 squarrósa *W.*	trailing	ℓ.	⌊Δ⌋	or	½	jl	B	C. G. H.	1787.	S	s.p	
2766 decúrrens *W.*	decurrent		⌊○⌋	or	[illegible]	jl.s	B	C. G. H.	1787.	S	l.p	L'He. se. an. 4. t. 6
2767 muscósa *W.*	Moss-like		⌊○⌋	cu	½	jl.s	B	C. G. H.	1802.	S		
468. GOODE'NIA. *R. Br.*	GOODENIA.					*Good'noviæ.*		*Sp.* 2—33.				
2768 ováta *R. Br.*	oval-leaved	ħ.	⌴	or	2	jn.c	Y	N. S. W.	1793.	S	s.p	Bot. rep. 68
2769 grandiflóra *R. Br.*	large-flowered	ħ.	⌴	or	4	jn.au	Y	N. S. W.	1803.	S	s.p	Bot. mag. 890
469. EU'THALES. *R. Br.*	EUTHALES.					*Goodenoviæ*		*Sp.* 1.				
2770 trinérvis *R. Br.*	three-nerved	£	⌊Δ⌋	or	1	my.s	P.Y	N. Holl.	1803.	C	l.p	Bot. mag. 1137
470. DAMPIE'RA. *R. Br.*	DAMPIERA.					*Goodenoviæ.*		*Sp.* 1—13.				
2771 stricta *R. Br.*	upright	£	⌊Δ⌋	or	1	jn.au	B	N. S. W.	1814.	C	l.p	Ann. mus. 18. t. 2
471. SAMO'LUS. *W.*	BROOK-WEED.					*Primulaceæ?*		*Sp.* 2—8.				
2772 Valerándi *R. Br.*	common	¥	Δ	pr	¾	jn.au	W	Britain	mar.	D	co	Eng. bot. 703
2773 littorális *R. Br.*	sea-side	£	⌊Δ⌋	pr	½	jl.s	W	N. S. W.	1806.	D	s.l	Bot. cab. 445
472. VELLE'IA. *Sm.*	VELLEIA.					*Goodenoviæ.*		*Sp.* 1—6.				
2774 lyráta *R. Br.*	lyrate	£	⌊Δ⌋	or	½	ap	Y	N. Holl.	1819.	D	s.p	Bot. reg. 551
473. SCÆ'VOLA. *R. Br.*	SCÆVOLA.					*Goodenoviæ.*		*Sp.* 4—25.				
2775 Lobélia *H. K.*	Purslane-lvd.	ħ.	▭	or	2	...	W	W. Indies	1724.	C	l.p	Plu. ic. t. 165. f. 1
2776 crassifólia *R. Br.*	thick-leaved	ħ	⌴	or	3	au.o	W	N. Holl.	1805.	C	s.p	La. no. hol. 1. t. 79
2777 microcárpa *R. Br.*	small-fruited	£	⌊Δ⌋	or	1½	my.s	P.V	N. S. W.	1790.	D	s.p	Bot. mag. 287
2778 suavéolens *R. Br.*	sweet-scented	£	⌊Δ⌋	or	2	au.s	B	N. S. W.	1793.	D	s.p	Bot. rep. 22



History, Use, Propagation, Culture,

465 *Phyteuma.* Φυτευμα, was the name of a plant much used among the ancients for aphrodisiacal purposes. No qualities of such a kind have been ascribed to the modern plant. This is a handsome genus, and with Roella is well adapted for rock-work or pots. The roots of P. spicatum are edible, and used in Switzerland like those of the rampion.

466 *Trachelium.* From τραχυς, rough, which its leaf is in a high degree. A pretty little favorite of the flower border, easily cultivated and preserved.

467. *Roella.* Named after G. Roelle, professor of anatomy at Amsterdam. He procured this plant for Cliffort. A pretty little leafy bush, with beautiful flowers of blue and white.

468. *Goodenia.* So named by Sir J. E. Smith, in honor of his friend Dr. Goodenough, Bishop of Carlisle, and a lover of natural history. Herbs or small shrubs, with alternate leaves, and terminal or axillary flowers, which are generally yellow, sometimes blue.

469. *Euthales.* From ευ, well, and θαλλω, to push or sprout. Very like the last in all external characters.

2739 Stems erect, Leaves linear entire and toothed, Flowers solitary terminal
2740 Leaves lanceolate toothed, Peduncles very long
2741 Leaves lanceolate crenate smooth, Stem twining
2742 Stem prostrate, Ped. axillary solitary 1-flow. very long, Cor. hypocrateriform
2743 Leaves stalked recurved pinnatifid, Pedunc. elong. lat. solitary 2-flowered
2744 Leaves obovate toothed shorter than the axillary solitary peduncles
2745 Leaves lanc. serrulate with long points, Racemes leafy panicled, Cal. as long as cor.

§ 1. *Flowers in heads.*

2746 Head leafy, Leaves all lanceolate
2747 Head rather leafy shorter than the linear bractes, Leaves lanceolate toothed
2748 Spike elongated cylindrical, Lower flowers remote, Leaves lanceolate crenated, Upper linear
2749 Head roundish, Bractes oblong lanceolate, Leaves linear rigid nearly entire
2750 Head roundish, Bractes ovate, Leaves linear nearly entire scarcely shorter than stem
2751 Head terminal sessile, Leaves toothed: radical cordate
2752 Head roundish longer than bractes, Radical leaves ovate cordate bluntly serrated, Cauline lin. lanceolate
2753 Bractes cordate acum. shorter than the roundish head. Rad. lvs. obl. cord. crenate, Caul. ½ stem-clasping
2754 Spike oblong, Leaves simply crenate: radical lanceolate cordate; cauline lanceolate
2755 Spike oblong lengthened, Styles downy trifid, Radical leaves cordate doubly toothed
2756 Spike ovate, Styles hairy longer than the flower bifid, Radical leaves cordate doubly toothed

§ 2. *Flowers axillary scattered.*

2757 Branches twiggy, Lvs. lanc. acute at each end uneq. toothed roughish, Flowers deeply divided in pairs
2758 Lvs. ovate acute sessile serrated rough, Stem angular quite simple, Fl. racemose sessile, lower clustered
2759 Leaves sessile, Lower obovate crenate-serrate, Upper lanceolate entire, Flowers racemose
2760 Leaves pinnate, Flowers very large in cymes
2761 Rad. leaves lin. spatulate entire, Flowers ½-whorled in 3-flowered alternate parcels

2762 Branches erect, Leaves ovate serrated flat
2763 Much branched diffuse, Branches divaricating recurved, Leaves subulate

2764 Leaves linear ciliated upright, Flowers sessile
2765 Diffuse, Leaves ovate recurved toothed, Flowers terminal aggregate
2766 Leaves lanceolate ciliated entire decurrent, Flowers solitary terminal
2767 Leaves ovate toothed reflexed smooth, Flowers terminal solitary

2768 Erect smooth, Leaves ovate acute toothed serrated, Axillæ bearded, Sepals subulate filiform
2769 Erect pubescent, Branches angular, Lower leaves lyrate, Upper obovate acute

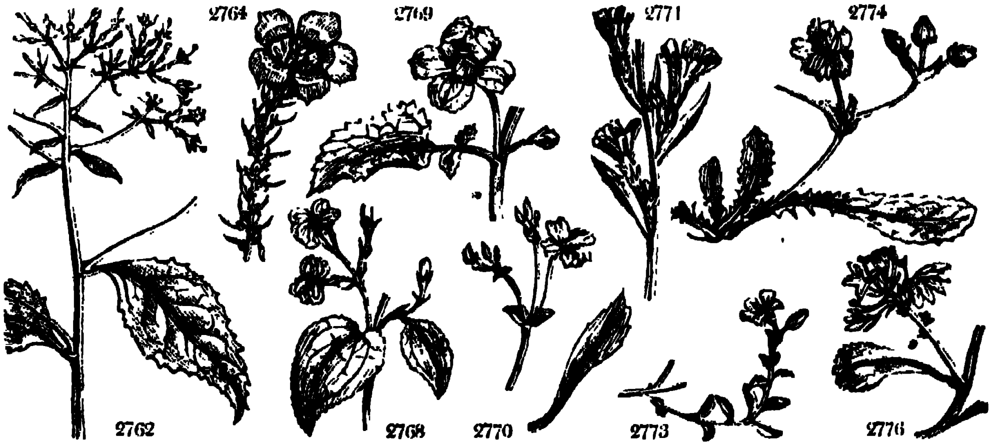
2770 A small herbaceous plant with large entire radical leaves

2771 Leaves lanceolate entire or toothed fleshy smooth, Cor. hairy outside

2772 Stems diffuse branching, Racemes axillary and terminal
2773 Stem rounded branched leafy, Radical leaves spatulate: cauline lanceolate

2774 Smooth, Bractes of the dichotomies distinct, Leaves lyrate or toothed-cut at base

2775 Leaves obovate smooth entire
2776 Spikes terminal and axillary, Leaves fleshy obovate toothed
2777 Leaves alternate obovate toothed smooth, Fruit very small
2778 Leaves entire obovate thick rough, Drupe berried (*Goodenia calendulacea.*)



and Miscellaneous Particulars.

470. *Dampiera.* Named by Mr. Robert Brown, in honor of Captain William Dampier, a famous voyager, whose knowledge and attention, in matters connected with botany, are attested by the remains of the collections made during his voyages, and now preserved in the Sherardian Herbarium at Oxford.

471. *Samolus.* Derived from two Celtic words, *san*, salutary, and *mos*, pig; a plant which is salutary to pigs. Pliny says, it was considered among the Gauls as a specific in all maladies of swine. The plant was collected with mystic ceremonies. S. Valerandi was named after Dourez Valerand, a botanist of the 16th century, mentioned by Bauhin. Small marsh plants with white flowers.

472. *Velleia.* Named by Sir James Smith, after Major Velley, a gentleman who paid much attention to marine algæ. The genus resembles Goodenia in appearance.

473. *Scævola.* So named from *scæva*, the Latin word to express the left hand, the flower having the appearance of being defective of one half of its corolla. An extensive New Holland genus resembling Goodenia.

474.	**CAPRIFO'LIUM.** *R. S.*	HONEY-SUCKLE.					*Caprifoliaceæ.*		*Sp.* 11.				
2779	itálicum *R. S.*	white-Italian	⚘		or	10	my.jn	P.Y	England	woods.	C	co	Eng. bot. 799
	β *rúbrum*	*red-Italian*	⚘		or	10	my.jn	R	S. Europe	...	C	co	Schm. arb. t. 106
2780	etrúscum *R. S.*	Roman	⚘		or	15	my.jn	O	Italy	...	C	co	
2781	dioícum *R. S.*	small-flowered	⚘		or	6	jn.jl	Pu	N. Amer.	1766.	C	co	Bot. reg. 138
2782	sempervírens *R. S.*	trumpet	⚘		or	15	my.au	S	N. Amer.	1656.	C	s.p	Bot. mag. 781
	β *minus*	*small-trumpet*	⚘	⊔	or	15	my.au	S	Carolina	1656.	C	s.p	Bot. mag. 1753
2783	grátum *R. S.*	evergreen	⚘		or	20	jn.au	R	N. Amer.	1730.	C	s.l	H. an.15.n.10.t.8
2784	flávum *B. M.*	bright-yellow	⚘	⊔	or	10	my.jn	Y	Carolina	1810.	C	s.l	Bot. mag. 1318
2785	pubéscens *Hook.*	hairy-yellow	⚘		or	20	my.jn	Y	Canada	1822.	C	co	Hook. ex. fl. 27
2786	impléxum *R. S.*	Minorca	⚘		or	8	jn.s	R.Y	Minorca	1772.	C	s.l	Bot. mag. 640
2787	Periclýmenum *R. S.*	Woodbine	⚘		or	20	my.jl	Y	Britain	hedg.	C	co	Eng. bot. 800
	β *serotinum*	*late-red*	⚘		or	20	my.jl	Y.R	......	...	C	co	Schm. arb. t. 108
	γ *bélgicum*	*Dutch*	⚘		or	20	my.jl	Y.R	......	...	C	co	Ho. an.15.n.5.t.6
	δ *quercifólium*	*Oak-leaved*	⚘		or	20	my.jl	Y.R	......	...	C	co	
2788	japónicum *R. S.*	Japanese	⚘	⊔	or	15	jl.s	O	China	1806.	C	p.l	Bot. reg. 70
2789	flexuósum *Ker.*	flexuose	⚘	⊔	or	15	jl.s	O	China	1806.	C	p.l	Bot. reg. 712
475.	**LONI'CERA.** *R. S.*	LONICERA.					*Caprifoliaceæ.*		*Sp.* 8—19.				
2790	Xylósteum *W.*	Fly	♣		or	8	jn.jl	Y	England	woods.	C	co	Eng. bot. 916
2791	pyrenáica *W.*	Pyrenean	♣		or	4	my	W	Pyrenees	1739.	C	co	Magn. hort. 209
2792	alpígena *W.*	red-berried	♣		or	6	ap.my	Y	Switzerl.	1596.	C	s.l	Schm. arb. t. 112
2793	cærúlea *W.*	blue-berried	♣		or	4	mr.ap	Y	Switzerl.	1629.	C	co	Bot. mag. 1965
2794	nígra *L.*	black	♣		or	4	mr	Pa.Y	Switzerl.	1597.	C	co	Schm. arb. 110
2795	tatárica *L.*	Tartarian	♣		or	10	ap.my	Pk	Russia	1752.	C	co	Bot. reg. 31
	β *rúbra*	*red*	♣		or	10	ap.my	R	Russia	1752.	C	co	
2796	ciliáta *Psh.*	ciliated	♣		or	4	ap.my	W.R	N. Amer.	1824.	C	co	
	β *alba*	*white-berried*	♣		or	4	ap.my	W.R	N. Amer.	1824.	C	co	
2797	ibérica *Bieb.*	Iberian	♣		or	6	ap.my	O	Iberia	1824.	C	co	
476.	**SYMPHO'RIA.** *Ph.*	ST. PETER'S WORT.					*Caprifoliaceæ.*		*Sp.* 3.				
2798	glomeráta *Ph.*	common	♣		or	4	au.s	Pk	N. Amer.	1730.	C	s.l	Schm. arb. t. 115
2799	racemósa *Ph.*	Snow-berry	♣		or	4	jl.s	Pk	N. Amer.	1817.	C	s.l	Bot. mag. 2211
2800	punícea *Sims.*	crimson	♣		or	4	jl.s	R	N. Amer.	1815.	C	s.l	Bot. mag. 2409
477.	**DIERVI'LLA.** *J.*	DIERVILLA.					*Caprifoliaceæ.*		*Sp.* 1.				
2801	húmilis *P. S.*	yellow-flowered	♣		or	3	jn.jl	Y	N. Amer.	1739.	C	s.l	Bot. mag. 1796
478.	**TRIOS'TEUM** *W.*	FEVERWORT.					*Caprifoliaceæ.*		*Sp.* 2—3.				
2802	perfoliátum *W.*	perfoliate	♣		m	2	jn.jl	D.R	N. Amer.	1730.	D	p.l	Schk. ha. 1. t. 41
2803	angustifólium *W.*	narrow-leaved	♣		cu	1	jn.jl	Y	Virginia	1699.	D	p.l	Plu. al. t. 104. f.2
479.	**COFFE'A.** *W.*	COFFEE-TREE.					*Rubiaceæ.*		*Sp.* 2—28.				
2804	arábica *W.*	Arabian	⚲	□	clt	20	au.n	W	Yemen	1696.	S	r.m	Bot. mag. 1303
2805	occidentális *W.*	western	♣	□	or	6	...	W	W. Indies	1793.	C	l.p	Jac. amer. t. 47

History, Use, Propagation, Culture,

474. *Caprifolium.* A poetical name, signifying goat-leaf; that is to say, a leaf which climbs like a goat. *Chevrefeuille*, Fr., *Geisblatt* or *Baumlilie*, Ger., and *Caprefoglio*, Ital. This is a beautiful genus of flowering odoriferous mostly twining shrubs, valuable in the flower garden, shrubbery, and against walls, arbors, or trunks of trees. Like most British twiners, the honeysuckle follows the sun. Like other twiners, it bears pruning well, for, as Professor Martyn observes, "those plants which in a state of nature cannot ascend without the assistance of others, are often liable to lose large branches; they have therefore a proportionate vigor of growth to restore accidental damages." Against a wall, the climbing kinds are very liable to attacks from aphides, and the caterpillar of Phalœna tortrix; and the sphinges, or hawkmoths, according to Withering, extract the honey from the very bottom of the tubular flowers with their long tongues.

In raising the honeysuckle from seeds, they should be sown the autumn after they are ripe, otherwise they will not come up the first year. Cuttings are sometimes apt to rot, owing to water lodging in their tubular stems above the last joint. To obviate this inconvenience, some make the cuttings of double the usual length, and insert both ends in the ground, leaving the part above ground in the form of a semicircle. Commonly, however, such cuttings root only at one end; or if at both, but very weakly at what was the top end.

475. *Lonicera.* Named after Adam Lonicer, a German, who was born in 1528, and died in 1586. There was another Lonicer, John, who wrote commentaries upon Dioscorides. A section of what was formerly called Lonicera, comprising the species with a shrubby upright stem, neither climbing nor prostrate plants. All hardy and easily increased by layers or cuttings.

476. *Symphoria*, is a syncope of *symphoricarpos*, from *συν*, together, *φερω*, to bear, and *καρπος*, fruit; a plant which bears its fruit together in clusters. A small genus of low branching shrubs, formerly constituting part of Lonicera.

477. *Diervilla.* Dierville, a French surgeon, travelled in Acadia, whence he sent this plant to his friend Tournefort, who named it after him. A pretty low shrub, with yellow flowers appearing in the spring.

478. *Triosteum* From *τρεις*, three, and *οστεον*, bone, three bones, on account of its three hard seeds. The roots of this genus and of Diervilla are used indiscriminately in N. America for Ipecacuana. (*Viola. Ipec.*)

479. *Coffea.* An alteration of the Arabic name *qahoueh*, which is the name for the liquor of coffee; the grain is called *bouu*. *Cahwa*, Pers., *Cahvey*, Turk., and *Eleave*, Egypt.

2779 Flowers whorled terminal, Leaves deciduous, the upper perfoliate

2780 Heads term. generally 3 together, Lvs. decid. pubes. opp. upper perfo. smooth, lower with stalks only conn.
2781 Whorls in heads with bracteæ, Lvs. deciduous glaucous beneath, Upper perfoliate, Cor. gibbous at base
2782 Spikes nearly naked terminal, Lvs. oblong evergreen, the upper perfoliate, Tube of cor. ventricose above

2783 Flowers whorled terminal, Leaves evergreen obovate glaucous beneath, Upper perfoliate
2784 Whorls in heads, Cor. ringent, Segm. obl. obt. Lvs. deciduous ovate glaucous beneath, Upper perfoliate
2785 Whorls terminal capitate glandular, Leaves pubescent the upper connate perfoliate
2786 Flowers capitate terminal, Leaves evergreen all distinct
2787 Flowers capitate terminal, Leaves deciduous all distinct

2788 Flowers in pairs terminal sessile, Leaves evergreen all distinct
2789 Flowers sessile with distinct berries, Leaves ovate entire smooth, Stem wavy

2790 Pedunc. 2-flowered longer than flowers, Leaves entire ovate-elliptical pubescent
2791 Pedunc. 2-flowered, Leaves obovate lanceolate smooth glaucous beneath
2792 Berries united, Leaves oval-lanceolate
2793 Berries globose united, Styles undivided
2794 Leaves elliptical entire
2795 Leaves cordate obtuse

2796 Leaves ovate and cordate ciliated, Cor. with an evident spur

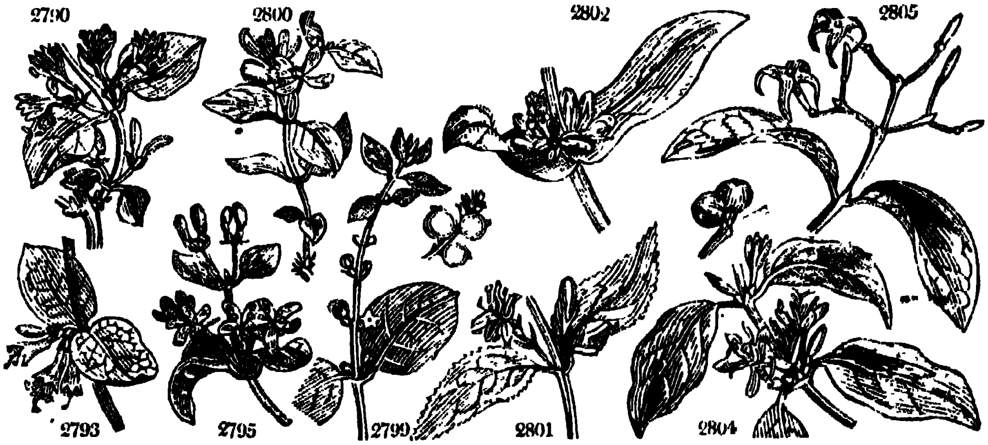
2797 Pedunc. 2-flowered shorter than flowers, Berries twin, Leaves cordate roundish tomentose

2798 Flowers axillary capitate clustered
2799 Raceme terminal, Cor. bearded inside
2800 Leaves cordate ovate, Berries distinct, Pedunc. axillary 2-flowered shorter than leaf

2801 The only species. Racemes terminal, Leaves serrated

2802 Leaves oval acuminate, Leaves abruptly narrowed at base, Axillæ 1-many-flowered
2803 Stem hispid, Leaves oval-lanceolate somewhat connate, Axillæ 1-flowered

2804 Leaves oblong ovate acuminate, Peduncles axillary aggregate, Cor. 5-cleft
2805 Leaves oblong lanceolate acuminate, Panicle few-flowered trifid terminal, Cor. 4-cleft

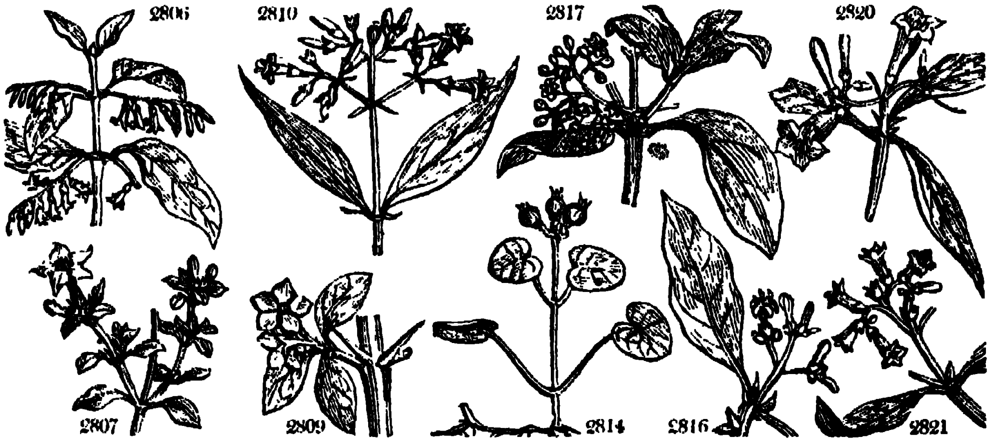


and Miscellaneous Particulars.

C arabica is an erect, conical-shaped, low tree, with a light brown bark, and opposite, oblong, wavy, shining, light green leaves; flowers in clusters at the base of the leaves, white, of a grateful odor, but of short duration; berries green, red when fully grown, and black when ripe. A decoction of this berry forms the well known beverage which is said to have been drank in Ethiopia from time immemorial. It was introduced into Arabia from Persia about the middle of the 15th century, and proceeded by Mecca, Medina, and Grand Cairo, Damascus, and Aleppo to Constantinople, where two coffee-houses were opened in 1554. It is thought to have been introduced to Venice soon after 1615: it was known at Marseilles in 1644, and Thevenot, a French traveller, brought it to Paris in 1657. Till 1660, it was drank by such only as had been accustomed to it in the Levant. About the end of the 17th century a coffee-house was opened at Paris, by one Pascal, an Armenian, who, not succeeding, came to London, where coffee had been previously introduced by Daniel Edwards, a Turkey merchant, who brought home with him a Greek servant, Pasqua Roffee, who understood the roasting and making of coffee, and afterwards set up a coffee-shed, which he was enabled in time to turn to a house in the churchyard of St. Michael's, Cornhill. In 1688 Ray affirms that London might rival Grand Cairo in the number of its coffee-houses.

The coffee-tree was first introduced to Europe through the Dutch, who procured some berries at Mocha to be sown at Batavia; which being done in the year 1690, Governor Witsen presented a plant to the botanic garden of Amsterdam, where it bore fruit and produced many young plants. From these the East Indies and most of the gardens of Europe have been furnished. Coffee was afterwards cultivated by the Dutch in Surinam in 1718, and by the French in Cayenne and the Mauritius soon afterwards. It was next grown in Martinique, and so spread to the neighbouring islands and to Jamaica in 1730, or earlier. The plants are raised from seeds, then transplanted into nursery lines. Plantations are made chiefly on hills and the skirts of mountains, and, if possible, where the soil is moist and shaded. The trees are planted from five to ten feet apart, according to the goodness of the soil and situation. They produce fruit the next year after planting; and the produce of a good tree is from 1½ to 2 lbs. of berries. The berries are gathered when they begin to fall, and in this state their pulpy bark begins to shrivel. They are further dried under sheds, and there passed between wooden rollers to separate the husk from the kernel; and afterwards sifted, winnowed, and put into casks for sale. In Arabia the plant and berries are much smaller than in the West Indies, and the flavor in

480. CHIOCOC'CA. *W.*	SNOW-BERRY.				*Rubiaceæ.*		*Sp.* 1—7.				
2806 racemósa *W.*	cluster-flower'd	■ □	or	6	ſ	W	Jamaica	1729.	C	p.l	Hook. ex. fl. 93
481. SERIS'SA. *W.*	SERISSA.				*Rubiaceæ.*		*Sp.* 1.				
2807 fœ'tida *W.*	Japanese	▬ ⊔	or	2	my.s	W	Japan	1787.	L	r.m	Bot. mag. 361
β flore-pleno	*double-flowered*	▬ ⊔			my.s		Japan	1787.	L	r.m	
482. CAN'THIUM. *Pers.*	CANTHIUM.				*Rubiaceæ.*		*Sp.* 2—4.				
2808 chinénse *Pers.*	spiny	■ ⊔	or	3	jl.s		China	1804.	C	r.m	Thun. G. t. 2. f. 4
2809 dumetórum *Roxb.*	thicket	■ □	or	3	jl.s		E. Indies	1777.	C	r.m	Roxb. cor. t. 136
483. PSYCHO'TRIA. *W.*	PSYCHOTRIA.				*Rubiaceæ.*		*Sp.* 8—100.				
2810 asiática *W.*	Indian	■ □	or	4	...	W	W. Indies	1806.	C	l.p	Lam. ill. t. 161
2811 citrifólia *W.*	Citron-leaved	■ □	or	4	...	W	W. Indies	1793.	C	r.m	
2812 parasítica *W.*	parasitic	£ □	cu	½	my.au	W	W. Indies	1802.	C	l.p	
2813 brachiáta *W.*	cross-branched	■ □	or	7	...	W.Y	W. Indies	1793.	C	l.p	
2814 herbácea *W.*	herbaceous	▬	or	½	ap.jn	W	Jamaica	1793.	C	l.p	Jac. amer. t. 46
2815 pubéscens *W.*	pubescent	■	or	6	...	Y.o.	Jamaica	1812.	C	l.p	
2816 undata *Jacq.*	wavy	■ □	or	3	my.jn	W	Bahamas	1823.	C	l.p	Jac. sch. 3. t. 260
2817 elliptica *B. R.*	elliptical	■ □	or	3	my.jn	G	Brazils	1821.	C	l.p	Bot. reg. 607
484. HAMEL'LIA. *W.*	HAMELLIA.				*Rubiaceæ.*		*Sp.* 4—7.				
2818 pátens *W.*	spreading	■ □	or	5	jl.au	S	Hispaniola	1752.	C	p.l	Ex. bot. 1. t. 24
2819 sphærocárpa *P. S.*	round-fruited	■ □	or	10	jl.au	O	Mexico	1811.	C	p.l	Fl. per. 2. t. 221
2820 ventricósa *Swz.*	large-flowered	■ □	or	8	s.n	Y	W. Indies	1778.	C	p.l	Bot. mag. 1894
2821 chrysántha *Swz.*	yellow	■ □	or	8	o.d	Y	Jamaica	1822.	C	p.l	Jacq. ic. 2. t. 335
485. POSOQUE'RIA. *Aub.*	POSOQUERIA.				*Rubiaceæ.*		*Sp.* 1—3.				
2822 longiflóra *Aub.*	long-flowered	■ □	or	6	...	W	Guiana	1822.	C	p.l	Aubl. gui. t. 51
486. VANGUIE'RA. *W.*	VANGUIERA.				*Rubiaceæ.*		*Sp.* 2.				
2823 édulis *W.*	eatable	■ □	fr	15	...	G	India	1809.	C	p.l	Lam. ill. t. 159
2824 spinósa *Hort.*	prickly	■ □	cu	4	jn.jl	G	Madagas.	1816.	C	p.l	
487. GARDE'NIA. *P. S.*	GARDENIA.				*Rubiaceæ.*		*Sp.* 12—41.				
2825 radicans *W.*	rooting	■ ⊔	or	1	mr.jn	W	China	1804.	C	r.m	Bot. reg. 73
2826 flórida *W.*	Cape Jasmine	■ □	or	5	jl.o	P.Y	China	1754.	C	l.p	Bot. reg. 449
β flore pleno	*double*	■ □	or	5	jl.o	P.Y	China	1754.	C	l.p	Ehret. pict. t. 15
2827 Thunbérgia *W.*	starry	■ ⊔	or	6	ja.mr	W	C. G. H.	1773.	C	l.p	Bot. mag. 1004
2828 latifólia *W.*	broad-leaved	■ □	or	7		W	E. Indies	1787.	C	r.m	Rox. cor. 2 t. 134
2829 Rothmánnia *W.*	spotted-flower.	■ ⊔	or	10	jl	P.Y	C. G. H.	1774.	L	l.p	Th. ac. st. 1776. t. 2
2830 uliginósa *W.*	marsh	■ □	or	3	jl	W	E. Indies	1802.	C	l.p	Roxb. cor 2. t. 135
2831 armáta *Sw.*	armed	■ □	or	10	...	W	W. Indies	1813.	C	l.p	
2832 micrántha *W.*	small-flowered	■ □	or	4	...	W	China	1806.	C	r.m	Th. g. n. 8. t. 1. f. 1
2833 amœ'na *B. M.*	crimson-tipped	■ □	or	4	jn.au	Pk	China	...	C	r.m	Bot. mag. 1904
2834 hexándra *W.*	hexandrous	■ □	or	6	jl.s	W	S. Amer.	1803.	C	r.m	
2835 campanuláta *Roxb.*	bell-flowered	■ □	or	...	...		E. Indies	1815.	C	r.m	
2836 angustifólia *Lodd.*	narrow-leaved	■ □	or	3	jl	W	......	1823.	C	r.m	Bot. cab. 512
488. GENI'PA. *P. S.*	GENIP-TREE.				*Rubiaceæ.*		*Sp.* 2—5.				
2837 americána *P. S.*	American	♀ □	tm	30	...	P.Y	S. Amer.	1779.	C	l.p	Pl. ic. 127. t. 136
2838 Merianæ *P. S.*	hairy	♀ □	fr	10	...	W	Cayenne	1800.	C	l.p	
489. OXYAN'THUS. *Dec.*	OXYANTHUS.				*Rubiaceæ.*		*Sp.* 1.				
2839 speciósus *H. K.*	tube-flowered	■ □	or	3	jl	W	S. Leone	1789.	C	p.l	Lind. coll. 13



History, Use, Propagation, Culture,

consequence greater; bulk being, in these richer soils and more humid climates, obtained at the expence of flavor. In our stoves the coffee-tree is raised from the berry, which must be sown soon after being gathered; otherwise if kept six weeks it loses its vital powers. Cuttings of ripened wood root in sand under a glass in moist heat: transplanted, and furnished with plenty of water and pot room, they flower and fruit abundantly.

480. *Chiococca.* Snowberry, (χιων, snow, and κοκκος, berry). Its berries are of a bright whiteness.

481. *Serissa.* A name of Commerson's, the meaning of which is not known. The genus is remarkable for the trifid segments of corolla.

482. *Canthium.* From *canti*, the Malabar name of the plant. Spiny rigid plants with small opposite leaves. and solitary, sessile, usually fragrant, white flowers.

483. *Psychotria.* From ψυχη, life; in allusion to the powerful medicinal effects of one of the species, P. emetica; or, as others say, from ψυχοτροφον, an ancient name for an herb loving shade. The genus consists of a great number of stove plants, nearly all bearing white flowers. Some of them are very beautiful on account of their foliage: one species, P. parasitica, is parasitical upon trees in the West Indies.

484. *Hamellia.* In honor of the celebrated Henry Louis Du Hamel Du Monceau, born in 1700, died in 1782, author of numerous works on vegetable physiology. The genus consists of handsome shrubs of the West Indies, with tubular yellow or orange-colored flowers.

485. *Posoqueria.* The Galibis in French Guiana call this plant *aymara-posoqueri.* A fine shrub, with white flowers more than a foot long, and an eatable yellow berry as big as a hen's egg.

2806 Leaves ovate acuminate, Racemes subdivided axillary 1-sided nodding

2807 Leaves opposite ovate lanceolate, Stipules spiny, Flowers axillary sessile

2808 Spiny, Flowers sessile hairy
2809 Spiny, Leaves ovate wedge-shaped obtuse, Sepals leafy, Berries crowned

2810 Stipules emarginate, Leaves lanceolate ovate
2811 Stipules ovate persistent, Leaves elliptical acuminate subcoriaceous, Berries ribbed
2812 Stipules stem-clasping retuse, Leaves ovate acuminate succulent veinless, Cymes stalked as long as leaves
2813 Stipules ovate oblong bifid, Raceme terminal compound, Flowers clustered sessile
2814 Stem herbaceous creeping, Leaves cordate stalked
2815 Stipules 2-toothed, Leaves lanceolate ovate acuminate pubescent, Panicles cymose spreading
2816 Stipules connate entire deciduous, Leaves oblong ribbed wavy acuminate
2817 Leaves ellipt. narrowed each way, Panicles term. erect lax brachiate shorter than the leaves

2818 Racemes terminal colored, Leaves 3 together villous pubescent
2819 Branches rounded, Leaves ternate oblong hairy on both sides, Flowers corymbose
2820 Racemes terminal and axillary, Cor campanulate ventricose, Leaves ternate
2821 Racemes terminal, Leaves oblong wedge-shaped acuminate smooth, Flowers stalked

2822 Stipules and leaves oblong-acuminate, Corymbs terminal about 6-flowered, Tube of cor. much curved

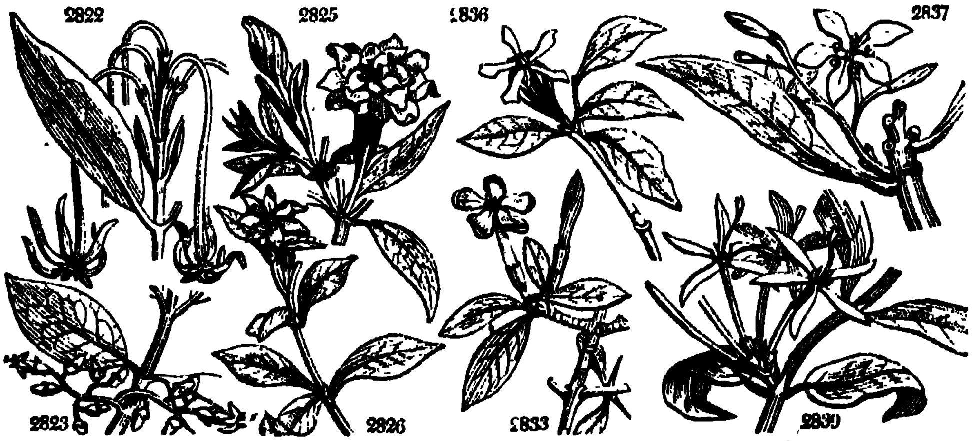
2823 Stem unarmed, Leaves large ovate stalked
2824 Stem spiny, Leaves small nearly sessile

2825 Leaves lanceolate, Cor. hypocrateriform, Cal. angular, Stem rooting
2826 Leaves elliptical, Cor. hypocrateriform, Sepals subulate lanceolate vertical

2827 Leaves elliptical, Cor. hypocrateriform, Calyx bursting at side, Sepals dilated at end
2828 Leaves obovate roundish, Cor. hypocrateriform, Sepals subulate bluntly keeled
2829 Leaves oblong, Stipules subulate. Sepals subulate rounded, Tube smooth dilated short
2830 Branches scarred with two spines at the end, Leaves oblong ovate obtuse, mouth of cor. villous
2831 Terminal spines of the branches 4, Sepals linear wedge-shaped, Flowers clustered
2832 Leaves elliptical acute at each end longer than the spines, Flowers sessile smooth
2833 Spines axillary straight shorter than the oval smooth leaf, Flowers terminal solitary
2834 Unarmed, Lvs. ovate pubescent beneath, Fls. usually hexandrous, Cor hairy on each side, Tube short
2835 A fine species, of which no detailed character has yet been given
2836 Very like G. florida, from which it chiefly differs in being smaller with narrower leaves

2837 Leaves oblong lanceolate, Peduncles axillary many-flowered, Tube short
2838 All over hairs, Leaves oblong-obovate, Flowers clustered on the summit, Fruit rounded flat

2839 The only species, with very long white flowers



and Miscellaneous Particulars.

486. *Vanguiera.* An abbreviation of the Madagascar name of one species, *Voa-vanguier.* A fine looking bush, with broad, green, entire leaves. It is said to bear a fine fruit as big as an orange.

487. *Gardenia.* So named by Ellis, in honor of his friend and correspondent A. Garden, M. D. of Charleston, in Carolina, who sent home many new species of plants. This is a beautiful genus, and most of the species are highly odoriferous, and free flowerers. G. florida, on the first approach, smells like the flower of the orange, but on being more closely smelled to, like Narcissus. According to Thunberg, there are hedges of it in Japan, and the Japanese are very fond of it near their houses, and in the walks of their gardens. The fruit and seeds are used there to dye yellow. G. Rothmannia smells most during night: it bears an ovate, fleshy, angular berry, black when ripe, and about the size of a small pear. Almost all the species are spiny in their wild state; but lose their spines at an advanced age, or under high culture and keeping. In the stove they require a moist heat to make them flower freely, as do the cuttings to make them strike. According to Sweet, the best way to flower the greenhouse species is to set them in a close frame on a little bottom heat, but not to plunge the pots.

488. *Genipa.* A name contrived by Plumier from the name, *Genepapo,* it bears in Guiana and Brazil. G. americana is an exceedingly rare plant in collections. It bears an excellent fruit, in much request in Dutch Guiana, where it is called Marmalade-box.

489. *Oxyanthus.* From οξυς, acute, and ανθος, a flower, on account of the acute segments of the corolla. A genus divided from Gardenia, from which it is readily distinguished by the long tube of the flower.

490. RAN'DIA. *P. S.*	Randia.			*Rubiaceæ.*	*Sp.* 2—10.						
2840 longiflóra *P. L.*	long-flowered	♣ □	or	4	au.s	W	E. Indies	1796.	C	l.p	Par. lond. 93
2841 latifólia *P. S.*	round-leaved	♀ □	or	12	my.jn	W	W. Indies	1733	C	l.p	Br. ja. 143.t.8.f.1
491. MUSSÆN'DA. *W.*	Mussænda.			*Rubiaceæ.*	*Sp.* 1—18.						
2842 pubéscens *H K.*	pubescent	♣ ⊔	or	3	my.s	Y	China	1805.	C	p.l	Bot. mag. 2099
492. PINCKNE'YA. *Mi.*	Pinckneya.			*Rubiaceæ.*	*Sp.* 1.						
2843 púbens *Mi.*	downy	♀ ⊔	tm	20	jn.jl		Georgia	1786.	L	p l	Mich. amer.t.13
493. ERI'THALIS. *W.*	Erithalis.			*Rubiaceæ.*	*Sp.* 1—4.						
2844 fruticósa *W.*	shrubby	♀ □	fr	15	jl.au	W	Jamaica	1793.	C	p.l	Br. jam. t. 17.f.3
494. WEBE'RA. *W.*	Webera.			*Rubiaceæ.*	*Sp.* 2—4.						
2845 corymbósa *W.*	corymbose	♣ □	or	6	...	W	E. Indies	1759.	C	l.p	Rh. mal. 2. t. 23
2846 cymósa *W.*	cymose	♀ □	or	20	...	W	E. Indies	1811.	C	l.p	
495. PLO'CAMA. *W.*	Plocama.			*Rubiaceæ.*	*Sp.* 1—3.						
2847 péndula *W.*	pendulous	♣ ⊔	or	2	...	W	Canaries	1779.	C	l.p	
496. MORIN'DA. *W.*	Morinda.			*Rubiaceæ.*	*Sp.* 3—8.						
2848 umbelláta *W.*	umbelled	♣ □	or	6	...	W	E. Indies	1809.	C	l p	
2849 citrifólia *W.*	broad-leaved	♣ □	or	8	...	W	E. Indies	1793.	C	l.p	Rhe. mal. 1. t.52
2850 Róyoc *W.*	Laurel-leaved	♣ □	or	10	jl.o	W	W. Indies	1793.	C	r.m	Jac. vind. 1. t. 16
497. CEPHAE'LIS. *W.*	Cephaelis.			*Rubiaceæ.*	*Sp.* 3—24.						
2851 eláta *W.*	tall	♣ □	or	15	...	Pu	Jamaica	1793.	C	l.p	
2852 pedunculáta *P. L.*	long-peduncled	♣ □	or	2	f	W	S. Leone	...	C	l.p	Par. lond. 99
2853 calycína *Lindl.*	calycine	♣ □	or	4	ap my	W	Brazil	1816.	C	l.p	Lind. coll. 21
498 SARCOCE'PHALUS *Afz.*	Guinea-Peach.			*Rubiaceæ.*	*Sp.* 1.						
2854 esculéntus *Afz.*	common	♣ □	fr	15	...	Pk	S. Leone	1822.	C	p.l	Hor.trans.5.t 18
499. HIRTEL'LA. *W.*	Hirtella.			*Rosaceæ.*	*Sp.* 1—13.						
2855 americána *W.*	American	♀ □	tm	25	...	V	W. Indies	1782.	C	l.p	Aub. gui. 1. t. 98
500. TRIPHA'SIA. *Lour.*	Triphasia.			*Aurantiaceæ.*	*Sp.* 1.						
2856 Aurantiola *Lour.* *Limónia trifoliáta*	three leaved W.	♣ ⊔	fr	2	jn.jl	W	China	1798	C	r.m	Bot rep. 143
501. VI'TIS. *P. S.*	Vine			*Viniferæ.*	*Sp.* 9—24						
2857 vinífera *W.*	common Grape	⌇	fr	30	jn jl	G	Various	...	C	r.m	Jac ic 1. t. 50
2858 índica *W.*	Indian	⌇ □	or	20	.	G	Indies	1692.	C	s.l	Rhed mal. 7. t.6
2859 Labrúsca *W.*	downy-leaved	⌇	fr	10		G	N. Amer.	1656.	L	s.p	Jac. schœn. 425
β bícois álbis	*Bland's Grape*	⌇	fr	10		G	N. Amer	1805.	L	s.p	
2860 vulpína *W.*	Fox-grape	⌇	or	20	...	G	N. Amer.	1656.	C	s.p	Jac schœn.425

History, Use, Propagation, Culture,

490. *Randia.* So named in honor of Isaac Rand, F.R S., who published the first catalogue of the Apothecaries' Garden at Chelsea.

491. *Mussænda.* A name by which Burmann designates a plant of this genus. *V. fl. Zeyl.* t. 76. The species are all of singular beauty, and especially distinguished by the large colored segment of the calyx, which is either white or purple, and very remarkable.

492. *Pinckneya.* So named by Michaux, after some American gentleman of the name of Pinckney, who is now forgotten. The genus is nearly the same as Mussænda. It thrives best, according to Sweet, when turned out against a south wall, and protected by a mat in frosty weather.

493. *Erithalis.* A name given by Pliny to a plant remarkable for the verdure of its foliage; ερι, a particle signifying augmentation, and θαλλω, to be green. It is now applied to a pretty genus of South American plants.

494. *Webera.* In honor of G. Henry Weber, a German botanist, who published Flora Gœttingensis, in 1778, and other works of merit. He is chiefly known for the attention he bestowed upon muscology. Small plants with bunches of white flowers.

495 *Plocama.* From πλοκαμος interwined hair, on account of its pendulous twisted branches. A little bush with the habit of some kind of Galium. The flowers are very small, and not much longer than the calyx.

496. *Morinda.* *Morus indica,* Indian mulberry; so named by Vaillant, from the shape and color of its fruit. The bark of the roots of this genus is used in the E. Indies to dye yellow.

497. *Cephaelis.* From κεφαλη, a head, on account of the flowers being united in heads, remarkable for the large, often colored, involucrum in which they are enveloped. Species are very rare in collections; and require a high temperature.

498. *Sarcocephalus.* From σαρκος flesh, and κεφαλη, a head, in allusion to the large fleshy fruit of the genus. This is like a pine-apple without its crown, of a dull uniform color, and consisting of a solid fleshy mass containing many minute seeds. The flavor is said to be excellent. A plant now common in gardens near London, but it has not yet fruited.

499. *Hirtella.* Derived from *hirtus,* hairy. Its branches are covered with fine hair. Some of these are tall trees of the tropics, usually supporting themselves upon other plants. Flowers, which are generally blue or purple, are rarely seen in this country. Cuttings root in sand under a hand-glass.

2840 Leaves ovate stalked, Spines curved, Flowers in terminal umbelled cymes
2841 Spines of the branches terminal in pairs, Leaves ovate roundish, Cor. hypocrateriform

2842 Branches and leaves pubescent, Tube of corolla much longer than calyx

2843 A large tree with downy long leaves dividing but little into branches

2844 Leaves obovate, Cymes compound stalked terminal

2845 Leaves oblong acute, Corymb terminal
2846 Leaves ovate acuminate, Cymes many-flowered axillary stalked

2847 A small shrub with the appearance of Galium

2848 Erect, Leaves lanceolate ovate, Flowers clustered
2849 Leaves ovate acuminate smooth on both sides, Flowers solitary
2850 A long trailing plant with ovate entire smooth leaves

2851 Heads globose terminal, Peduncles elongated, Involucre 2-leaved, Leaves smooth
2852 Leaves coriaceous lanceolate smooth, Heads on very long stalks
2853 Heads not in an involucrum so long as the flowers, Leaves lanceolate wavy

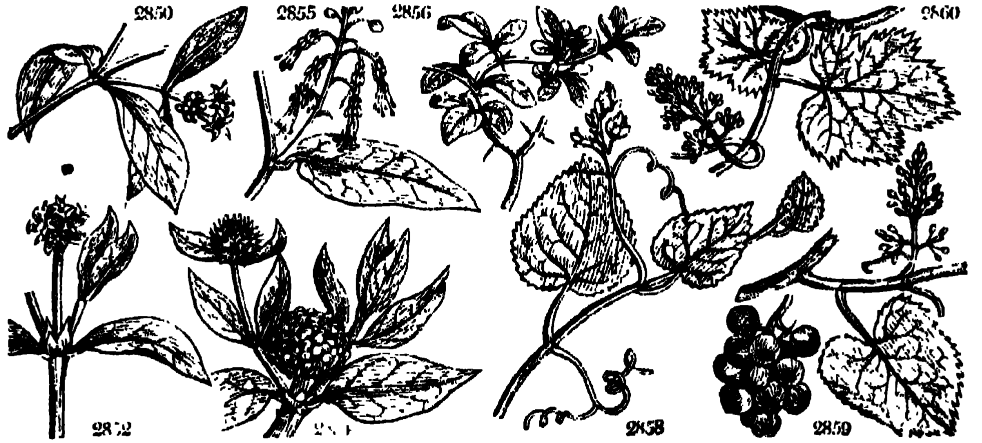
2854 The only species

2855 Racemes simple axillary solitary, Common peduncle villous, Leaves oblong, acuminated

2856 Leaves 3-leaved

2857 Leaves sinuated naked
2858 Leaves cordate toothed villous beneath, Tendrils bearing the fruit
2859 Leaves cordate angular 3-lobed toothed, beneath downy clear white

2860 Leaves cordate 3-lobed coarsely toothed smooth, Teeth unequal with long-pointed divisions



and Miscellaneous Particulars.

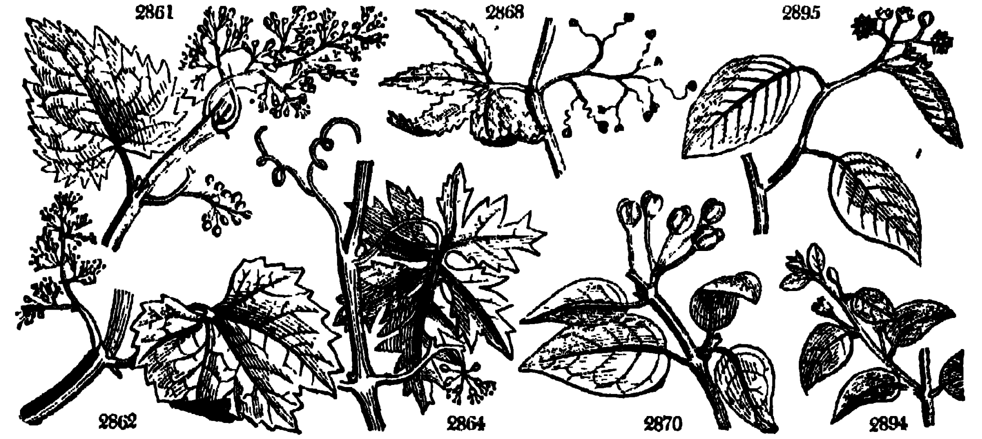
500. *Triphasia.* A name of Loureiro, derived from τριφασιος, triple, on account of the triple divisions of its flowers, and ternary disposition of its leaves. It is the *Limonia trifoliata* of gardens, a common bush, sometimes covered over with the little orange berries, which have an agreeable orange-like taste.

501. *Vitis.* From the Celtic *gwyd*, a tree or shrub. The *G* being suppressed in the pronunciation, according to the usage of Celtic nations, the Latins have made of it *vitis*; the Spaniards *vid*; the French *vigne*; and the English *vine*. The term *muscat*, applied to particular kinds of grape, is not derived from the perfumed or musky flavor of those varieties, but from the berries attracting flies, *muscæ*, for which reason the Latins called the kind *vitis apiaria*.

V. vinifera is universally known for its fruit, and for producing the first liquor in the world; a liquor which, notwithstanding all that is said of its dangerous qualities, is yet eagerly drank by all who can procure it, and preferred before all others by those who are unlimited in their means and choice. The grape vine is among fruits what wheat is among the cereal grasses, or the potatoe among the farinaceous roots; and, like them, in every country where it will grow, it is cultivated with pre-eminent care. In Britain, its culture is now confined to the garden as a dessert fruit; though formerly grown in many places for the wine-press. Besides the V. vinifera, the V. labrusca (from *busca*, the Hebrew for grape) and laciniosa are all cultivated, and both are now so intermingled with the first species by hybrid products, that for all practical purposes they may be considered as only varieties.

The varieties of the grape in countries where it is grown for the wine-press, are almost as numerous as the vineyards; for as these for the most part differ in soil, aspect, elevation, or otherwise, and as the vine is greatly the child of local circumstances, its habits soon become adapted to those in which it is placed. When it is considered that a vineyard once planted will last two or three centuries, it will readily be conceived that the nature of a variety may be totally changed during only a part of that time. The varieties most in esteem for wine making, are small berries, and bunches with an austere taste. The Burgundy, as modified by different soils and situations, may be considered the most general vineyard grape of France, from Champagne or Marne to Marseilles and Bourdeaux. The best wine in Italy and Spain is also made from grapes of this description; but in both countries many of the larger berried sorts are grown as being more productive of liquor. The sweet vines, as the Malmsey, Madeira, Constantia, Tokay, &c. are made from sweet-berried grapes allowed to remain on the plants till over ripe. That wine is the strongest, and has most flavor, in which both the skins and stones are bruised and fermented. The same thing is the case in making cider; but in both processes bruising the stones or kernels is often neglected.

2861 cordifólia *Ph.*	Winter-grape	‡		or	10	...	G	N. Amer.	1806.	C	s.p	Jac. schœn. 427
2862 ripária *Ph.*	sweet-scented	‡		or	20	my.jn	G	N. Amer.	1806.	C	s.p	Bot. mag. 2429
2863 rotundifólia *Ph*	Bull-grape	‡		or	20	...	G	N. Amer.	1806.	C	s.p	
2864 laciniósa *W.*	Parsley-leaved	‡		fr	20	jn.jl	G	......	1648.	C	s.p	Schm. ic. 34 t. 8
2865 cæ'sia *Sab.*	Sierra-Leone	‡		or	10	...	G	S. Leone	1822.	C	s.p	
502. AMPELOP'SIS. *Mich.*	AMPELOPSIS.					*Viniferæ.*	*Sp.* 4—6.					
2866 cordáta *Mich.*	heart-leaved	‡		or	20	ap.my	P.G	N. Amer.	1803	C	co	
2867 bipinnáta *Mich.*	Pepper-vine	‡		or	15	jl.au	P.G	N. Amer.	1700.	C	co	Act. bon. 3. t. 24
2868 quinquefólia *Mich.*	Virgin.-creeper	‡		or	60	jn.jl	P.G	N. Amer.	1629.	C	co	Corn. can. t. 100
2869 hirsúta *Donn.*	hairy	‡		or	60	ap.my	P.G	N. Amer.	1806.	C	co	
503. RHAM'NUS. *W.*	BUCK-THORN.					*Rhamni.*	*Sp.* 24—70.					
2870 colubrina *L.*	Bahama red wd.	♠	☐	tm	20	jn	G	Bahamas	1762.	L	co	Jac. vind. 3. t. 50
2871 elliptica *H. K.*	oval-leaved	♣	☐	or	5	au	G	Jamaica	1758.	L	co	Brow. jam. t. 29
2872 erythroxylon *Pall.*	Red-wood	♣		or	6	jl.au	Y.G	Siberia	1823.	L	co	Pall. ross. t. 63
2873 longifólia *Desf.*	long-leaved	♣		or	6	...	G	......	1825.	L	co	
2874 cathártica *W.*	purging	♣		or	15	my.jn	G	England	hed.	L	co	Eng. bot. 1629
2875 infectória *W.*	yellow-berried	♣		or	6	jn.jl	G	S. Europe	1683.	L	co	Ard. mc. 78. t. 14
2876 lycioides *W.*	Boxthorn-like	♣	⊔	or	6	s.d	G	Spain	1752.	L	co	Cav. ic. 2. t. 182
2877 oleoides *W.*	Olive-leaved	♣		or	4	jn.jl	G	Spain	1752.	L	co	
2878 crenuláta *W.*	Teneriffe	♣	⊔	or	8	mr	G	Teneriffe	1778.	L	p.l	
2879 saxátilis *W.*	rock	♣		or	1	my.jn	G	Europe	1752.	C	co	Jac. aust. 1. t. 53
2880 Theézans *W.*	Tea	♣	⊔	or	3	my.jn	G	China	...	C	p.l	
2881 tetragóna *W.*	square-branch.	♣	⊔	or	6	...	G	C. G. H.	1816.	C	p.l	
2882 lanceoláta *Ph.*	spear-leaved	♣		or	12	...	G	N. Amer.	1812.	C	p.l	
2883 alpína *W.*	Alpine	♣		or	3	my.jn	G	Switzerl.	1752.	L	co	Hall. his 1. t. 40
2884 púmila *W.*	dwarf	♣		or	1	jl	G	Carniola	1752.	L	co	Jac. coll. 2. t. 11
2885 Frángula *W.*	berry-bearing	♣		or	12	ap.my	W	Britain	woods.	S	co	Eng. bot. 250
2886 latifólia *W.*	broad-leaved	♣		or	4	jl	G	Azores	1778.	L	co	Dend. brit. 11
2887 glandulósa *W.*	Madeira	♣	⊔	or	15	jn.jl	G	Canaries	1785.	C	p.l	Vent. malm. 34
2888 prinoides *W.*	Winter-ber.-lv.	♣	⊔	or	15	au.s	W	C. G. H.	1778.	C	p.l	L'Her. sert. t. 9
2889 mystacina *W.*	wiry	♣	☐	or	13	n	W.G	Africa	1775	S	p.l	
2890 alnifólia *W.*	Alder-leaved	♣		or	4	my	G	N. Amer.	1778.	L	co	
2891 hýbrida *P. S.*	hybrid	♣		or	12	my.jn	G	......	...	L	co	L'Her. sert. t. 5
2892 Alatérnus *W. en.*	bd.-lvd.-Alater	♣		or	40	ap.jn	G	S. Europe	1629.	L	co	Duh. arb. 3. t. 14
2893 Clusii *W.*	narrow-leaved	♣		or	30	ap.jn	G	S. Europe	1629.	L	co	
504. ŒNOP'LIA. *Mich.*	ŒNOPLIA.					*Rhamni.*	*Sp.* 2.					
2894 lineáta *W.*	lined	‡	⊔	or	8	.	G	China	1804.	C	l.p	Osb. it. t. 7
2895 volúbilis *W*	twining	‡		or	15	jn.jl	G	Carolina	1714.	S	s.p	Jac. ic. 2. t. 335



History, Use, Propagation, Culture,

The varieties of dessert grapes on the continent are few: the best they have, as the Muscats and Frontignacs, have been obtained from this country. The Chasselas or frame grape (our Muscadine), is almost the only eating grape known in the Paris fruit market. In Britain, we have not only the best varieties, but we grow the fruit to a larger size and of a higher flavor than is done any where else in the world. This is owing to the perfection of our artificial climates, and the great attention paid to soil and subsoil, and other points of culture.

The vine is universally propagated by cuttings, either a foot or more long, with a portion of two year old wood, or short with only one bud, or one bud and half a joint, &c. Varieties without end are raised from seed; and it is thought that by propagating from the seeds of successive generations some sorts may ultimately be procured better adapted for ripening their fruit in the open air than now known. A seedling vine carefully treated will show blossoms in its fourth or fifth year; say that it produces a fair specimen of its fruit in the sixth year, then a new generation may be obtained every sixth year.

The vine will thrive in any dry soil, or in any soil with a dry subsoil; but it produces the best flavored fruit among granitic and calcareous fragments, and loamy soil in thin strata, with little manure, and when the vine is old and the berry and bunch small: on the contrary, the most luxuriant crops, large bunches and berries, in a good depth of friable loam, dry below and richly manured with the strongest of animal manures.

There are three methods of pruning the vine in hot-houses; the fruit tree method, in which the plant is spread out in the fan manner, and treated like a common fruit tree; the long or young wood method, in which all the wood above a year old is cut out down to the stool or stock; and the spurring-in method, in which the fruit is produced from young wood grown annually from the sides of a main shoot or shoots of old wood. The two last methods are the best.

Vitis vulpina, the foxgrape, (so called from the foxy flavor of its berries) is cultivated much in North America, of which country it is a native. Many improved varieties have been raised by the American gardeners, and have been sent to Europe under the name of the Bland, the Isabella, the Oswego Tokay, &c. &c.; but they are all tainted with the bad taste peculiar to the species, and can be in no estimation when even an early July grape is to be procured.

502. *Ampelopsis.* From *αμπελος*, a vine, and *οψις*, resemblance. The genus resembles the vine in habit, leaves, and flowers; is commonly employed for covering old walls, for which the rapidity of its growth renders it very suitable.

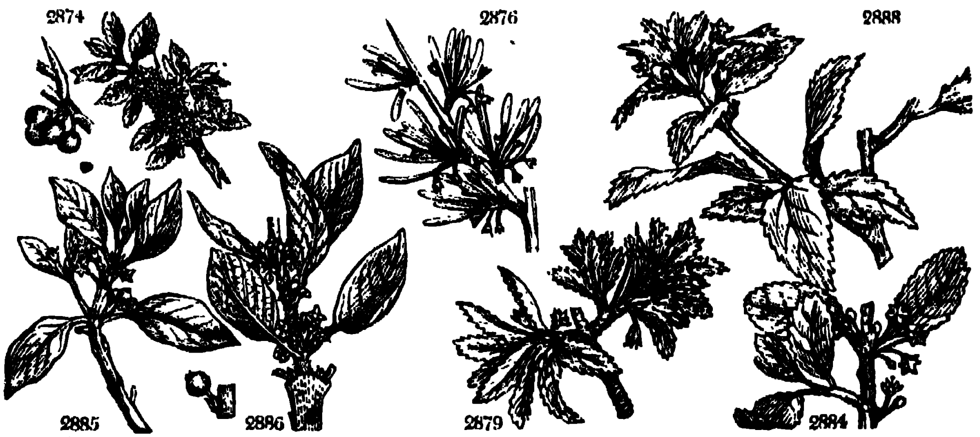
503. *Rhamnus.* From the Celtic *ram*, signifying branching. From this word the Greeks have gained *ῥαμνος*, the Latins *ramus*, and the French *rame*, or in old French *reim*; for which reason the arms of the

2861 Leaves cordate acuminate nearly equally toothed smooth on both sides, Racemes loosely many-fruited
2862 Leaves unequally cut toothed shortly trifid, Stalk nerves and edge pubescent
2863 Leaves shining on both sides reniform cordate equally toothed, Flowers in many little heads
2864 Leaves quinate, Leaflets many-cleft
2865 Shoots very cæsious, Leaves cordate angular

2866 Leaves cordate acute toothed 3-lobed, Nerves villous beneath, Racemes twin bifid
2867 Leaves bipinnate smooth, Leaflets cut-lobed, Racemes stalked twin bifid
2868 Leaves palmate 3-5-leaved smooth on both sides, Leaflets stalked oblong acuminate
2869 Leaves palmate 3-5-leaved on each side pubescent, Leaflets ovate acuminate coarsely toothed

2870 Flowers monogynous hermaphrodite erect, Caps. 3-coccous, Stalks rusty tomentose
2871 Flowers hermaphrodite trigynous axillary in umbels, Leaves elliptical acute entire villous beneath
2872 Spines terminal, Leaves linear-lanceolate serrate acute
2873 Unarmed, Leaves lanc. acute at each end serrated with hairs at the axillæ, Flowers axillary clustered
2874 Spines terminal, Flowers 4-cleft diœcious, Leaves ovate, Stem erect, Berry 4-seeded
2875 Spines terminal, Flowers 4-cleft diœcious, Stems procumbent
2876 Spines terminal, Leaves linear entire obtuse
2877 Spines terminal, Leaves oblong entire
2878 Branches spiny, Flowers 4-cleft or trifid diœcious, Leaves oblong obtuse evergreen
2879 Spines terminal, Flowers 4-cleft hermaphrodite
2880 Spines terminal, Leaves ovate serrulate, Branches divaricating
2881 Leaves ovate entire smooth sessile, Branches square
2882 Unarmed, Leaves lanceolate serrulate acute at each end pubescent beneath
2883 Flowers diœcious, Leaves ovate-lanceolate glandular crenulate
2884 Creeping, Flowers hermaphrodite, Leaves stalked ovate crenate
2885 Flowers monogynous hermaphrodite, Leaves entire smooth, Berry 2-seeded
2886 Flowers monogynous hermaphrodite, Cal. villous, Leaves elliptical entire acuminate rounded at base
2887 Flowers hermaphrodite racemose, Leaves ovate bluntly serrated smooth at the base glandular
2888 Flowers polygamous, Style triple, Leaves ovate serrated
2889 Flowers hermaphrodite, Stigma triple, Leaves cordate, Branches with tendrils
2890 Flowers hermaphrodite, Leaves oval acuminate serrated veiny beneath
2891 Flowers hermaphrodite, Leaves oblong acuminate scarcely perennial
2892 Flowers diœcious, Stigma triple, Leaves evergreen elliptical serrated acute at the base obtuse
2893 Flowers diœcious, Stigma triple, Leaves evergreen lanceolate acute at each end mucronate toothed

2894 Leaves ovate ribbed veiny repand, Flower-stalks one flowered, Stem erect
2895 Diœcious unarmed, Stem twining, Leaves ovate mucronate repand subcrenate striated



and Miscellaneous Particulars.

town of Rheims are two branches intertwined. R. catharticus was formerly used in medicine, and is still employed in color-making, and sometimes in dying. The juice of the unripe berries has the color of saffron, and is used for staining maps or paper. They are sold under the name of French berries, as those of R. Clusii are, under the name of Avignon berries. The juice of the French berries when ripe, and mixed with alum, is the sap green of the painters; but if the berries be gathered late in the autumn, the juice is purple. The bark affords a beautiful yellow dye. The inner bark, like that of elder, is said to be a strong cathartic, and to excite vomiting. The berries operate briskly by stool, but occasion thirst and griping. It is said by Woodville that the flesh of birds which feed on them is purgative.

R. lycioides furnishes the wood of which the Monguls make their images, on account of its hardness and orange red color.

R. saxatilis greatly resembles R. catharticus. The berries are used to dye the Maroquin or Morocco leather yellow.

R. theezans has leaves like the common tea, which are used as such by the poor of China, and called Tia. (*Osbeck.*)

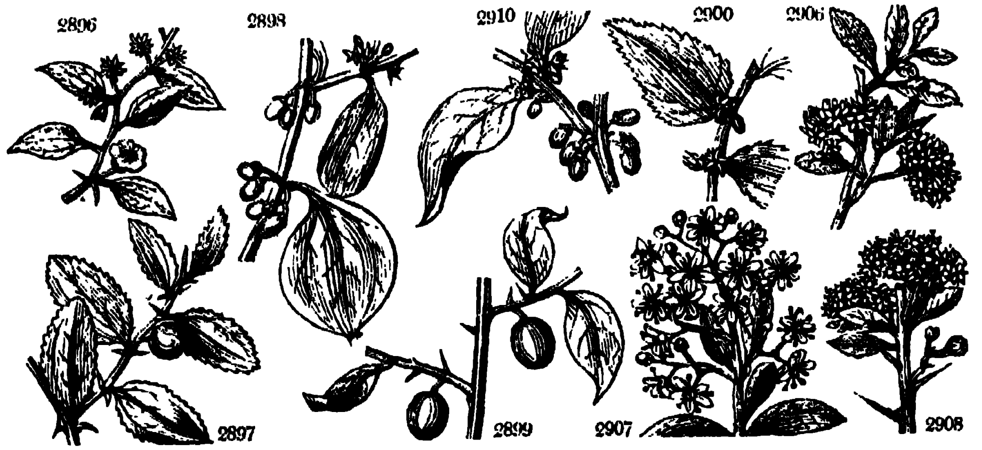
R. frangula has dark purple berries, which are purgative, like those of the common buckthorn. Gathered before they are ripe they dye wool green and yellow; when ripe, blue-gray, blue, and green. The bark dyes yellow, and with preparations of iron, black. From a quarter to half an ounce of the inner bark boiled in small beer, is a sharp purge. In dropsies or constipations of the bowels in cattle, it is a very certain purgative. The flowers are particularly grateful to bees. Goats devour the leaves voraciously; and sheep will eat them. Charcoal prepared from the wood is used by the makers of gunpowder. The berries of this species, and also of the cornus, are said to be brought to market and sold for those of the buckthorn; but they are easily distinguished, the true buckthorn having four seeds, this two, and the cornus one.

R. hybridus is the offspring of R. alpinus and alaternus, first procured by L'Heritier about 1778.

R. alaternus is an ornamental evergreen, with mellifluous blossoms, much frequented by bees. It is sometimes confounded with the Phillyrea; but they may be easily distinguished by the position of their leaves, which are alternate in these, but placed opposite by pairs in that. It is a rapid growing shrub, and useful for thickening screens, clothing walls, &c.

504. *Œnoplia.* From οινωπλυξ, vinous. Its little fruit, full of juice, resembles the berry of a grape. The Rhamnus volubilis and lineatus belong to this genus, and are beautiful little climbing plants, but rather impatient of cold.

505. PALIU'RUS. *Gært.*	CHRIST'S-THORN.					*Rhamni.*		*Sp.* 1—4.				
2896 austrális *Gært.*	European	♣		or	4	jn.jl	P.G	S. Europe	1596.	S	co	Lam. illus. t.210
506. ZI'ZYPHUS. *W.*	ZIZYPHUS.					*Rhamni.*		*Sp.* 4—38.				
2897 Lótus *W.*	Lote-tree	♣	⊔	fr	4	...	P.Y	Africa	1731.	S	p.l	De.ac.s.1788.t.21
2898 Napéca *W.*	oblique-leaved	♣	☐	or	15	...	W	Ceylon	1816.	C	l.p	Rum. amb.2.t.37
2899 Jújuba *W.*	blunt-leaved	♣	☐	fr	6	ap.my	P.G	E. Indies	1759.	C	l.p	Rum. amb.2.t.36
2900 vulgáris *W.*	common	♣	⊔	fr	6	au.s	P.G	S. Europe	1640.	C	l.p	Pall. ross. 2. t. 59
507. CELAS'TRUS. *W.*	STAFF-TREE.					*Rhamni.*		*Sp.* 8—55.				
2901 lúcida *W.*	shining	♣	⊔	or	2	ap.s	W	C. G. H.	1722.	C	p.l	Meerb. ic. 1. t.12
2902 bulláta *W.*	Virginian	‡		or	20	jl	W	Virginia	1759.	L	s.l	Plu. alm. t.28.f.5
2903 scándens *W.*	climbing	‡		or	15	my.jn	W	N. Amer.	1736.	L	s.l	Sch.handb.1.t.47
2904 cassinoídes *W.*	crenated	♣	⊔	or	4	au.s	W	Canaries	1779.	C	p.l	L'Her.ser.6.t.10
2905 tetragóna *P. S.*	four-sided	♣	⊔	or	6	...	W	C. G. H.	1816.	C	p.l	
2906 buxifólia *W.*	Box-leaved	♣	⊔	or	4	my.jn	W	C. G. H.	1752.	C	p.l	Bot. mag. 2114
2907 pyracántha *W.*	Pyracantha-lvd	♣	⊔	or	2	my.jn	W	C. G. H.	1742.	C	p.l	Bot. mag. 1167.
2908 cymósa *B.M.*	cymose	♣	⊔	or	3	jl	W	C. G. H.	1815.	C	p.l	Bot. mag. 2070
508. SENA'CIA. *Lam.*	SENACIA.					*Pittosporeæ.*		*Sp.* 2—4.				
2909 unduláta *Lam.*	wave-leaved	♣	☐	or	12	...	W	Bourbon	1785.	C	l.p	
2910 octogóna *Lam.*	angular-leaved	♣	⊔	or	6	o.n	G	Peru	1786.	C	l.p	Fl. per. 3. t. 229
509 EUO'NYMUS. *W.*	SPINDLE-TREE.					*Rhamni.*		*Sp.* 7.				
2911 japónica *W.*	Japan	♣	⊔	or	6	jn.au	G	Japan	1804.	C	p.l	Kæmpf. ic. t. 8
2912 europæ'a *W.*	European	♣		or	15	my.jl	G	Britain	hed.	S	s.l	Eng. bot. 362
β *pumila*	*dwarf*	♣		or	4	my.jl	G	......	...	S	s.l	
2913 verrucósa *W.*	warted	♣		or	6	my.jn	G	Austria	1763.	L	p.l	Schm. arb. t. 72
2914 latifólia *W.*	broad-leaved	♣		or	10	jn.jl	G	Austria	1730.	L	s.l	Bot. mag. 2384
2915 atropurpúrea *W.*	purple	♣		or	6	jn.jl	Pu	N. Amer.	1756.	L	p.l	Schm. arb. t. 73
2916 americána *W.*	evergreen	♣		or	6	jn.jl	Pk	N. Amer.	1683.	L	s.p	Schm. arb. t. 75
2917 angustifólia *Ph.*	narrow-leaved	♣		or	6	jn.jl	G	N. Amer.	1806.	L	p.l	
510. CEANO'THUS. *W.*	CEANOTHUS.					*Rhamni.*		*Sp.* 8—20.				
2918 americána *W.*	New Jersey Tea	♣		or	2	jl.o	W	N. Amer.	1713.	S	p.l	Bot. mag. 1479
2919 intermédia *Ph.*	intermediate	♣		or	2	jn.jl	W	N. Amer.	1812.	C	l.p	Pl. alm. t. 28. f. 6
2920 sanguínea *Ph.*	red-stalked	♣		or	2	my.jl	W	Missouri	1812.	C	l.p	
2921 microphýlla *Ph.*	small-leaved	♣	⊔	or	1½	jn.jl	W	N. Amer.	1806.	L	p.l	
2922 asiática *W.*	Asiatic	♣	⊔	or	12	jl.au	Pa.Y	Ceylon	1691.	C	p.l	Cav.ic.5.t.440.f.1
2923 africána *W.*	African	♣	⊔	or	6	mr.aj	W	C. G. H.	1712.	C	p.l	Pl. ph. t. 126. f. 1
2924 globulósa *H. K.*	round-headed	♣	⊔	or	6	ap.n.	Co	N. Holl.	1803.	C	p.l	Lab. no. h. 1. t. 85
2925 azúrea *Desf.*	blue	♣	⊔	or	10	ap	Pa.B	Mexico	1818.	C	p.l	Bot. reg. 291
511. STA'AVIA. *W.*	STAAVIA.					*Rhamni?*		*Sp.* 2.				
2926 radiáta *W.*	rayed	♣	⊔	or	2	my.jn	W	C. G. H.	1787.	C	p.l	Br. cen. 165. t. 82
2927 glutinósa *W.*	clammy	♣	⊔	or	3	ap.my	Y	C. G. H.	1793.	C	p.l	Wend. coll. t. 22



History, Use, Propagation, Culture,

505. *Paliurus.* Παλιυρος is the Greek name of a place. The city of Paliurus was situated on the coast of Africa over against Candia. Paliurus australis is a handsome free flowering, but very prickly shrub: it has broad roundish buckler-shaped seed-vessels, which have borders like the brims of a hat, the footstalks being fastened to the middle. From this singular appearance of the fruit, like a head with a broad-brimmed hat on, the French call it *porte chapeau.* This shrub is by many persons supposed to be that from which the crown of thorns which was put upon the head of Jesus Christ was composed; the truth of which is supported by many travellers of credit, who affirm that this is one of the most common shrubs in the country of Judea; and from the pliableness of its branches, which may easily be wrought into any figure, it may afford a probability. Hasselquist, however, is of opinion, that it was a species of Rhamnus, called therefore by Linnæus R. Spina Christi.

506. *Zizyphus.* A name altered by the Greeks from *asaffa*, its name in the East. Vide *Shaw's Voyage*, 47. Suppl. It is called *Zizouf* in Arabic, *Golius.* Z. Lotus, is the true Lotus of the Lotophagi. It is a prickly branching shrub, with alternate, small, blunt, three-nerved leaves, solitary flowers, and the fruit a spherical drupe, the size of a wild plum, sweet and harmless; inclosing a small, round, bony, two-celled nucleus; first green, but when ripe tinged with saffron-color. It is found on the eastern as well as the western extremity of the African desert; and Major Rennel thinks he has seen it on the Ganges. Dr. Shaw found the fruit common in Barbary; it was sold in the markets, cattle fed with it, and a liquor drawn from it. Mr. Park found it very common in all the kingdoms which he visited: he describes the fruit as small farinaceous berries, of a yellow color and delicious taste. The natives, he says, convert them into a sort of bread, by exposing them some days to the sun, and afterwards pounding them gently in a wooden mortar, until the farinaceous part is separated from the stone. This meal is then mixed with a little water, and formed into cakes, which, when dried in the sun, resemble in color and flavor the sweetest gingerbread. A gruel is next made from the meal which still adheres to the stones. The Greeks supposed the people who ate the lotus to be confined to an extent of sea-coast on the north of Africa, including the gulphs of Syrtes. The plant grows readily in our greenhouses, and might be fruited if thought desirable. It is propagated by ripened cuttings planted in sand under a hand-glass.

2896 Prickles stipulary twin, one straight one recurved, Leaves ovate crenulate smooth stalked

2897 Prickles twin, one recurved, Leaves ovate oblong obsoletely crenate
2898 Prickles in pairs recurved, Pedunc. corym. Fls. half digynous, Leaves ov. oblique smooth on both sides
2899 Prickles solitary recurved, Leaves rounded ovate obtuse downy beneath, Peduncles aggregate
2900 Prickles in pairs, one recurved, Leaves ovate retuse toothed smooth

2901 Leaves oval acute shining margined smooth, Flowers axillary*
2902 Leaves ovate acute, Panicles terminal
2903 Leaves oblong acuminate serrated, Racemes terminal, Stem twining
2904 Leaves ovate acute at each end serrated evergreen, Flowers axillary
2905 Leaves ovate serrated, Branches square
2906 Spines axillary, the larger leafy, Leaves lanceolate obovate serrated obtuse, the younger acute
2907 Spines naked, Branches rounded acute
2908 Spines naked, Branches angular, Leaves obovate serrate toothed, Cymes axillary

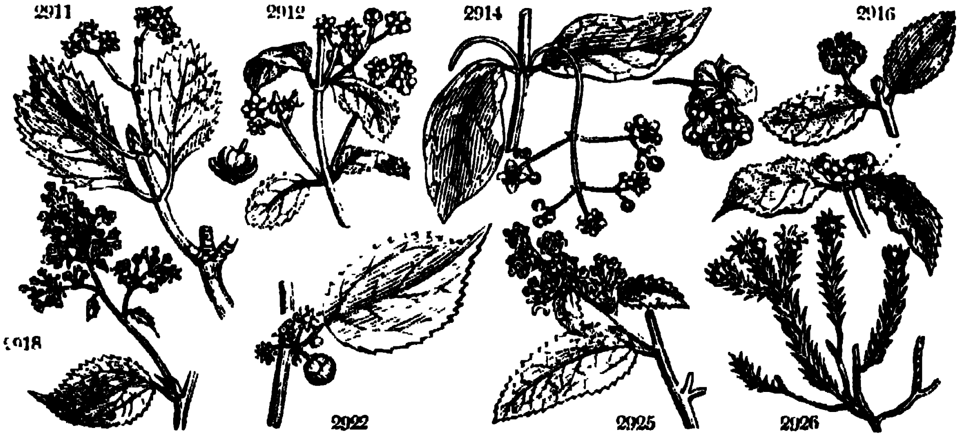
2909 Leaves lanceolate stalked wavy at edge, Cymes umbelled terminal, Caps. 2-celled 2-seeded
2910 Leaves elliptical angular nerveless evergreen, Caps. 1-seeded

2911 Flowers 4-cleft, Leaves rounded ovate toothed
2912 Flower-stalks compressed 3-flowered, Flower usually tetrandrous, Leaves oblong-lanceolate smooth

2913 Flower-stalks filiform rounded, Leaves ovate acuminate smooth, Branches warted
2914 Flower-stalks filiform rounded many-fl. Lvs. ovate oblong acuminate, Branches smooth, Petals roundish
2915 Flower-stalks compressed many-flowered, Stigmas square truncated, Lvs. obl. acuminate pubes beneath
2916 Flower-stalks rounded 3-flowered, Fl. pentan. Lvs. obl. lanc. smooth subsess. acute serr Branches square
2917 Branches square, Leaves subsessile long linear elliptical subfalcate entire, Fruit warted

2918 Leaves ovate oblong acute subcordate serrate 3-nerved beneath soft with hairs, Corymbs contracted
2919 Leaves oblong acuminate mucronate serrulate 3-nerved, Corymbs loose
2920 Leaves obovate serrated pubescent beneath, Panicles on very short stalks, Branches deep red
2921 Decumbent smooth, Leaves very small in bundles oblong entire, Corymbs of the branches terminal
2922 Leaves ovate acuminate veiny, Cymes axillary
2923 Leaves lanceolate obtuse netted with veins, Panicle terminal
2924 Leaves obovate tomentose beneath, Heads of flowers in panicles
2925 Leaves oblong somewhat cordate serrate tomentose beneath, Racemes compound stalked

2926 Leaves lanceolate 3-cornered spreading, Ray of calyx shorter than the head
2927 Leaves linear lanceolate 3-cornered spreading, Ray of calyx longer than the head



and Miscellaneous Particulars.

Z. jujuba is a middle-sized tree, with ovate leaves, pale yellowish flowers, and red oval fruit, about the size of olives, inclosing a stone of the same shape. They are sweet, and eaten in the East Indies and China.

Z. vulgaris is a middle-sized branching tree, bearing a saffron-colored drupe shaped like an olive, but smaller. The plant grows wild in Calabria, and is cultivated in other parts of Italy, and in Spain. The fruit is eaten green or dried as a sweatmeat. It is common in China, Japan, Syria, &c. and is said to have been first introduced into Italy from the latter country in the time of Augustus. All the species are readily increased by ripened cuttings planted under a hand-glass.

507. *Celastrus.* From κηλας, the latter season. The ancients considered the holly, the Genista, and the Celastros, the trees which ripened their fruit latest. The Celastros of the ancients is thought to have been a kind of Euonymus, to which this genus is nearly allied. It consists of shrubs or small trees, with alternate leaves, and numerous small flowers. The plants are of easy culture, but of no great beauty.

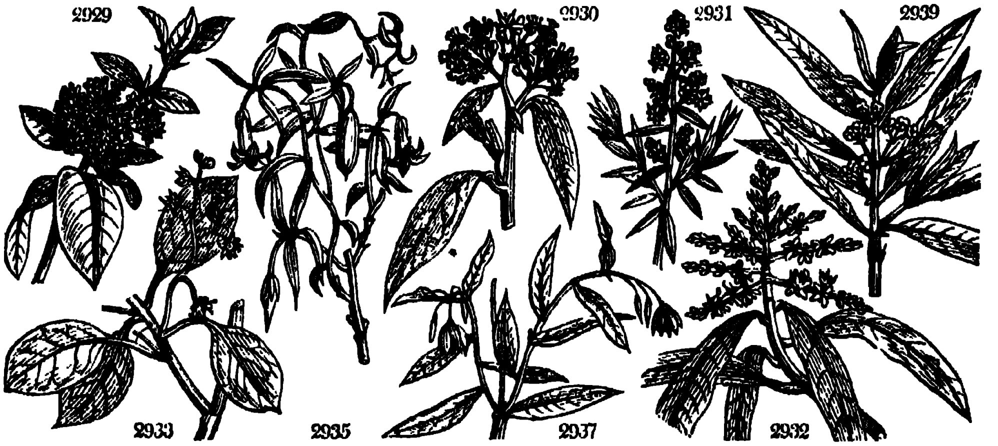
508. *Senacia* A genus divided by M. de Lamarck from *Celastrus*, and founded upon the Celastrus undulatus of L'Heritier.

509. *Euonymus.* From ευ, well, and ονομα, a name, well named. The application of the name is, however, obscure to us. Euonymus was also a Heathen divinity; according to Epimenides she was the mother of the Furies by Saturn. *Fusain, or Bonnet de Prêtre*, Fr., *Spindelbaum*, Ger., and *Fusaggine*, Ital. The species form neat little trees of no great beauty or use. E. europæa is called prick-wood, from the use of the wood formerly as skewers. E. americana best merits culture, and next, E. latifolia. They are easily increased by seed or ripened cuttings.

510. *Ceanothus.* Κεανωθος is a name used by Theophrastus to designate a prickly plant, from κεω, to prick. This is a genus of North American plants, one species of which, C. americana, is very common in gardens. The leaves are dried in Carolina and used as tea, and the root to dye wool a Nankeen cinnamon color. The species are of the easiest culture, but of very little beauty.

511. *Staavia.* Named after Martin Staaf, a correspondent of Linnæus. Little Cape shrubs, with heads of flowers resembling those of some compound plant. Young cuttings in sand, and covered with a bell, soon strike root.

512. POMADER'RIS. *Lab.*	POMADERRIS.					*Rhamni.*	*Sp.* 4.					
2928 apétala *H. K.*	apetalous	♣	⊔	or	7	my.jn	Pa.Y	N. Holl.	1803.	C	s.p	Lab. no. h. 1.t.87
2929 elliptica *H. K.*	oval-leaved	♣	⊔	or	10	my.jl	Pa.Y	N. Holl.	1805.	C	s.p	Bot. mag. 1510
2930 lanígera *B. M.*	woolly	♣	⊔	or	3	ap.jn	Pa.Y	N. Holl.	1806.	C	s.p	Bot. mag. 1823
2931 phylicifólia *Lodd.*	Phylica-leaved	♣	⊔	or	2	ap.jn	Pa.Y	N. Holl.	1819.	C	s.p	Bot. cab. 120
513. MANGI'FERA. *W.*	MANGO-TREE.		┼			*Terebintaceæ.*	*Sp.* 1—3.					
2932 índica *W.*	Indian	⚲	□	Fr	20	jn.s	R.o	E. Indies	1690.	S	r.m	Bot. rep. 425
514. SCHRE'BERA. *Retz.*	SCHREBERA.					*Celastrinæ.*	*Sp.* 1.					
2933 álbens *Retz.*	whitish	♣	□	or	6	...	G	Ceylon	1824.	C	p.l	N. ac. h. 2. t.4.f.1
515. BILLARDIE'RA. *Sm.*	APPLE-BERRY.					*Pittosporeæ.*	*Sp.* 4.					
2934 scándens *W.*	climbing	⌊	⊔	or	12	jn.au	G	N. S. W.	1790.	S	s.p	Bot. mag. 801
2935 mutábilis *H. K.*	changeable	⌊	⊔	or	8	jn.s	Pu	N. S. W.	1795.	S	s.p	Bot. mag. 1313
2936 longiflóra *Lab.*	blue-berried	⌊	⊔	or	20	jn.s	G	V. Di. L.	1810.	S	s.p	Bot. mag. 1507
2937 fusifórmis *Lab.*	spindle-fruited	⌊	⊔	or	8	jn.au	B	V. Di. L.	1823.	S	s.p	Lab. n. h. 1. t. 90
516. ELÆODEN'DRUM. *W.*	OLIVE-WOOD.					*Rhamni.*	*Sp.* 3—6.					
2938 A'rgam *W.*	spiny	• ⚲	⊔	or	15	jl	G.Y	Morocco	1711.	C	l.p	Com. hor. 1. t. 83
2939 orientále *W.*	oriental	⚲	□	or	12	...	W	Mauritius	1771.	C	p.l	Jac. ic. 1. t. 48
2940 austrále *H. K.*	thick-leaved	♣	⊔	or	3	jn.au	W	N. S. W.	1796.	C	s.l	Vent. malm. 117
517. DIOS'MA. *W. en.*	DIOSMA.					*Diosmeæ.*	*Sp.* 9—36.					
2941 oppositifólia *W.*	opposite-leaved	♣	⊔	or	3	mr.jl	W	C. G. H.	1752.	C	p.l	Com. rar. 1. t. 1
2942 lineáris *W.*	linear-leaved	♧	⊔	or	1	mr.jl	W	C. G. H.	1800.	C	p.l	
2943 hirsúta *W.*	hairy-leaved	♣	⊔	or	4	mr.jl	Pk	C. G. H.	1731.	C	p.l	Com. rar. 3. t. 3
2944 pectináta *W. en.*	pectinated	♧	⊔	or	1	ap.jn	W	C. G. H.	1812.	C	l.p	We. co. pl. 1. t. 8
2945 ericoídes *W.*	Heath-leaved	♣	⊔	or	2	mr.jl	W	C. G. H.	1756.	C	p.l	Bot. mag. 2332
2946 cupressína *W.*	Cypress-leaved	♧	⊔	or	1½	jn.jl	Pk	C. G. H.	1790.	C	p.l	Pl. al. t. 279. f. 2
2947 tenuifólia *W. en.*	slender-leaved	♣	⊔	or	2	ap.jn	W	C. G. H.	...	C	p.l	
2948 succulénta *W. en.*	succulent-lvd.	♣	⊔	or	2	ap.jn	W	C. G. H.	...	C	p.l	We. co. pl. 1. t. 1
2949 capitáta *W.*	pale-purple	♣	⊔	or	2	my.jn	Pu	C. G. H.	1790.	C	p.l	Bot. cab. 860
518 ADENAN'DRA. *W. en.*	ADENANDRA.					*Diosmeæ.*	*Sp.* 5—8.					
2950 uniflóra *W. en.*	one-flowered	♧	⊔	or	1	ap.jl	Pk	C. G. H.	1775.	C	p.l	Bot. mag. 273
2951 umbelláta *W. en.*	umbel-flowered	♣	⊔	or	2	ap.jl	Pk	C. G. H.	1789.	C	p.l	Bot. mag. 1271
2952 frágrans *B. M.*	red-flowered	♣	⊔	or	3	my.jl	Pk	C. G. H.	1812.	C	p.l	Bot. mag. 1519
2953 álba *Th.*	white-flowered	♣	⊔	or	2	mr.jl	W	C. G. H.	1800.	C	p.l	
2954 margináta *Th.*	margined	♣	⊔	or	2	mr [illegible]	Pk	C. G. H.	1806.	C	p.l	Pl. al. t. 411. f. 3
519. BARYOS'MA. *W. en.*	BARYOSMA.					*Dios[illegible]æ.*	*Sp.* 2—3.					
2955 serratifólia *W.*	saw-leaved	♣	⊔	or	3	mr.jn	Pk	C. G. H.	1789.	C	p.l	Bot. mag. 456
2956 latifólia *W.*	broad-leaved	♣	⊔	or	2	jl.au	W	C. G. H.	1789.	C	p.l	Bot. rep. 33



History, Use, Propagation, Culture,

512. *Pomaderris.* From πῶμα, a lid, and δέῤῥις, a skin, on account of the membranous lid with which the cells of the capsule are covered. New Holland shrubs, with the habit of Ceanothus, from which they are distinguishable only by their fruit. Cuttings root freely in sand under a hand-glass.

513. *Mangifera.* From *Manga* or *Manghos*, the vernacular name of the fruit, and *fero*, to bear. This is a large spreading tree, bearing a fruit in great estimation in the East. The wood is brittle, brown, and used only for indifferent works. The leaves are seven or eight inches long, and two or more broad, lanceolate, entire, of a shining green, and sweet resinous smell. The flowers are produced in loose bunches at the ends of the branches. The fruit is a berried drupe, large, flattened like a lens, kidney-shaped; the flesh soft and pulpy, like a damascene plum; the shell almost kidney-shaped, of a leathery crustaceous substance, and one-celled. This fruit, when fully ripe, is yellow and reddish, replete with a fine agreeable juice; some are full of fibres, and the juice runs out of these on cutting, or with a little handling; but those which have few or no fibres are much the finest; they cut like an apple, but are more juicy, and some are as big as a large man's fist. It is esteemed a very wholesome fruit, and, except very fine pine-apples, is preferable to any fruit in India; gentlemen there eat little other fruit in the hot months; but if no wine be drank with it, the Mango is apt to throw out troublesome boils, at least with new comers, which are, however, conducive to health. In Europe we have only the unripe fruit brought over in pickle.

Loureiro remarks, that there are many varieties, differing chiefly in the figure, size, color, and taste of the fruit, as apples and pears do in Europe. Retzius, on the contrary, affirms, that there are certainly several distinct species; the number of stamens in some being double; the racemes in others compound; the fruit kidney-shaped, globular, fleshy, almost juiceless, &c.

According to Sweet, "the Mango ripens fruit in this country, when the plants are of a good size. Sandy loam, or a mixture of loam and peat, is most suitable to it, and the pots should be well drained, as the plants are apt to get sodden with too much water. Fresh seeds from the West Indies vegetate freely. The plant may also be increased from cuttings, which root best in sand under a hand-glass." (*Bot. Cult.* 77.)

Knight, Hallet, and some other horticulturists are at present cultivating this tree with a view to its fruit. Knight recommends for such trees, training the shoots downwards, and at no great distance from the glass. There are trees in the garden of Earl Powis which must bear very soon.

514. *Schrebera.* Named after John Chr. Daniel Schreber, a German botanist, chiefly known by an edition of

2928 Leaves ovate-oblong doubly-serrated tomentose beneath, Flowers apetalous in racemes
2929 Leaves oval tomentose beneath, Heads of flowers in umbels panicled
2930 Cymes panicled terminal, Leaves ovate lanceolate entire coriaceous rusty beneath
2931 Leaves linear, Flowers in axillary clusters as long as leaves

2932 Leaves lanceolate wavy, Panicles terminal many-flowered, Stamen 1

2933 The only species

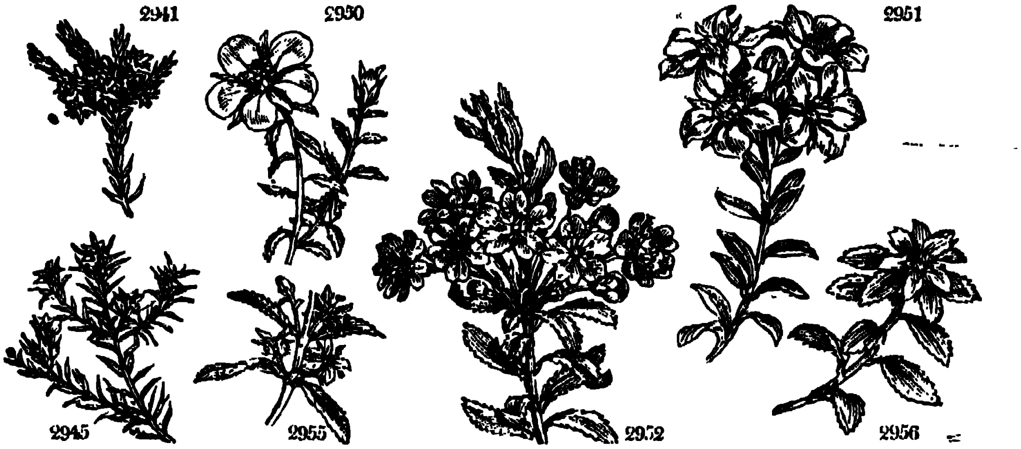
2934 Peduncles solitary 1-flowered, Leaves somewhat hairy
2935 Leaves lanceolate linear, Peduncles solitary 1-flowered smooth, Fruit smooth
2936 Leaves smooth, Cor. cylindrical, Peduncles solitary 1-fl. Petals very long rolled inwards at edge
2937 Panicles few-flowered, Leaves somewhat hairy, Anthers connivent

2938 Branches spiny, Leaves ovate obtuse
2939 Leaves lanceolate acute with red veins
2940 Leaves elliptical coriaceous toothletted, Petals and stamens four

2941 Leaves 3-cornered obtuse ciliated, Flowers terminal
2942 Leaves linear obtuse smooth spreading, Flowers terminal solitary
2943 Leaves linear carinate mucronate villous, Peduncles 1-flowered terminal corymbose
2944 Leaves 3-cornered acute dotted ciliated
2945 Leaves 3-cornered obtuse smooth, Flowers terminal solitary
2946 Leaves oblong lanceolate carinate appressed rough at edge, Flower terminal nearly solitary
2947 Leaves linear carinate mucronate ciliated upright, Peduncles 1-2 flowered corymbose terminal
2948 Leaves linear carinate acute thickish fringed upright, Flowers terminal subsessile solitary or 4 together
2949 Leaves 3-cornered villous-hispid imbricated, Flowers in spiked heads

2950 Leaves lanceolate smooth, Flowers terminal solitary, Calyxes fringed
2951 Leaves oblong smooth ciliated, Flowers terminal in umbels, Calyxes smooth
2952 Leaves ovate oblong glandular scattered, Peduncle glutinous aggregate terminal twice as long as leaves
2953 Leaves linear carinate mucronate at the edge cartilaginous and rough, Flowers axillary and solitary
2954 Leaves cordate, Lower ovate, Upper lanceolate, Umbels terminal

2955 Leaves linear lanceolate serrulate
2956 Leaves ovate crenate pubescent, Peduncles lateral 1-flowered, Branches downy



and Miscellaneous Particulars.

Linnæus's Genera Plantarum, which he published in 1789, in which he unadvisedly altered all the names of Aublet, without ever having seen the plants.

515. *Billardiera.* Named in honor of Jacques Julien Labillardière, a French botanist, who visited Syria, and afterwards New Holland, in D'Entrecasteaux's expedition. His reputation as a botanist was almost annihilated by the Prodromus Novæ Hollandiæ of Brown. The species of this genus are desirable as climbers for a conservatory, especially B. longiflora, which is a fast grower and an abundant flowerer; and when in fruit, its fine blue berries make a handsome appearance. They thrive well in an equal portion of loam and peat; and cuttings root readily in sand under a bell-glass: they may also be raised from seeds, which are produced in abundance. (*Bot. Cult.* 149.)

516. *Elæodendrum.* From ἐλαια, an olive, and δενδρον, a tree; a tree resembling an olive. E. argan furnishes an oil by expression from the fruit as in the common olive: it is used at table by the Moors, and in various works by Europeans. The tree is rather tender, and requires protection during winter.

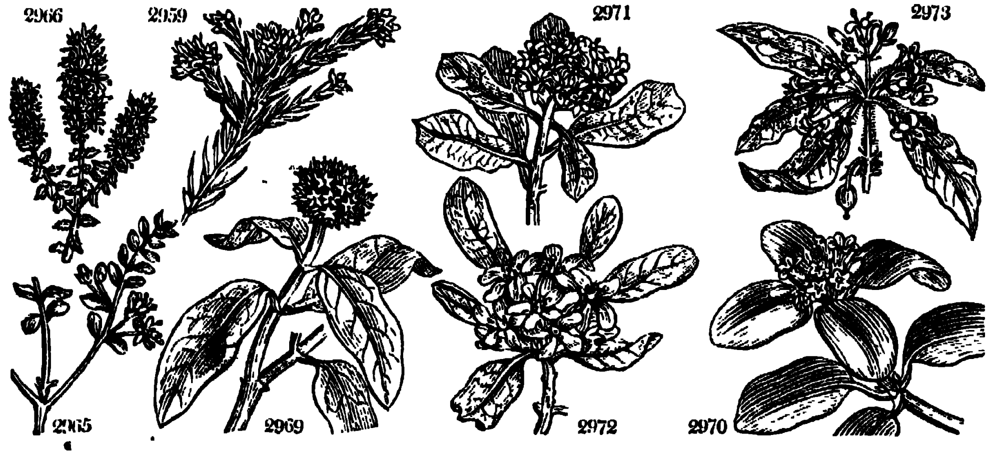
E. australe, and the stove species, "grow freely in a mixture of loam and peat; and ripened cuttings will soon root in sand under a hand-glass." (*Sweet.*)

517. *Diosma.* From διος, divine, and οσμη, smell; that is to say, a smell divine among the Hottentots, who rub their greasy bodies with the powdered leaves of all the species, which they call *Bucku.* To Europeans the smell is unpleasant. This is a genus of handsome shrubs, bearing a general resemblance to heaths, but with larger leaves. The flowers are in corymbs at the ends of the branches. D. ericoides, and other species, are the kinds chiefly used by the Hottentots to scent the ointments with which they anoint their skin. Young cuttings root freely in sand under a bell-glass.

518. *Adenandra.* From ἀδην, a gland, and ανηρ ανδρος, a male; or, in composition of botanical names, a stamen; on account of the appendage of the stamens. This is a very natural genus, easily recognized by its glandular anthers. Sweet "found it succeed best in sandy peat, but some prefer mixing a little sandy loam with it. The young tender tops strike best, made into cuttings, and planted in a pot of sand under a bell-glass; it does not require to be plunged in heat." (*Bot. Cult.* 127.)

519. *Baryosma.* From βαρυς, strong, and οσμη, smell, in allusion to its fetid leaves. Plants with the habit of Diosma. Cuttings root readily, taken off in ripened wood, and planted in sand under a bell-glass.

520. AGATHOS'MA. *W. en.*	AGATHOSMA.					*Diosmeæ.*	*Sp.* 12.					
2957 hispidum *W.*	rough-leaved	♣	⊔	or	1	jn.au	V	C. G. H.	1786.	C	p.l	
2958 ciliátum *W.*	ciliated	♣	⊔	or	2	ap.my	W	C. G. H.	1774.	C	p.l	Bot. cab. 210
2959 villósum *W.*	shaggy	♣	⊔	or	1½	jn.au	V	C. G. H.	1786.	C	p.l	We. co. pl. 1. t. 2
2960 imbricátum *W.*	imbricated	♣	⊔	or	3	ap.jn	Pk	C. G. H.	1774.	C	p.l	We. co. pl. 1. t. 9
2961 acuminátum *W. en.*	acuminate	♣	⊔	or	5	ap.jn	V	C. G. H.	1812.	C	p.l	We.co. pl.1. t.28
2962 cerefólium *Ven.*	Chervil-scented	♣	⊔	or	2	ap.jn	W	C. G. H.	1790.	C	p.l	Vent. malm. 93
2963 pubéscens *W. en.*	pubescent	♣	⊔	or	1	my.au	W	C. G. H.	1798.	C	p.l	We c.p.1.t.13,14
2964 crenátum *W.*	crenated	♣	⊔	or	2	ja.mr	W	C. G. H.	1774.	C	p.l	Bot. cab. 404
2965 ovátum *W.*	oval-leaved	♣	⊔	or	2	f.s	W	C. G. H.	1790.	C	p.l	Bot. mag. 1616
2966 pulchéllum *W.*	blunt-leaved	♣	⊔	or	3	f.s	Pu	C. G. H.	1787.	C	p.l	Bot. mag. 1357
2967 rúbrum *W.*	red	♣	⊔	or	2	f.my	R	C. G. H.	1752.	C	p.l	Bot. rep. 451
2968 tetragónum *W.*	square-branch.	♣	⊔	or	1	jl.au	W	C. G. H.	1789.	C	p.l	
521. NAU'CLEA. *W.*	NAUCLEA.					*Rubiaceæ.*	*Sp.* 1—12.					
2969 orientális *W.*	oriental	♠	☐	or	30	...	Y	E. Indies	1800.	L	r.m	Rhe. mal. 3. t.33.
522. PITTOS'PORUM. *W.*	PITTOSPORUM.					*Pittosporeæ.*	*Sp.* 6—11.					
2970 coriáceum *W.*	thick-leaved	♣	⊔	or	10	my	B	Madeira	1787.	L	p.l	Bot. rep. 151
2971 viridiflórum *B. M.*	green-flowered	♣	⊔	or	6	my.jn	G	C. G. H.	1806.	C	p.l	Bot. mag. 1684
2972 Tobira *H. K.*	glossy-leaved	♣	⊔	or	6	mr.au	W	China	1804.	C	p.l	Bot. mag. 1396
2973 undulátum *H. K.*	wave-leaved	♣	⊔	or	3	f.jn	W.y	N. S. W.	1789.	C	s.p	Bot. reg. 16
2974 revolútum *H. K.*	downy-leaved	♣	⊔	or	6	f.ap	Y	N. S. W.	1795.	G	s.p	Bot. reg. 186
2975 ferrugineum *H. K.*	rusty-leaved	♣	☐	or	6	f.my	Y	Guinea	1787.	G	s.p	Bot. mag. 2075
523. LASIOPE'TALUM. *Smith.*	LASIOPETALUM.					*Büttneriaceæ.*	*Sp.* 2.					
2976 parviflórum *L. T.*	small-flowered	♣	⊔	or	3	ap.jl	Br	N. Holl.	1810.	C	l.p	L. t. v. 10.t.19.f.2
2977 ferrugineum *B. R.*	rusty	♣	⊔	or	4	ap.jl	Y	N. Holl.	1791.	C	s.p	Bot. mag. 1766
524 THOMA'SIA. *Gay.*	THOMASIA.					*Büttneriaceæ.*	*Sp.* 3.					
2978 purpúrea *Gay.*	purple	♣	⊔	or	3	ap.jl	Pu	N. Holl.	1803.	C	s.p	Bot. mag. 1755
2979 solanácea *Gay.*	Solanum-like	♣	⊔	or	3	ap.jl	Pu	N. Holl.	1803.	C	s.p	Bot. mag. 1486
2980 quercifólia *Gay.*	oak-leaved	♣	⊔	or	3	ap.jl	Br	N. Holl.	1803.	C	s.p	Bot. mag. 1485
525. SERIN'GIA. *Gay.*	SERINGIA.					*Büttneriaceæ.*	*Sp.* 1.					
2981 platyphýlla *Gay.*	Nettle-tree-lvd	♣	⊔	or	12	ap jl	W	N. Holl.	1802.	C	s.p	Mem. mu. vol. 7
526. BUTTNERIA. *W.*	BUTTNERIA.					*Büttneriaceæ.*	*Sp.* 2—14.					
2982 scábra *W.*	rough-leaved	♣	☐	cu	6	jl	Pu	W. Indies	1793.	C	p.l	Ca. d. 5. t 148. f.1
2983 microphýlla *W.*	small-leaved	♣	☐	cu	5	...	W.pu	S. Amer.	1816.	C	l.p	Ca. d. 5. t. 148. f.2
527. AYE'NIA. *W.*	AYENIA.					*Malvaceæ.*	*Sp* 2—4.					
2984 pusílla *W.*	small	¥	☐	cu	1	jl.s	Pu	Jamaica	1756.	C	r.m	Mill. ic. 79. t. 118
2985 lævigáta *P. S.*	smooth	♣	☐	cu	2	...	S	Jamaica	...	C	r.m	
528. CALODEN'DRUM *W.*	CALODENDRUM.					*Rutaceæ.*	*Sp.* 1.					
2986 capénse *W.*	Cape ✤	♠	⊔	or	40	...	Pk	C. G. H.	1789.	C	l.p	H. na. h. 4. t. 22
529. TODDA'LIA. *Lam.*	TODDALIA.					*Terebintaceæ.*	*Sp.* 1—5.					
2987 asiática *Lam.* *Scopolia aculeata* Sm.	prickly	♣	☐	or	6	...	W	E. Indies	1790.	C	s.p	Lam. ill. t. 139
530. BURSA'RIA. *Cav.*	BURSARIA.					*Pittosporeæ.*	*Sp.* 1.					
2988 spinósa *Cav.*	thorny	♣	⊔	or	10	au.d	W	N. S. W.	1793.	C	s.p	Bot. mag. 1767
531. CEDRE'LA. *W.*	BASTARD-CEDAR.					*Cedreleæ.*	*Sp.* 2.					
2989 odoráta *W.*	Barbadoes	♠	☐	tm	50	...	Pk	W. Indies	1739.	C	l.p	Br.ja.158.t.10 f.1
2990 Toona *Roxb.*	E. Indian	♠	☐	tm	50	...	Pk	E. Indies	1823.	C	l.p	



History, Use, Propagation, Culture,

520. *Agathosma.* From αγαθος, good, and οσμη, smell; to be understood as Diosma. This genus resembles that, and requires the same culture. The Hottentots use the leaves of A. pulchella dried and powdered, under the name of *Bucku*, to mix with the grease with which they anoint themselves. It gives them so rank an odor, that Thunberg says, he sometimes could not bear the smell of the men who drove his waggon.

521. *Nauclea.* A noble genus of Rubiaceous plants, bearing their flowers in round heads. The meaning of the name is nowhere explained. One species, N. Gambir, is said to yield the gamboge gum of the shops.

522. *Pittosporum.* From πιττη, resin, and σπερος, a seed. The capsule is resinous. These are handsome shrubs, with good foliage and pretty flowers. P. tobira, a native of Japan, is nearly hardy. Ripened cuttings root freely in sand under a hand-glass, or one species may be grafted on another.

523. *Lasiopetalum.* From λασιος, woolly, and πεταλον, a petal; in allusion to the flowers. Ripened cuttings planted in sand under a hand-glass will root freely.

524. *Thomasia.* Named by M. Gay, after M. Thomas, an industrious collector of Swiss plants. Divided lately from Lasiopetalum.

525. *Seringia.* Also named by M. Gay, in honor of M. Seringe, an ingenious Swiss botanist, author of Melanges de Botanique, and other useful works. Divided from Lasiopetalum, with which it agrees in habit and appearance.

526. *Büttneria.* David Sigismond Augustus Büttner, was a professor of botany at Gottingen, who published,

2957 Leaves 3-cornered blunt villous hispid spreading, Umbels terminal
2958 Leaves lanceolate carinated ciliated, Umbels terminal
2959 Lvs. aggregate linear lanceolate channelled glandular villous imbricated, Heads of branches terminal
2960 Leaves aggregate ovate acuminate imbricated dotted fringed, Heads of branches terminal umbelled
2961 Leaves alternate aggregate subcordate acuminate pubesc. dotted, Flowers in terminal umbelled branches
2962 Leaves imbricate spreading lanceolate ciliated, Heads terminal, Five stamens sterile
2963 Leaves aggregate oval obtuse glandular ciliated spreading, Heads of branches terminal
2964 Leaves ovate crenate dotted beneath, Flowers axillary solitary
2965 Leaves opposite smooth ovate entire revolute at edge beneath rusty with dots
2966 Leaves ovate glandular-crenate smooth, Flowers axillary in pairs
2967 Leaves 3-cornered mucronate smooth below dotted in two rows, Segments of calyx smooth
2968 Leaves ovate carinate ciliated imbricated 4 ways, Flowers terminal solitary

2969 Leaves oblong acute, Peduncles equal, Stamens the length of corolla

2970 Leaves obovate obtuse smooth coriaceous, Capsules 2-valved
2971 Leaves obovate blunt shining netted beneath, Panicle globose terminal
2972 Leaves obovate obtuse smooth coriaceous, Capsules 3-valved
2973 Leaves oval lanceolate narrowed at each end and stalks smooth, Peduncles of the branches terminal
2974 Leaves elliptical obtuse pubescent beneath revolute at the edge
2975 Leaves elliptical acuminate smooth, Leafstalks rusty with down

2976 Sepals smooth inside
2977 Sepals hoary on both sides

2978 Leaves linear elliptical entire, Stipules leafy, Petals 5, Stamens
2979 Petals 5, Stamens 10
2980 Leaves 3-lobed beneath hispid downy, Petals O

2981 Leaves ovate lanceolate coarsely toothed

2982 Leaves lanceolate toothed hastate at base, Rachis stem and leafstalks angular prickly
2983 Leaves elliptical entire emarginate, Prickles stipulary, Branches wavy smooth

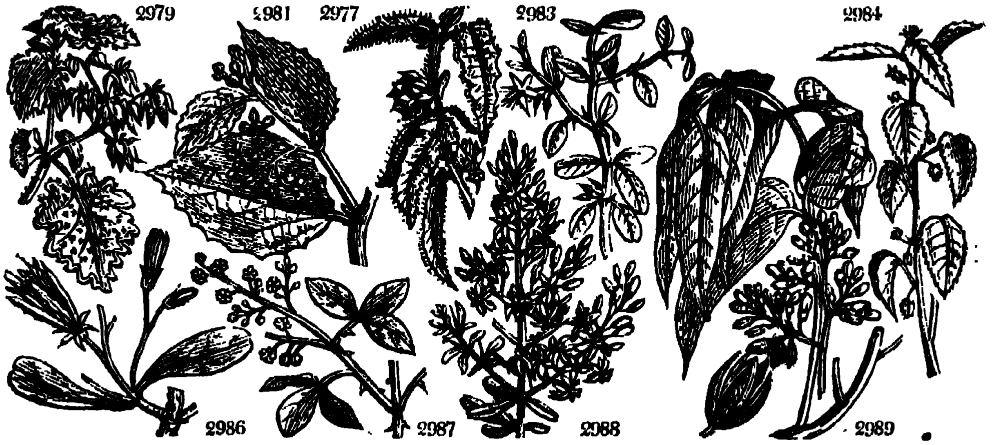
2984 Leaves cordate smooth
2985 Leaves ovate entire smooth, Ovary stalked, Nectary 10 cleft rayed

2986 Leaves ovate obtuse entire with parallel veins, Flowers terminal panicled

2987 Stem branches and leaves prickly, Leaflets ovate lanceolate subserrated

2988 Stem spiny, Leaves emarginate, Flowers racemose

2989 Cal. and cor. naked
2990 Cal. and cor. fringed



and Miscellaneous Particulars.

in 1750, a catalogue of the plants in the garden of an amateur named Cunon. Ripened cuttings planted in sand under a hand-glass will root freely.

527. *Ayenia.* In honor of the Duke D'Ayen, of the house of Noailles. He was a great patron of botany. Cuttings root freely in sand in a moist heat.

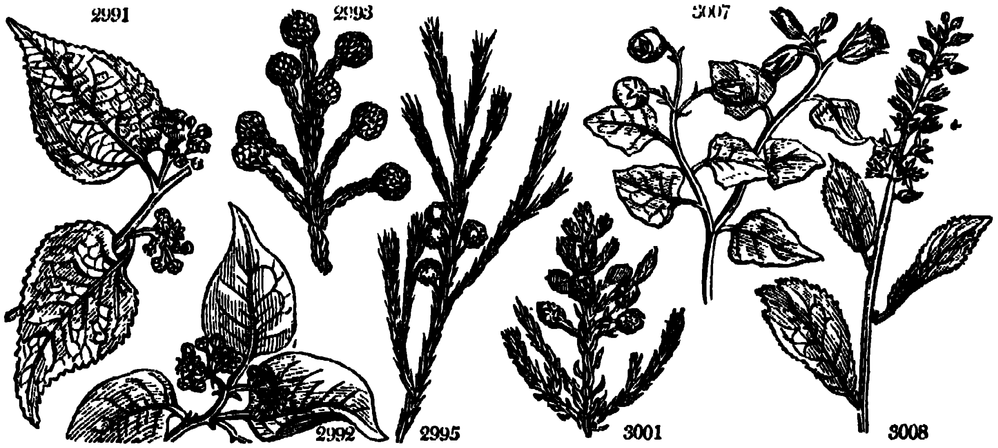
528. *Calodendrum.* From καλος, fine, and δενδρον, a tree. Fine indeed, with its beautiful foliage and splendid flowers. This is a Cape genus, and is generally supposed to be one of the finest trees known there; its fruit bears great resemblance to a chestnut, but seldom arrives here perfect. It grows freely in an equal mixture of loam and peat; and ripened cuttings root readily in pots of sand under a hand-glass. (*Bot. Cult.* 159.)

529. *Toddalia.* Kaka Toddali is the Malabar name of the shrub. Cuttings root readily in sand under a bell-glass.

530. *Bursaria.* From *bursa*, a pouch; the capsules resemble those of Thlaspi Bursa Pastoris so much, that Labillardiere fancied he had found a cruciferous tree when he discovered the plant in New Holland. "This is a pretty plant. It is very desirable for a greenhouse or conservatory, being an abundant flowerer, and very showy when covered all over with its elegant little white flowers; an equal mixture of sandy loam and peat is the best soil for it; and young cuttings are not difficult to root in sand under a bell-glass." (*Bot. Cult.* 155.)

531. *Cedrela.* From *cedrus*, the cedar-tree. The wood of plants of this genus is one of the kinds of cedar of commerce. All that comes from New Holland in the form of packing cases, is supposed to be the wood of a spe-

532. HOVENIA. *Th.*	Hovenia.					*Rhamni.* *Sp.* 2.						
2991 dúlcis *Don.*	sweet	♆	⊔	fr	8	jl.au	W	Japan	1812.	C	p.l	
2992 acerba *Lindl.*	sour	♆	⊔	or	8	jl.au	W	Nepal	...	C	p.l	Bot. reg. 501
533. BRU'NIA. *W.*	Brunia.					*Rhamni.* *Sp.* 14—24.						
2993 nodiflóra *W.*	imbricated	♣	⊔	or	6	jl.au	W	C. G. H.	1786.	C	p.l	Bre. cent.22. t.10
2994 paleácea *W.*	chaffy	♣	⊔	or	2	jn.au	W	C. G. H.	1791.	C	p.l	Wendl. coll. t.21
2995 lanuginósa *W.*	woolly	♣	⊔	or	3	jn.au	W	C. G. H.	1774.	C	p.l	Bot. cab. 572
2996 verticilláta *W.*	whorled	♣	⊔	or	3	jn.au	W	C. G. H.	1794.	C	p.l	
2997 deústa *Th.*	black-tipped	♧	⊔	or	1	jn.au	W	C G. H.	1804.	C	p.l	
2998 microphýlla *Th.*	small-leaved	♧	⊔	or	1	jn.au	W	C. G. H.	1804.	C	p.l	
2999 láxa *Th.*	spiked	♣	⊔	or	2	jn.au	W	C. G. H.	1805.	C	p.l	
3000 alopecuroídes *Th.*	Fox-tail	♧	⊔	or	1	...	W	C. G. H.	1816.	C	p.l	
3001 abrotanoídes *W.*	Thyme-leaved	♧	⊔	or	1½	my.jl	W	C. G. H.	1787.	C	p.l	Bot. cab. 355
3002 supérba *Donn.*	superb	♣	⊔	or	4	my jl	W	C. G. H.	1791.	C	p.l	
3003 fragarioídes *W.*	Strawberry-like	♧	⊔	or	1	my.jl	W	C. G. H.	1794.	C	p.l	
3004 ciliáta *L.*	ciliated	♧	⊔	or	1	my.jl	W	C. G. H.	1812.	C	p.l	
3005 ericoídes *Wendl.*	heathy	♣	⊔	or	3	jl.au	W	C. G. H.	1804.	C	p.l	Wend.coll.2.t.57
3006 phylicoídes *Th.*	Phylica-like	♣	⊔	or	2	jn.au	W	C. G. H.	1805.	C	p.l	
534. BROSSÆ'A. *L.*	Brossæa.					*Ericeæ.* *Sp.* 1.						
3007 coccínea *L.*	scarlet	♣	▭	or	4	...	S	S. Amer.	...	C	l.p	Plum. ic. 64. f. 2
535. I'TEA. *L.*	Itea.					*Ericeæ.* *Sp.* 1.						
3008 virgínica *W.*	Virginian	♣		or	6	jn.au	W	N. Amer.	1744.	L	s.p	Bot. mag. 2409
536. CYRIL'LA. *L.*	Cyrilla.					*Ericeæ.* *Sp.* 1.						
3009 caroliniána *Ph.*	Carolina	♣	⊔	or	6	jn.au	W	Carolina	1765.	C	l.p	Bot. mag. 2456
537. CLAYTO'NIA. *W.*	Claytonia.					*Portulaceæ.* *Sp.* 6—11.						
3010 virgínica *Ph.*	Virginian	⚘	△	pr	½	mr.my	St	N. Amer.	1748.	D	s.p	Bot. mag. 941
3011 caroliniána *H. K.*	spatula-leaved	⚘	△	pr	¼	mr.my	Pk	N. Amer.	1789.	D	s.p	Par. lond. 71
3012 lanceoláta *Ph.*	spear-leaved	⚘	△	pr	½	mr.my	W	N. Amer.	1812.	D	p.l	Pursh. am. 1. t.3
3013 sibírica *W.*	Siberian		○	pr	¼	my.au	R	Siberia	1768.	S	p.l	Bot. mag. 2243
3014 alsinoídes *Ph.*	Chickweed-like		○	cu	¼	mr.jn	W	Nootk. Sd.	1794.	S	p.l	Bot. mag. 1309
3015 perfoliáta *Donn.*	small-flowered		○	cu	½	my.au	W	N. Amer.	1794.	S	s.p	Bot mag. 1336
538. IMPA'TIENS. *W.*	Balsam.					*Balsamineæ.* *Sp.* 4—16.						
3016 Balsámina *W.*	garden		⊡	or	3	jl.o	R	E. Indies	1596.	S	r.m	Blackw. t. 583
3017 coccínea *H. K.*	glandular-leav.		○	or	2	jn.s	R	E. Indies	1808.	S	r.m	Bot. mag. 1256
3018 biflóra *Ph.*	two-flowered		○	or	2	jn.s	O	N. Amer.	...	S	r.m	Sweet fl g. 43
3019 Nolitángere *W.*	Touch-me-not		○	or	2	jn.s	Y	England	w.s.pl.	S	s.p	Eng. bot. 937



History, Use, Propagation, Culture,

cies of Cedrela. This tree shoots out many side branches towards the top, which are furnished with winged leaves, composed of 16 or 18 pair of leaflets, so that they are sometimes near three feet long. The flowers are on a branching raceme, and the fruit a woody capsule about the size of a pigeon's egg. The bark, leaves, and fruit have, when fresh, a smell like assafœtida, but the timber has a pleasant smell. In the British West India islands the tree has the common name of cedar. The trunk is so large as to be hollowed out into canoes and periaguas, for which purpose it is extremely well adapted; the wood being soft, it may be cut out with great facility, and being light, it will carry a great weight on the water. There are canoes in the West Indies which have been formed out of these trunks forty feet long and six broad: the wood is of a brown color, and has a fragrant odor, whence the title of cedar has been given to it. It is frequently cut into shingles for covering houses, and is found very durable; but as the worms are apt to eat this wood, it is not proper for building ships, though it is often used for that purpose, as also for sheathing of ships. It is often used for wainscoting of rooms, and to make chests, because vermin do not so frequently breed in it, as in many other sorts of wood, this having a very bitter taste, which is communicated to whatever is put into the chests, especially when the wood is fresh; for which reason it is never made into casks, because spirituous liquors will dissolve part of the resin, and thereby acquire a very bitter taste. Cuttings of Cedrela strike root under a hand-glass in sand.

532. *Hovenia.* Named after David Hoven, a Dutch commissary in Japan, who gave facilities and encouragement to Thunberg while in that country. A small tree, nearly hardy. Its fruit is eaten in China and Japan, and is said to resemble a Bergamot pear in taste.

533. *Brunia.* So named after Cornelius Brun, a traveller into the Levant and Russia at the end of the last and beginning of the present century. This, Sweet observes, "is a pretty Cape genus; its species are pretty bushy shrubs, with heath-like leaves, and are handsomest while young. The flowers are not so showy as in many other genera, but some of them are very elegant. A sandy peat soil suits them best, with a moderate supply of water; and young cuttings planted in sand under a bell-glass will strike root freely." (*Bot. Cult.* 153.)

534. *Brossæa.* Gui de la Brosse was physician to Louis XIII, and in 1626 procured the establishment at Paris of the Jardin des Plantes, of which he was the first director. A very doubtful plant. It is said to be a shrub like a Cistus, with scarlet flowers half an inch long.

535. *Itea.* From *ἰτέα*, the Greek name of the willow. The name Salix having been given to the modern willow, that of Itea has been applied to a plant resembling the willow in leaves and place of growth. This is a handsome plant which thrives well either in peat-soil or sandy loam, and is increased by layers.

2991 Fruit sweet fleshy, Leaves glabrous a little shining
2992 Fruit austere, Leaves downy quite opaque

2993 Leaves 3-cornered incurved acute, Flowers terminal on the lateral branches
2994 Leaves 3-cornered brown at end, Chaff of the heads exserted colored
2995 Leaves half round erect-spreading withered at end at the base and branches hairy, Heads round lateral
2996 Leaves 3-cornered obtuse smooth, Heads terminal, Branches whorled clustered
2997 Leaves 3-cornered black at the end smooth, Heads terminal
2998 Leaves ovate 3-cornered fleshy smooth, Heads terminal, Branches divaricating
2999 Leaves 3-cornered and spiked, Flowers smooth
3000 Leaves 3-cornered acute smooth, Heads lateral globose smooth
3001 Leaves linear-lanceolate reflexed spreading: their edge fringed at base, Heads terminal corymbose
3002 Leaves half rounded spreading incurved hairy at the end with a withered beard
3003 Leaves 3-cornered appressed ciliated at edge
3004 Leaves ovate acuminate ciliated. A very doubtful species
3005 Leaves short acute 3-cornered at the end spreading fuscous and callous, Heads round at end of branches
3006 Leaves ovate convex imbricated, Heads terminal hairy

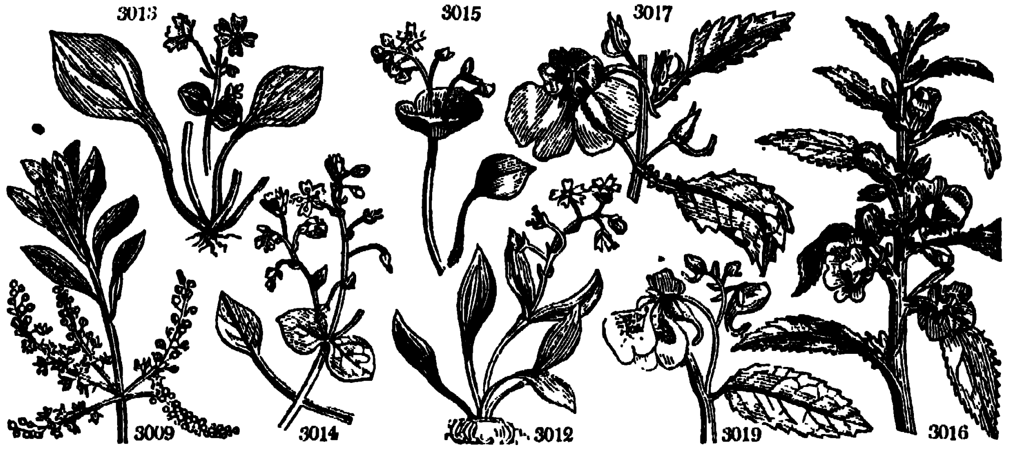
3007 A little shrub like a Cistus, with ovate stalked alternate pale-green leaves

3008 Leaves ovate acute serrated, Spikes pubescent

3009 Leaves wedge-lanceolate acute membranous nerved, Spikes slender

3010 Leaves very long linear, Petals entire
3011 Leaves short oval abruptly narrowed into the stalk
3012 Leaves lanceolate, Raceme solitary elongated, Root tuberous
3013 Leaves nerved: radical and cauline ovate, Raceme 1-sided, Petals bifid
3014 Radical leaves spatulate ovate: cauline ovate distinct, Root fibrous
3015 Radical leaves spatulate rhomb-shaped: cauline perfoliate

3016 Flower-stalks clustered, Leaves lanceolate: the upper alternate, Spur shorter than flower
3017 Leaves alternate oblong oval serrated, Leafstalks with many glands, Spur incurved as long as flower
3018 Flower-stalks generally 2-flowered, Leaves ovate serrated, Flowers orange-brown spotted inside
3019 Flower-stalks clustered, Leaves ovate, Points of stem tumid



and Miscellaneous Particulars.

536. *Cyrilla.* In honor of Dominico Cyrilli, professor of medicine at Naples, and a fellow of the Royal Society of London. He published, in 1788, a work upon the rare plants of Naples, which is now one of the scarcest of botanical works. This is a pretty shrub. Young cuttings will root under a bell-glass in sand, but not very freely.

537. *Claytonia.* In memory of Mr. John Clayton, who collected plants chiefly in Virginia, and sent them to Gronovius, who published them in his Flora Virginica. C. perfoliata is very hardy, and is not easily eradicated where once introduced. It grows on the poorest soil, vegetates early, and the whole of the herbage gathered and boiled makes a very tender spinage.

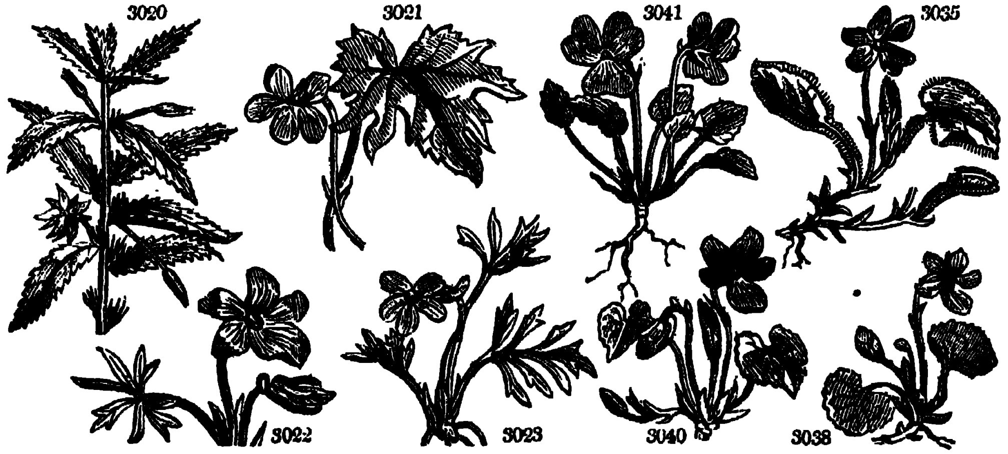
538. *Impatiens.* A metaphorical name given to these plants on account of the elastic force with which their capsules burst, and scatter their seeds upon the slightest touch. I. Balsamina is one of the most beautiful of popular annuals, forming a shewy cone of finely variegated carnation-like flowers. The prevailing colors of the petals are red and white, the former extending to every shade of orange, purple, scarlet, lilac, pink, and especially carnation or flesh color. Those are esteemed the most beautiful varieties which have the flowers double, and striped in the manner of a flake or bizarre carnation: but none of the varieties are permanent or can be continued by seeds, and the plant does not root readily by cuttings. The way to procure very large plants is to sow early in the season, as in March, to commence transplanting into 3-inch pots as soon as the plants have two proper leaves, and to shift every week or ten days into pots a size larger every time, till at last they are in pots of the largest or of a very large size, and in the richest light mould. The plants should be kept all the time in a hot-bed or pit, plunged, and with abundance of room and air, and the heat of the melon or pine. Fairweather, by transplanting only three or four times from No. 48. pots to those of eight inches diameter raised, produced balsams "four feet high, and fifteen feet in circumference, with strong thick stems, furnished with side branches from bottom to top, and these covered with large double flowers." (*Hort. Trans.* iii. 406.)

The juice of the balsam, prepared with alum, is used by the Japanese to dye their nails red. (*Thunberg.*)

I. Nolitangere, *Ne me touchez pas*, Fr., *Springsame*, Ger., and *Erba Impatienta*, Ital., is the only species found wild in Europe. When the seeds are ripe, upon touching the capsules, they are thrown out with considerable force: hence the names Impatiens and Nolitangere. In the day-time the leaves are expanded, but at night they hang pendent, contrary to what is observed in plants, which from a deficiency of moisture, or a too great perspiration from heat, commonly droop their leaves during the day. Only the goat is said to eat this plant.

I. biflora, the American Noli-me-tangere, resembles this plant, but is handsomer.

539. SAUVAGE'SIA. *Jacq.*	SAUVAGESIA.					*Violaceæ.*	*Sp.* 1—6.					
3020 erécta *L.*	erect	⊡		cu	1	my.jn	Pk	S. Amer.	1820.	S	co	Jacq.am. t.51. f.3
540. VI'OLA. *W.*	VIOLET.					*Violaceæ.*	*Sp.* 50—120.					
3021 palmáta *W.*	palmated	♃	△	or	½	my.jn	Pu	N. Amer.	1752.	D	p.l	Bot. mag. 535
3022 pedáta *W.*	cut-leaved	♃	△	or	½	my.jn	B	N. Amer.	1759.	D	p.l	Bot. mag. 89
3023 pinnáta *W.*	winged-leaved	♃	△	or	½	my.jn	V	S. Europe	1752.	D	p.l	Gm.sib.4.t.49.f.4
3024 sagittáta *W.*	arrow-leaved	♃	△	or	½	jl	W.B	N. Amer.	1775.	D	p.l	Bot. cab. 1471
3025 lanceoláta *W.*	spear-leaved	♃	△	or	¼	jn.jl	W	N. Amer.	1759.	D	p.l	Gm.sib.4.t.49.f.2
3026 obliqua *W.*	oblique-flower.	♃	△	or	¼	my.jn	Y.B	N. Amer.	1762.	D	p.l	
3027 cuculláta *W.*	hollow-leaved	♃	△	or	¼	my.jl	B	N. Amer.	1772.	D	p l	Bot. mag. 1795
3028 sorória *Ph.*	white-rooted	♃	△	or	¼	ap.jn	B	N. Amer.	1802.	D	p.l	Will.hort.ber.72
3029 papilionácea *Ph.*	variegated	♃	△	or	¼	my.jn	B	N. Amer.	1800.	D	p.l	
3030 ambigua *W. K.*	doubtful	♃	△	or	¼	ap.my	P.V	Hungary	1823.	D	co	W.K.hung.t.190
3031 uliginósa *Schr.*	swamp	♃	△	or	¼	ap.my	Pu	Carinthia	1823.	D	co	
3032 clandestina *Ph.*	small-flowered	♃	△	or	¼	my	Br	Pensylv.	1800.	D	p.l	
3033 blánda *Ph.*	white-flowered	♃	△	or	½	my.jl	W	N. Amer.	1802.	D	p.l	Will.hort.ber.24
3034 primulifólia *Ph.*	Primrose-leav.	♃	△	or	¼	ap.jn	P.B	N. Amer.	1783.	D	p l	
3035 hirta *W.*	hairy	♃	△	or	½	ap.my	B	England	ch. so.	D	p.l	Eng. bot. 894
3036 collina *Bess.*	hill	♃	△	ft	¼	mr.my	B	Poland	1822.	D	co	
3037 campéstris *Bieb.*	field	♃	△	or	½	ap.my	Pu	Tauria	1824.	D	co	
3038 palústris *Sm.*	marsh	♃	△	or	¼	my.jn	B	Britain	mos.b.	D	p.l	Eng. bot. 444
3039 Schmidtiâna *Sch.*	Austrian	♃	△	or	½	my.jn	B	Austria	1821.	D	co	
3040 odoráta *W.*	sweet	♃	△	ft	½	mr.my	Pu	Britain	sha. pl.	D	p.l	Eng. bot. 619
α purpúrea	*purple-flowered*	♃	△	ft	½	mr.my	Pu	Britain	gard.	D	p.l	
β álba	*white-flowered*	♃	△	ft	½	mr.my	W	Britain	gard.	D	p.l	
γ cærúlea	*blue-flowered*	♃	△	ft	½	mr.my	B	Britain	gard.	D	p.l	
δ purpúrea pléna	*double-purple*	♃	△	ft	½	mr.my	Pu	Britain	gard.	D	p.l	
ι álba pléna	*double-white*	♃	△	ft	½	mr.my	W	Britain	gard.	D	p.l	
ζ cærúlea pléna	*double-blue*	♃	△	ft	½	mr.my	B	Britain	gard.	D	p.l	
η pállida pléna	*Neapolitan*	♃	△	ft	½	mr.my	Pa.B	Britain	gard.	D	p.l	
3041 alpina *Jacq.*	Alpine	♃	△	or	¼	my.jn	D.Pu	Austria	1823.	D	co	Jac. aust. t. 242
3042 canina *W.*	dog's	♃	△	w	¼	ap.jn	B	Britain	hea.	D	p.l	Eng. bot. 620
3043 sylvéstris *Kit.*	wood	♃	△	or	½	my.jn	B	Hungary	1820.	D	co	
3044 negléeta *Schm*	neglected	♃	△	or	½	my.jn	P.B	Crimea	1821.	D	co	
3045 glaúca *Bieb.*	glaucous	♃	△	or	½	my.jn	P.B	Poland	1822.	D	co	
3046 láctea *E. B.*	cream-colored	♃	△	or	½	my	Cr	England	moi.h.	D	p.l	Eng. bot. 445
3047 montána *W.*	mountain	♃	△	or	1	my.jn	L.B	Al. of Eur.	1683.	D	p.l	Bot. mag. 1595
3048 Nuttállii *Ph.*	Nuttall's	♃	△	or	½	my.jn	B	Missouri	1812.	D	co	
3049 débilis *Mich.*	weak	♃	△	or	¼	ap.my	W	N. Amer.	1820.	D	co	Bot. cab. 1378
3050 valdéria *W. en.*	fringed-leaved	♃	△	or	½	my.jn	P	Mt. Cenis	1805.	D	p.l	Al. p. 2. t. 24. f.3
3051 cenísia *W.*	Alpine	♃	△	or	½	jn.jl	B	Mt. Cenis	1759.	D	p.l	Al. p. 2. t. 22. f. 6
3052 canadénsis *W.*	Canadian	♃	△	or	½	my.jn	L.B	N. Amer.	1783.	D	p.l	
3053 striáta *W.*	streaked	♃	△	or	¼	jn.jl	St	N. Amer.	1772.	D	p.l	
3054 pubéscens *W.*	downy	♃	△	or	½	jn.jl	B	N. Amer.	1772.	D	p.l	Bot. reg. 390
3055 cóncolor *L. T.*	green-flowered	♃	△	or	1	jn jl	G	N. Amer.	1788.	D	co	Linn. tr. 6.t. 28
3056 mirábilis *W.*	broad-leaved	♃	△	or	¼	jn.au	L.B	Germany	1732.	D	p.l	Flor. dan. 1045
3057 biflóra *W.*	two-flowered	♃	△	or	¼	ap.my	Y	Al. of Eur.	1752.	D	p.l	Bot mag. 2089
3058 uniflóra *W.*	Siberian	♃	△	or	½	jn.jl	Y	Siberia	1774.	D	co	Gm. si.4. t. 48.f.5
3059 arboréscens *W.*	shrubby	ħ	⊔	or	1½	ap.my	P.B	Spain	1779.	L	r.m	Barr. ic. 568
3060 tricolor *L.*	Heart's-ease		○	or	½	ap.s	Y.Pu	Britain	co. fi.	S	co	Eng. bot. 1287
3061 banática *Kit.*	Banatian		○	or	¼	ap.s	Y.Pu	Germany	1820.	S	co	
3062 arvénsis *Murr.*	corn		○	or	½	ap.s	Y	Britain	...	S	co	
3063 altáica *Pall.*	Tartarian	♃	△	or	½	mr.jn	P.Y	Siberia	1805.	D	co	Bot. reg. 54
3064 rothomagénsis *P. S.*	Rouen	♃	△	or	½	my.au	B	France	1783.	D	co	Bot. mag. 1498
3065 sudética *W. en.*	tooth-flowered	♃	△	or	½	my.au	Y	Germany	1805.	D	co	
3066 lútea *E. B.*	yellow-flowered	♃	△	or	¼	my.au	Y	Britain	m.pas.	D	p.l	Eng. bot. 721
3067 grandiflóra *L.*	great-flowered	♃	△	or	½	my.au	D.B	Switzerl.	...	D	p.l	Ha. hel. 566. t.17
3068 Zóysii *W.*	crenated	♃	△	or	½	jl.s	Y	Carinthia	...	D	co	Jac. co. 4.t.11. f.1



History, Use, Propagation, Culture,

539. *Sauvagesia.* In honor of Jacques Boissier de Sauvages, a French botanist, who died in 1767. He published a Flora of Montpellier, and other works. A genus of small herbaceous plants, more singular than beautiful.

540. *Viola.* The ancients feigned that violets were the first food of the cow *Io*, one of Jupiter's mistresses. This is an extensive genus of low herbs, mostly with violet and white flowers, and well adapted for the flower-border, rock-work, or for growing in pots. V. odorata is a favorite flower, on account of its fragrance and early appearance. It is a native of every part of Europe, in woods, amongst bushes, in hedges, and on warm banks.

3020 Stem simple, Leaves narrow lanceolate, Stipules very long

§ 1. *Stemless, Stipules membranous.*

3021 Pubescent, Leaves palmated 5-lobed toothed and undivided
3022 Leaves pedate 7-parted
3023 Leaves many-cleft, Segments lobed
3024 Leaves obl. acute cord. sagittate serr. cut at base, Flowers inverted, Three lower petals bearded at base
3025 Smooth, Leaves shining lanceolate obsoletely toothed or crenulate, Flowers whitish [middle
3026 Smth. Lvs. cord. ac. cren. serr. flattish, Fls. erect, Pet. obliquely turned : lateral longer bearded below the
3027 Smooth, Leaves cordate serrate smooth hooded at base, Petals obliquely turned : lateral bearded
3028 Leaves cordate crenated pubesc. beneath, Lower petal bearded at base, Flower-stalks shorter than leaves
3029 Lvs. triang. cord. ac. cren. somewhat hood. Pet. obov. : 3 low. beard. below mid. conniv. : 2 upper reflexed
3030 Leaves oblong cordate obtuse crenate naked at the base with unequal inflexed hooded lobes
3031 Stemless, Leaves cordate smooth, Peduncles bracted above the middle
3032 Smoothish, Lvs. roundish obt. at base cord. cren. serrate, Runners flowering, Pet. lin. not longer than cal.
3033 Leaves cordate obtuse acutish flat smooth, Petals not bearded, Flower-stalks as long as leaves
3034 Leaves oblong subcordate, Stalks membranous
3035 Leaves cordate and stalks hispid with hairs, Cal. obtuse
3036 Subhirsute, Runners none, Leaves cordate, Calyxes obtuse, Flowers sweet-scented
3037 Leaves cordate vertilinear at base pubescent, Runners none
3038 Leaves reniform smooth, Root creeping, Calyx obtuse
3039 Leaves cordate acuminate subcrenate smooth, Bractes close under the flower, Lower petal truncate
3040 Creeping runners and stalks smoothish, Cal. obtuse

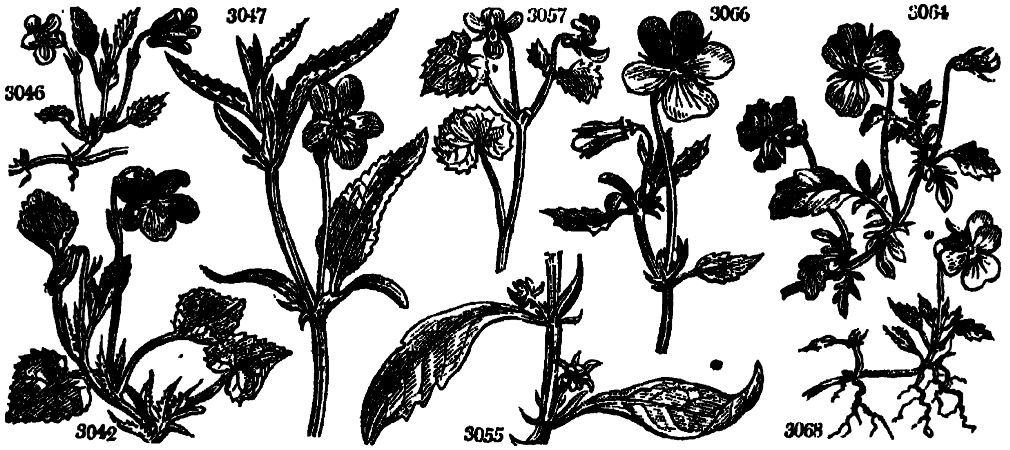
3041 Nearly stemless, Leaves roundish elliptical crenate stalked, Stipules lin. serrated, Spur as long as calyx

§ 2. *Caulescent, Stipules membranous.*

3042 Old stem ascending, Leaves oblong cordate obt. dotted, Stipules setaceous toothed, Cal. lanceolate acute
3043 Stem square erect, Radical leaves cordate reniform, Flower-stalks longer than the leaves
3044 Stem erect angular, Lvs. cord. toothed crenat. smooth, Stip. tooth. on one side, Bract. above midd. of stalk
3045 Stem spread. compressed, Lower lvs. cord. ovate : upper ovate-lanceol. crenul. Stip. toothed on each side
3046 Stem ascending rounded, Leaves ovate lanceolate, Stipules cut serrated
3047 Stem erect, Leaves cordate oblong, Stipules toothed on one side, Anthers free
3048 Pubescent, Stem simple erect, Leaves ovate obl. acute, Petals lanc. entire, Flower-stalks length of leaves
3049 Caulescent weak, Stipules membranous lanceolate slightly torn, Leaves shortly cordate toothed
3050 Stems erect and procumbent, Leaves oblong entire sinuated ciliated hispid, Stipules undiv. Calyxes acute
3051 Stems filiform undiv. procumb. Leaves ovate stalked : their edge at the base ciliated, Stipules undivided
3052 Smoothish, Leaves subcordate acuminate serrated, Flower-stalks length of leaves, Stipules short entire
3053 Leaves cordate acuminate serrated flattish, Stipules lanceolate serrated ciliated
3054 Villous pubescent, Stem erect leafy at top, Leaves broad cordate, Stipules oblong serrated at end
3055 Erect, Leaves broad lanceolate, Stipules linear lanc. entire, Flower-stalks axillary in pairs very short
3056 Stem erect and leaf-stks. 3-corner. Rad. fl. with cor. but sterile : caul. apet. fertile, Lvs. reniform cord. cren.
3057 Stem weak about 2-flowered, Leaves reniform serrate, Calyxes acute, Stipules entire
3058 Stem 1-flowered, Leaves cordate toothed
3059 Leaves linear lanc. toothed, Stipules linear entire, Spur very obtuse much shorter than calyx

§ 3. *Stipules pinnatifid, Stigma cup-shaped.*

3060 Stem ang. diffuse, Leaves oblong toothed crenate, Stipules lyrate pinnat. Cor. twice as long as smooth cal.
3061 Stem. ang. dec. diffuse, Lower lvs. cord. upper ovate obl. toothed cren. Cor. scarcely longer than smooth cal.
3062 Stem angular decumb. diffuse, Leaves ovate oblong toothed crenate, Cor. scarcely longer than hairy cal.
3063 Caulesc. smooth, Leaves thickish ovate and oval cren. Flowers inverted wavy, Petals rounded broad renif.
3064 Stem angular diffuse and leaves oblong serrated hairy, Stipules lyrate pinnatifid, Cor. twice as long as cal.
3065 Stem 3-cornered simple, Lvs. obl. toothed, Stipules palm. many-cleft, Petals crenate, Spur as long as cal.
3066 Stem 3-cornered simple, Leaves ovate oblong crenated ciliated, Stipules palmate cut
3067 Stem 3-cornered simple, Leaves oblong, Stipules pinnatifid
3068 Stem very short erect, Leaves roundish crenate, Stipules entire, Flower-stalks 3-cornered

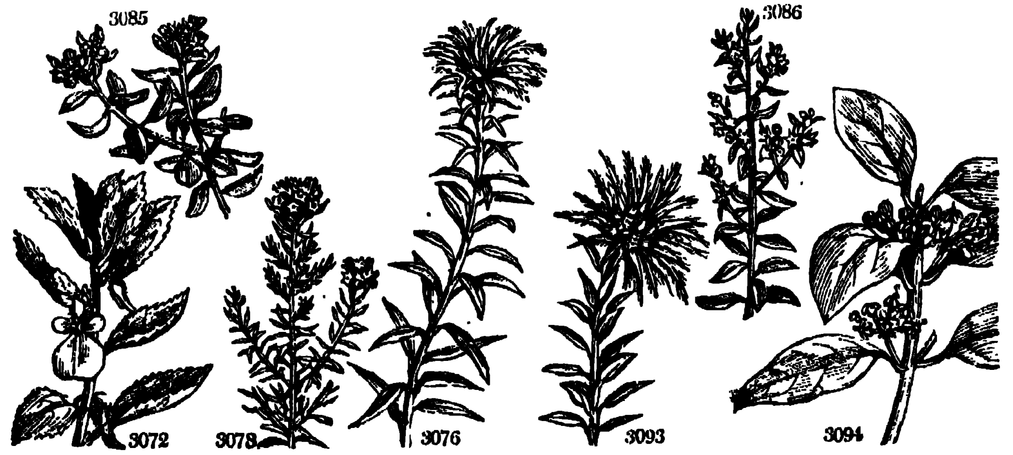


and Miscellaneous Particulars.

Desfontaines says it is frequent about Cassa and Tozzer, in Barbary, in the palm groves; the blue and white growing promiscuously and flowering in winter. Hasselquist found it in Palestine, Thunberg in Japan, and Loureiro in China, near Canton. The double purple and the Neapolitan are the most esteemed varieties: the latter forces well, and where there is a stove or warm pit, may be had from Christmas to April, when others are in flower in the open air.

In medicine, the flowers of violets act as a laxative, and the syrup is used by chemists to detect an acid or an alkali: for this purpose the V. odorata is cultivated to some extent at Stratford upon Avon. (*Withering.*)

3069 calcaráta *W.*	spurred	♃	△	or	½	mr.jn	L.B	Switzerl.	1752.	D	p.l	
3070 cornúta *W.*	horned	♃	△	or	½	my.jn	B	Pyrenees	1776.	D	p.l	Bot. mag. 791
541. IONI'DIUM. *Vent.*	Ionidium.					*Violaceæ.* *Sp.* 2—30.						
3071 polygalæfólium *V.*	whorl-leaved	♄	⊔	or	1	ap.au	G.Y	S. Amer.	1797.	C	l.p	Vent. malm. 27
3072 Ipecacuanha *Vent.*	New Ipecac	♄	□	m	1½	jl	W	S. Amer.	1822.	C	l.p	Bot. mag. 2453
542. PHY'LICA. *W.*	Phylica.					*Rhamni.* *Sp.* 21— .						
3073 ericoides *W.*	Heath-leaved	♄		or	3	ap.s	W	C. G. H.	1731.	C	p.l	Bot. mag. 224
3074 parviflóra *W.*	small-flowered	♄	⊔	or	2	ap.jl	W	C. G. H.	1790.	C	p.l	
3075 lanceoláta *W.*	lance-leaved	♄	⊔	or	3	ap.my	W	C. G. H.	1790.	C	p.l	
3076 capitáta *W. en.*	headed	♄	⊔	or	1	my.au	W	C. G. H.	1800.	C	p.l	Bot. reg. 711
3077 pubéscens *W.*	downy	♄	⊔	or	2	f.ap	W	C. G. H.	1774.	C	p.l	Bot. cab. 695
3078 erióphora *W.*	pale-flowered	♄	⊔	or	3	n	W	C. G. H.	1774.	C	p.l	Pl. am. t. 445. f. 1
3079 rosmarinifólia *P. S.*	Rosemary-lvd.	♄	⊔	or	3	...	W	C. G. H.	1815.	C	p.l	Bot. cab. 849
3080 axilláris *P. S.*	axillary-flower.	♄	⊔	or	2	my.jn	W	C. G. H.	1812.	C	p.l	
3081 plumósa *W.*	feathered	♄	⊔	or	2	mr.my	W	C. G. H.	1752.	C	p.l	Bot. cab. 253
3082 villósa *W.*	villous	♄	⊔	or	2	my	W	C. G. H.	1790.	C	p.l	
3083 stipuláris *W.*	horned	♄	⊔	or	3	my.s	W	C. G. H.	1786.	C	p.l	Bur. afr. t.43. f.2
3084 cordáta *W.*	heart-leaved	♄	⊔	or	2	my.jn	P.Y	C. G. H.	1789.	C	p.l	Com. rar. 62.t.12
3085 buxifólia *W.*	Box-leaved	♄	⊔	or	2	my.s	W	C. G. H.	1759.	C	p.l	Bot. cab. 848
3086 spicáta *L.*	spiked	♄	⊔	or	2	n.d	W	C. G. H.	1774.	C	p.l	Bot. mag. 2704
3087 myrtifólia *P. S.*	Myrtle-leaved	♄	⊔	or	3	...	D.Y	C. G. H.	1816.	C	p.l	
3088 callósa *W.*	callous-leaved	♄	⊔	or	1	mr.ap	W	C. G. H.	1774.	C	p.l	
3089 imbricáta *W.*	imbricated	♄	⊔	or	1	au.n	W	C. G. H.	1801.	C	p.l	
3090 cylíndrica *W. en.*	cylindrical	♄	⊔	or	2	ap.au	W	C. G. H.	...	C	p.l	Wendl. coll. t.
3091 racemósa *W.*	cluster-flower.	♄	⊔	or	5	my.s	W	C. G. H.	1790.	C	p.l	
3092 pinifólia *W.*	Pine-leaved	♄	⊔	or	6	my	W	C. G. H.	1789.	C	p.l	
3093 squarrósa *W.*	squarrose	♄	⊔	or	2	au.n	W	C. G. H.	1800.	C	p.l	Bot. cab. 36
543. PLECTRO'NIA. *W.*	Plectronia.					*Rhamni.* *Sp.* 1—2.						
3094 corymbósa *P. S.*	corymbed	♀	⊔	or	20	...	W.G	C. G. H.	1816.	C	p.l	Burm. afr. t. 94
544. CONOCAR'PUS. *W.*	Button-tree.					*Combretaceæ.* *Sp.* 2—4.						
3095 erécta *W.*	upright	♀	□	tm	30	...	Pa.Y	Jamaica	1752.	C	p.l	Cat. car. 2. t. 33
3096 procúmbens *W.*	procumbent	♄	□	or	6	...	Pa.Y	Cuba	1730.	C	p.l	Jac. am. t. 52. f. 2
545. CY'PHIA. *W.*	Cyphia.					*Campanulaceæ.* *Sp.* 3—8.						
3097 volúbilis *W.*	twining		⊔○	or	1	..	P.B	C. G. H.	1795.	D	l.p	
3098 bulbósa *W.*	bulbous	♃	⊔○	or	½	au.s	P.B	C. G. H.	1791.	D	l.p	Bur. afr. t. 38. f.1
3099 Phyteuma	Rampion	♃	⊔△	or	½	f	Pk	C. G. H.	1822.	D	l.p	Bot. reg. 625
546. LIGHTFOO'TIA. *L'Her.*	Lightfootia.					*Campanulaceæ.* *Sp.* 2.						
3100 oxycoccoides *W.*	lance-leaved	♄	⊔	or	½	jl	B.w	C. G. H.	1787.	C	s.l	Ex. bot. 2. t. 69
3101 subuláta *W.*	awl-leaved	♄	⊔	or	½	au	B	C. G. H.	1787.	D	s.l	L'He. s. an.4. t. 5
547. JASI'ONE. *W.*	Sheep's Scabious.					*Campanulaceæ.* *Sp.* 2—5.						
3102 montána *W.*	mountain		⊙	pr	1	jn.jl	B	Britain	sa. pa.	S	co	Eng. bot. 882
3103 perénnis *W.*	perennial	♃	△	pr	1	jn.jl	B	France	1787.	D	co	Bot. mag. 2198
548. LAGŒ'CIA. *W.*	Cumin.					*Umbelliferæ.* *Sp.* 1.						
3104 cuminoides *W.*	wild		⊙	cu	1	jn.jl	G.Y	Levant	1640.	S	co	Lam. ill. t. 142
549. HE'DERA. *W.*	Ivy.					*Caprifoliaceæ.* *Sp.* 2—8.						
3105 Hélix *W.*	common	♄		or	40	o.n	G	Britain	woods.	L	co	Eng. bot. 1267
β poética	*poet's*	♄		or	20	o.n	G	......	...	L	co	
γ vegéta	*Irish*	♄		or	50	o.n	G	Madeira	...	L	co	
δ arbórea	*tree*	♄		or	8	o.n	G	......	...	L	co	
ε chrysocárpa	*yellow-berried*	♄		or	30	o.n	G	Greece	1815.	L	co	
3106 capitáta *Swz.*	capitate	♄	□	or	12	o.n	G	W. Indies	1823.	C	p.l	Jac. am. t. 61



History, Use, Propagation, Culture.

V. hirta and canina bear a considerable resemblance to V. odorata; but the first may be distinguished by its hairy petioles, and the last by its flowers being inodorous.

V. arborescens is readily propagated by young cuttings planted under a hand-glass.

541. *Ionidium.* From ιον, a violet, and ειδος, similar, on account of its resemblance to a violet, from which it is by some thought not to be generically distinct.

542. *Phylica;* in Greek φιλυκη, and should therefore be written *Philyca.* The plant of the ancients is not known. Some think it was the Holly. P. ericoides occupies large tracts of ground about Lisbon, in the same manner as heath occupies many lands in England. Young cuttings of all the species root readily in sand under a bell-glass.

543. *Plectronia.* From πληκτρον, a spur. The tree is furnished with stiff spines like the spurs of a cock.

544. *Conocarpus.* From κωνος, a cone, and καρπος, a fruit: its fruit resembles the cone of an alder. Tropical trees, with alternate entire leaves and small heads of yellowish flowers.

545. *Cyphia.* From κυφος, curved, on account of its curved stigma. Small Cape plants resembling Lobelia.

3069 Stem short, Spur subulate longer than petals, Leaves somewhat ovate, Stipules toothed
3070 Stem ascending 3-cornered, Leaves cordate crenate, Spur subulate longer than calyx, Upper petal acum.

3071 Stem ascending, Leaves opposite sessile and stipules lanceolate, Flowers nodding longer than leaves
3072 Leaves ovate obl. Pedunc. axillary solitary drooping, Lower lip very large emarginate

3073 Leaves linear lanceolate obtuse revolute at edge smooth, Branches umbelled, Heads round downy
3074 Leaves subulate acute rough somewhat hairy, Branches panicled many-flowered
3075 Leaves scattered linear lanceolate hoary beneath, Heads terminal hairy
3076 Leaves linear lanceolate villous, Bractes woolly, Heads terminal
3077 Leaves linear lanceolate acute spreading villous hoary beneath, Bractes colored villous very long
3078 Leaves linear hairy tomentose beneath revolute at edge, Heads terminal, Flowers downy
3079 Leaves linear flattish hoary beneath erect, Heads ovate downy
3080 Leaves linear lanceolate revolute at edge hoary beneath, Flowers axillary solitary racemose
3081 Leaves linear subulate very villous, Flowers terminal axillary, Cor. spreading
3082 Leaves linear upper villous, Flowers racemose
3083 Leaves linear revolute at edge rough hoary beneath, Stipules filiform colored, Bractes bifid naked
3084 Leaves cordate ovate spreading, Stem proliferous
3085 Leaves ovate scattered opposite and three together beneath netted veiny tomentose
3086 Leaves oblong cordate acuminate beneath hoary, Spikes cylindrical, Flowers length of bractes
3087 Leaves ovate mucronate smooth above and shining beneath hoary, Racemes leafy panicled
3088 Leaves oblong cordate acuminate hairy beneath white, Flowers in heads
3089 Leaves cordate ovate smooth, Flowers racemose
3090 Leaves linear lanc. revolute at edge villous hairy beneath, Flowers cylind. Bractes as long as flowers
3091 Leaves ovate smooth, Flowers simple panicled racemose
3092 Leaves acerose flat on each side very smooth, Flowers panicled racemose
3093 Leaves linear ciliated arcuate spreading, Head terminal

3094 Branches square, Leaves opposite stalked lanceolate ovate entire smooth

3095 Erect, Leaves lanceolate
3096 Procumbent, Leaves obovate

3097 Leaves entire and toothed linear, Stem twining
3098 Leaves digitate, Leaflets pinnatifid, Stem erect
3099 Leaves oblong crenated ciliated, Scape erect

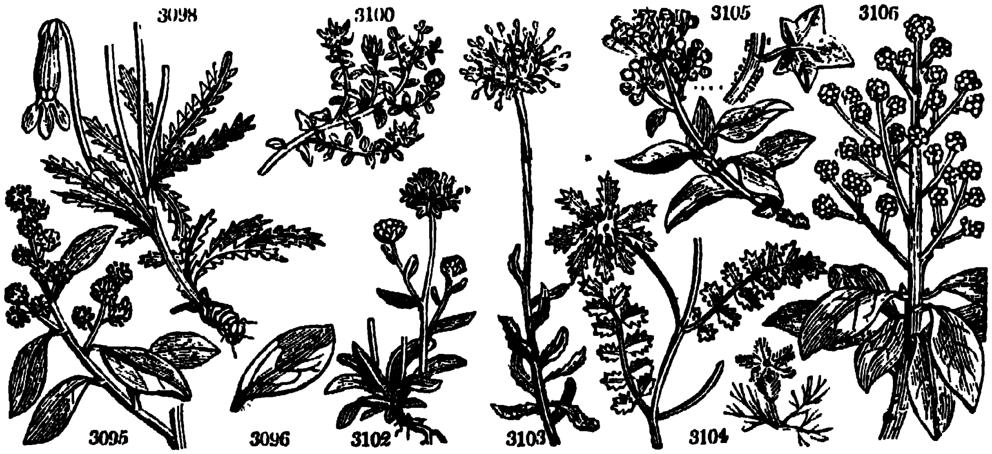
3100 Leaves and petals lanceolate
3101 Leaves subulate, Petals linear

3102 Leaves linear lanceolate narrow at the base hispid wavy curled
3103 Leaves linear smoothish flat obtuse

3104 The only species

3105 Leaves ovate 3-5-angular and 3-5-lobed floral ovate acuminate veiny, Umbels erect

3106 Leaves elliptical entire, Racemes compound terminal, Flowers sessile in small heads



and Miscellaneous Particulars.

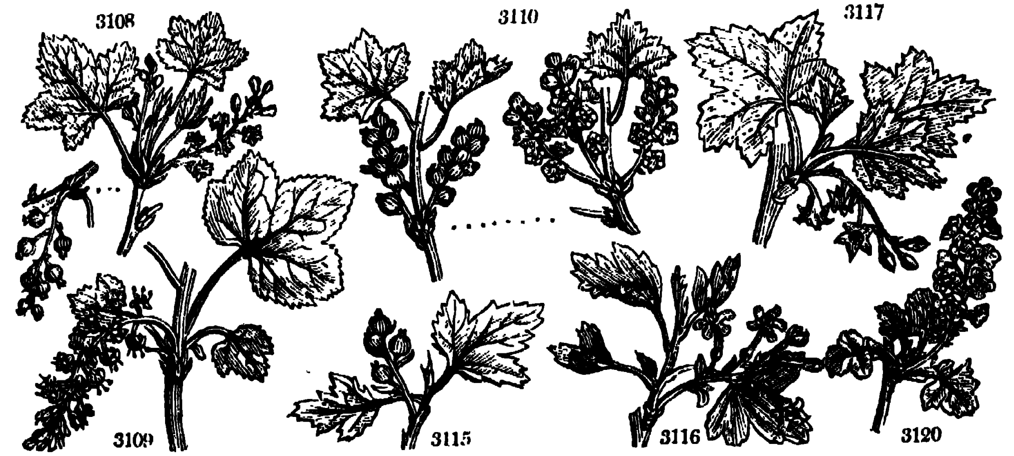
546. ***Lightfootia.*** Named after the Rev. John Lightfoot, an English clergyman, and author of the first Flora Scotica. The genus is very nearly related to Campanula, from which it is by some thought not different.

547. ***Jasione.*** A name applied by Pliny to an eatable plant. J. montana so resembles Scabiosa, as to be often mistaken for a plant of that genus. Linnæus gives a curious account of the process of fecundation in this plant, from which may be observed its affinity to Syngenesia, where it was first placed.

548. ***Lagœcia.*** From *λαγως*, a hare, and *οικος*, a residence. The little seeds enveloped in the downy involucrum have been likened to young leverets in a hare's form. The seeds should be sown in autumn soon after they are ripe, otherwise, if this is deferred till spring, they commonly remain a year, and sometimes two or three years, before they grow.

549. ***Hedera.*** A name for which many etymologies have been offered. The best explanation is, that it has been derived from *hedra*, cord, in Celtic. *Lierre*, Fr. H. helix is a valuable ornamental evergreen for covering naked buildings or trees, for training into fanciful shapes, as of human figures, &c. on skeletons of wire-work, or trained up a stake so as to form a standard. Flowering so late in the season, it is much resorted to by

550. RIBES. *W.*	CURRANT.				*Grossulaceæ.*		*Sp.* 25—49.				
3107 rúbrum *W.*	red	♣	fr	4	ap.my	G	Britain	riv. ba.	C	r m	Eng. bot. 1289
β *album*	*white*	♣	fr	4	ap.my	G	Britain	...	C	r.m	
γ *sylvestre*	*wild*	♣	or	4	ap.my	G	Britain	...	C	r.m	
3108 petræ′um *W.*	rock	♣	or	4	my	R	England	moun.	C	co	Eng. bot. 705
3109 multiflórum *Kit.*	many-flowered	♣	or	5	ap.my	Gr	Hungary	1822.	C	co	Bot mag. 2368
3110 spicátum *Sm.*	acid	♣	or	4	ap.my	G	England	m. wo.	C	co	Eng. bot. 1290
3111 trifidum *Mich.*	trifid	♣	or	4	ap.my	Pu	Quebec	1823.	C	co	
3112 procúmbens *Pall.*	trailing	♣	fr	½	my.jn	Pu	Dahuria	1804.	L	m.s	Pall. ross. 2. t. 65
3113 rigens *Mich.*	stiff	♣	or	6	ap.my	G	N. Amer.	1812.	C	co	
3114 prostrátum *Ph.*	glandulous	♣	or	1½	ap.my	Pu	N. Amer.	1777.	L	s.l	L'Her. st. 1. t. 2
3115 alpinum *W.*	Alpine	♣	or	3	ap.my	G	Britain	woods.	C	co	Eng. bot. 704
3116 aúreum *Ph.*	golden	♣	or	8	ap.my	Y	Missouri	1812.	C	r.m	Bot. reg. 125
3117 nigrum *W.*	black	♣	fr	5	ap.my	G	Britain	m. hed.	C	r.m	Eng. bot. 1291
3118 flóridum *W.*	Pensylvanian	♣	or	4	ap.my	G	N. Amer.	1729.	C	co	Dil. el.t.244.f.315
3119 laxiflórum *Ph.*	loose-flowered	♣	or	4	ap.my	Y.G	N. Amer.	1812.	C	co	
3120 resinósum *Ph.*	clammy	♣	or	3	ap.my	Y.G	N. Amer.	1800.	L	co	Bot. mag. 1583
3121 hirtéllum *Ph.*	hairy	♣	or	3	ap.my	Y.G	N. Amer.	1812.	L	s.l	
3122 grácile *Ph.*	slender	♣	or	4	ap.my	Y.G	N. Amer.	1812.	L	s.l	
3123 triflórum *Ph.*	three-flowered	♣	or	4	ap.my	G.R	N. Amer.	1812.	L	r.l	W. ho. be. 1. t.61
3124 orientále *Desf.*	eastern	♣	or	4	my.jn	G.Y	Syria	1824.	C	co	
3125 diacántha *W.*	two-spined	♣	or	4	my.jn	G.Y	Siberia	1781.	L	r.l	Schm. arb. t. 97
3126 reclinátum *W.*	procumbent	♣	or	2	ap.my	P.G	Germany	1683.	L	co	
3127 Grossulária *W.*	rough-Gooseb.	♣	fr	4	mr.ap	G	England	hed.	C	r.m	Eng. bot. 1292
3128 Uva-críspa *W.*	smth.-Gooseb.	♣	fr	4	mr.ap	G	England	hed.	C	r.m	Eng. bot. 2057
3129 oxyacanthoides *W.*	Hawthorn-lvd.	♣	or	3	ap.my	W.Y	N. Amer.	1705.	L	co	D. el. t. 139. f.166
3130 lacustre *Ph.*	swamp	♣	or	4	ap.my	Y.G	N. Amer.	1812.	C	p.l	
3131 Cynósbati *W.*	prickly-fruited	♣	or	4	ap	G	Canada	1759.	C	s.l	Schmidt. arb. 98
551. GRONO′VIA. *W.*	GRONOVIA.				*Cucurbitaceæ.*		*Sp.* 1—2.				
3132 scándens *W.*	climbing	⚘	□ cu	6	jn.jl	G.Y	Jamaica	1731.	C	p.i	Jac. ic. 2. t. 338
552. ACHYRAN′THES.	*W.* ACHYRANTHES.				*Amaranthaceæ.*		*Sp.* 6—28.				
3133 argéntea *W.*	upright	♠	□ cu	1	my.o	W	Sicily	1713.	C	l s	Bocc. sic. 16. t. 9
3134 áspera *W.*	rough	♠	□ cu	3	my.o	[illegible]	India	1751.	C	l.s	Mill.ic.1. t.11. f.2
3135 porrigens *H. K.*	crimson-flower.	♠	□ cu	2	ap.au	[illegible]	......	1802.	C	r.m	Bot. mag. 830
3136 nivea *W.*	white	♠	⊔ cu	2	my.jl	W	Canaries	1780.	C	r.m	
3137 fruticósa *Lam.*	shrubby	♠	⊔ cu	6	my.jl	Pu	E. Indies	1820.	C	r.m	
3138 pubéscens *Roth.*	pubescent	♠	⊔ cu	1½	ap.jl	Pk	......	1821.	C	r.m	



History, Use, Propagation, Culture,

bees and flies, when little other food is to be had. The berries increase during the winter, are full formed in February, and ripen in April; furnishing food for wild pigeons, blackbirds, thrushes, &c. in the spring. Blackbirds, and several other birds, build their nests in the stumps of ivy tufts. Sheep are fond of the leaves, especially during severe weather. The ancients held ivy in great esteem, and Bacchus is represented crowned with it to prevent intoxication.

H. Helix vegeta, the giant or Irish ivy, perhaps a distinct species, is a native of the island of Madeira.

550. *Ribes.* The name of an acid plant mentioned by the Arab physicians, and supposed to be the plant now called Rheum Ribes. R. grossularia is so called because its berries resemble little half-ripe figs,—*grossi.* This is a genus of well known shrubs; some of them much cultivated for their fruit. R. rubrum, the common red currant, is the *Groseilles en grappes*, or *Groseilles d'outre mer*, Fr., *Gemeine Johannisbeere*, Ger., and *Uvetta*, Ital. The English name currant is evidently from the similitude of the fruit to that of the grape of Zante, which dried forms the corinths or currants of the shops. The fruit has an agreeable sub-acid taste, and is generally relished both at the dessert and in pies and tarts. Equal weights of fruit and pure sugar, put over the fire, yield a liquor which forms a most agreeable jelly, used as a sweetmeat to eat with hare, venison, and Welch mutton, to flavor punch, and as a medicine. It is also much used for making wine, and is grown to a considerable extent for that purpose in Essex, Kent, and about Pershore in Worcestershire. The principal varieties are the white, and pale or Champagne; but any number of varieties may be procured from sowing the seeds; from which, however, none superior to those in general use have been hitherto originated.

The culture of the red currant is known to every countryman. It grows freely by cuttings of last year's wood, which should be of sufficient length to form a handsome plant, with a clean stem, ten inches high. It grows in any soil, but prospers best in one loamy and rich. The best flavored fruit is produced from plants in an open free situation, but they will grow under the shade of walls or trees, and either as low bushes or trained against walls or espaliers. They bear chiefly from spurs, and therefore, in pruning, most of the young wood is cut to within two or three buds of that where it originated.

R. nigrum, the black currant, is common in moist woods in Russia and Siberia, where a wine is made of the berries alone, or fermented with honey, and with or without spirits. In Siberia they make a drink of the leaves: these tincture common spirits so as to resemble brandy; and a few of them dried and mixed with black tea, answer all the purposes of the green material. Many persons dislike the very peculiar flavor of the berries

1. *Unarmed.* CURRANTS.

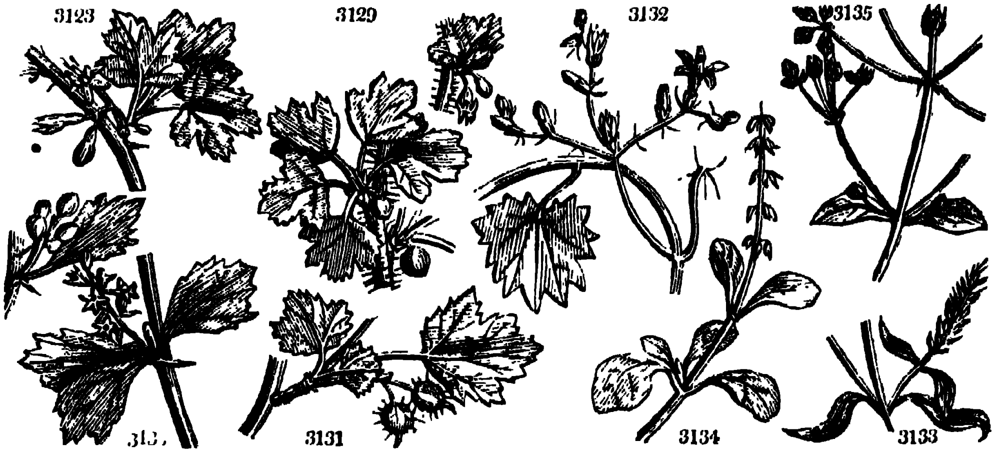
3107 Leaves smooth pendulous, Flowers flattish, Petals obcordate, Leaves obtuse 5-lobed, Stem erect
β Berries yellow
γ Lobes of leaves shortish, Leaf-stalks, Flower-stalks, and Flowers pubescent [Stem erect
3108 Rac. rather hairy when in flow. erect afterw. pendul. Brac. shorter than flow. Lvs. acum. lob. cut toothed,
3109 Racemes spiked pendulous, Petals oblong, Bractes shorter than flowers
3110 Spikes erect, Petals oblong, Bractes shorter than flower
3111 Leaves moderately lobed smoothish above pub. beneath, Flowers small, Sepals trifid, Berries red hairy
3112 Racemes erect, Flowers flat, Leaves obtusely lobed, Stem procumb. [fruit stiffly upr. Ber. rough red
3113 Branc. upr. Leaves smooth above beneath pub. nett. Lob. and teeth acute, Rac. loosely many-fl. always in
3114 Stems prost. Lvs. lobed smoothish younger pub. Rac. nearly erect, Petals deltoid, Bract. min. Berr. hispid
3115 Racemes erect, Bractes as long as flowers or longer, Peduncles hairy with glands, Lvs. shining beneath
3116 Very smooth, Lvs. 3-lobed, Lobes spreading with a few teeth, Bract. lin. as long as fl.-stalks, Berries smooth
3117 Lvs. dotted beneath, Racemes hairy loose, Flow. campan. Brac. shorter than fl.-stalks, Ped. simple at base
3118 Leaves dotted on each side, Racemes pendulous, Flowers cylindrical, Bractes longer than germen
3119 Leaves cordate 5-lobed cut-toothed smooth, Stalks slender, Racemes loose erect the length of leaves
3120 Glandular hairy, Rac. erect, Lvs. 5-lobed obtuse cren. roundish, Bractes lingulate longer than fl.-stalk

2. *Prickly.* GOOSEBERRIES.

3121 Spine one under the axillæ, Branches hispid, Lvs. small ½-trifid : lobes toothed, Berr. solitary smooth red
3122 Spine under axillary very short, Lvs. on slend. stalks pub. on both sides : lobes acute cut and toothed, Ped.
3123 Prickles solitary, Peduncles 2 or 3-flowered, Berries polished [capillary
3124 Somewhat prickly, Leaves round cut-lobed hairy, Racemes short, Berries rough with hairs
3125 Prickles twin or solitary, Leaves wedge-shaped 3-parted and obsoletely 3-lobed toothed, Fl. racemose erect
3126 Branches somewhat prickly reclinate, Bract. of the peduncle 3-leaved
3127 Leaf-stalks hairy, Peduncles 1-flowered, Bractes 2, Fruit hairy
3128 Peduncles 1-flowered, Bractes connate-tubular, Fruit smooth
3129 Branches prickly all over
3130 Spine sub-axillary compound, Stem hispid all over, Leaves lobed beyond middle, Berries racemose hispid
3131 Prickles sub-axillary, Berries prickly racemose dull brown

3132 Leaves like those of the vine stinging cirrhose

3133 Leaves roundish ovate acuminate, Calyxes reflexed pressed close to the spike
3134 Leaves obovate acute narrowed at base, Calyxes reflexed pressed close to the spike
3135 Leaves ovate lanceolate opposite, Spikes elliptical corymbose on long stalks, Stem shrubby
3136 Leaves whorled ovate downy, Corymbs compact dichotomous, Flowers with corollas
3137 Stem erect, Ovate leaves and calyxes smooth
3138 Stem erect rounded and elliptical oblong leaves pubescent, Spikes axillary and terminal stalked



and Miscellaneous Particulars.

of the black currant, which are therefore not much use in the kitchen or dessert, and seldom in wine making. They make a jelly or jam in estimation as a gargle for inflammatory sore throats.

The culture of the black currant is similar to that of the red; but as it is less apt to bear on spurs than on young wood, the shoots are not so much shortened in this as in the other. It is singular that no varieties have been raised of this species, nor will it produce hybrids, as far at least as has been tried with the other cultivated sorts of Ribes.

R. Grossularia and R. uva crispa are the rough and smooth gooseberries; *Groseille*, Fr., *Johannisbeere*, Ger., and *Uvaspina*, Ital.; in universal culture and estimation in Britain, but not much known or esteemed in any other country. The climate of France, Italy, and Spain is too warm; and the summers of many parts of the north of Europe too rapid for their attaining a good size. They are, however, more in vogue now in the latter countries than they have ever been before; but as the quality of the fruit soon degenerates when the plants are not kept in high cultivation, it can never become very popular in countries where the pear, vine, fig, and olive grow freely, and which being planted and once established in the soil, grow and bear for ages with very little care.

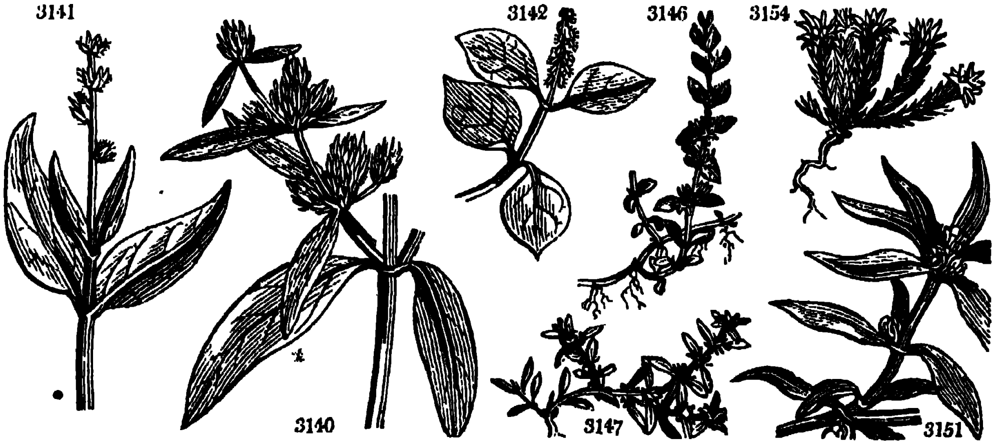
The varieties of the gooseberry are very numerous, and yearly increasing in Lancashire and other counties where the fruit is grown for prizes, by raising from the seed. These new varieties, however, are valued more according to the size of the berry, than its flavor, or the prolificacy of the plant; so that few so originated are fit to be added to the list of table or kitchen fruit. Twenty-five pennyweights is considered a great weight for a gooseberry, but some have been raised a few dwts. heavier. (See the *Manchester Gooseberry Book*, pub. annually.)

The gooseberry is generally propagated by cuttings, and trained as a dwarf bush, or sometimes on espalier rails: one variety, the green-gage, makes very neat half-standards, and bears better in that state than as a bush. They require a loamy soil, an open airy situation, and yearly attention to pruning, and refreshing their roots with manure and stirring the surface.

551. *Gronovia.* In honor of John Frederick Gronovius, a learned botanist at Leyden. This is a trailing plant like the cucumber, with broad hairy leaves, which sting like the nettle. Treated like the melon, it will produce ripe seeds, but is a plant of neither beauty nor use.

552. *Achyranthes.* From ἄχυρον, chaff, and ἄνθος, a flower, in allusion to the chaffy nature of the floral envelopes. This genus is of easy culture, but little beauty. All root freely by cuttings. A. porrigens is the only handsome species.

553.	PHILOXE'RUS. *R. Br.*	PHILOXERUS.					*Amaranthaceæ.* *Sp.* 2—6.						
3139	vermiculátus *R. Br.*	creeping	£	[△]	cu	2	jl.o	Pk	S. Amer.	...	C	r.m	Her. parad. t. 15
3140	brasiliénsis *R. Br.*	upright	♃	□	cu	3	jl.o	W	Brazil	1790.	C	r.m	Jac. ic. 2. t. 346
554.	DESMOCHÆ'TA. *D. C.*	DESMOCHÆTA.					*Amaranthaceæ.* *Sp.* 5—12.						
3141	lappácea *J.*	Bur	♃	□	or	1	au.o	Pu	E. Indies	1759.	C	l.p	Rhd. mal. 10. t. 59
3142	prostráta *D. C.*	prostrate	♃	□	or	2	jl.au	G.Pu	E. Indies	1793.	D	l.p	Rumph. 6. t. 11
3143	muricáta *D. C.*	prickly	♃	□	or	3	au.n	G	India	1777.	C	l.p	Rumph. 5. t. 83
3144	alternifólia *D. C.*	alternate-leav'd		[○]	or	2	jl.au	P	E. Indies	1789.	S	l.p	Plk. alm. t. 260. f. 1
3145	pátula *R. S.*	spreading	£	[△]	or	3	au.o	W	E. Indies	1823.	C	l.p	
555.	ILLECE'BRUM. *Juss.*	KNOT-GRASS.					*Amaranthaceæ.* *Sp.* 3—15.						
3146	verticillátum *W.*	whorled	⚶	△	w	½	jl	W	England	bog pl.	S	p.l	Eng. bot. 895
3147	cymósum *Vill.*	cymose		○	w	¼	jl	W	S. Europe	1820.	S	p.l	Fl. græc. t. 245
3148	echinátum *Poir.*	prickly		○	w	½	jl	G	Barbary	1821.	S	p.l	Bocc. sic. t. 20. f. 3
556.	ALTERNANTHE'RA. *R. Br.*	ALTERNANTHERA.					*Amaranthaceæ.* *Sp.* 5—25.						
3149	Achyrantha *R. Br.*	creeping	£	[△]	cu	½	jn.au	W	Buenos A.	1732.	D	l.p	Dill. elt. 8. t. 7. f. 7
3150	polygonoídes *R. Br.*	[illegible]icaria-leav.	£	⌊△⌋	cu	1	jn.au	W	America	1731.	C	r.m	Herm. par. 17
3151	séssilis *R. Br.*	sessile-flowered	£	[◐]	cu	½	jl.o	Br	E. Indies	1778.	S	r.m	Rhd. mal. 10. t. 11
3152	ficoídes *R. Br.*	fleshy-leaved	£	[△]	cu	½	jn.jl	G	S. Amer.	1821.	S	r.m	Jacq. am. t. 60. f. 4
3153	spinósa *Horn.*	spiny		[○]	cu	1	my.jn	Y	......	1823.	S	r.m	
557.	PARONY'CHIA. *Juss.*	PARONYCHIA.					*Amaranthaceæ.* *Sp.* 4—18.						
3154	capitáta *Juss.*	capitate	£	⌊△⌋	w	½	jn.au	W	Spain	1683.	D	p.l	Lobel. ic. 420. f. 1
3155	nívea *D. C.*	villous	£	⌊△⌋	w	1	jn.au	W	Spain	1812.	D	s.l	
3156	alsinifólia *J.*	Chickweed-lvd.		○	w	3	jn.au	W	Spain	...	D	s.l	Scop. del. ins. t. 13
3157	hispánica *D. C.*	Spanish	£	⌊△⌋	w	1	jn.au	W	Spain	1683.	D	s.l	
558.	CHENO'LEA. *W.*	CHENOLEA.					*Chenopodeæ.* *Sp.* 1.						
3158	diffúsa *W.*	silky	♃	⌊⌋	w	1	au.s	G	C. G. H.	1758.	C	r.m	
559.	ANY'CHIA. *Mich.*	ANYCHIA.					*Amaranthaceæ.* *Sp.* 1—3.						
3159	dichótoma *Mich.*	forked	£	◐	w	½	my.au	G	N. Amer.	1806.	S	l.p	Ort. dec. t. 1
560.	Æ'RUA. *Juss.*	ÆRUA.					*Amaranthaceæ.* *Sp.* 2.						
3160	lanáta *J.*	woolly		[◐]	cu	1	ap.au	W	E. Indies	1691.	C	r.m	Mill. ic. 1. t. 11. f. 1
3161	javánica *J.*	spear-leaved	♃	□	cu	2	ap.au	W	E. Indies	1768.	C	r.m	Bur. ind. t. 65. f. 2
561.	LESTIBUDE'SIA. *R. Br.*	LESTIBUDESIA.					*Amaranthaceæ.* *Sp.* 3—5.						
3162	paniculáta *R. Br.*	panicled	£	[◐]	cu	3	jn.s	P Y	Jamaica	1733.	C	r.m	Slo. jam. 1. t. 91. f. 1
3163	trígyna *R. Br.*	oval-leaved	£	[◐]	cu	1½	au.o	W	Senegal	1777.	C	r.m	Jac. vind. 3. t. 15
3164	virgáta *R. Br.*	wave-leaved	♃	□	cu	4	au.o	G	......	1815.	C	r.m	Jac. ic. 2. t. 339
562.	RHAGO'DIA. *R. Br.*	RHAGODIA.					*Chenopodeæ.* *Sp.* 2—7.						
3165	hastáta *R. Br.*	spear-leaved	♃	⌊⌋	cu	1	jn.jl	G	N. Holl.	1823.	C	co	
3166	Billardiéri *R. Br.*	Labillardiere's	♃	⌊⌋	cu	5	jn.jl	G	N. Holl.	1823.	C	co	Lab. n. holl. 1. t. 96
563.	DEERIN'GIA. *R. Br.*	DEERINGIA.					*Amaranthaceæ.* *Sp.* 1.						
3167	celosioídes *R. Br.*	Berry-bearing	£	[◐]	cu	6	au.o	W	E. Indies	1804.	S	s.l	Bot. mag. 2717
564.	TRIAN'THEMA. *L.*	TRIANTHEMA.					*Portulaceæ.* *Sp.* 1—6.						
3168	monógyna *L.*	monogynous		[○]	w	1	my.jn	P.G	Jamaica	1820.	S	co	Her. para. 2. t. 213
565.	CELO'SIA. *R. Br.*	COCK'S-COMB.					*Amaranthaceæ.* *Sp.* 8—22.						
3169	argéntea *W.*	silvery-spiked		[○]	or	1	jn.s	L.F	China	1714.	S	r.m	Mart. dec. 1. t. 7
3170	cristáta *W.*	common		[○]	or	2	jn.s	D.R	Asia	1570.	S	r.m	Lam. ill. t. 163. f. 1
3171	comósa *W.*	tufted	£	[◐]	or	1	jn.s	Pk	E. Indies	1802.	S	r.m	
3172	coccínea *W.*	scarlet		[○]	or	5	jn.s	Pu	China	1597.	S	r.m	
3173	cérnua *B. Rep.*	drooping		[○]	or	3	jl.au	Pu	E. Indies	1809.	S	r.m	Bot. rep. 635
3174	castrénsis *W.*	branched		[○]	or	2	jl.s	Pu	E. Indies	1739.	S	r.m	Bar. rar. t. 1195
3175	Monsóniæ *W.*	downy		[○]	or	3	jl.s	W	E. Indies	1778.	S	r.m	Pl. al. 11. t. 334. f. 4
3176	nodiflóra *W.*	knotted		[○]	or	2	jl.s	Gr	E. Indies	1780.	S	r.m	Jac. vind. 1. t. 98



History, Use, Propagation, Culture,

553. *Philoxerus.* From φιλος, a lover, and ξηρος, arid; a plant delighting in sandy soil. The species resemble Gomphrena or Achyranthes.

554. *Desmochæta.* From δεσμος, a bond, and χαιτα, a sheath, in allusion to the coherence of the flowers in their heads. It was called Pupalia by Jussieu, from its Malabar appellation. Plants nearly related to Achyranthes, in which they were included by Linnæus.

555. *Illecebrum.* A name of Pliny, designating a kind of wild purslane. It is now applied to singular little weed-like plants, with white scarious stipules to their leaves.

556. *Alternanthera;* that is to say, alternate anthers, those organs being by turns fertile and barren.

557. *Paronychia.* Something which cures whitlows, or maladies of the finger nails, called by the Greeks παρωνυχια. These are dwarf plants which grow in light soil, and are well adapted for pots or rock-work.

558. *Chenolea.* From χην, a goose, and *olea*, an olive. The leaves are silvery, like those of the olive; the plant humble like the Goosefoot. This plant is noticed for its silvery leaves: it is propagated by young cuttings planted under a hand-glass.

559. *Anychia.* A word with the same meaning as Paronychia (in No. 557.), and a genus with similar habits.

3139 Stems creeping, Leaves rounded fleshy, Heads solitary terminal oblong
3140 Stem erect shrubby, Leaves ovate oblong acuminate, Heads round stalked leafless

3141 Stem ½-shrubby spreading smooth, Leaves opp. ovate acum. roughish, Flowers with long purple bristles
3142 Stems shrubby prostrate, Leaves opposite ovate, Fascicles of flowers remote spreading at length reflexed
3143 Stem shrubby spreading, Leaves alternate ovate naked, Fasc. of flowers remote ovate, Bristles callous
3144 Stem erect, Leaves alternate ovate smooth, Racemes many, Fascicles ovate remote, Bristles callous
3145 Stem shrubby spreading pubescent, Flowers in round prickly spikes

3146 Stems filiform smooth, Leaves roundish, Calyxes 5-cornered bearded
3147 Stem branched erect, Leaves rounded smooth bearded, Flowers cymose, Bractes very short
3148 Stem branched prostrate, Flowers clustered axillary naked, Calyxes ventricose beneath hairy

3149 Heads sessile, Flowers smooth three times as long as utricle, Leaves ovate mucronate unequal
3150 Stems creeping hairy, Leaves broad lanceolate stalked, Heads round naked
3151 Heads subsessile, Calyx ovate acuminate nearly as short again as utricle, Leaves ovate lanceolate
3152 Stems creeping smooth, Leaves broad lanceolate stalked, Heads round pubescent
3153 Leaves ovate lanceolate deflexed, Flowers axillary clustered, Cal. spiny, Stem tomentose dichotomous

3154 Stems rising, Leaves carinate oblong ciliated at base, Flowers terminal mixed among the bractes
3155 Stems sub-erect much branched, Leaves spreading villous, Bractes very large concealing the flowers
3156 Stems diffuse, Leaves ovate, Flowers heaped, Bractes shining
3157 Flowers surrounded by shining bracteæ, Stems procumbent, Leaves smooth

3158 The only species

3159 Stem dichotomous, Leaves lanceolate: of the stem opposite, of the branches altern. Flowers sol. axillary

3160 Stem herbaceous erect, Flowers lateral woolly, Leaves alternate ovate
3161 Leaves lanceolate downy, Spikes cylindrical numerous terminal

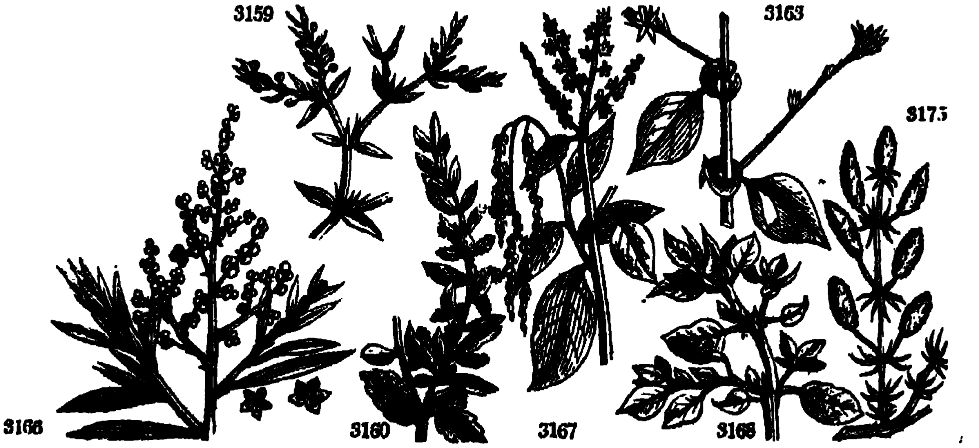
3162 Leaves ovate oblong, Stem rising panicled, Spikes alternate terminal remote
3163 Leaves ovate acuminate flat, Raceme loose, Bractes scarious, Pistil trifid
3164 Shrubby smooth, Cauline leaves spatulate, Stem leaves lanceolate, Flowers heaped spiked

3165 Half shrubby erect, Branches diffuse, Leaves nearly opp. hastate entire smooth
3166 Shrubby erect, Branches unarmed, Leaves entire linear oblong and lanceolate flat beneath powdery

3167 Leaves cordate acuminate, Raceme spiked loose, Flowers trigynous

3168 Stems depressed jointed smooth, Leaves oval obtuse entire red at edge

3169 Leaves linear lanceolate, Stipules falcate, Peduncles angular, Spikes scarious ovate cylindrical
3170 Leaves ovate acuminate, Stipules falcate, Common peduncle striated, Spike oblong compressed
3171 Spikes cylindrical comose, Leaves lanceolate
3172 Leaves ovate upright without auricles, Stem furrowed, Spikes multiple crested
3173 Flowers panicled nodding, Leaves lanceolate, Stem ribbed
3174 Leaves lanceolate ovate lined very much acuminate, Spikes crested, Stipules falcate
3175 Leaves subulate whorled, Stem branched straggling, Spikes compact cylindrical
3176 Leaves wedge-shaped acutish, Spikes globose lateral



and Miscellaneous Particulars.

560. *Ærua.* From its Arabic name *ĕroûâ*. Little weeds like Illecebrum.

561. *Lestibudesia.* Named by M. du Petit Thouars, after Fr. Jos. Lestiboudois, a Flemish botanist, author of a work called Botanographie Belgique, published in 1781. The species are readily increased either by seeds or cuttings.

562. *Rhagodia.* From *ῥαγώδης*, bearing berries. The fruit is a small berry, by which character the genus is chiefly distinguished from Chenopodium.

563. *Deeringia.* Named by Mr. Brown, in memory of Dr. Charles Deering, author of a Flora of Nottingham, and a skilful botanist of his day. Weak shrubs, with terminal spikes of flowers, and a berried inflated pericarp.

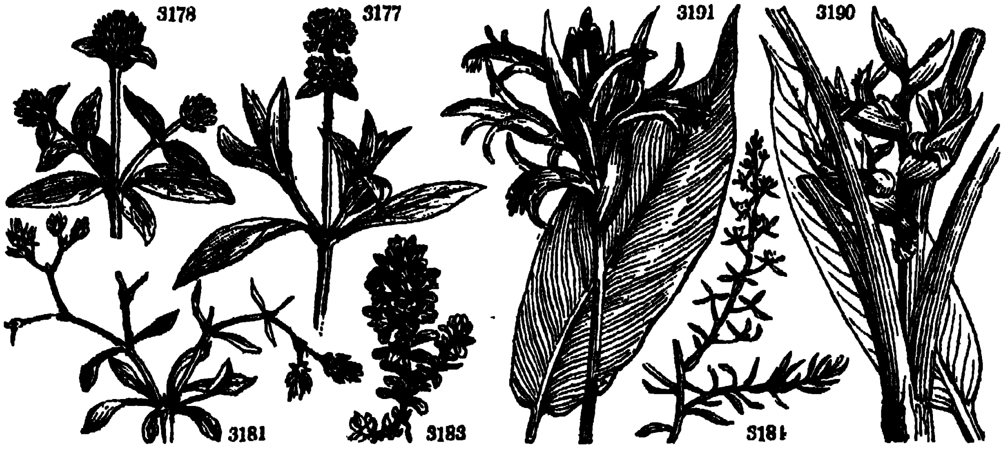
564. *Trianthema.* From *τρεις*, three, and *ανθος*, flowers. The flowers are frequently placed in threes in the axills of the leaves. Little tropical weeds.

565. *Celosia.* From *κηλεος*, burnt, because the flowers of some species appear as it were singed. *C. cristata* is a well known tender annual, of which there are many varieties, as in the balsam, and which, like that plant, will attain a large size and singular beauty by repeated shiftings. Thunberg states that the flowers or crests are frequently a foot in length and breadth in Japan. T. A. Knight sent a flower to the Horticultural Society

566. GOMPHRE'NA. *R. Br.*	GLOBE AMARANTH.					*Amaranthaceæ.*		*Sp.* 4—25.				
3177 globósa *W.*	annual		⌼	or	1½	my.o	P.W	India	1714.	S	r.m	Rhd.mal.10. t.37
3178 perénnis *W.*	perennial	¥	⍍	or	2	jl.o	P.Y	S. Amer.	1732.	C	r.m	Di.el.24.t.20.f.22
3179 arboréscens *W.*	tree	ħ	☐	or	3	jl.o	W	S. Amer.	1802.	C	r.m	
3180 interrúpta *W.*	trailing	¥	⌼	or	2	jl.au	Gr	W. Indies	1733.	C	r.m	Jac. ic. 1. t. 51
567. MOL'LIA. *W.*	MOLLIA.					*Amaranthaceæ.*		*Sp.* 2—3.				
3181 diffúsa *H. K.*	forked		⌼	w	½	jl.au	W	Canaries	1779.	S	l.p	Will.hort.ber.11
3182 aristáta *H. K.*	bearded	ħ	⊔	w	½	jn.jl	W	Canaries	1780.	C	l.p	
568. GLA'UX. *W.*	BLACK SALTWORT.					*Salicariæ.*		*Sp.* 1.				
3183 marítima *W.*	sea	♃~	△	cu	¼	my.jn	F	Britain	salt m.	S	s.l	Eng. bot. 13
569. THE'SIUM. *W.*	BASTARD TOAD FLAX.					*Santalaceæ.*		*Sp.* 5—33.				
3184 linophýllum. *W.*	common	♃	△	cu	½	jn.jl	W	England	ch.pa.	D	p.l	Eng. bot. 247
3185 alpìnum *Hayne.*	Alpine	♃	△	cu	½	jn.jl	W	Germany	1814.	D	p.l	Jac. aust.5. t.416
3186 ebracteátum *Hayne.*	obtuse-leaved	♃	△	cu	½	jn.jl	W	Germany	1814.	D	p.l	Sch.bo.j.1800. t.7
3187 umbellátum *W.*	umbelled	♃	△	cu	1	jn	G	N. Amer.	1782.	D	p.l	Pl. man.t.342.f.1
3188 amplexicaúle *W.*	heart-leaved	ħ	⊔	cu	4	...	W	C. G. H.	1787.	C	s.l	
570. HELICO'NIA. *W.*	HELICONIA.					*Musaceæ.*		*Sp.* 3—12.				
3189 Bihai *W.*	Plantain-leav'd	¥	⍍	or	12	jl.au	O	W. Indies	1786.	S	s.p	Sw. ob.96. t.5. f.2
3190 húmilis *W.*	dwarf	¥	⍍	or	6	jl.au	S	Caraccas	1798.	D	s.p	Jac.sch.1 t.48,49
3191 Psittacórum *W.*	Parrot-beaked	¥	⍍	or	8	au.s	O	W. Indies	1797.	S	s.p	Bot. rep. 124
571. STRELIT'ZIA. *H. K.*	STRELITZIA.					*Musaceæ.*		*Sp.* 8.				
3192 augústa *H. K.*	august	¥	☐	or	18	f.my	W	C. G. H.	1791.	S	p.l	
3193 reginæ *H. K.*	Canna-leaved	¥	⍍	or	8	ap.my	Y	C. G. H.	1773.	S	p.l	Red. lil. 77, 78
3194 ováta *H. K.*	ovate-leaved	¥	⍍	or	8	f.ap	Y	C. G. H.	1777.	S	p.l	Bot.mag.119,120
3195 farinósa *H. K.*	mealy-stalked	¥	⍍	or	5	f.mr	Y	C. G. H.	1795.	S	p.l	
3196 angustifólia *H. K.*	narrow-leaved	¥	⍍	or	6	my.jn	Y	C. G. H.	1778.	S	p.l	
3197 parvifólia *H. K.*	small-leaved	¥	⍍	or	6	my.jl	Y	C. G. H.	1796.	S	p.l	Bot. reg. 516
3198 húmilis *Lk.*	dwarf	¥	⍍	or	6	my.jn	Y	C. G. H.	...	S	p.l	
3199 júncea *Lk.*	rush-leaved	¥	⍍	or	6	my.jn	Y	C. G. H.	...	S	p.l	

DIGYNIA.

572. APO'CYNUM. *R. Br.*	DOG'S-BANE.					*Apocyneæ.*		*Sp.* 4—8				
3200 androsæmifólium *W.*	Tutsan-leaved	♃	△	or	2	jl.s	Str	N. Amer.	1688.	S	p.l	Bot. mag. 280
3201 cannabìnum *W.*	Hemp-like	♃	△	or	3	jl.s	W	N. Amer.	1699.	S	co	Mor h. 15.t.3.f.14
3202 hypericifólium *W.*	Hyperic.-lvd.	♃	△	or	2	jn.jl	W	N. Amer.	1758.	S	co	Jac. vind. 3. t.66
3203 venétum *W.*	Venetian	♃	△	or	2	jn.jl	W	Adriat. Is.	1690.	S	co	Lobel. ic. t. 372
573. MELODI'NUS. *Forst.*	MELODINUS.					*Apocyneæ.*		*Sp.* 2.				
3204 scándens *W.*	climbing	ʃ	☐	or	15	jl.au	W	N. Caled.	1775.	C	s.p	Lam. ill. t. 179
3205 monógynus *Roxb.*	East Indian	ʃ	☐	or	10	jl	W	E. Indies	1820.	C	r.m	Bot. reg. 834
574. PERIPLO'CA. *R. Br.*	PERIPLOCA.					*Asclepiadeæ.*		*Sp.* 2—13.				
3206 græ'ca *W.*	common	ʃ		or	10	jl.au	Br	Syria	1597.	R	s.l	Bot. reg 803
3207 lævigáta *W.*	smooth	ʃ	⊔	or	6	...	G.Y	Canaries	1779.	C	p.l	Cav. ic. 3. t. 217



History, Use, Propagation, Culture,

which measured eighteen inches in width, and seven inches in height from the top of the stalk thick, full, and of the most intense purplish red. (*Hort. Trans.* iv. 322.) To produce this, the great object was to retard the protrusion of the flower-stalk. Hence, a rich compost was employed, the plants put first into pots of four inches diameter, and then transplanted to others a foot in diameter; the object being not to compress the roots, as that has a tendency to accelerate the flowering of all vegetables. The plants were placed close to the glass in a heat of from 70 to 100 degrees, all side branches removed, and pigeon-dung water used in watering. Had the shiftings from pot to pot been more frequent, it appears probable the size might have been still greater.

566. *Gomphrena.* Gromphrena is a name applied by the ancients to a plant bearing red and green leaves on the same stem; probably our Amaranthus tricolor. G. globosa is a popular tender annual, valued for its heads of flowers, which, if gathered before they are too far advanced, will retain their beauty several years. The other species propagate readily by cuttings under a glass.

567. *Mollia.* So called from its softness. The species are small weeds.

568. *Glaux.* From *γλαυκιον*, a name under which Dioscorides describes a maritime plant with glaucous leaves. This plant is maritime, and has glaucous leaves. A pretty little plant, and well adapted for pots and rock work. It will grow at a considerable distance from the sea in sand kept moist.

569. *Thesium.* Athenæus says, on the authority of Timachides, that this plant was called *θησειον*, because it formed part of the garland presented by Theseus to Ariadne. If this be so, the accent should be placed on the penultimate and not on the antepenultimate syllable. It is, however, very certain that the Thesion of the ancients had no resemblance to that of the moderns, which is a genus of little obscure plants or weeds.

570. *Heliconia.* A name given to this plant in an ingenious sense, as indicating its affinity with Musa. H. Bihai is a large herbaceous plant, bearing considerable resemblance to Strelitzia. It grows in rich well

3177 Stem erect hairy, Leaves oblong pubescent, Heads globose solitary 2-leaved, Keels of bractes winged
3178 Leaves lanceolate, Heads 2-leaved, Florets distinguished by a peculiar perianthium
3179 Hairy twining
3180 Stem ascending, Leaves oblong silky beneath, Spikes clustered panicled terminal interrupted

3181 Stem branched diffuse, Leaves spatulate whorled about 7, Calyxes with a membranous margin
3182 Stem branched diffuse, Leaves lanceolate silky bearded

3183 The only species

3184 Spike branched, Bractes 3, Leaves linear lanceolate with a very short tube to the calyx
3185 Stems prostrate simple, Raceme terminal leafy 1-sided, Flowers sessile surrounded by bractes
3186 Stem erect simple, Raceme leafy, Flowers stalked without smaller bractes
3187 Leaves obovate mucronate, Flowers racemose
3188 Leaves cordate stem-clasping, Racemes terminal

3189 Leaves at the base and end acute, Spadix erect radical, Spathes 2-ranked many-flowered
3190 Leaves narrowed at base at end acumin. Spadix erect flexuose radical, Spathes 2-ranked many-flowered
3191 Leaves very smooth nerved rounded at base, Inflorescence very smooth, Spadix erect without bractes

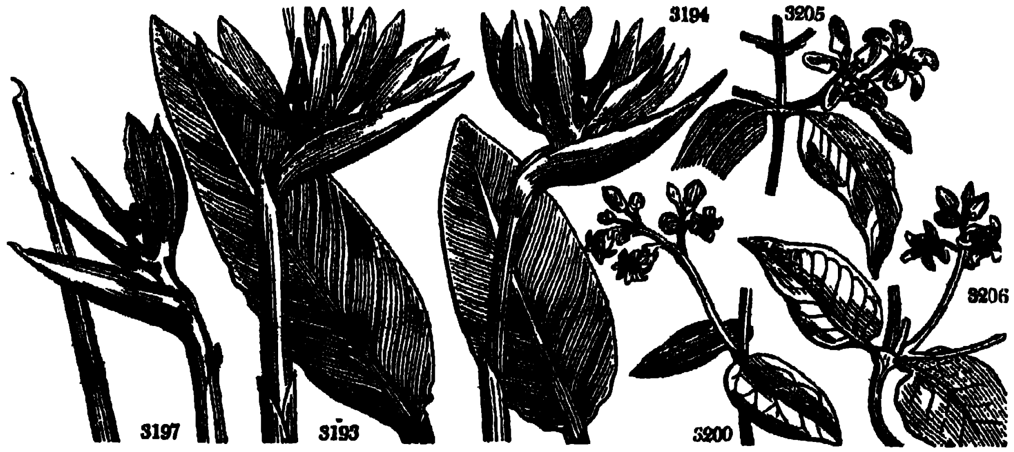
3192 Scape half as short as leaf-stalks which are hardly twice as long as the 6 feet leaf
3193 Scape scarcely longer than the leaf-stalks which are three times as long as the oval leaf
3194 Scape longer than leaf-stalk and leaves, Leaf-stalk twice as long as the ovate oblong leaf
3195 Scape a little longer than the leaf-stalks which are half as long again as the obl. leaf unequal at the base
3196 Scape as long as leaf-stalk which is 7 times longer than the lanceolate leaf
3197 Scape the length of the leaf-stalk which is 20 times longer than the linear lanceolate leaf
3198 Scape as long as leaf-stalk which is twice as long as the ovate concave leaf
3199 Leaf-stalk very long with no leaf

DIGYNIA.

3200 Stem upright herbaceous, Leaves ovate smooth on each side, Cymes terminal smooth
3201 Stem upright herbaceous, Leaves oblong tomentose beneath, Cymes lateral longer than the leaves
3202 Stem erect herbaceous, Leaves oblong cordate smooth, Cymes shorter than the leaves
3203 Stem erect herbaceous, Leaves elliptical lanceolate mucronate at the edge rough with little teeth

3204 Leaves oblong ovate thick at edge, Panicle downy
3205 Leaves oval lanceolate acuminate, Panicle smooth

3206 Flowers terminal hairy inside
3207 Flowers smooth, Segments obtuse, Cymes trichotomous. Leaves oblong lanceolate veiny smooth



and Miscellaneous Particulars.

shaded gullies in moist woods. The berries are small and succulent, and each contain three hard rugged seeds.

H. Psittacorum bears a great resemblance to Canna: it grows in the wet parts of woods, and on the highest mountains. All the species require a strong heat to make them flower freely.

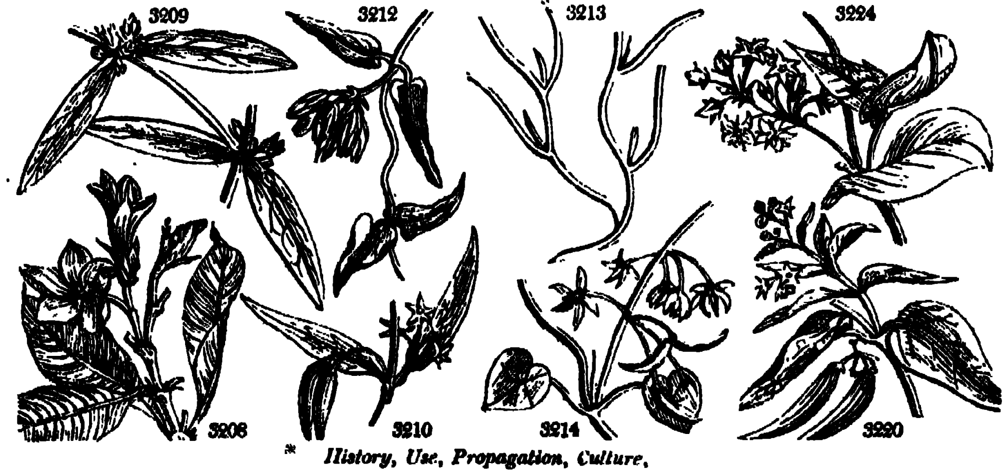
571. *Strelitzia.* So named by Sir Joseph Banks, in honor of Charlotte, queen of George III., of the family of Mecklenburgh Strelitz, and said to have patronised botany. This is a splendid genus, generally kept in the stove; but which, Sweet observes, "will thrive, and flower as well in the greenhouse or conservatory. A light sandy loam is the best soil for the species, and they may be increased, but slowly, by suckers. By rubbing the pollen on the stigma, when the plants are in bloom, perfect seeds are readily obtained." (*Bot. Cult.* 111.)

572. *Apocynum.* From *απο*, away, and *κυων*, a dog; that is to say, a plant from which dogs must be driven. Pliny says his Apocynum is mortal to them. This is a genus of plants of little beauty, but of easy culture in any soil. The first species is acrid and blisters the skin. From the stalks of A. cannabinum the Indians of North America prepare a substitute for hemp, of which they make twine, bags, fishing-nets and lines, and linen for their own wear.

573. *Melodinus.* So named by Forster, from *μηλον*, an apple, and *δινεω*, to turn round; this plant bearing a round fruit like an apple, and having a twining stem by which it climbs trees. It is a very smooth shrub, with oblong-ovate leaves, and nearly allied to Rauwolfia. Cuttings root readily in sand under a hand-glass. This, and the succeeding genera, as far as No. 592, are all Asclepiadeous plants, and require nearly similar management.

574. *Periploca.* From *περιπλοκη*, intertwining, in allusion to the habit of the plants. P. græca is a handsome climber, and grows freely in common garden soil, and is propagated by cuttings under a glass, or by layers.

575. CRYPTOSTE'GIA. *R. Br.*	CRYPTOSTEGIA.							*Asclepiadeæ.*	*Sp.* 1.				
3208 grandiflóra *R. Br.*	large-flowered	♣	□	or	6	jn.jl	Pk	India	1818.	C	r.m	Bot. reg. 435	
576. HEMIDES'MUS. *R. Br.*	HEMIDESMUS.							*Asclepiadeæ.*	*Sp.* 1—2.				
3209 indicus *H. K.*	Indian	ℓ	□	or	6	...	G	Ceylon	1796.	C	l.p	Bur.zeyl.t.63.f.1	
577. SECAMO'NE. *R. Br.*	SECAMONE.							*Asclepiadeæ.*	*Sp.* 2—4.				
3210 ægyptiaca *H. K.*	Egyptian	ℓ	⊔	cu	6	jl	W	Egypt	1752.	C	s.l	Alp. æg. t. 134	
3211 emética *R. Br.*	narrow-leaved	ℓ	□	m	6	...	W	India	1816.	C	s.l.p	Wil. ph. 1. t.5.f.2	
578. MICROLO'MA. *R. Br.*	MICROLOMA.							*Asclepiadeæ.*	*Sp.* 1—2.				
3212 sagittátum *H. K.*	arrow-leaved	ℓ	⊔	cu	3	jl.au	G.P	C. G. H.	1775.	C	s.l	Jac. sch. 1. t. 38	
579. SARCOSTEM'MA. *R. Br.*	SARCOSTEMMA.							*Asclepiadeæ.*	*Sp.* 1—12.				
3213 viminále *H. K.*	twisting	ℓ	□	cu	6	jl	W	E. Indies	1731.	C	r.m	Alp. æg. t. 190	
580. DÆ'MIA. *R. Br.*	DÆMIA.							*Asclepiadeæ.*	*Sp.* 1—4.				
3214 exténsa *H. K.*	smooth-leaved	ℓ	□	or	3	jl.au	W	E. Indies	1777.	C	p.l	Jac. ic. 1. t. 54	
581. CYNAN'CHUM. *R. Br.*	CYNANCHUM.							*Asclepiadeæ.*	*Sp.* 11—50.				
3215 acútum *R. Br.*	acute-leaved	⚘	△	or	3	jl	W	Spain	1596.	D	co	Tre. eh. 44. t. 82	
3216 monspeliacum *R. Br.*	Montpelier	⚘	△	or	3	au.s	Pk	S. Europe	1596.	D	co	Jac. ic. 2. t. 340	
3217 crassifólium *R. Br.*	obtuse-leaved	ℓ	⊔	or	3	...	G	C. G. H.	1816.	C	co		
3218 pilósum *R. Br.*	hairy	ℓ	⊔	or	2	jn.s	W	C. G. H.	1726.	C	p.l	Bot. reg. 111	
3219 vincetóxicum *R. Br*	officinal	⚘	△	or	2	my.au	W	Europe	1596.	D	s.l	Flor. dan. 849	
β lúteum	*yellow-flowered*	⚘	△	or	2	my.au	Y	Europe	1596.	D	s.l		
3220 nigrum *R. Br.*	black	⚘	△	or	3	jn.au	W	S. Europe	1596.	D	s.l	Bot. mag. 2390	
3221 sibiricum *R. Br.*	Siberian	⚘	△	or	3	jl.au	G	Siberia	1775.	D	co	Mur. gott. 2. t. 7	
3222 médium *R. Br.*	intermediate	⚘	△	or	3	my.au	W	......	...	D	co		
3223 undátum *B. Rep.*	wave-leaved	ℓ	□	or	6	jl.au	G	W. Indies	1803.	C	l.p	Bot. rep. 410	
3224 mucronátum *B. Rep.*	sharp-pointed	ℓ	□	or	6	jl.au	G	Trinidad	1804.	C	l.p	Bot. rep. 515	
3225 viridiflórum *B. M.*	green-flowered	ℓ	□	or	6	o.d	G	E. Indies	1814.	C	l.p	Bot. mag. 1929	
582. OXYSTEL'MA. *R. Br.*	OXYSTELMA.							*Asclepiadeæ.*	*Sp.* 1—2.				
3226 esculéntum *R. Br.*	esculent	£	⊠	cu	4	...	Y	E. Indies	1816.	D	s.l	Rox. cor. 1. t. 11	
583. GYMNE'MA. *R. Br.*	GYMNEMA.							*Asclepiadeæ.*	*Sp.* 1—4.				
3227 sylvéstre *R. Br.*	netted-leaved	ℓ	□	or	8	...	Gr	Ceylon	1816.	C	l.p	Wil. ph. 1. t.5.f.3	
584. CALO'TROPIS. *R. Br.*	CALOTROPIS.							*Asclepiadeæ.*	*Sp.* 2.				
3228 prócera *H. K.*	bell-flowered	£	□	or	6	jl	W.P	Persia	1714.	C	s.l	Bot. rep. 271	
3229 gigantéa *H. K.*	curled-flowered	£	□	or	6	jl.	W.P	E. Indies	1690.	C	r.m	Bot. reg. 58	
585. DISCHI'DIA. *R. Br.*	DISCHIDIA.							*Asclepiadeæ.*	*Sp.* 1—2.				
3230 bengalénsis *Coleb.*	Bengal	ħ	□	or	½	...	W	India	1818.	C	s.l	Lin. trans. 12. t. 15	
586. XYSMALO'BIUM. *R. Br.*	XYSMALOBIUM.							*Asclepiadeæ.*	*Sp* 1—2.				
3231 undulátum *H. K.*	waved-leaved	ħ	⊔	cu	1	jl	Gr	C. G. H.	1783.	C	p.l	Comm. rar. t. 16	
587. GOMPHOCAR'PUS. *R. Br.*	GOMPHOCARPUS.							*Asclepiadeæ.*	*Sp.* 3—4.				
3232 arboréscens *H. K.*	broad-leaved	ħ	⊔	or	5	d	W	C. G. H.	1714.	C	l.p	Jac. sch. 1. t. 50	
3233 crispus *H. K.*	curled-leaved	ħ	⊔	or	1	jl	Y	C. G. H.	1774.	C	p.l	Comm. rar. t. 17	
3234 fruticósus *H. K.*	Willow-leaved	ħ	⊔	or	5	jn.s	W	C. G. H.	1714.	C	p.l	Bot. mag. 1628	
588. ASCLE'PIAS. *R. Br.*	SWALLOW-WORT.							*Asclepiadeæ.*	*Sp.* 15—65.				
3235 syriaca *W.*	Virginian	⚘	△	or	4	jl.au	Pu	N. Amer.	1629.	D	co	Blackw. t. 521	
3236 phytolaccoides *Ph.*	Phytolacca-like	⚘	△	or	3	jl.au	Pu	N. Amer.	1812.	D	co		
3237 amœ'na *W.*	oval-leaved	⚘	△	or	3	jl.au	Pu	N. Amer	1732.	D	p.l	Dil. el. t. 27. f. 30	



History, Use, Propagation, Culture.

575. *Cryptostegia.* From κρυπτος, concealed, and στεγη, a covering. The name was suggested to Mr. Brown by the circumstance of the enclosure of the corona within the tube of the corolla, and its not being exposed to view, as in the other neighbouring genera.

576. *Hemidesmus.* From ἡμισυς, half, and δεσμος, a bandage; in allusion to the incomplete coherence of the anthers with the stigma, by which the genus is principally distinguished from Periploca. Cuttings root readily in sand in heat.

577. *Secamone.* The meaning of this word is very obscure. None of the explanations which have been offered of it are even tolerable. Culture as in Periploca.

578. *Microloma.* From μικρος, small, and λωμα, a fringe; but the application is unexplained by the author of the name. Small climbing shrubs, with opposite leaves and interpetiolar umbels.

579. *Sarcostemma.* From σαρκος, flesh, and στεμμα, a crown; on account of the thick succulent nature of the coronal processes.

580. *Dæmia.* Dæmia appears to be an Arabic name. It has been applied by Forskåhl to a species of Asclepias referred hither. A genus of twining plants.

581. *Cynanchum.* From κυων, a dog, and αγχειν, to strangle. A word having the same meaning and application as Apocynum. This is a genus of low shrubs and herbaceous plants, for the most part twining, and all of easy culture and propagation.

582. *Oxystelma.* From οξυς, sharp, and στελμα, a crown; the corona being very much pointed.

583. *Gymnema.* From γυμνος, naked, and νημα, a thread, or, in botanical language, stamen; in allusion to

3208 The only known species

3209 Spikes axillary imbricated, Leaves elliptical obtuse mucronate, Stem smooth

3210 Flowers hairy inside panicled, Leaves lanceolate elliptical
3211 Flowers smooth, Corymbs few-flowered axillary, Leaves linear lanceolate without veins

3212 Leaves sagittate pubescent, Limb of the corolla acute

3213 Stem twining perennial leafless

3214 Stem twining shrubby, Leaves cordate acute, Flowers hairy at edge

3215 Leaves oblong ovate cordate acute, Segments of cor. oblong obtuse
3216 Leaves reniform contracted at end & lanceolate, Segm. of cor. lanceolate obtuse
3217 Leaves cordate ovate obtuse fleshy with a little point smooth, Crown 10-cleft as long as corolla
3218 Leaves ovate acute and calyxes hairy, Crown 10-cleft as long as corolla
3219 Stem erect, Flowers beardless, Partial stalks of umbel twice as long as common stalks, Crown 5-lobed

3220 Stem climbing upwards, Fl. bearded, Partial stalks of simple umbel scarcely longer than common stalk
3221 Leaves lanceolate linear opposite and three together, Stem decumbent
3222 Stem twining upwards, Corollas beardless, Stalks of umbel divided, Corona 5-lobed
3223 Leaves oblong cordate acuminate wavy, Umbels axillary proliferous
3224 Stem hairy, Leaves heart-shaped mucronate, Umbels axillary proliferous
3225 Leaves cordate ovate acuminate, Umbels simple solitary, Partial flower-stalks longer than common one

3226 Cor. smooth rotate, Racemes axillary, Leaves linear lanceolate veiny

3227 Leaves rounded ovate netted pubescent beneath, Flowers in umbels

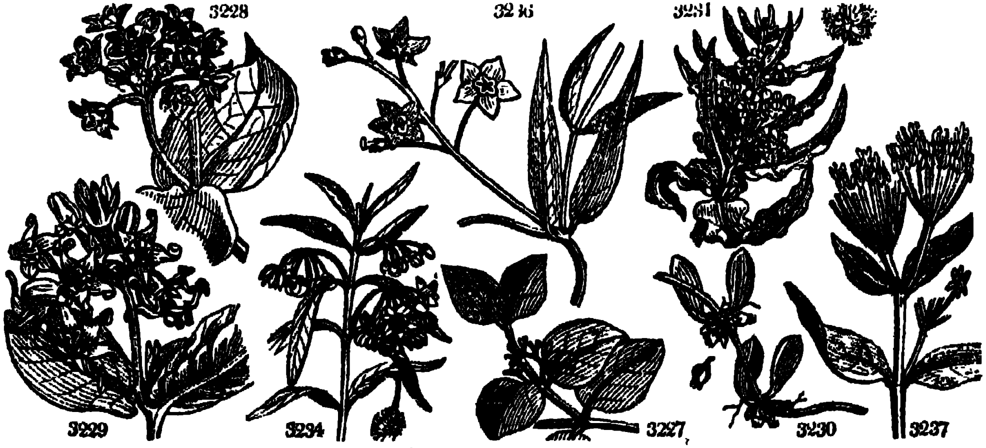
3228 Segments of cor. spreading
3229 Segments of cor. reflexed involute

3230 Leaves thick fleshy ovate

3231 Leaves sessile oblong lanceolate wavy smooth, Umbels lateral, Petals ciliated

3232 Leaves ovate oblong smooth obtuse with a point
3233 Leaves cordate lanceolate wavy hispid
3234 Leaves linear lanceolate smooth

3235 Leaves oval downy beneath, Stem simple, Umbels nodding
3236 Stem erect simple, Leaves broad ovate oblong acute smooth paler beneath, Umbels nodding
3237 Stem simple downy in two rows, Leaves subsessile oblong oval downy beneath



and Miscellaneous Particulars.

the peculiar structure of the stamens. The milk of Gymnema lactiferum is used instead of the Vaccine ichor, and the leaves are employed in sauces in the room of cream.

584. *Calotropis.* From καλος, beautiful, and τρεπω, to turn, in allusion to the beauty *of the flowers, which* continually turn towards the sun. This is a handsome free-flowering genus. Young cuttings root freely in sand under a hand-glass, but not crowded, as, if the leaves are injured, they are very apt to damp and get mouldy.

585. *Dischidia.* From δις, twice, and σχιζω, to split; but the application is unexplained. Little trailing plants with small opposite fleshy leaves.

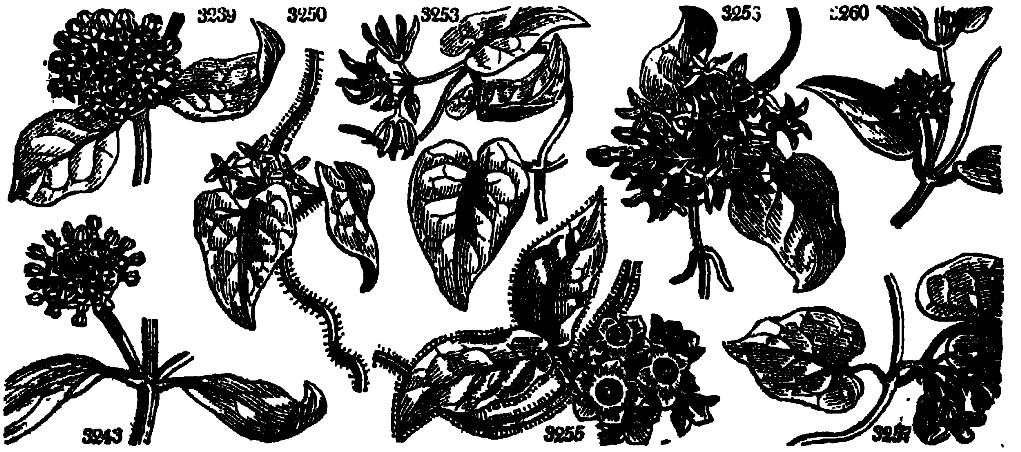
586. *Xysmalobium.* From ξυσμα, a fragment of a thing, and λοβος, a division, on account of the minute alternate divisions of the corona. The flowers of this genus are very large; those of X. grandiflorum are of the size and color of Fritillaria meleagris.

587. *Gomphocarpus.* From γομφος, a club, and καρπος, fruit. A genus resembling Asclepias in habit, but well distinguished by the inflated club-like fruit.

588. *Asclepias.* The name of many ancient physicians. It is the Greek name of the Æsculapius of the Latins. This is a genus of tall-growing herbaceous plants, which thrive best in peat or any very light soil. They require a good deal of room to show their characters, and are readily propagated by seeds or dividing the roots. A. syriaca is very odoriferous, and in Canada, when in flower, charms the traveller, especially when passing through woods in the evening. The French there eat the tender shoots in spring as we do asparagus. The natives make a sugar of the flowers, gathering them in the morning when they are covered with dew, and collect the cotton from the pods to fill their beds. On account of the silkiness of this cotton, Parkinson calls the plant Virginian silk.

A. nivea has jointed fleshy roots, the juice of which is very effective in bringing away worms. The root

3238	purpuráscens *W.*	purple	♃	△	or	3	jl.au	P.G	N. Amer.	1732.	D	p.l	Dil. el. t. 28. f. 31
3239	variegáta *W.*	variegated	♃	△	or	4	jl.au	W	N. Amer.	1597.	D	p.l	Bot. mag. 1182
3240	curassávica *W.*	Curassavian	♃	△	or	3	jn.s	S	S. Amer.	1692.	S	r.m	Bot. reg. 81
	β *alba*	*white*	♃	△	or	3	jn.s	W	S. Amer.	...	S	r.m	
3241	nivea *W.*	Almond-leaved	♃	△	or	3	jl.s	W	N. Amer.	1730.	D	p.l	Bot. mag. 1181
3242	parviflóra *W.*	small-flowered	♃	⌊△⌋	or	3	jl.o	W	N. Amer.	1774.	C	r.m	Jacq. ecl. t. 28
3243	incarnáta *W.*	flesh-colored	♃	△	or	2	jl.au	Pu	N. Amer.	1710.	D	p.l	Bot. reg. 250
3244	púlchra *W. en.*	hairy	♃	△	or	2	jl.au	Pu	N. Amer.	...	D	p.l	
3245	decúmbens *W.*	decumbent	♃	△	or	2	jl.au	O	N. Amer.	1731.	D	p.l	
3246	verticilláta *W.*	whorl-leaved	♃	△	or	3	jl.au	W.G	N. Amer.	1759.	D	p.l	Pl. ma. t. 336. f. 3
3247	longifólia *Ph.*	long-leaved	♃	△	or	2	jl.au	P.Pu	N. Amer.	1816.	D	p.l	
3248	tuberósa *W.*	tuberous-rooted	♃	△	or	2	jl.s	O	N. Amer.	1690.	D	s.l	Bot. reg. 76
3249	Linária *W.*	Flax-leaved	♃	⌊△⌋	or	2	...	W	Mexico	1802.	D	s.l	Cav. ic. 1. t. 57
589.	GONO'LOBUS. *R. Br.*	Gonolobus.					*Asclepiadeæ.*		*Sp.* 6— .				
3250	hirsútus *Mich.*	hairy	♃	△	or	6	jn	P	N. Amer.	1806.	C	l.p	Bot. cab. 365
3251	lævis *Mich.*	smooth	♃	△	or	6	jn	G	N. Amer.	1806.	C	l.p	
3252	suberósus *H. K.*	Cork-barked	$	☐	or	6	jl.s	G	America	1732.	C	p.l	D. el. t. 229. f. 296
3253	discolor *B. M.*	Virginian	♃	△	or	8	jl.au	G	N. Amer.	1809.	C	p.l	Bot. mag. 1273
3254	crispiflórus *H. K.*	curled-flower	$	☐	or	2	jl.au	W.G	S. Amer.	1741.	C	s.p	Pl. ic. t. 216. f. 1
3255	diademátus *Ker.*	red-crowned	$	☐	or	12	s.o	G	Mexico	1812.	C	s.p	Bot. reg. 252
590.	PERGULA'RIA. *R. Br.*	Pergularia.					*Asclepiadeæ.*		*Sp.* 3— .				
3256	odoratíssima *H. K.*	large	$	☐	ft	15	jn.jl	G	E. Indies	1784.	C	r.m	Bot. rep. 185
3257	minor *H. K.*	small	$	☐	ft	8	my.au	Y.G	E. Indies	1790.	C	r.m	Bot. mag. 755
3258	sanguinolénta *Lind.*	bloody	$	☐	cu	6	jl.au	G.R	S. Leone	1822.	C	r.m	Bot. mag. 2532
591.	MARSDE'NIA. *R. Br.*	Marsdenia.					*Asclepiadeæ.*		*Sp.* 2— .				
3259	erécta *R. Br.*	upright	♄	☐	ft	2	jl.au	W	Syria	1597.	C	s.l	Jac. vind. 1. t. 38
3260	suavéolens *R. Br.*	sweet-scented	♄	⊔	ft	3	jl.au	W	N. S. W.	1816.	C	s.l	Bot. reg. 489
592.	HO'YA. *R. Br.*	Hoya.					*Asclepiadeæ.*		*Sp.* 5— .				
3261	carnósa *R. Br.*	fleshy-leaved	$	☐	or	10	jl.au	Pk	Asia	1802.	L	r.m	Bot. mag. 788
3262	lanceoláta *Hort.*	lanceolate	$	☐	or	2	...	...	E. Indies	1815.	C	r.m	
3263	crassifólia *Haw.*	thick-leaved	$	☐	or	10	...	...	China	1821.	C	r.m	
3264	Pottsii *Hort.*	cordate	$	☐	or	10	...	...	China	1824.	C	r.m	Bot. cab. 1969
3265	trinérvis *Hort.*	three-nerved	$	☐	or	10	...	...	China	1824.	C	r.m	
593.	CEROPE'GIA. *Roxb.*	Ceropegia.					*Asclepiadeæ.*		*Sp.* 3— .				
3266	dichótoma *Haw.*	dichotomous	♄	⊐	cu	1	jl	Y	E. Indies	1804.	C	s.l	Roxb. cor. 1. t. 10
3267	júncea *Roxb.*	rushy	♄	⊐	cu	1	...	Y	E. Indies	1822.	C	s.l	Bot. reg. 626
3268	africána *Hort.*	African	$	⊐	cu	6	...	Y	E. Indies	1823.	C	s.l	Bot. cab. 906
594.	STAPE'LIA. *R. Br.*	Stapelia.					*Asclepiadeæ.*		*Sp.* 65— .				
3269	grandiflóra *Mass.*	great-flowered	♄	⊐	cu	1	s.d	D.Pu	C. G. H.	1795.	C	s.l	Mass. stap. t. 11
3270	spectábilis *Haw.* *grandiflóra* B. M.	shewy	♄	⊐	cu	1	n.ja	D.Pu	C. G. H.	1802.	C	s.l	Bot. mag. 585
3271	ambigua *W.*	ambiguous	♄	⊐	cu	2	jn.n	P.Br	C. G. H.	1795.	C	s.l	Mass. stap. t. 12
3272	sorória *W. en.*	sister	♄	⊐	cu	1	jn.au	D.Pu	C. G. H.	1797.	C	s.l	Bot. cab. 94
3273	pátula *W. en.*	spreading	♄	⊐	cu	1	jn.au	O	C. G. H.	...	C	s.l	Jac. stap. c. ic.
3274	refléxa *Haw.*	reflexed	♄	⊐	cu	½	jn.au	G.P	C. G. H.	...	C	s.l	Bot. mag. 1890
3275	lúcida *D. C.*	shining	♄	⊐	cu	1	jn.au	P	C. G. H.	1812.	C	s.l	
3276	Juvéncula *W. en.*	short-flowered	♄	⊐	cu	1	jn.au	Br.P	C. G. H.	...	C	s.l	Jac. stap. c. ic.
3277	Massónii *Haw.*	Masson's	♄	⊐	cu	2	...	...	C. G. H.	...	C	s.l	
3278	Astérias *W.*	Star-fish	♄	⊐	cu	¾	my.n	P.St	C. G. H.	1795.	C	s.l	Bot. mag. 536
3279	stelláris *Haw.*	starry	♄	⊐	cu		...	...	C. G. H.	...	C	s.l	Bot. cab. 1312
3280	hirsúta *W.*	hairy	♄	⊐	cu	½	jn.au	P	C. G. H.	1710.	C	s.l	Jac. misc. 1. t. 3
	β *atra* Jacq.	*dark-flowered*											Bot. reg. 156
3281	hamáta *Jacq.*	hooked	♄	⊐	cu	¼	jl.au	Bd.R	C. G. H.	1820.	C	s.l	Bot. cab. 242
3282	comáta *Jacq.*	shaggy	♄	⊐	cu	1	s	Y.Br	C. G. H.	1819.	C	s.l	
	β *multiflóra* D. C.	*many-flowered*	♄	⊐	cu	1	s	V.R	C. G. H.	1817.	C	s.l	
3283	rúfa *W.*	rusty-brown	♄	⊐	cu	¼	jn.n	Br	C. G. H.	1795.	C	s.l	Bot. cab. 239
3284	pulvináta *W.*	cushioned	♄	⊐	cu	½	jn.n	D.V	C. G. H.	1795.	C	s.l	Bot. mag. 1240



History, Use, Propagation, Culture,

dried and reduced to powder, is frequently used by the negroes as a vomit, and hence its name of wild or bastard Ipecacuanha.

A. vincetoxicum (tame-poison) is so named because it was formerly esteemed an alexipharmick; and it is called swallow-wort from the fancied resemblance of the follicles or seeds to a swallow flying.

589. *Gonolobus.* The derivation and meaning of this word have not been explained. The genus consists chiefly of climbers of little beauty but easy culture.

590. *Pergularia.* From *Pergula*, trellis-work, which the plants are very proper for covering. This is a climbing genus, much valued for the fragrance of its flowers. It grows well in loam and peat, and cuttings root freely in sand under a hand-glass.

591. *Marsdenia.* So named by Mr. R. Brown, after William Marsden, Esq. the author of the excellent

3238 Stem simple, Leaves ovate villous beneath, Umbels erect, Nect. resupinate
3239 Leaves ovate rugose naked, Stem simple, Umbels subsessile, Flower-stalks downy
3240 Leaves stalked lanceolate smooth shining, Stem simple, Umbels erect solitary lateral

3241 Leaves ovate-lanceolate smooth, Stem simple, Umbels erect lateral solitary
3242 Leaves lanceolate acuminate smooth narrowed at base, Stem half shrubby erect, Umbels lateral solitary
3243 Leaves lanceolate smooth, Stem divided upwards, Umbels erect in pairs
3244 Leaves lanceolate pubescent beneath, Stem divided upwards, Umbels erect in pairs
3245 Leaves villous, Stem decumbent
3246 Stem erect simple downy in lines, Leaves very narrow linear mostly whorled
3247 Stem decumbent and leaves very long linear pubescent, Appendages of crown without horns
3248 Stem erect hairy with spreading branches at end, Leaves scattered lanceolate hairy
3249 Leaves linear subulate channelled, Umbels stalked nodding: lateral many-flowered

3250 Runners and leafstalks very hairy, Lvs. acum. by degrees perceptibly hairy on both sides, Foll. muricated
3251 Runners smoothish, Leaves conical cordate acute by degrees, Flowers and follicles smooth
3252 Leaves cordate acuminate with the sinus open
3253 Leaves cordate, Corymbs axillary, Common flower-stalk longer than the leafstalks Cor. discolored
3254 Leaves oblong cordate with the sinus closed, Petals crisp at end
3255 Villous, Leaves oblong elliptical lanceolate cordate, Crown at bottom of tube

3256 Leaves cordate acuminate, Cal. shorter than tube of cor.
3257 Leaves cordate obtuse with a point, Cal. as long as tube of cor.
3258 Leaves ovate lanc. very smoo[illegible]es shorter than leaves, Sap blood-colored

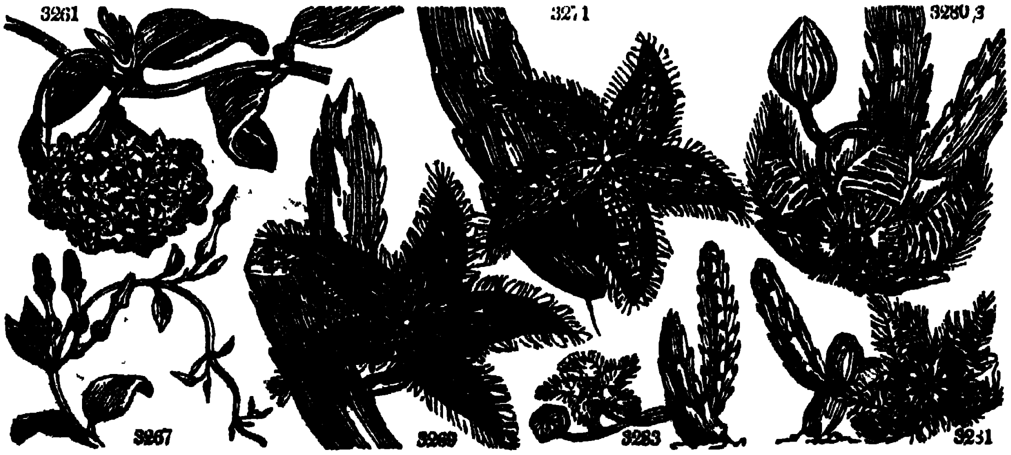
3259 Stem erect, Leaves cordate ovate acute, Cymes umbellate, Flowers not bearded
3260 Stem somewhat erect, Leaves oval-lanceolate smooth veinless, Tube inflated, Orifice bearded

3261 Leaves ovate, Flowers bearded
3262 Leaves ovate-lanceolate acute small
3263 Leaves obovate obtuse very thick
3264 Leaves cordate
3265 Leaves oblong slightly cordate at base with 3 distinct nerves

3266 Stems upright jointed rounded, Leaves linear acute
3267 Leaves lanceolate sessile, Peduncles 2-flowered, Stem fleshy
3268 Leaves smooth with an edge, Peduncles simple, Calyx very smooth

§ 1. *Cor. 5-cleft with no ball Crown double: the outer with the ligules united at base; inner with the appendages united upwards into a beak, downwards expanded into a wing.* (True Stapelia.)
3269 Branches quadrangular clavate: angles with remote incurved teeth, Seg. of cor. lanc. acute fringed at edge
3270 Segments of cor. fringed with white covered at base with very close long red hairs black at end, beyond mid. striped with pale
3271 Branches erect 4-ang. clav. Angles toothed rem. incurv. Cor. large flat with lanc. hisp. seg. fring. at edge
3272 Branches spreading 4-ang. Angles toothed, Teeth remote acute incurved, Cor. whole color. vil. in middle
3273 Cor. flat cil. rugose above in mid. hairy otherwise smooth, Beak sub. ac. Wings obl. obt. 1-tooth. inside
3274 Stam. deltoid with inner process recurved unguiculate, Top of style impressed with the mark of a cross
3275 Branches sq. erect velvety, Teeth erect, Disc. of fls. shining hairy with ovate-acum. revolute ciliated seg.
3276 Fls. flat smooth rugose crosswise, Beaks subul. gibb. Ligules lanc. acum. Bran. fl.-bearing about the mid.
3277 Branches four together large equal sided with flat pubescent angles
3278 Branches several erect square toothed, Teeth short erect, Fl. large, Segm. lanc. ciliated revolute at edge
3279 An obscure species said to be cultivated in the gardens, but of which nothing is known
3280 Flowers flat ciliated hairy all over the disk, Beaks subulate acute with a broad acute wing at the back

3281 Fls. flat cil. rugose above hairy in centre, One or more of teeth hooked, Wings parallel with erect beaks
3282 Fl. cil. Disk flat shaggy in mid. Segm. at first deflexed afterwards spreading, Wings obl. trunc. crenulate
β Differs chiefly in the dark color of the flowers which are clustered and not solitary
3283 Segm. of fl. lanc. acum. Ligules linear lanc. wavy, Branches erect square with erect teeth
3284 Branches reclinate, Segm. of fl. rounded rugose acuminate ciliated: the bottom elevated closely hairy



and Miscellaneous Particulars.

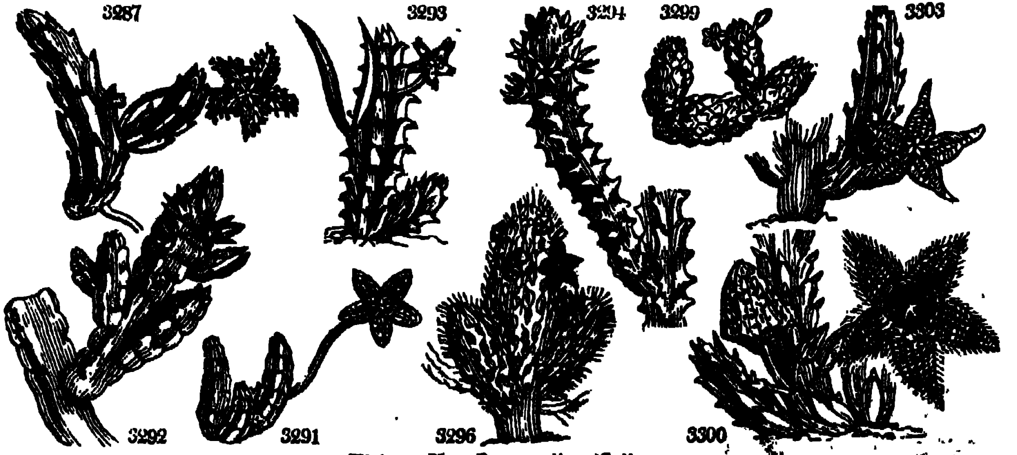
History of Sumatra, in which one species, used as Indigo in the island, is figured. Little neat shrubs, with axillary bunches of small white sweet-scented flowers.

592. *Hoya.* Named after Mr. Thomas Hoy, for many years gardener to the Duke of Northumberland. He died about 1821. *H. carnosa* is of easy culture, flowers freely, and is propagated by cuttings in a moist heat. Its flowers are very mellifluous, and it has been said that one or two plants, placed when in flower in a vinery of ripe grapes, will entice the wasps from eating the fruit.

593. *Ceropegia.* From κηρος, wax, and πηγη, a fountain; literally, a fountain of wax, poetically, a candelabre; on account of the umbels of bright yellow flowers. Curious naked plants with tumid fleshy stems. Same culture as Hoya.

594. *Stapelia.* So named by Linnæus, in memory of Bodæus à Stapel, a physician of Amsterdam, com-

3285 fissiróstris *Jacq.*	split-beaked	♄	⊐	cu	2½	...	Y.o	C. G. H.	1823.	C	s.l	Jac. stap. c. ic.
3286 concínna *W.*	spruce	♄	⊐	cu	½	jn.au	Gr	C. G. H.	1795.	C	s.l	Mass. stap. t. 18
3287 glandulifióra *W.*	gland-flowered	♄	⊐	cu	½	au.n	Br	C. G. H.	1795.	C	s.l	Mass. stap. t. 19
3288 glandulífera *Haw.*	hairy-glanded	♄	⊐	cu	½	au.n	Br	C. G. H.	...	C	s.l	
3289 acumináta *W.*	acuminated	♄	⊐	cu	½	jl.s	P.St	C. G. H.	1795.	C	s.l	Mass. st. 15. t. 17
3290 hispídula *Horn.*	hispid	♄	⊐	cu	½	jl.au	Gr	C. G. H.	1824.	C	s.l	
3291 apérta *W.*	open-flowered	♄	⊐	cu	2	jl.au	Y.P	C. G. H.	1795.	C	s.l	Mass. stap. t. 37
3292 ramósa *W.*	branched	♄	⊐	cu	1½	jn.jl	D.P	C. G. H.	1795.	C	s.l	Mass. stap. t. 32
3293 árida *W.*	dry	♄	⊐	cu	½	au	Y	C. G. H.	1795.	C	s.l	Mass. stap. t. 33
3294 incarnáta *W.*	flesh-colored	♄	⊐	cu	1	ap.au	F	C. G. H.	1793.	C	s.l	Mass. stap. t. 34
3295 parviflóra *W.*	small-flowered	♄	⊐	cu	1	jn.au	Y.Gr	C. G. H.	1795.	C	s.l	Mass. stap. t. 35
3296 pilífera *W.*	hairy-tubercled	♄	⊐	cu	1	jn.au	D.P	C. G. H.	1790.	C	s.l	Mass. stap. t. 23
3297 Gordoni *Mass.*	Gordon's	♄	⊐	cu	1	...	Y.Br	C. G. H.	1796.	C	s.l	Mass. stap. t. 40
3298 mammillaris *W.*	prickly	♄	⊐	cu	1	jn.jl	Br	C. G. H.	1774.	C	s.l	Bur. afr. 27. t. 11
3299 articuláta *W.*	jointed	♄	⊐	cu	½	jl.n	D.P	C. G. H.	1774.	C	s.l	Mass. stap. t. 30
3300 gemmiflóra *Mass.*	gem-flowered	♄	⊐	cu	½	o.n	D.P	C. G. H.	1795.	C	s.l	Mass. stap. t. 15
3301 stýgia *Haw.*	Stygian	♄	⊐	cu	½	jl.s	D.P	C. G. H.	1810.	C	s.l	
β *moschata* Haw.	*musky*	♄	⊐	cu	½	...	...	C. G. H.	...	C	s.l	
3302 hircósa *W. en.*	stinking	♄	⊐	cu	½	jn.au	Br.Pu	C. G. H.	...	C	s.l	Jac. stap. c. ic.
3303 vétula *W.*	pur. smooth.-fl.	♄	⊐	cu	½	my.n	D.Pu	C. G. H.	1793.	C	s.l	Mass. stap. t. 16
3304 Simsii *Haw.* *vetula* B. M.	Sims's	♄	⊐	cu	½	my.n	D.Pu	C. G. H.	1800.	C	s.l	Bot. mag. 1234
3305 rugósa *W. en.*	wrinkled	♄	⊐	cu	½	my.au	P.St	C. G. H.	1805.	C	s.l	Jac. stap. c. ic.
3306 paniculáta *W. en.*	panicled	♄	⊐	cu	½	jn.s	V	C. G. H.	1805.	C	s.l	
3307 divaricáta *W.*	straddling	♄	⊐	cu	½	jn.n	D.F	C. G. H.	1793.	C	s.l	Bot. mag. 1007
3308 púlchra *Haw.*	beautiful Sulph.	♄	⊐	cu	½	au.s	Y.St	C. G. H.	1800.	C	s.l	Bot. mag. 786
3309 irroráta *W.*	dewy	♄	⊐	cu	½	jl.s	Y.St	C. G. H.	1795.	C	s.l	Bot. cab. 127
3310 verrucósa *W.*	wart-flowered	♄	⊐	cu	½	au.o	Y.St	C. G. H.	1795.	C	s.l	Mass. stap. t. 8
3311 rorífiua *W. en.*	dew-bearing	♄	⊐	cu	½	jl.s	Y.St	C. G. H.	1802.	C	s.l	Jac. stap. c. ic.
3312 pulchélla *W.*	beautiful	♄	⊐	cu	½	my.n	Y.St	C. G. H.	1795.	C	s.l	Mass. stap. t. 36
3313 lépida *W. en.*	pretty	♄	⊐	cu	½	jl.au	G.St	C. G. H.	...	C	s.l	Jac. stap. c. ic.
3314 ciliáta *W.*	ciliated	♄	⊐	cu	½	o.d	G.St	C. G. H.	1795.	C	s.l	Mass. stap. t. 1
3315 revolúta *W.*	revolute-flower.	♄	⊐	cu	1	jn.s	[illegible]	C. G. H.	1790.	C	s.l	Bot. mag. 724
3316 glaúca *W. en.*	glaucous	♄	⊐	cu	2	jn.[illegible]	R.Pu	C. G. H.	1799.	C	s.l	Jac. stap. c. ic.
3317 pruinósa *W.*	frosted	♄	⊐	cu	1½	jn.jl	D.Br	C. G. H.	1795.	C	s.l	Mass. stap. t. 41
3318 oblíqua *W. en.*	oblique-flower.	♄	⊐	cu	1	jn.s	Pa.V	C. G. H.	1805.	C	s.l	
3319 maculósa *Jacq.*	spotted	♄	⊐	cu	1	jn.s	Br.v	C. G. H.	1804.	C	s.l	Bot. mag. 1833
3320 bisulca *Donn.*	two-furrowed	♄	⊐	cu	1	jn.s	Y.St	C. G. H.	1805.	C	s.l	
3321 variegáta *Haw.*	variegated	♄	⊐	cu	1	jn.s	Y.St	C. G. H.	1727.	C	s.l	Jac. stap. t. 3
3322 Curtisii *Haw.* *variegáta* B. M.	Curtis's	♄	⊐	cu	1	jn.s	Y.St	C. G. H.	1690.	C	s.l	Bot. mag 26
3323 planiflóra *W. en.*	plain-flowered	♄	⊐	cu	½	jl.n	P.v	C. G. H.	1805.	C	s.l	Bot. cab. 191
3324 margináta *W. en.*	red-edged	♄	⊐	cu	½	jn.s	Y.St	C. G. H.	1805.	C	s.l	
3325 conspurcáta *W. en.*	white-edged	♄	⊐	cu	½	jn.o	Y.St	C. G. H.	1795.	C	s.l	Jac. stap. c. ic.
3326 normalis *Jacq.*	regular-spotted	♄	⊐	cu	½	jl.au	Y.St	C. G. H.	1821.	C	s.l	Bot. reg. 755
3327 orbiculáris *B. Rep.*	orbicular	♄	⊐	cu	½	jl.n	Y.St	C. G. H.	1799.	C	s.l	Bot. cab. 811
3328 bufónia *W. en.*	toad	♄	⊐	cu	1	jn.s	Y.St	C. G. H.	1806.	C	s.l	Bot. mag. 1676
3329 anguina *Haw.*	snake-speckled	♄	⊐	cu	½	jn.jl	Y.St	C. G. H.	1812.	C	s.l	Bot. cab 828
3330 picta *H. K.*	painted	♄	⊐	cu	½	jn.s	Y.St	C. G. H.	1799.	C	s.l	Bot. mag. 1169
3331 gemináta *W.*	twin-flowered	♄	⊐	cu	½	my.n	P.St	C. G. H.	1795.	C	s.l	Bot. mag. 1326
3332 decóra *W.*	neat	♄	⊐	cu	½	my.n	Y.St	C. G. H.	1795.	C	s.l	Mass. stap. t. 26
3333 reclináta *W*	reclining	♄	⊐	cu	½	jl.s	Pu	C. G. H.	1795.	C	s.l	Mass. stap. t. 28



History, Use, Propagation, Culture,

mentator on Theophrastus, 1644. This is a genus of singular plants, without leaves, diminutive, very succulent, and some of them with flowers large in proportion to the plant, curious, and often smelling very disagreeably. They are mostly natives of the deserts of Africa, and have been chiefly discovered by Masson,

3285 Flowers cuspidate rugose scabrous ciliated, Beaks half split
3286 Branches and branchlets upright square quite smooth, Angles toothed, Teeth erect, Flower flat hispid
3287 Branches many erect square, Angles toothed, Teeth erect acute, Cor. covered with clavate glands
3288 Cor. very villous with white spatulate hairs, Ligules minute rhomboid-oblong entire
3289 Branches several suberect 4-cornered toothed, Flower flat smooth rugose, Segments caudate
3290 Pedunc. aggreg. rad. much longer than cor. Segm. acum. hispid with clavate hairs, Beaks subul. conniving
3291 Branches many divaricating square toothed, Flower flat with ovate obtuse rugose segments
3292 Branches many erect square toothed, Flowers clustered sessile, Segm. lanc. acute folded back
3293 Branches many erect square with spreading acute teeth, Flowers solitary stalked, Segm. setaceous
3294 Branches erect square toothed, Teeth spreading acute, Flowers sessile, Segm. lanc. flat
3295 Branches several square toothed recurved, Flower small, Segm. narrow flat spreading fringed at edge
3296 Branches several rounded furrowed tubercled hairy, Flower solitary sessile
3297 Branches and branchlets rounded tubercled spiny, Flowers solitary large 10-cleft
3298 Cor. smooth, Seg. lanc. Fl. stalks shorter than cor. Branches flowering in mid. 6-sid. with prickly tuber.
3299 Joints of branches obl. round: nett. obscurely warted, Spines sin. Cor. wart. above with triangular segm.
3300 Branches several erect sq. with nearly upright acute teeth, Fl. flat rough 5-cleft with ov. lanc. ciliate seg.
3301 Cor. rugose dark with pink hairs, Branches thick short yellowish green

3302 Cor. ciliated rough above dotted beneath, Ligules erect 3-parted: middle lanceol. longer than sides
3303 Branches many erect square smooth, Cor. flat smooth with lanceolate obtuse segments
3304 Teeth of branches rounded, Fls. closed ventricose with 5-nerved ov. acum. seg. Beaks split open

3305 Ball spurious depressed 5 crenate in the circumference, Beaks and wings rounded obtuse, Tube of cor. O.
3306 Cor. 5-parted flat hairy warted across, Appendages obtuse obscurely toothed, Beaks subulate conniving

§ 2. *Cor. 5-cleft with no ball. Ligules not connate at base spreading. Appendages lengthened into incurved beaks, gibbous, but not winged at back.* (Gonostemon. *Haw.*)

3307 Branches several sq. divaricat. smooth tooth. narr. by deg. Cor. very smooth 5-cleft, Seg. lanc. spreading

§ 3. *Cor. 5-cleft with a ball. Ligules connate spreading. Appendages lengthened into incurved beaks, not winged.* (Podanthes. *Haw.*)

3308 Much branched weak, Flowers in pairs wrinkled minutely hairy at bottom
3309 Branches many suberect toothed, Teeth spreading acute crossing, Cor. flat rugose, Segm. lanc. acute
3310 Branches many erect with acute crossing teeth, Cor. flat wart. elevated in the middle into a rough table
3311 Cor. 5-cleft camp. smooth dotted even at bottom, Segm. of outer crown ob. emarg. Inner hooked 2-lobed
3312 Branches several reclinate with acute teeth, Fl. clustered, Segm. triangular acute with a round centre
3313 Rim obsolete, Beaks rounded obtuse, Wings conical subulate acute spreading, Ligules retuse
3314 Stem square with spreading teeth, Flower stalked, Segm. ovate scaly ciliated

§ 4. *Cor. 5-cleft reflexed with no ball. Ligules connate at base. Appendages lengthened into long beaks with short wings.* (Tromotriche. *Haw.*)

3315 Branches square erect with spreading teeth, Cor. smooth, Segments ciliated acute revolute
3316 Segm. of cor. ovate acute fringed revolute, Beaks clavate, Branches square with rounded angles
3317 Branches square toothed, Teeth recurved, Segm. of cor. [illegible] ovate hairy

§ 5. *Cor. 5-cleft, with a large ball in the middle. Ligules connate at base. Appendages produced into long beaks, and subulate or filiform wings.* (Orbea. *Haw.*)

3318 Cor. 5-cleft rugose smooth, Segm. ovate-acumin. bent obliquely, Marginal fringe clavate white and violet
3319 Ball solid, Beaks and wings rounded obtuse, Ligules trifid, Cor. flat beneath fringed at mouth
3320 Cor. 5-cleft, Ligules oblong emarginate, Sepals broad ovate acuminate, Branches thick green not spotted
3321 Ball spurious, Beaks rounded obtuse, Wings subulate obtuse spreading, Ligules bifid acute
3322 Cor. sulphur colored with entire ligules

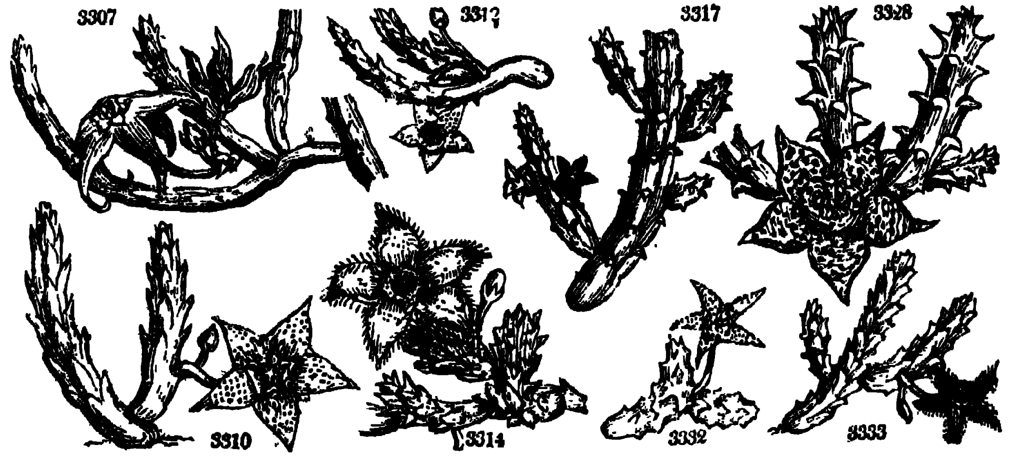
3323 Ball spurious, Beaks rounded obtuse, Wings subulate obtuse spreading, Ligules bifid, Cor. flat beneath
3324 Ball 5 angular, Ligules 2-toothed obt. Appendages diverging the inner clavate the outer subulate obtuse
3325 Cor. fringed at edge with clavate hairs, Ball tumid, Appendages bifid diverging
3326 Cor. rugose across flat dotted in a regular maner, Inner horns hooked obtuse, Ball round tumid
3327 Branches several erect spreading 4-cornered toothed, Ball closely dotted, Segm. rugose cordate striated
3328 Ball spurious, Beaks round. obt. Wings filiform obt. spreading, Ligules bifid obt. Cor. flat with no tube
3329 Ball large, Ligules half divided, Speckles of flower wavy tortuous
3330 Branches simple 4-furrowed torulose, Seg. ov. acum. rugose, Ball elevated rugose depressed in middle

§ 6 *Cor. 5-cleft flat with no ball. Ligules none. Appendages produced into a short beak and a longer incumbent wing.* (Obesia. *Haw.*)

3331 Cor. 5-cleft strigose, Seg. revolute at edge, Wings hooked incumbent on their beak, Shield 5-lobed fleshy
3332 Joints of stem obl. rounded, Fls. in pairs, Seg. of cor. lanceolate acuminate rough above revolute at edge

§ 7 *Cor 5-cleft, with the segments folded back. Ligules none. Appendages or beaks simple, with no wings.* (Duvalia. *Haw.*)

3333 Branches several 4-cornered reclinate with acute spreading teeth, Segm of flower folded back, fringed



and Miscellaneous Particulars.

a collector for Kew gardens about the end of the last century, and who published a monograph of the genus. They have been divided into several genera by Haworth, who has not been followed by other writers. Some of the species, as S. pilifera and articulata, are eaten by the Hottentots and by the Dutch settled at the Cape

3334 élegans *W.*	elegant	♄	⊐	cu	½	jl.s	Pu	C. G. H.	1795.	C	s.l	Bot. mag. 1184
3335 cæspitósa *W.*	tufted	♄	⊐	cu	½	my.au	Pu	C. G. H.	1790.	C	s.l	Mass. stap. t. 29
β *hirtella* W. en.	small hairy	♄	⊐	cu	½	jl.s	Pu	C. G. H.	...	C	s.l	Jac. stap. c. ic.
3336 radiáta *H. K.*	starry	♄	⊐	cu	½	jl.s	Pu	C. G. H.	1795.	C	s.l	Bot. mag. 619
3337 Jacquini *radiata* J. S.	Jacquin's	♄	⊐	cu	½	jl.s	Pu	C. G. H.	1802.	C	s.l	Jac. stap. c. ic.
3338 defléxa *J. S.*	deflexed	♄	⊐	cu	1	jn.au	Y	C. G. H.	1806.	C	s.l	Bot. mag. 1890
3339 pedunculáta *W.*	long-peduncled	♄	⊐	cu	½	jn.n	Br.P	C. G. H.	1790.	C	s.l	Bot. mag. 793
3340 serruláta *W. en.*	sawed	♄	⊐	cu	½	jn.au	P	C. G. H.	1805.	C	s.l	Jac. stap. c. ic.
595. PIARAN'THUS. *R. Br.*	PIARANTHUS.					*Asclepiadeæ.*	*Sp.* 2—3.					
3341 póllus *R. Br.*	many-flowered	♄	⊐	cu	½	au.s	D.Pu	C. G. H.	1774.	C	s.l	Bot. mag. 1648
3342 punctátus *R. Br.*	dotted	♄	⊐	cu	½	jl.n	D.Pu	C. G. H.	1795.	C	s.l	Mass. stap. t. 24
596. HUER'NIA. *R. Br.*	HUERNIA.					*Asclepiadeæ.*	*Sp.* 9—11.					
3343 reticuláta *Haw.*	netted	♄	⊐	cu	½	jl.au	Pu.St	C. G. H.	1793.	C	s.l	Bot. mag. 1662
3344 campanuláta *Haw.*	bell-shaped	♄	⊐	cu	½	jl.o	Y.St	C. G. H.	1795.	C	s.l	Bot. mag. 1227
3345 venústa *Haw.*	handsome	♄	⊐	cu	½	jn.jl	Y.St	C. G. H.	1795.	C	s.l	Mass. stap. t. 3
3346 lentiginósa *Haw.*	freckled	♄	⊐	cu	½	jl.n	Y.St	C. G. H.	1795.	C	s.l	Bot. mag. 506
3347 guttáta *Haw.*	red-spotted	♄	⊐	cu	½	au.n	Y.St	C. G. H.	1795.	C	s.l	Mass. stap. t. 4
3348 húmilis *Haw.*	humble	♄	⊐	cu	½	au.n	Y.St	C. G. H.	1795.	C	s.l	Mass. stap. t. 5
3349 tubáta *W. en.*	tube-flowered	♄	⊐	cu	½	au.n	Y.St	C. G. H.	1805.	C	s.l	Bot. cab. 225
3350 barbáta *Haw.*	bearded	♄	⊐	cu	½	au.n	W.St	C. G. H.	1795.	C	s.l	Mass. stap. t. 7
β *crispa* Haw.	*monstrous*	♄	⊐	cu	½	...	...	C. G. H.		C	s.l	
3351 clavígera *Haw.*	clubbed	♄	⊐	cu	½	jl.n	Y.St	C. G. H.	1795.	C	s.l	Jac. stap. c. ic.
597. BRACHYSTEL'MA. *R. Br.*	BRACHYSTELMA.					*Asclepiadeæ.*	*Sp.* 1.					
3352 tuberósum *R. Br.*	tuberous	♃	⊐	cu	1½	jn.jl	Pu	C. G. H.	1821.	C	s.l	Bot. reg. 722
598. CARALLU'MA. *R. Br.*	CARALLUMA.					*Asclepiadeæ.*	*Sp.* 2.					
3353 adscéndens *R. Br.*	ascending	♄	⊐	cu	2	jl	Y	E. Indies	1804.	C	s.l	Roxb. cor. 1. t. 30
3354 umbelláta *R. Br.*	umbelled	♄	⊐	cu	...	...	...	E. Indies	1804.	C	s.l	
599. SWER'TIA. *W.*	FELWORT.					*Gentianeæ.*	*Sp.* 1—15.					
3355 perénnis *W.*	marsh	♃	△	or	1	jl.au	Pu	England	al ma.	D	m.s	Eng. bot. 1441
600. GENTIA'NA. *W.*	GENTIAN.					*Gentianeæ.*	*Sp.* 28—110.					
3356 lútea *W.*	yellow	♃	△	or	4	jn.jl	Y	Al. of Eur.	1596.	D	p.l	Mill. ic. t. 139
3357 purpúrea *W.*	purple	♃	△	or	3	jn.jl	B	Al. of Eur.	1768.	D	p.l	Bot. rep. 117
3358 pannónica *W.*	round-petalled	♃	△	or	1	jn.jl	Pu	Al. of Eur.	...	D	p.l	Jac. aus. 2. t. 136
3359 punctáta *W.*	spotted-flower'd	♃	△	or	3	jn.jl	Y	Al. of Eur.	1775.	D	p.l	J. aus. 5. t. app. 28
3360 septémfida *Pall.*	crested	♃	△	or	½	jn.jl	L.B	Persia	1804.	D	p.l	Bot. mag. 1229
3361 asclepiadéa *W.*	Swallow-wort-l.	♃	△	or	1	jl.au	B	Austria	1629.	D	p.l	Bot. mag. 1078
3362 macrophýlla *W.*	long-leaved	♃	△	or	1	jl.au	D.B	Siberia	1796.	D	p.l	Pall. ross. 2. t. 96
3363 cruciáta *W.*	Cross-wort	♃	△	or	1	jn.jl	D.B	Austria	1596.	D	p.l	Jac. aus. 4. t. 372
3364 ochroleúca *Fröl.*	pale-flowered	♃	△	or	2	au.s	P.Y	N. Amer.	1803.	D	p.l	Bot. mag. 1551
3365 incarnáta *B. M.*	flesh-colored	♃	△	or	2	o	Pk	N. Amer.	1812.	D	p.l	Bot. mag. 1856
3366 Saponária *W.*	barrel-flowered	♃	△	or	2	au.s	B	N. Amer.	1776.	D	p.l	Bot. mag. 1039
3367 Catesbæ'i *H. K.*	Catesby's	♃	△	or	1½	jn.jl	B	N. Amer.	1803.	D	p.l	Bot. rep. 418
3368 Pneumonánthe *W.*	Calathian Violet	♃	△	or	½	au.s	B	England	moi.h.	D	p.l	Eng. bot. 20
3369 caucásea *H. K.*	Caucasian	♃	○	or	½	jl	V	Caucasus	1804.	D	p.l	Bot. mag. 1038
3370 adscéndens *W.*	porcelain-flow.	♃	△	or	½	jn.jl	B	Siberia	1799.	D	p.l	B. mag 705. & 723
3371 triflóra *Pall.*	three-flowered	♃	△	or	½	jn.jl	B	Siberia	1807.	D	p.l	Pall. ross. t. 93. f. 1
3372 álgida *Pall.*	narrow-leaved	♃	△	or	½	jn.jl	W	Siberia	1808.	D	p.l	Pall. ross. 2. t. 95
3373 acaúlis *W.*	dwarf	♃	△	or	½	mr.my	B	Wales	walls.	D	p.l	Eng. bot. 1594
3374 vérna *W.*	spring	♃	△	or	½	ap.my	B	England	moun.	D	p.l	Eng. bot. 493
3375 bavárica *W.*	Bavarian	♃	△	or	½	jl	B	Germany	1775.	D	p.l	Vill. delph. 2. t. 10
3376 nivális *W.*	small Alpine	⊙	○	or	½	au	B	Scotland	sc.alp.	D	s.l	Eng. bot. 896
3377 viscósa *H. K.*	clammy	♄	⊔	or		jn.au	Y	Canary Isl.	...	S	s.l	Bot. mag. 2135

History, Use, Propagation, Culture.

pickled in vinegar; but in general they are without use. According to Sweet, "the best soil for them is a sandy loam, mixed with old lime or brick rubbish; if planted in a richer soil they will thrive better for a time, and produce larger flowers; but then they are very apt to rot off, particularly if they chance to get a little too much water; a very little water serves them, except when in flower, when it may be given more freely. They are readily increased by cuttings, which should be laid to dry in the stage till they begin to shrivel; then planted in pots they will root immediately; if planted as soon as taken off, when full of juice, they are likely to rot. (Bot. Cult. 102.)"

[illegible]

599. *Swertia.* Named after Justus Swert, an obscure botanist. The species have [illegible]

3334 Branches several clustered oblong toothed, Segm. of cor. 3-angular hispid fringed at edge
3335 Branches clustered procumbent 4-cornered with spreading acute teeth, Seg. of cor. folded back fringed

3336 Branches clustered short with conical acute teeth, Segm. of cor. distant folded back naked
3337 Cor. with seg. refl. at edge and fringed with simple hairs, Bottom rounded elevated, Lig. falcate hooked
3338 Cor. rugose ciliat. pubes. in midd. Seg. revolute at edge all bent down, Beaks subul. Wings scarcely any

§ 8. *Cor. 5-cleft with no ball. Ligules not connate at base, spreading. Appendages elongated into a bifid rostrum, with globose fungous tips.* (Caruncularia. *Haw.*)

3339 Branches several divar. 4-corn. toothed, Ped. very long, Seg. of cor. lanc. rev. at edge with fringed angles
3340 Branches oblong jointed, Peduncles twin, Cor. revolute at edge with wings and lobes serrated at end

3341 Six-cornered erect with spreading prickles, Flower sessile clustered, Segm. of cor. lanceolate silky above
3342 Joints 4-cornered toothed, Flowers fascicled, Segm. of cor. lanceolate papillose

3343 Branches 5-cornered toothletted, Cor. with 10 angles, Tube bearded inside and elevated into a ball
3344 Cor. campanulate closed at bottom by clavate horizontal hairs, Ligules spreading truncate dark
3345 Branches 4 and 5-cornered, Young branches very much spreading, Cor. 10-cleft, Tube smooth
3346 Cor. 10-*toothed*, Alternate segments *obsolete*, Branches 5-cornered spreading with *hooked* tubercles
3347 Cor. concave at bottom, Stems simple above glaucous, The teeth of the branches horizontal
3348 Branches several 4-5 angular spreading, Cor. rounded 10-cleft, Segm. alternately longer, Flowers solitary
3349 Branches simple very thick 4-5-cornered with very large teeth
3350 Branches several 4-5-cor. clust. nearly erect, Teeth of branches acute spreading, Cor. campanul. 10-cleft

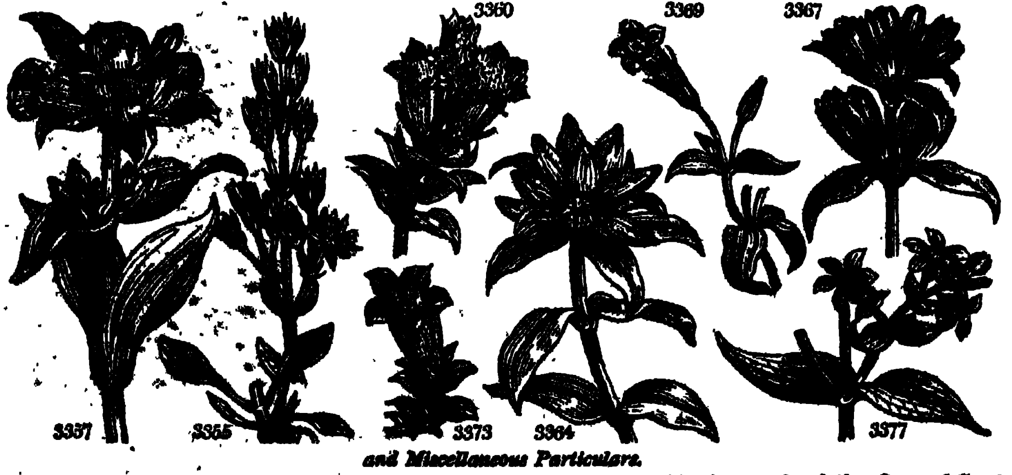
3351 Cor. campanulate dotted inside; not dotted outside, Beaks gibbous, Shield low with 5 emarginate lobes

3352 The only species

3353 Branches distant 4-cornered long slender ascending, Flowers with segments tipped with purple
3354 Branches clustered 4-cornered short thick erect, Flowers in close terminal heads

3355 Cor. 5-cleft, Peduncle 4-cornered, Stem undivided, Radical leaves oval

3356 Cor. 5-cleft rotate whorled, Whorls cymose, Calyxes spathaceous, Leaves broad ovate
3357 Cor. 5-cleft campanulate dotted in streaks whorled, Cal. membranous spathaceous
3358 Cor. 6-cleft campanulate much dotted whorled, Cal. coriaceous truncate
3359 Cor. 6-cleft campanul. much dotted whorled, Cal. membr. truncated, Lobes shorter than tube of cal. uneq.
3360 Cor. hypocrateriform 5-7-cleft, Intermediate segments torn, Leaves cruciate 3-nerved
3361 Cor. 5-cleft campanulate opp. axillary subsessile, Leaves stem-clasping ovate-lanceolate
3362 Cor. 4-5-cleft sessile whorled, Radical leaves as long as *stem* which is naked beneath
3363 Cor. 4-cleft naked hypocrateriform whorled subsessile, Stem two edge narrowed at base
3364 Flowers terminal sessile, Cor. 10-cleft ventricose acute, Alt. segm. shorter entire, Leaves lanceolate
3365 Flowers clustered terminal tub-shaped with an unequal lacerated mouth, Leaves oval
3366 Flowers in whorled heads sessile, Cor. 10-cleft ventric. closed, Alt. segm. fringed smaller, Lvs. ovate lanc.
3367 Flowers whorled ventricose 10-cleft, Segm. altern. unequally bifid and torn, Lvs. remote oppos. and ternate
3368 Cor. 5-cleft campanulate acuminate terminal and axillary stalked, Leaves linear obtuse
3369 Cor. 5-cleft hypocrat. beard. Seg. ovate, Cal. trunc. with eq. subul. teeth, Lvs. ov. lanc. as long as branches
3370 Cor. campanulate 5-cleft toothed between the segments, Cal. 3-toothed opening on one side, Lvs. lanceolate
3371 Cor. campanulate 5-cleft clustered sessile, Leaves linear: floral alternate lengthened
3372 Cor. campanulate 5-cleft terminal stalked 3 together, Segm. acute, Leaves lanceolate 3-nerved
3373 Cor. 5-cleft campanulate as long as the square stalk
3374 Cor. 5-cleft funnel-shaped, Leaves ovate acute: radical spreading larger than the cauline
3375 Cor. 5-cleft funnel-shaped, Leaves ovate obtuse: radical clustered imbricated less than the cauline
3376 Cor. 5-cleft funnel-shaped, Branches alternate 1-flowered, Cauline leaves lanceolate
3377 Cor. 5-cleft monogynous, Panic trichotomous, Bractes perfoliate, Leaves oblong 3-nerved



and Miscellaneous Particulars.

as Stapelia, require the same culture, and are natives of the barren blowing sands of the Cape of Good Hope.

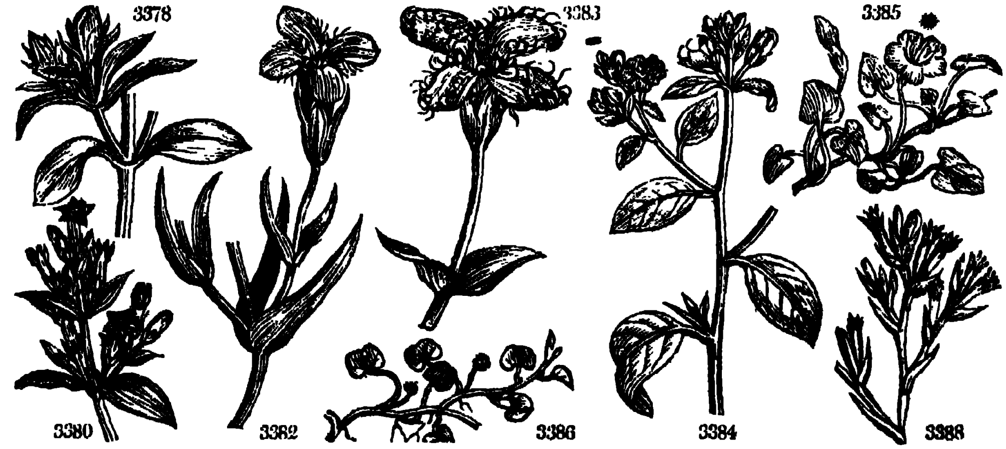
597. *Brachystelma.* From βραχυς, short, and στελμα, a crown, in allusion to the shortness of the coronal processes in the flower of this plant.

598. *Caralluma.* The Indian name of this plant, which exactly resembles Stapelia in appearance.

599. *Swertia.* So named by Linnæus, in honor of Eman. Sweert, a cultivator of bulbs and flowers in Holland, and author of Florilegium, 1612. Pretty herbaceous plants, with blue flowers.

600. *Gentiana.* From Gentius, King of Illyria, who, according to Pliny, first discovered the tonic virtues of plants of this genus. "This is a very handsome genus of herbaceous plants: most of the species succeed well in a light rich soil, but a few require peat, and some must be grown in pots to be protected by frames in winter.

3378 intermedia *B. M.*	clavate	♃	△	or	2	o	Pu	N. Amer.	1820.	D	p.l	Bot. mag. 2303
3379 gélida *Bieb.*	pale-flowered	♃	△	or	1	jn.jl	P.Y	Siberia	1807.	D	p.l	
3380 Amarélla *W.*	autumnal		○	or	½	au	Pu	Britain	ch. pa.	S	co	Eng. bot. 236
3381 campéstris *W.*	field		○	or	¼	au	Pu	Britain	gra.pa.	S	co	Eng. bot. 237
3382 ciliáta *W.*	fringed	♃	△	or	¾	au.s	L.B	Germany	1759.	D	p.l	Bot. mag. 639
3383 crinita *Ph.*	jagged	♃	◎	or	½	jn.jl	L.B	N. Amer.	1804.	S	p.l	Bot. mag. 2031
601. HYDRO'LEA. *W.*	HYDROLEA.					*Convolvulaceæ.*		*Sp.* 1—6.				
3384 spinósa *W.*	thorny	✱	⊔	or	1	jn.jl	P.B	S. Amer.	1791.	C	l.p	Bot. reg. 566
602. FALKIA. *L.*	FALKIA.					*Convolvulaceæ.*		*Sp.* 1.				
3385 répens *W.*	creeping	⁓	⊔△	or	½	my.au	Pk	C. G. H.	1774.	C	p.l	Bot. rep. 257
603. DICHON'DRA. *W.*	DICHONDRA.					*Convolvulaceæ.*		*Sp.* 2—5.				
3386 répens *R. Br.*	creeping	⁓	⊔△	cu	1½	jn.au	W	N. S. W.	1803.	C	s.p	Smith. ined.1.t.8
3387 sericea *W.*	silky	⁓	[△]	cu	1¼	jn.au	W	Jamaica	1793.	C	s.p	
604. VELEZIA. *W.*	VELEZIA.					*Caryophylleæ.*		*Sp.* 1.				
3388 rigida *W.*	rigid		○	cu	½	jl	W.P	Spain	1683.	S	co	Barr. rar. t. 1018
605. BUMAL'DA. *Th.*	BUMALDA.					....		*Sp.* 1.				
3389 trifólia *Th.*	three-leaved	✱	⊔	cu	2	jn.s	...	Japan	1812.	S	co	
606. HEUCHE'RA. *W.*	HEUCHERA.					*Saxifrageæ.*		*Sp.* 4—6.				
3390 americána *W.*	viscid	♃	△	or	1	my.jl	Pu	N. Amer.	1656.	D	s.l	Plk. alm. t.58. f.3
3391 pubéscens *Ph.*	pubescent	♃	△	or	1	my.jl	Pk.v	N. Amer.	1812.	D	l.p	
3392 villósa *Ph.*	villous	♃	△	or	¾	my.jl	Pk	N. Amer.	1812.	D	l.p	
3393 cauléscens *Ph.*	caulescent	♃	△	or	1	my.jl	W	N. Amer.	1812.	D	l.p	
607. CUSSO'NIA. *L.*	CUSSONIA.					*Araliaceæ.*		*Sp.* 2.				
3394 thyrsiflóra *L.*	thyrse-flower.	✱	⊔	or	6	...	Gr	C. G. H.	1795.	C	l.p	Thun. ups.3.t.12
3395 spicáta *L.*	spike-flowered	✱	⊔	or	6	...	Gr	C. G. H.	1789.	C	s.l	Thun. ups.3.t.13
608. ANA'BASIS. *W.*	ANABASIS.					*Chenopodeæ.*		*Sp.* 1—9.				
3396 tamariscifólia *W.*	Tamarisk-leav.	✱	⊔	w	2	jn jl	G	Spain	1752.	C	l.p	Cav. ic. 3. t. 283
609. SALSO'LA. *W.*	SALTWORT.					*Chenopodeæ.*		*Sp.* 8—50.				
3397 Káli *W.*	prickly		○	ec	1	jl.au	F	Britain	sea sh.	S	s.l	Eng. bot. 634
3398 rosácea *W.*	rose-colored		○	cu	½	jl.au	Pk	Asia	1759.	S	s.l	Schk. han.1. t. 57
3399 Sóda *W.*	long fleshy-lvd.		○	ec	3	jl.au	W	S. Europe	1683.	S	s.l	Jac. vind. 1. t. 68
3400 sativa *W.*	cultivated	¥	△	ec	1	jl.au	Pk	Spain	1783.	D	s.l	Cav. ic. 3. t. 291
3401 hirsúta *W.*	hairy		○	w	1	jl.au	Gr	Denmark	1791.	D	s.l	Fl. dan. 187
3402 laniflóra *W.*	woolly		○	cu	2	jn.au	Y	Siberia	1797.	D	s.l	Pa.it.2.p.736.t.P.
3403 vermiculáta *W.*	small-leaved		○	w	1½	jl.au	Gr	Siberia	1759.	S	s.l	Cav. ic. 3. t. 287
3404 muricáta *W.*	Egyptian		○	w	1	jl.au	Gr	Egypt	1773.	S	s.l	All. taur.3.t.4.f.2
610. KO'CHIA. *Roth.*	KOCHIA.					*Chenopodeæ.*		*Sp.* 9—11.				
3405 hyssópifólia *R.*	Hyssop-leaved		○	w	1½	jn.au	G	Siberia	1801.	S	co	P.it.1.p 491. t.H.
3406 dentáta *Ph.*	tooth-leaved		○	w	2	jn.au	G	N. Amer.	1803.	S	co	Wi.ho.ber.1.t 28
3407 trigyna *Link.*	slender-leaved		○	w	3	jl.au	G	Spain	1804.	S	s.l	Cav. ic. 3. t. 289



History, Use, Propagation, Culture,

Some of them may be increased by dividing at the root, but most of them seed freely; the seeds should be sown as soon as ripe, they will then quickly vegetate, but if left till spring before they are sown, they will not come up till the second year. (*Bot. Cult.* 371.)

G. lutea has a thick root of a yellowish brown color, and very bitter taste. In Switzerland and Germany it occupies extensive tracts of ground untouched by any cattle. It was formerly used as hops in brewing, and is at present the principal European bitter used in medicine. The root of G. purpurea is as thick as a man's arm and two feet long; it is extremely bitter, and used as a substitute for G. lutea.

G. acaulis and verna are two beautiful edging plants, and answer well in pots.

601. *Hydrolea.* From ὑδωρ, water, and ελαια, oil. It is a water plant, and its leaves are viscous, as if they were smeared with old oil. A very pretty plant with bright blue flowers.

602. *Falkia.* Named after John Falk, a Swede, born in 1725, died in 1774. He was professor of botany in the apothecaries' garden at St. Petersburg, and followed Pallas during a part of his journey in Siberia. Upon his return he committed suicide; perhaps the only instance upon record of suicide among naturalists.

603. *Dichondra.* From δις, double, and χονδρος, grain; on account of the double nature of the capsule. Little inconspicuous trailing plants, seldom seen or desired in collections.

604. *Velezia.* So named by Linnæus, in memory of Christoval Velesius, examiner, first physician, and demonstrator of botany in the college of apothecaries at Madrid. A small weed, native of the south of France, resembling a dried up Gentiana.

605. *Bumalda.* Named after Ovide Montalban, better known under the name of Jean Antoine de Bumalda, born at Bologna, published in 1657 a Bibliotheca Botanica, and in 1668 a Dendrologia.

606. *Heuchera.* In memory of Jean Henry de Heucher, archiater, and professor of medicine at Witteberg.

3378 Leaves obovate oblong 3-nerved, Flowers terminal clustered, Cor. ventricose not opening
3379 Cor. campanulate 5-cleft terminal and axillary clustered, Intermed. segm. torn, Leaves lanc. 3-nerved
3380 Cor. 5-cleft hypocrateriform bearded, Segm. lanc. acute, Leaves lanc. Branches shorter than joints
3381 Cor. 4-cleft hypocrateriform obtuse, Orifice bearded, Two outer sepals very large
3382 Cor. 4-cleft, Segm. serrated finely cut in the middle, Leaves lanceolate and linear, Stem flexuose angular
3383 Cor. 4-cleft, Segm. finely cut, Leaves lanceolate acute, Stem erect rounded

3384 Leaves lanceolate, Flowers terminal corymbose, Capsules a little hairy

3385 A creeping plant with cordate obtuse stalked leaves

3386 Pubescent, Leaves reniform retuse and emarginate
3387 Leaves reniform emarginate pubescent beneath

3388 The only species

3389 A slender branched purple shrub

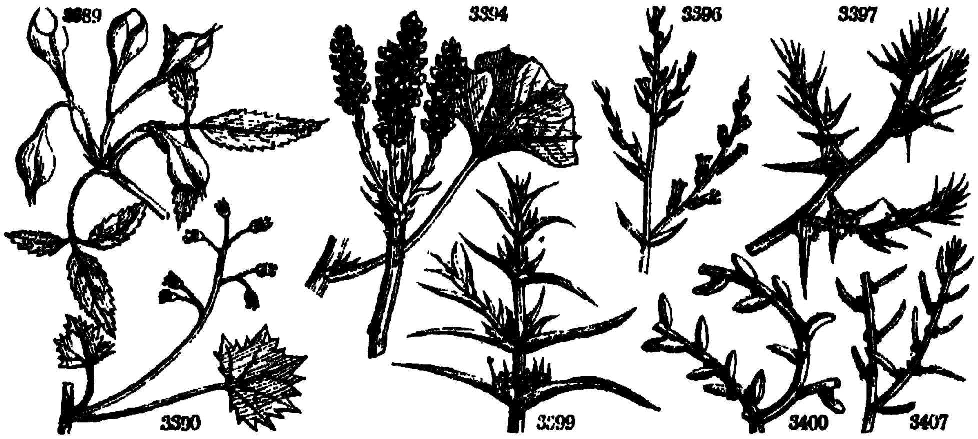
3390 Viscid, Scape and leaves roughish, Leaves rounded lobed toothed, Pet. lanc. Stam. much exserted
3391 Powdery, Scape and lvs. below smooth, Lvs. acutely lobed toothed, Pet. spatulate, Stam. scarcely exserted
3392 Very villous, Leaves acutely lobed, Pet. shorter than calyx, Stamens exserted
3393 Shrubby at base, Lvs. smooth above acutely lobed toothed, Cal. short villous, Pet. linear, Stam. exserted

3394 Leaves digittate, Leaflets sessile wedge-shaped truncate 3-toothed, Flowers racemose
3395 Leaves digittate, Leaflets 7-3-parted wedge-shaped acuminated serrated at end, Flowers spiked

3396 Leaves subulate, Pericarps not juicy

3397 Spreading hairy, Leaves subulate mucronate, Calyxes solitary, Appendages opened out colored
3398 Leaves subulate mucronate, Calyxes opened out
3399 Smooth, Branches ascending, Lvs. half round acute, Cal. in fruit keeled across the middle membranous
3400 Herbaceous, Leaves rounded smooth, Flowers clustered
3401 Erect spreading hairy, Leaves oblong half round obtuse, Flowers twin axillary
3402 Leaves rounded pubescent, Flowers axillary, Anthers colored
3403 Pubescent, Branches panicled, Leaves filiform with an axillary tuft, Floral very short, Cal. solitary
3404 Tomentose, Cal. with 5 angles and 5 awns, Leaves lanceolate flat

3405 Pubescent, Leaves linear flat, Cal. clustered woolly with a hooked dorsal spine
3406 Leaves broad lanceolate toothed, Cal. surrounded by a toothed crown, Seed round emarginate on one side
3407 Erect, Leaves filiform obtuse fleshy, Flowers axillary sessile 3 together, Style trifid



and Miscellaneous Particulars.

author of Hortus Wittebergensis, 1711-13. Very neat North American plants, requiring the culture of alpine plants.

607. *Cussonia.* In memory of Cusson, a celebrated botanist, who after laboring to complete the order of umbellate plants, had all his labor annihilated by his wife, who in his absence used the paper upon which his plants had been glued for household purposes. It is a genus of easy culture, and readily increased by cuttings planted in sand and placed under a hand-glass.

608. *Anabasis.* One of the names given by the Greeks to the Equisetum. A small plant, quite similar to some species of Chenopodium.

609. *Salsola.* From *salsus*, salt. From these plants, which are chiefly maritime, is obtained the *kelp* of our shores. This is a genus of plants producing the alkaline salts called barilla, soda, potash, and kelp. Most of them are herbaceous and annual, but some have shrubby stems.

S. kali, (*Qaly* or *alqaly*, Arabic. *Bochart*,) is found on the sandy shores of most parts of the world, and is very generally burned for soda for the glass manufacture.

S. soda is cultivated in Languedoc and also in Spain for making barilla; but is reckoned inferior to S. sativa, which grows on the Spanish shores of the Mediterranean, and affords all the best soda consumed in Europe. It is called by us Spanish or Alicant soda. In September, the crop is cut and laid in small heaps to dry. These heaps are then collected and burned, forty or fifty of them in a hole, in the ground.

Soda is in common use in the manufacture of glass and soap; with sulphuric acid, it forms Glauber's salts; with marine acid, common salt; with the salt of Homberg, borax; and with cream of tartar, Rochelle salt.

610. *Kochia.* A genus divided from Salsola by Roth, and named by him after his friend Koch, a German botanist.

3408 **prostráta** *Schrad.*	trailing	♣ ⊔	w	2	jn.au	G	S. Europe	1780.	C	s.l	Jac. aust.3. t.294
3409 **arenária** *Roth.*	sand	⊙	w	1	my.jn	W.o	Hungary	1822.	S	s.l	
3410 **sedoides** *Schr.*	stonecrop	⊙	cu	2	jn	G	Crimea	1821.	S	s.l	Pall. ill. t. 35
3411 **erióphora** *Schr.*	woolly	⊙	w	½	jn.jl	G	Spain	1823.	S	s.l	Schrad. hal. t. 3
3412 **sericea** *Schr.*	silky	♣ ⊔	cu	½	jl	G	C. G. H.	1824.	C	s.l	Schrad. hal. t. 2
3413 **scopária** *Schr.*	summer Cypress	⊙	or	3	jn.s	G	Greece	1629.	S	co	Schr. hal. t.1. f.1
611. CHENOPO'DIUM. *W.*	GOOSE-FOOT.					*Chenopodeæ.*	*Sp.* 34—72.				
3414 **Bónus-Henricus** *W.*	Engl. Mercury	£ △	cu	1	my.au	G	Britain	rub.	D	co	Eng. bot. 1033
3415 **úrbicum** *W.*	upright	⊙	w	1	au	G	Britain	dungh.	S	co	Eng. bot. 717
3416 **Atríplicis** *W.*	purple	⊙	w	3	au.s	S	China	1780.	S	co	Jac. vind. 3. t. 80
3417 **rúbrum** *W.*	red	⊙	w	2	au.s	R	Britain	dungh.	S	co	Eng. bot. 1721
3418 **guineénse** *W*	Guinea	⊙	w	2	au.s	G	Guinea	1790.	S	co	Jac.ic.rar.2.t.345
3419 **muréle** *W.*	nettle-leaved	⊙	w	1½	au.s	G	Britain	rub.	S	co	Eng. bot. 1722
3420 **Quinoa** *W.*	green Quinoa	⊙	cul	3	jl	G	Peru	1822.	S	co	
β *rubrum*	*red Quinoa*	⊙	cul	3	jl	G	Peru	1822.	S	co	Feuill. per. t. 10
3421 **rhombifólium** *W.en.*	angular-leaved	⊙	w	1½	jl.s	G	N. Amer.	1807.	S	co	
3422 **serotinum** *L.*	late	⊙	w	2	jl.s	G	Spain	1821.	S	co	
3423 **ficifólium** *H. K.*	Fig-leaved	⊙	w	2	au.s	G	England	dungh.	S	co	Eng. bot. 1724
3424 **álbum** *W.*	white	⊙	w	1½	jl.s	G	Britain	rub.	S	co	Eng. bot. 1723
3425 **hýbridum** *W.*	Maple-leaved	⊙	w	1½	au.s	G	Britain	rub.	S	co	Eng. bot. 1919
3426 **Bótrys** *W.*	cut-leaved	⊙	fr	1	jn.s	G	S. Europe	1548.	S	co	Fl. græc. t. 263
3427 **botryoides** *Sm.*	many-clustered	⊙	w	1	jn.au	R	Britain	sea sh.	S	co	Eng. bot. 2247
3428 **fœ'tidum** *Schr.*	fetid	⊙	w	4	jn.au	G	......	1823.	S	co	
3429 **multifidum** *W.*	Buenos Ayres	£ [△]	w	2	jn.o	G	Buenos A.	1732.	D	co	Dill.elt. t.66.f.77
3430 **ambrosioides** *W.*	Mexican	⊙	fr	1½	jn.o	G	Mexico	1640.	S	co	Moris.s.5.t.35.f.8
β *suffruticósum*	*half shrubby*										
3431 **anthelmin'ticum** *W.*	American	♣ ⊔	w	3	jl.au	G	America	1732.	C	co	Dill.elt. t.66.f.76
3432 **gravéolens** *W.*	strong-smelling	⊙	w	4	jl.au	G	Mexico	1823.	S	co	
3433 **glaúcum** *W.*	Oak-leaved	⊙	w	1½	jl.au	G	England	rub.	S	co	Eng. bot. 1454
3434 **crassifólium** *H.Par.*	thick-leaved	⊙	w	2	jl	G	......	1809.	S	co	
3435 **ólidum** *Sm.*	stinking	⊙	w	1	jl.au	G	Britain	rub.	S	co	Eng. bot. 1034
3436 **polyspérmum** *W.*	Allseed	⊙	w	1	jl.au	G	Britain	rub.	S	co	Eng. bot. 1480
3437 **caudátum** *W.*	oval-leaved	⊙	w	2	jl.au	G	Guinea	1806.	S	co	Jac. ic. 2. t. 344
3438 **lateréle** *W.*	oblong-leaved	[⊙]	w	1	au.s	G	.....	1781.	S	co	
3439 **lanceolátum** *W. en.*	spear-leaved	⊙	w	2	jl	G	Pensylva.	1809.	S	co	
3440 **aristátum** *W.*	bearded	⊙	w	1	jn.s	G	Virginia	1771.	S	co	Gm.sib.3.t.15.f.1
3441 **sépium** *Mayer.*	hedge	⊙	w	2	jn.jl	G	Moravia	1821.	S	co	
3442 **acutifólium** *E. B.*	acute-leaved	⊙	w	1	jl.au	G	Britain	unc.gr.	S	co	Eng. bot. 1481
3443 **marítimum** *W.*	Sea Blite	⊙	w	3	au	G	Britain	sal.m.	S	co	Eng. bot. 633
3444 **fruticósum** *W. en.*	shrubby	♣	ec	2	au.s	G	England	sea sh.	C	co	Eng. bot. 685
Salsóla fruticósa E. B.											
3445 **altissimum** *W. en.*	grass-leaved	⊙	w	6	jl.au	G	Italy	1775.	S	co	Schr. halop.1. f.3
3446 **sálsum** *R. Br.*	Saltwort	⊙	w	1	au.s	G	Astracan	1782.	S	co	Jac.vind. 3. t. 83
3447 **setigerum** *D. C.*	bristly	⊙	w	2	jn.jl	G	S. Europe	1822.	S	co	
612. BE'TA. *W.*	BEET.					*Chenopodeæ.*	*Sp.* 5—7.				
3448 **vulgáris** *W.*	common	£ ♂	cul	4	au	G	S Europe	1548.	S	r.m	Schk. han.1. t.56
3449 **pátula** *W.*	spreading	£ [♂]	w	1	au	G	Madeira	1778.	C	r.m	
3450 **cicla** *W.*	white	£ ♂	cul	6	au	G	Portugal	1570.	S	r.m	
3451 **trigyna** *H. K.*	Hungarian	£ ♂	w	3	jl.au	G	Hungary	1796.	S	r.m	P.rar.hun.1. t.35
3452 **maritima** *W.*	sea	£ ♂	cul	1	au	G	Britain	sea co.	S	s.l	Eng. bot. 285
613. BO'SEA. *W.*	GOLDEN ROD.					*Chenopodeæ.*	*Sp.* 1—2.				
3453 **Yervamóra** *W*	tree	♣ ⊔	or	6	...	Ru	Canaries	1728.	C	p l	Wal. hor.24.t.10

History, Use, Propagation, Culture,

611. *Chenopodium.* From χην, a goose, and πους, foot; many species having large angular leaves extremely similar to the webbed feet of a water-fowl. This is a genus of succulent herbs, with their leaves for the most part covered with powdery granules; the whole plant of no beauty, but generally edible as a pot-herb.

C. Bonus Henricus is cultivated in some gardens as a perennial spinage, it being hardy and of early growth. The leaves are sometimes applied to wounds, and for cleansing old ulcers.

C. album is the most common of the species, and used to be boiled and eaten as greens; but C. maritimum is preferred to all the species for this purpose. The foreign species are of the easiest culture, and increased either by seeds or cuttings.

C. maritimum, where it abounds, is burned with Salsola kali and other marine plants, to produce soda.

612. *Beta.* From *bett*, red, in Celtic. B. vulgaris, *Betterave*, or beet-radish, Fr.; *Rothe Rübe*, Ger.; and *Barba Brettola*, Ital., is a well known culinary root, used in salads either raw or boiled; forming a beautiful varnish; very much used as a pickle; preserved as a confiture; made a substitute for coffee; and yielding a

3408 Hoary, Leaves linear flat, Calyxes about 3 downy with opened obovate appendages
3409 Leaves linear somewhat fleshy pubescent, Flowers axillary about 3 together, Cal. with blunt appendages
3410 Herbaceous very hairy, Leaves linear fleshy, Dorsal spine of cal. straight
3411 All woolly, Leaves linear fleshy spreading, Cal. in fruit stellate with 5 prickles hooked at end
3412 Branches diffuse, Leaves lanceolate silky, Calyxes not prickly
3413 Pubescent, Leaves linear lanceolate ciliated, Cal. in pairs, Appendages very short acute

§ 1. *Leaves flat angular.*

3414 Leaves triangular hastate entire, Spikes compound clustered leafless axillary and terminal
3415 Leaves triangular toothed, Racemes clustered very upright close to the stem very long and leafless
3416 Leaves rhomboid-ovate and lanceolate : the lower sinuate toothed, Pan. axillary branched, Stem erect
3417 Leaves cordate triangular rather obtuse toothed, Racemes erect compound leafy shorter than the stem
3418 Leaves ovate unequally toothed acute, Racemes branched naked and simple stem erect
3419 Lvs. ov. uneq. tooth. acute shining, Race. corym. naked shorter than the leaf, Stem branched spreading
3420 Lvs. triangular ovate obsoletely toothed the younger powdery, Racemes clustered shorter than leafstalk

3421 Leaves triangular acute repand toothed, Racemes axillary erect nearly leafless, Bractes minute inflexed
3422 Leaves deltoid sinuate toothed rugose smooth uniform, Racemes terminal
3423 Leaves hastate sinuate eroded entire behind, Upper oblong entire, Seeds dotted
3424 Leaves rhomboid ovate eroded entire behind, Upper oblong entire, Seeds smooth
3425 Leaves ovate-acuminate subcordate angular toothed, Racemes panicled naked terminal and axillary
3426 Leaves oblong sinuated, Racemes naked multifid, Upper bractes entire lanceolate
3427 Leaves ovate acute entire, Stem erect, Racemes cymose elongated nearly leafless
3428 Leaves oblong sinuated, Racemes naked many-cleft, Upper bractes 3-lobed at end
3429 Leaves pinnatifid, Segm. linear the lower toothed, Clusters of flowers axillary sessile
3430 Leaves lanceolate remotely toothed, Racemes leafy simple

3431 Leaves ovate lanceolate sparingly toothed, Spikes simple slender long leafless, Flowers trigynous
3432 Leaves oblong sinuate-toothed wedge-shaped at base, Clusters of flowers axillary
3433 Leaves oblong repand glaucous beneath, Spikes clustered simple naked axillary and terminal
3434 Leaves thick rhomboid-angular somewhat sinuated entire behind, Racemes erect compound leafy

§ 2. *Leaves flat entire.*

3435 Leaves rhomb-ovate, Flowers clustered axillary
3436 Leaves ovate, Stem decumbent, Cymes dichotomous leafless axillary
3437 Leaves ovate obtuse entire, Panicle terminal naked elongated, Stem simple erect
3438 Cauline leaves lanceolate obtuse, Branch-leaves oblong, Peduncles lateral solitary 1-flowered
3439 Leaves ovate lanceolate acute entire, Racemes axillary compound naked, Stem divaricating
3440 Leaves lanceolate fleshy entire, Corymbs dichotomous aristate axillary
3441 Leaves ovate sinuate, Racemes leafy simple
3442 Leaves wavy half-round, Flowers axillary sessile

§ 3. *Leaves rounded.*

3443 Stems diffuse, Leaves oblong ½ rounded, Flowers axillary clustered
3444 Erect shrubby, Leaves semicylindrical obtuse blunt

3445 Quite smooth, Branches panicled erect, Leaves filiform acutish, Flowers in threes stalked
3446 Herbaceous nearly erect, Leaves linear fleshy unarmed, Cal. succulent transparent
3447 Leaves rounded thick smooth terminated by a straight long bristle

3448 Flowers clustered, Lower leaves ovate, Root fleshy
3449 Flowers clustered, All the leaves linear-lanceolate, Branches divaricating
3450 Leaves with very thick ribs, Flowers three together, Root scarcely any
3451 Racemes erect panicled leafless, Flowers trigynous twin and solitary, Lvs. cordate acute unequal at base
3452 Flowers in pairs, Stem diffuse, The branches much interwoven, Root scarcely any

3453 Leaves alternate stalked ovate acute with the veins and nerves purple

and Miscellaneous Particulars.

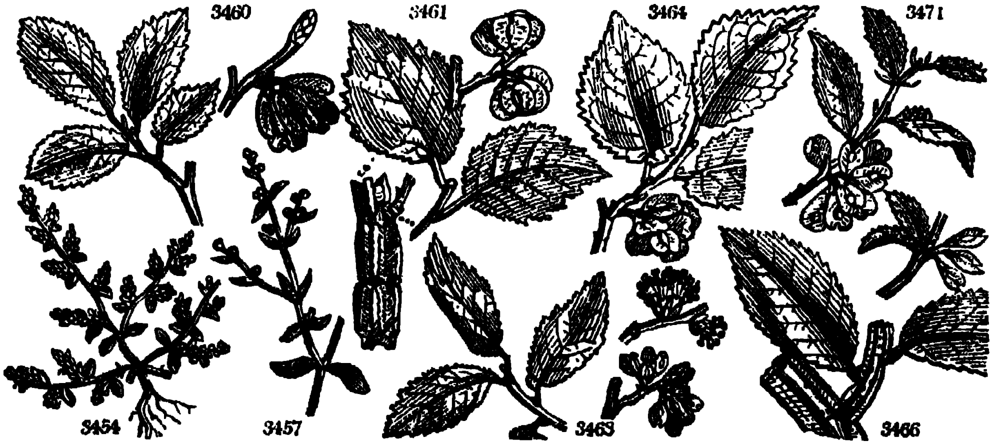
sugar equal to that of the cane. There are several varieties; those most esteemed for salads are the small red and Castelnaudary, and for extracting sugar, the green-topped. The seed is sown in March or April, on deep well comminuted soil. When the plants show two or three proper le[illegible]s they are thinned out, so as that each plant may occupy or be allowed a square foot of surface. By Sept[illegible]er or October the roots are fit for use, and may either be taken up as wanted, or taken up and buried in s[illegible] in the root-cellar.

B. Cicla, (Cicla is said by De Théis, to be a corruption of si[illegible] under which name it is spoken of by Catullus,) *Bette, or Poirée à cardes*, Fr.; *Mangold Kraut*, Ger.; [illegible]ad *Biettola*, Ital., is employed in horticulture as a spinage plant, and for being used as chard or asparagus; and in foreign agriculture for the production of sugar. It is much grown in the south of Germany and Switzerland, where the lamina of the leaves is used as spinage or put in soups, and the midrib is boiled and eaten with melted butter or gravy as chard. The culture is the same as for the red beet; but, as the leaves are larger, the space allowed each plant is proportionally increased.

B. maritima is or may be used as a spinage plant or as greens.

613. *Bosea.* Ernest Gottlieb Bose, a German, published at Leipsig, in 1775, a work upon the secretions of

614. **HERNIA'RIA.** *W.*	RUPTURE-WORT.					*Amaranthaceæ.*	*Sp.* 6—11.					
3454 glábra *W.*	smooth	£	△	w	¼	jl	G	England	sa. gr.	S	co	Eng. bot. 206
3455 hirsúta *W.*	hairy	£	△	w	½	jl.au	G	England	sa. gr.	S	co	Eng. bot. 1379
3456 fruticósa *L.*	shrubby	♣		w	¼	my.au	G	Spain	1814.	C	l p	Lob ic. 85
3457 polygonoídes *Cav.*	Knot-grass	♣	⊔	w	¼	my.au	G	S. Europe	1752.	C	l.p	Cav. ic. 2. t. 131
3458 incána *Bieb.*	hoary	£	△	w	½	jl.au	G	S. Europe	1822.	C	l.p	Pl. alm. t. 53. f.3
3459 alpina *Vill.*	alpine	£	△	w	¼	my.au	G	S. Europe	1822.	C	l.p	Lob. ic. t. 85. f. 1
615. **UL'MUS.** *L.*	ELM-TREE.					*Ulmaceæ.*	*Sp.* 13.					
3460 campéstris *L.*	comm. English	‡		tm	80	ap.my	Br	Britain	hed.	L	co	Eng. bot. 1886
3461 suberósa *Mönch*	cork-barked	‡		tm	40	ap.my	Br	Britain	hed.	L	co	Eng. bot. 2161
3462 fruticósa *W.*	shrubby	♣		or	8	ap.my	Br	Europe	...	G	co	
3463 glábra *E. B.*	smooth	‡		tm	60	ap.my	Br	Britain	hed.	L	co	Eng. bot. 2248
3464 montána *E. B.*	Wych	‡		tm	40	ap.my	Br	Britain	hed.	S	co	Eng. bot. 1887
3465 americána *Ph.*	white Amer.	‡		tm	40	ap.my	Br	N. Amer.	1752.	G	co	
3466 aláta *Mich.*	winged	‡		tm	30	ap.my	Br	N. Amer.	1820.	G	co	Mich. arb. 3. t. 5
3467 álba *Kit.*	white Hungar.	‡		tm	30	ap.my	Br	Hungary	1824.	G	co	
3468 húmilis *Amm.*	low	♣		or	6	ap.my	Br	Siberia	...	G	co	
3469 críspa *W.*	curled	‡		or	20	ap.my	Br	N. Amer.	...	G	co	
3470 fúlva *Ph.* *U. pendula* W.	slippery	‡		tm	60	ap.my	Br	N. Amer.	...	G	co	Mich. arb. 3. t. 6
3471 púmila *Pall.*	dwarf	♣		or	2	ap.my	Br	Siberia	1771.	L	p.l	Pall. ross. 1. t. 48
3472 chinénsis *P. S.*	China	♣	⊔	or	3	...	...	China	...	C	l.p	
616. **PLANE'RA.** *Mich.*	PLANERA.					*Ulmaceæ.*	*Sp.* 2.					
3473 Richardi *Mich.* *Ulm. nemoralis* W.*	Hornbeam-lvd.	♣		or	12	ap.my	Br	N. Amer.	1760.	G	co	Pall. ross. 2. t. 60
3474 parvifólia *U. parvifólia* Jacq.	small-leaved	♣		or	12	my	Br	......	1822.	G	co	Jacq. schö. t. 262
617. **PHYL'LIS.** *W.*	BASTARD HARE'S EAR.					*Rubiaceæ.*	*Sp.* 1.					
3475 Nóbla *W.*	Canary	♣		cu	3	jn.jl	G	Canaries	1699.	C	r.m	D. el. t. 299. f. 386
618. **CORIAN'DRUM.** *W.*	CORIANDER.					*Umbelliferæ.*	*Sp.* 2—3.					
3476 satívum *W.*	common		○	clt	2	jn	W	England	fields.	S	co	Eng. bot. 67
3477 testiculátum *W.*	twin-fruited		○	w	2	jn.jl	W	S. Europe	1640.	S	co	Pl. al. t. 169. f. 2
619. **SCAN'DIX.** *P. S.*	SCANDIX.					*Umbelliferæ.*	*Sp.* 3—10.					
3478 pécten *W.*	Venus's Comb		○	w	½	jn.jl	W	Britain	co. fl.	S	co	Eng. bot. 1397
3479 austrális *W.*	radiated		○	w	1	my.jn	W	S. Europe	1713.	S	co	Col. ecph. 1. t. 90
3480 pinnatífida *Vent.*	cut-leaved		○	w	1½	my.jn	W	Persia	1805.	S	co	Vent. cels. 14
620. **ANTHRIS'CUS.** *P. S.*	ROUGH CHERVIL.					*Umbelliferæ.*	*Sp.* 2—9.					
3481 vulgáris *P. S.*	common		○	w	1	my.jn	W	Britain	he. ba.	S	co	Eng. bot. 818
3482 nodósa *P. S.*	Knotted	⚘	△	w	1	my.jn	W	Sicily	1656.	D	co	Jac. vind. 3. t. 25
621. **CHÆROPHYL'LUM.** *P. S.*	CHERVIL.					*Umbelliferæ.*	*Sp.* 11—8.					
3483 sylvéstre *W.*	smooth	⚘	△	w	3	my.jn	W	Britain	hed.	D	co	Eng. bot. 752
3484 sátivum *P. S.* *Sc. cerefolium* W.	garden		○	cul	1½	my.jn	W	England	he. ba.	D	co	Eng. bot 1268
3485 procúmbens *Ph.*	procumbent	✱	○	w	1	jn.jl	W	Virginia	1699.	D	co	M. s. 9. t. 11. f. ult.



History, Use, Propagation, Culture,

plants. Another Bose (Caspar) was a professor of botany at Leipsig, where he published, in 1728, a dissertation upon the motions of plants. Ripened cuttings root freely in sand under a hand-glass, without heat.

614. *Herniaria.* From *hernia*, a rupture, for which disorder it was formerly imagined to be a cure, but has long since been rejected even by the herbalists. H. fruticosa is well adapted for growing in pots or for rock-work, and is readily increased by seeds or cuttings; cuttings of the greenhouse species root freely under a hand-glass.

615. *Ulmus.* From *Elm*, its name in Anglo-Saxon, Teutonic, Gothic, and nearly all the dialects of Celtic. This is a genus of hardy trees, most of them valued for their timber. The species, like those of the genus Salix, are so nearly related as to be often confounded. Linnæus considered all the European elms as forming only one species. The U. campestris and glabra are those most generally cultivated in Europe. U. campestris grows also in Palestine, and Dr. Walker conjectures that it was originally brought from that country by the Crusaders. It is a tall elegant tree, but produces much less valuable timber than the U. glabra. U. suberosa, often called the Dutch elm, is frequently grafted on the U. glabra, as is also the U. campestris in the Scotch nurseries.

616. *Planera.* In honor of John James Planer, a German botanist, who published in 1788 an Index Plantarum Agri Erfordiensis, in one volume 8vo. A genus closely related to Ulmus, from which it is perhaps scarcely distinct.

617. *Phyllis.* From φυλλον, a leaf: the plant is remarkable for the beauty of its leaves. Phyllis, who was

3454 Smooth, Clusters many-flowered
3455 Hairy, Clusters few-flowered
3456 Leaves obovate acute hairy, Flowers clustered 4-cleft hispid, Stem shrubby
3457 Smooth, Stem erect dichotomous, Leaves ovate cuspidate, Flowers terminal and axillary
3458 Half shrubby, Leaves ovate oblong hoary, Calyxes hairy
3459 Clusters few-flowered hairy, Root thick woody

3460 Leaves doubly serrate unequal at base, Flowers subsessile clustered 5-andr. Fruit smooth
3461 Lvs. doubly serr. nearly equal at base, Fl. subsessile clustered 4-andr. Fruit smooth, Bark corky winged
3462 The branches only corky not the stem, Stature little more than that of a man, otherwise like the last
3463 Leaves doubly serrated smooth unequal at base, Flowers nearly sessile 5-cleft, Fruit obovate naked
3464 Leaves doubly serrated unequal at base, Flowers 6-8-andr. stalked, Fruit fringed at edge [at edge
3465 Lvs. nearly doubly serr. uneq. at base, Axil. of veins ben. unit. by a membr. Fls. 5-8-andr. stalked, Fruit vil.
3466 Br. with cork. wing here and there on each side, Lvs. obl. ov. by deg. ac. nrly eq. at base, Fr. hairy closely frin.
3467 Leaves doubly serrated unequal at base acuminated pubescent beneath
3468 Leaves equally serrated equal at base
3469 Leaves irregularly doubly serrated equal at base with a long point rough above beneath soft downy
3470 Lvs. doubly ser. uneq. at base, Axil. of veins bearded beneath, Fl. clust. 5-andr. Fruit pubes. not fringed

3471 Decumbent, Branches smooth, Leaves very small equal at base
3472 Leaves small coriaceous shining shortly serrated ovate oblique at base

3473 Leaves subsessile oblong-cordate subcrenately coarsely toothed emarginate at base, Caps. short

3474 Leaves lanc. equally serrate equal at base shining, Flowers stalked tetrandrous, Fruit smooth

3475 The only species. Leaves lanceolate entire opp. 4 inches long, Corymbs axillary

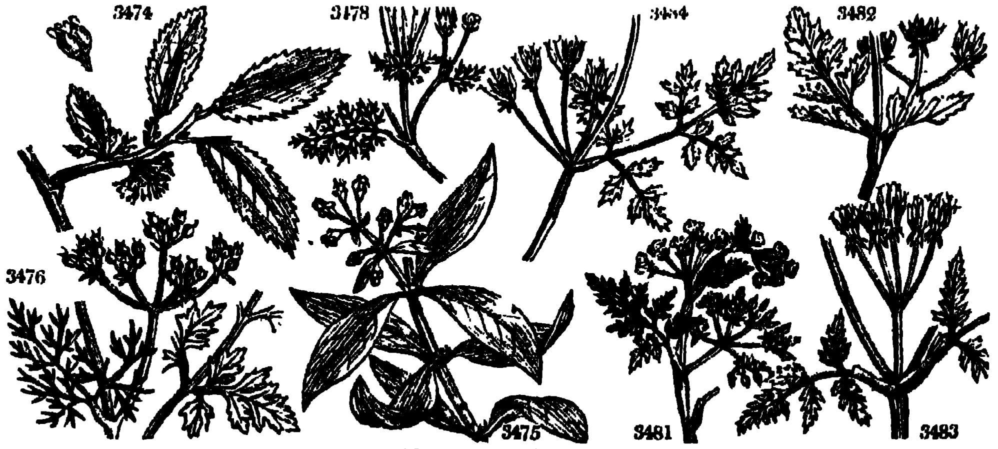
3476 Fruit globose
3477 Fruit twin

3478 Seeds with a very long beak, Leaflets many-cut
3479 Seeds subulate hispid, Flowers radiant, Cauline leaves smooth
3480 Stem scabrous, Leaves decompound smooth, Umbels fascicled with a single leaf

3481 Seeds ovate hispid, Cor. of one shape, Stem smooth
3482 Seeds cylindrical hispid, Stem hispid, Joints tumid

3483 Stem striated with tumid joints
3484 Seeds shining ovate subulate, Umbels lateral sessile

3485 Stem hairy decumbent, Leaves bipinnatifid, Umbel simple few-flowered



and Miscellaneous Particulars.

turned to a bare tree by the gods for having hung herself for love of the absent Demophoon, became a tree covered with verdure upon receiving in that form the embraces of her lover returned.

618. *Coriandrum.* From κορις, a bug, in allusion to the smell of the leaves of the plant. C. sativum has been long cultivated, chiefly in Essex, and is considered as naturalized. The leaves are strongly scented; the seeds, which are slightly aromatic, are used to cover the taste of senna, and in spices as currie powder, and seasoning for black puddings: also, covered with sugar, as a sweetmeat; formerly they were steeped in wine or vinegar, and then dried, to render them milder.

619. *Scandix.* A name given by the Greeks to a plant used as an eatable, which appears to be that now called Scandix pecten. It is derived from σκαω, to prick, on account of the sharp points of the seeds.

620. *Anthriscus.* The name of a plant resembling Scandix, described by Pliny. A. vulgaris bears a near resemblance to the common chervil (Chærophyllum sativum), and being gathered as such, and put into soups, by the Dutch soldiers who were in England in 1745, some of them were poisoned by it.

621. *Chærophyllum.* An ancient Greek name of the Chervil, derived from χαιρω, to rejoice, and φυλλον, leaf, that is to say a plant whose leaves have an agreeable smell. C. sylvestre has poisonous roots; though the leaves are occasionally used as a pot-herb, and are much liked by cows. The stems and leaves dye a beautiful green, and the umbels a yellow: the plant in a wild state is found only on fertile soils.

C. sativum is cultivated in gardens for the leaves, which are used in soups and salads. To have a successional supply, sow in February and August in shallow drills from six to nine inches apart.

3486 bulbósum *W.*	bulbous-rooted	♉	◑	w	1½	jn.jl	W	Europe	1726.	D	co	Jac. aust. 1. t. 63
3487 témulum *W.*	rough	♃	◑	w	3	jl.au	W	Britain	hed.	D	co	Eng. bot. 1521
3488 hirsútum *W.*	hairy-leaved	♃	△	w	1½	jn.jl	W	Switzerl.	1759.	D	co	Jac. au. 2. t. 148
3489 aromáticum *W.*	aromatic	♃	△	or	3	jn.au	W	Germany	1726.	D	co	Jac. au. 2. t. 150
3490 canadénse *Ph.* *Sison canadénse* W.	three-leaved	♃	△	w	1½	jl.au	W	N. Amer.	1699.	D	co	Mor. h. s. 9. t. 11
3401 Claytóni *Ph.*	sweet-rooted	♃	△	cu	2	jl.au	W	N. Amer.	1806.	D	co	Spr. umb. t. 3. f. 6
3492 colorátum *W.*	yellow	♃	△	cu	1	jl.au	Y	Illyria	1806.	D	co	Mor. s. 9. t. 10. f. 6
3493 aúreum *W.*	golden	♃	△	cu	1	jl.au	Pk	Scotland	b. of fl.	D	co	Eng. bot. 2103
622. ERYN'GIUM. *W.*	ERYNGO.					*Umbelliferæ.*		*Sp.* 16—55.				
3494 fœ'tidum *W.*	stinking	£	[△]	or	1	au.o	W	W. Indies	1714.	D	s.l	Her. lugd. t. 237
3495 aquáticum *W.*	marsh	£	△	or	4	jl.s	W	N. Amer.	1699.	D	s.l	Bot. reg. 372
3496 virginiánum *Ph.*	Virginian	£	△	or	2	jl.s	G	N. Amer.	...	D	s.l	Del. eryng. t. 19
3497 virgátum *Ph.*	oval-leaved	£	△	or	1	jn.jl	L.B	N. Amer.	1810.	D	s.l	Del. eryng. t. 20
3498 plánum *W.*	flat-leaved	£	△	or	3	jl.s	L.B	Europe	1596.	D	s.l	Jac. aus. 4. t. 391
3499 pusillum *W.*	dwarf	£	△	or	½	jn.au	G	Spain	1640.	D	s.l	Del. eryng. t. 16
3500 tricuspidátum *W.*	trifid	£	◑	or	2	s	G	Spain	1699.	D	s.l	Del. eryng. t. 9
3501 corniculátum *B. M.*	horned	£	△	or	1	jn.au	G	Portugal	1803.	D	s.l	Bot. mag. 1427
3502 marítimum *W.*	sea-holly	£	△	cc	1½	jl.o	B	Britain	sea sh.	D	s.l	Eng. bot. 718
3503 campéstre *W.*	field	£	△	cc	2	jl.au	B	Britain	pas.	D	s.l	Eng. bot. 57
3504 galioides *P. S.*	Galium-leaved	£	△	or	½	jl.au	G	Portugal	1810.	D	s.l	
3505 amethýstinum *W.*	amethystine	£	△	or	3	jl.au	L.B	Styria	1648.	D	s.l	Mo. s. 7. t. 35. f. 2
3506 cærúleum *P. S.*	blue-flowered	£	△	or	2	jl.au	B	Caspian	1816.	D	s.l	M. s. 7. t. 37. f. 13
3507 rígidum *P. S.*	stiff	£	△	or	½	jl.au	B	France	1816.	D	s.l	Vill. delph. t. 17
3508 alpinum *W.*	Alpine	£	△	or	2	jl.au	B	Switzerl.	1597.	D	s.l	Bot. mag. 922
3509 Bourgáti *W.*	cut-leaved	£	△	or	2	jn.au	Pa.B	S. France	1731.	D	s.l	Gouan. ill. 7. t. 3
623. SANI'CULA. *W.*	SANICLE.					*Umbelliferæ.*		*Sp.* 3—2.				
3510 europæ'a *W.*	wood	♃	△	w	1	jn.jl	W	Britain	woods.	D	s.l	Eng. bot. 98
3511 canadénsis *W.*	Canadian	♃	△	w	2	jn.jl	W	Canada	1800.	D	s.l	
3512 marilándica *W.*	Maryland	♃	△	w	1½	jn.jl	W.G	N. Amer.	1765.	D	s.l	Jac. ic. 2. t. 348
624. ECHINO'PHORA. *W.*	SEA-PARSNEP.					*Umbelliferæ.*		*Sp.* 2—3.				
3513 spinósa *W.*	prickly	£	△	w	½	jl	W	England	sea co.	D	s	Eng. bot. 2413
3514 tenuifólia *W.*	fine-leaved	£	△	w	1	jl.au	W	Apulia	1731.	D	s.l	Mor. s. 9. t. 1. f. 2
625. DAU'CUS. *W.*	CARROT.					*Umbelliferæ.*		*Sp.* 8—17.				
3515 Caróta *W.*	wild	♃	◑	m	3	[illegible]	W	Britain	b. of fl.	S	s.l	Eng. bot. 1174
β hortensis	*Garden*	♃	◑	cul	3		W					
3516 marítimus *P. S.*	sea-side	♃	◑	w	1½	jn.jl	W	Britain	Cornw.	S	s.l	Eng. bot. 2560
3517 mauritánicus *W.*	fine-leaved	♃	◑	w	3	jn.jl	W	Spain	1768.	S	s.l	Al. pe. 2. t. 61. f. 1
3518 lúcidus *W.*	shining	♃	◑	w	2	jl.au	W	S. Europe	1807.	S	s.l	Mo. 3. s. 9. t. 13. f. 4
3519 crinitus *Desf.*	whorl-leaved	♃	△	w	2	jn.jl	W	Barbary	1804.	S	s.l	Desf. atl. t. 62
3520 Gingidium *W.*	shining-leaved		○	w	2	jn.jl	W	France	1722.	S	s.l	Mo. s. 9. t. 13. f. 10
3521 muricátus *W.*	prickly-seeded		○	w	2	jn.jl	Pk	Barbary	1683.	S	s.l	Mo. s. 9. t. 14. f. 4
3522 hispidus *P. S.*	hispid	♃	◑	w	1½	jn.jl	Pk	Barbary	1804.	S	s.l	Desf. atl. t. 63
626. CAU'CALIS. *W.*	BUR-PARSLEY.					*Umbelliferæ.*		*Sp.* 7—27.				
3523 grandiflóra *W.*	great-flowered		○	w	1½	jl.au	W	S. Europe	1648.	S	co	Jac. aus. 1. t. 54
3524 daucoides *W.*	small		○	w	1½	jn	R	England	ch. fl.	S	co	Eng. bot. 197
3525 latifólia *W.*	broad-leaved		○	w	2	jl.au	R	England	ch. fl.	S	co	Eng. bot. 198
3526 púmila *W.*	dwarf		○	w	1½	jl.au	Pk	S. Europe	1640.	S	co	Cav. ic. 2. t. 101
3527 orientális *W.*	oriental	♃	◑	w	4	jn.jl	W	Levant	1699.	S	co	Mo. s. 9. t. 14. f. 5
β pulchérrima W. en.	*beautiful*		○	w	2	jn.jl	W	Caucasus	1816.	S	co	Bux. cen. 3. t. 33
3528 platycárpos *Spr.*	broad-seeded		○	w	½	jl.au	W	S. Europe	1800.	S	co	Mo. s. 9. t. 14. f. 2
3529 leptophýlla *W.*	fine-leaved		○	w	1	jl.au	Pk	Europe	1739.	S	co	Sch. han. 1. t. 61

History, Use, Propagation, Culture,

622. *Eryngium.* From the Greek verb *ερυγγειν*, to belch. Dioscorides positively declares that the plant is a specific for all complaints arising from flatulence. These are singular plants, somewhat like thistles in general appearance: they are generally of a bluish hue, prickly, and with large involucres, and dry coriaceous leaves. E. marítimum has long been in esteem as an aphrodisiac; the roots were formerly and are now, in some cases, kept in the shops candied, and formed in Shakspeare's time the kissing comfits of Falstaff. The Arabs regard the plant as an excellent restorative, and English grooms often mix the dried plant with the corn they give to stallions in the covering season. The virtue is said to reside chiefly in the roots: the tops, Linnæus says, are eaten like asparagus in Sweden.

623. *Sanicula.* From *sanare*, to cure. This a vulnerary, to which marvellous virtues were formerly ascribed. S. europæa used to be considered a powerful vulnerary, but is now wholly rejected in medicine. Sir J. Smith says it partakes of that virose acrimony which is found in most umbelliferous plants growing in a moist fat soil.

624. *Echinophora.* From *εχινος*, a hedgehog, and *φερω*, to bear. In allusion to the strong rigid spines of the

3486 Stem smooth with tumid joints, hairy at base
3487 Stem scabrous, joints tumid
3488 Stem equal, Leaflets cut acute, Fruit with two awns
3489 Stem equal, Leaflets cordate serrate entire, Fruit with two awns
3490 Leaves ternate smooth, Radical leaflets about 3-lobed, Cauline rhomb. ovate cut finely serrate

3491 Stem above smooth, Joints tumid, Leaves biternate pubescent, Styles persistent
3492 Stem equal, Leaves supra-decompound, Involucres colored
3493 Stem equal, Leaflets cut, Seeds furrowed colored awnless

3494 Radical leaves lanceolate serrate, floral many cut, Stem dichotomous
3495 Leaves gladiate serrate spiny, Flowers undivided, Stem simple
3496 Leaves linear-lanceolate ensiform very long, Leaflets reflexed and paleæ trifid, Heads panicled
3497 Leaves all ovate cordate on very short stalks toothed, Stem virgate colored upwards
3498 Radical leaves oval flat crenate, Heads stalked
3499 Radical leaves oblong cut, Stem dichotomous, Heads sessile
3500 Radical leaves cordate: cauline palmate with the auricles reflexed, Paleæ tricuspidate
3501 Rad. lvs. obl. lanc. toothed spiny, Stem trichotomous, Lvs. of involucre entire larger than the heads spiny
3502 Radical leaves roundish plaited spiny, Heads stalked, Paleæ 3-toothed
3503 Radical leaves stem-clasping pinnate lanceolate
3504 Leaves sessile digitate spiny very small, Stem slender and weak dichotomous, Heads sessile
3505 Radical leaves trifid at the base somewhat pinnate
3506 Rad. lvs. cordate obl. obt. cren. lobed, Branches col. Lvs. of the involucrum very long stiff pungent entire
3507 Leaves palmate cut, Bractes stiff pinnatifid pungent, Stem thick
3508 Radical leaves cordate: cauline ternate cut, Involucres spiny pinnated ciliated
3599 Radical and cauline leaves alternate 3-parted twice trifid, Involucres subulate many-leaved spiny

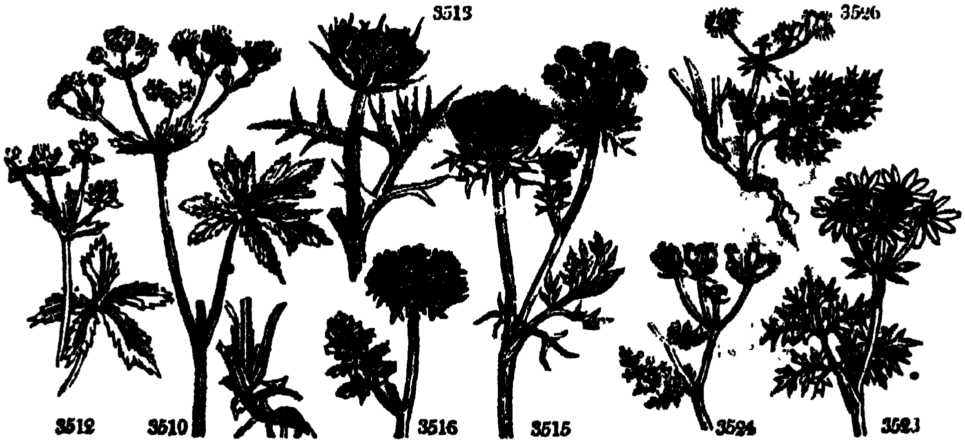
3510 Lower leaves palmate, Lobes trifid cut-serrate, Florets all sessile
3511 Leaves all compound subternate, Leaflets ovate attenuate at base mucronate serrate, Florets all sessile
3512 Leaves all digitate, Leaflets oblong cut-serrate, Male flowers numerous stalked

3513 Leaflets subulate prickly entire
3514 Leaflets cut unarmed

3515 Seeds hispid, Stalks nerved beneath

3516 Fruit hispid with compressed bristles, Leaflets dilated rounded fleshy hairy, Umbels in fruit convex
3517 Seeds hispid, Central floret sterile fleshy, Common receptacle hemisphærical
3518 Leaves shining, Stem hairy, Leafstalks smooth, No sterile central floret
3519 Stem rough simple, Lvs. bipinn. Leaflets rather whorled many-cleft rigid, Bristles of fruit hairy purple
3520 Rays of the involucre flat, Segments recurved
3521 Fruit large very prickly
3522 Stem and lvs. bipin. vil. Leafl. ovate lobed toothed, Involucres very broad, Prickles of fruit dilated at base

3523 Involucres each 5-leaved, One leaflet twice as large as the others
3524 Umbels trifid leafless, Umbellules 3-leaved 3-seeded
3525 Universal umbel trifid, partial 5-seeded, Leaves pinnated serrated
3526 Universal umbel about 5-cleft, partial 3-seeded, Leaves supra-decompound, and decumbent stem villous
3527 Umbels spreading, Partial leaflets supra-decompound cut with linear segments, Fruit woolly
β Fruit bristly
3528 Universal involucre about 3-leaved, Umbel trifid, Involucels 3-leaved
3529 Common involucre scarcely any, Umbel bifid, Involucres 5-leaved

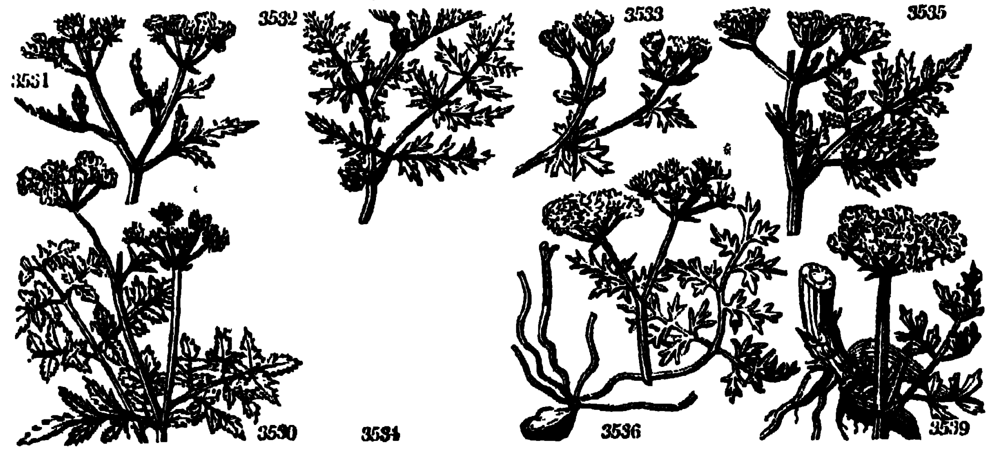


involucrum, and indeed of the whole plant. Very much like an Eryngium, once said to have been found in England.

625. *Daucus.* From δαιω, to make hot; on account of its effects in medicine. D. Carota (from *Kar*, red, in Celtic), is well known for its esculent root. There are several varieties: the largest, and that best adapted for field culture, is called the Altrincham, from a village of that name in Cheshire. The early horn and orange are the best garden sorts. The seeds do not retain their vegetative powers more than a year, for which reason the cautious cultivator ought to prove them before sowing. The last week of March and first of April is the best season for sowing for a main crop. On farms where a deep sandy loam occurs, few crops of the root kind afford a more valuable return. In Norfolk and Suffolk they are a good deal in use as a field crop, and especially near Lowestoft in the latter county.

626. *Caucalis.* According to Linnæus, derived from [illegible], to trail along; on account of the low habit of the plants. It is supposed that Pliny's Caucalis was the same as the Caucalis grandiflora of the present day.

627. TORILIS. *Gærtn.*	Torilis.						*Umbelliferæ.*	*Sp.* 3—9.				
3530 Anthriscus *W.*	upright		○	w	2½	jl.au	R	Britain	hed.	S	co	Eng. bot. 987
3531 inféstа *H.K.* *arvénsis* W.	spreading		○	w	1	jl.au	Y	Britain	co. fi.	S	co	Eng. bot 1314
3532 nodósa *W.*	knotted		○	w	1½	my.jl	W	Britain	co. fi.	S	co	Eng. bot. 199
628. OLIVE'RIA. *Vent.*	Oliveria.						*Umbelliferæ.*	*Sp.* 1.				
3533 decúmbens *Vent.*	Thyme-scented		○	cu	1	my.jl	Pu	Bagdad	1816.	S	co	Vent. cels. 21
629. LEDEBU'RIA. *Lk.*	Ledeburia.						*Umbelliferæ.*	*Sp.* 1.				
3534 pimpinelloides *Lk.*	bristly	♃	△	w	2	jn.jl	W	......	1823.	S	co	
630. MYR'RHIS. *P. S.*	Myrrh.						*Umbelliferæ.*	*Sp.* 1—20.				
3535 odoráta *P. S.*	sweet-scented	♃	△	ec	1½	my.jn	W	Britain	m.pas.	D	co	Eng. bot. 697
631. BU'NIUM. *W.*	Earth-nut.						*Umbelliferæ.*	*Sp.* 2—				
3536 Bulbocástanum *W.* *B. Flexuosum* Sm.	great	♃	△	w	2	my.jn	W	Britain	past.	D	co	Eng. bot. 988
3537 rigens *Spr.* *Conium rigens* W.	fine-leaved	♃	⊔	w	1	jn.jl	W	C. G. H.	1787.	C	co	
632. ŒNAN'THE. *W.*	Water-dropwort.						*Umbelliferæ.*	*Sp.* 8—20.				
3538 fistulósa *W.*	common	♃	△	p	2	jn.au	F	Britain	dit.	D	m.s	Eng. bot. 363
3539 crocáta *W.*	Hemlock	♃	△	p	2	jn.au	W	Britain	dit.	D	m.s	Eng. bot. 2313
3540 prolífera *W.*	proliferous	♃	△	w	1½	jn.au	W	Italy	1739.	S	co	Jac. vind. 3. t. 62
3541 globulósa *W.*	globe-headed	♃	(○)	w	1½	jn.au	W	Portugal	1710.	D	co	Gouan. ill.18. t.9
3542 apiifólia *Brot.*	Parsley-leaved	♃	△	w	2	jn.au	W	Portugal	1806.	D	co	Sabb. rom. t. 84
3543 peucedanifólia *W.*	Sulphurwort	♃	△	w	1½	jn.au	Pk	England	dit.	D	aq	Eng. bot. 348
3544 pimpinelloides *W.*	Burnet-Saxifr.	♃	△	w	½	jn.au	W	England	sal.m.	D	m.s	Eng. bot. 347
3545 inébrians *W.*	various-leaved	♄	(△)	p	1	au.s	W	C. G. H.	1816.	D	co	
633. CRITH'MUM. *W.*	Samphire.						*Umbelliferæ.*	*Sp.* 2—4.				
3546 marítimum *W.*	sea	♃	△	cul	1	jl.s	W	Britain	s.cliffs.	D	r.m	Eng. bot. 819
3547 latifólium *W.*	wedge-leaved	♄	(○)	cu	1½	jl	Y	Canaries	1780.	D	r.m	
634. ATHAMAN'TA. *W.*	Spignell.						*Umbelliferæ.*	*Sp.* 9—14.				
3548 Libanótis *W.*	mountain	♃	△	w	2	jn jl	W	England	ch.pa.	D	co	Eng. bot. 138
3549 Cervária *W.*	broad-leaved	♃	△	w	4	jl.au	P.Pu	Europe	1597.	D	co	Jac. aust. 1 t. 69
3550 sibírica *W.*	Siberian	♃	△	w	2	jl.au	W	Siberia	1771.	D	co	G.sib.1.t.40.f.1, 2
3551 condensáta *W.*	close-headed	♃	△	w	1	jl.s	W	Siberia	1773.	D	co	Gouan.ill.83.t.26
3552 incána *W.*	hoary	♃	△	w	2	jl.au	W	Siberia	1802.	D	co	
3553 Oreoselinum *W.*	divaricated	♃	△	w	2	jl.au	W	Germany	1768.	D	co	Jac. aust. 1. t. 68
3554 sícula *W.*	Flixweed-leav.	♃	△	w	3	jn.jl	W	Sicily	1686.	D	co	Zano.his.70. t.48
3555 Matthíoli *W.*	fine-leaved	♃	△	w	2	jn.jl	W	Carniola	1802.	D	co	Jac. ic. rar 1. t.57
3556 creténsis *W.*	Candy-carrot	♃	△	w	1	jn.jl	W	Austria	1596.	D	co	Jac. aust. 1. t. 62
β *ánnua* W.	*annual*	♃	○	w	1	jn.jl	W	Candia	1731.	D	co	
635. PIMPINEL'LA. *W.*	Burnet-saxifrage.						*Umbelliferæ.*	*Sp.* 7—9.				
3557 Saxífraga *W.*	common	♃	△	cu	1	jn.au	W	Britain	dry pa.	D	co	Eng. bot. 407
3558 nigra *W.*	black-rooted	♃	△	w	1	jn.au	W	Germany	1683.	D	co	
3559 mágna *W.*	great	♃	△	w	2	jn.au	W	England	woods.	D	co	Eng. bot. 408
3560 dissécta *W.*	cut-leaved	♃	△	w	1½	jn.au	W	France	...	D	co	Retz. obs. 3. t. 2
3561 peregrína *W.*	nodding	♃	△	w	2	jn.au	W	Italy	1640.	D	co	Jac. vind.2. t.131
3562 A'nisum *W.*	Anise	♃	○	ec	1	jn.au	W	Egypt	1551.	D	co	Woodville.t.180
3563 dichótoma *W.*	dichotomous	♃	△	w	½	jn.au	W	Spain	1798.	D	co	



History, Use, Propagation, Culture,

627. *Torilis.* A name contrived by Adanson and adopted by Gærtner, and other botanists. It probably, like many of Adanson's words, has no meaning.

628. *Oliveria.* Named in honor of G. A. Olivier, a French botanist, who travelled in the East. He published a splendid work on insects, by which he is better known than by his botanical merits.

629. *Ledeburia.* So named by Professor Link, after M. Ledebure, the author of a Catalogus Horti Dorpatensis, published in 1819; in which work this plant stands as Tragium tauricum.

630. *Myrrhis.* This plant has been long in cultivation. Formerly the young leaves were put into salads; and the roots were boiled and eaten cold, or in tarts, and in a variety of sauces, or candied. The seeds are put into soups in Germany, and in the north of England employed in polishing and perfuming oak floors and furniture.

631. *Bunium.* From *βυνος*, a hill, because the plant grows in dry and elevated situations. *Terre Noix*, Fr., *Erdnuss*, Ger., *Castagno di terra*, Ital. The roots of B. Bulbocastanum are or used to be dug up and eaten raw by the poorer classes. They are farinaceous, sweet, and supposed to be very nourishing. Swine are very fond of them, and will soon become fat by feeding on them.

632. *Œnanthe.* From *οινη*, a vine, and *ανθος*, a flower. The Œnanthe, says Pliny, smells like the vine in flower, and it is from that that it takes its name. This genus, like most of the aquatic umbelliferæ, is chiefly poisonous. Œ. crocata is considered eminently so. The juice of the root or an infusion of the leaves is very efficacious in cutaneous diseases: in large doses it produces a fatal tetanus. The herb is applied in poultices to those ulcers that form in the cleft of the hoof of kine.

3530 Involucres many-leaved, Seeds ovate, Styles reflexed, Leaves decompound, Outer leaflet lin. lanceolate
3531 Universal involucre scarcely any, Seeds ov. Styles reflexed, Leaves decompound, Stem much branched

3532 Umbels simple subsessile, Leaves supra-decompound

3533 Leaves pinnate, Leaflets sessile 3-5-cleft, Segm. 3-fid ciliated, Flowers fascicled villous

3534 Radical leaves pinnate, Pinnæ ovate serrated cut, The upper 3-pinnatifid with linear 3-forked segments

3535 Villous, Leaves ternate decompound, Leaves ovate lanceolate pinnatifid, Central fl. male

3536 Leaves uniform, Involucre many-leaved

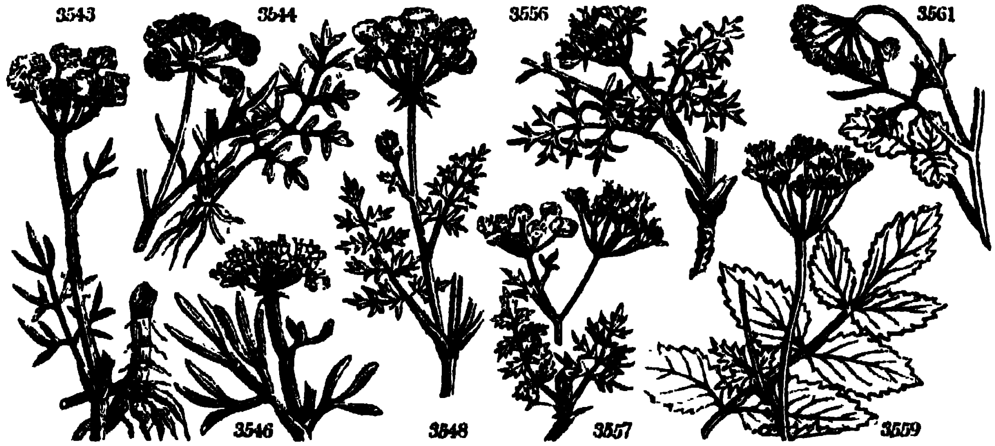
3537 Seeds somewhat muricated, Peduncles furrowed, Leaflets channelled obtuse

3538 Stoloniferous, Cauline leaves with filiform fistulous pinnæ
3539 All the leaves many cut obtuse nearly equal
3540 Outside stalks of the umbels longest branched male
3541 Leaves bipinnate, Fruit globose
3542 Leaves bi-tripinnate; the upper pinnate, Leaflets wedge-shaped cut serrate striated
3543 Cauline leaves pinnate; radical bipinnate, Leaflets linear
3544 Radical leaves caudate split: cauline entire very long simple
3545 Lower pinnæ of the leaves ovate; upper linear, Stalks angular

3546 Leaflets lanceolate fleshy
3547 Leaflets wedge-shaped split (*Tenoria*, Spr.)

3548 Leaves bipinnate flat, Umbel hemispherical, Seeds hairy
3549 Leaves pinnate decussate cut angular, Seeds naked
3550 Leaves pinnate cut angular
3551 Leaves subpinnate, Leaflets imbricated downwards, Umbel lens-shaped
3552 Pubes. hoary, Lvs. supra-decompound, Leaflets wedge-shaped 4-toothed, Umbel with many rays globose
3553 Leaflets divaricating, Leaves thrice pinnate
3554 Lower leaves shining, First umbels subsessile, Seeds hairy
3555 Leaves capillary, Styles persistent erect, Seeds oblong hairy
3556 Leaflets linear flat hairy, Petals divided, Seeds oblong hairy
β Leaves many-parted, Segm. linear rounded acuminated

3557 Stem furrowed smooth, Leaves pinnated smooth: radical roundish finely toothed; cauline linear
3558 Stem furrowed pubescent, Leaves pinnate pubescent: radical cordate cut obtuse toothed; cauline linear
3559 Leaves all alike pinnate, Leaflets lobed, the odd one 3-lobed
3560 Leaves pinnate, Pinnæ many-parted, Segments falcate acute
3561 Radical leaves pinnate crenate; upper wedge-shaped cut, Umbels nodding
3562 Radical leaves trifid cut
3563 Peduncles opp. the leaves, Flower leaves bifid or trifid, Leaf-stalks winged membranous



and Miscellaneous Particulars.

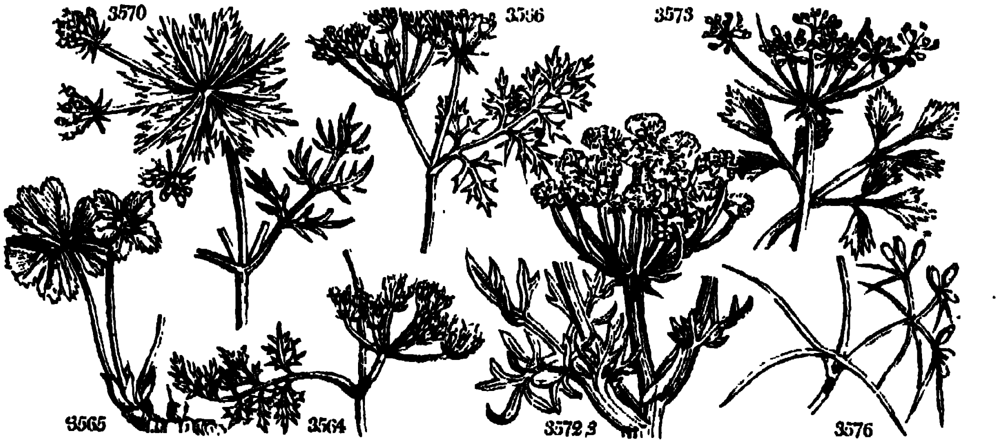
633. *Crithmum.* From κριθη, barley. Its seed is very similar to a grain of barley. *Saint Pierre*, Fr., *Meerfenchel*, Ger., and *Finochio marino*, Ital. The C. maritimum is found on stone walls, as well as by the sea shore. The inhabitants, where it abounds, not only use it as a pickle, but as an ingredient in salads, and as a pot-herb. In the garden it may be grown on beds of sand and rubbish, or in pots. Braddick, an ingenious horticulturist, cultivated it at Thames Ditton, in a sheltered dry situation screened from the morning sun: he protected it by litter during winter, and in spring sprinkled the soil with a little powdered barilla. "This I do," says he, "to furnish the plant with a supply of soda, since in its native place of growth it possesses the power of decomposing sea water, from which it takes the fossil alkali, and rejects the muriatic acid." With this treatment it flourished abundantly, producing an ample supply of leaves and shoots, which were cut twice in the season. (*Hort. Trans.* ii. 232.)

634 *Athamanta.* A plant found upon Mount Athamas in Thessaly, as some say; others, however, believe it to have been named after King Athamas, a king of Thebes, who first brought it into use.

635. *Pimpinella.* According to Linnæus, this name has been altered from *bipennula*, twice pinnate, in allusion to the leaves. P. saxifraga differs surprisingly in size and foliage in different situations, insomuch that some make several species, as P. minor, major, and dissecta. The root is acrid, and used as a masticatory in tooth-ache, also externally to take away freckles, and in gargles to dissolve viscid mucus.

P. anisum (*ânysûn*, Arabic; *Golius*.) is cultivated in Malta and Spain, whence the seeds are annually imported into England for their use in medicine. They are aromatic and carminative, and yield an oil both by distillation and expression, which is much used in flatulencies, as are the seeds in substance. The oil is also

636. PHELLAN'DRIUM. *W.*	Water-hemlock.					*Umbelliferæ.*		*Sp.* 1.				
3564 aquáticum *W.*	common	♃	⊙	p	3	jn.jl	W	Britain	rivul.	C	aq	Eng. bot. 684
637. DON'DIA. *Spreng.*	Dondia.					*Umbelliferæ.*		*Sp.* 1.				
3565 Epipáctis *Spr.*	yellow	♃	△	pr	½	mr.ap	Y	Alps	1823.	D	p.l	Jacq. aust.5. t.11
638. TRACHYSPER'MUM. *Lk.*	Trachyspermum.					*Umbelliferæ.*		*Sp.* 1.				
3566 cop'ticum *Spr.*	Egyptian		○	w	2	jn.jl	W	Egypt	1773.	D	co	Jac. vind.2. t.196
639. AM'MI. *W.*	Ammi.					*Umbelliferæ.*		*Sp.* 4—8.				
3567 Visnága *W.*	Carrot-like		○	w	2	jn.au	W	S. Europe	1596.	S	co	Gæ. de.fr.1. t.107
3568 május *W.*	great		○	w	2	jn.jl	W	S. Europe	1551.	D	co	Blackw. t. 447
3569 glaucifólium *W.*	glaucous-leav'd	♃	△	w	1½	jn.jl	W	France	1816.	D	co	
3570 daucifólium *W.*	Carrot-leaved	♃	△	w	2	jl.au	P.Y	Pyrenees	1734.	D	co	Scop. carn. t. 10
640. BU'BON. *W.*	Bubon.					*Umbelliferæ.*		*Sp.* 5—7.				
3571 macedónicum *W.*	Macedonian	♃	⊙	cu	2	jn.au	P.Y	Greece	1596.	S	co	Blackw. t. 382
3572 rigidum *W.*	stiff-leaved	♃	⊙	cu	3	jn.au	Pk	Sicily	1710.	S	co	Bocc. mus.2. t.76
β *gummiferum* Sm.	*gummy*	♃	⊙	cu	3	jl.s	Pk	Crimea	1804.	S	co	Ex. bot. 190
3573 Gal'banum *W.*	Lovage-leaved	♣	⊔	m	6	jl.au	Y.G	C. G. H.	1596.	S	s.l	Bot. mag. 2489
3574 lævigátum *W.*	smooth	♣	⊔	cu	4	mr.d	Y	C. G. H.	1774.	S	s.l	
3575 gummiferum *W.*	gum-bearing	♣	⊔	ec	7	jl	P.Y	C. G. H.	1731.	S	s.l	Com. hort.2. t.58
641. CU'MINUM. *W.*	Cumin.					*Umbelliferæ.*		*Sp.* 1.				
3576 Cýminum *W.*	common		○	clt		jn.jl	W	Egypt	1594.	S	co	Cav. ic. 4. t. 360
642. SE'SELI. *W.*	Meadow Saxifrage.					*Umbelliferæ.*		*Sp.* 10—14.				
3577 pimpinelloides *W.*	nodding-flow.	♃	△	w	1	jl	W	S. Europe	1796.	D	co	
3578 leucospérmum *W. et K.*	woolly-headed	♃	△	w	1½	jl	W	Hungary	1805.	D	co	Pl. rar. hung. 80
3579 montánum *W.*	mountain	♃	△	w	1	jn.jl	W	Italy	1658.	D	co	Jac. vind. 2. t.129
3580 glaúcum *W.*	glaucous	♃	△	w	2	jl.au	W	France	1759.	D	co	Jac. aust 1. t. 144
3581 ammoides *W.*	Milfoil-leaved		○	w	½	jn jl	W	S. Europe	1759.	S	co	Jac. vind. 1. t. 52
3582 tortuósum *W.*	crooked	♃	⊙	w	1	o	W	S. Europe	1597.	D	co	Bau.h.3.2.16.f.2
3583 divaricátum *Ph.*	shining-leaved	♃	△	or	1	jn.jl	Y	N. Amer.	1812.	D	co	Bot. mag. 1742
3584 Hippomárathrum *W.*	various-leaved	♃	△	w	2	jl	Pu	Austria	1656.	D	co	Jac aust.2. t.143
3585 grácile *W. en.*	slender	♃	△	w	1½	jn.jl	Y	Hungary	1805.	D	co	P.ra.hun 2. t.117
3586 elátum *W.*	tall	♃	△	w	1½	jl.au	W	Austria	1710.	D	co	Gouan. ill.16. t.8
643. THAP'SIA. *W.*	Deadly Carrot.					*Umbelliferæ.*		*Sp.* 4—9.				
3587 villósa *W.*	villous	♃	△	p	2	jn.jl	Y	S. Europe	10.	D	s.l	Moris.s.9 t.18.f.3
3588 fœ'tida *W.*	stinking	♃	△	p	2	jl.au	Y	Spain	1596.	D	s.l	Moris.s.9.t.18.f.7
3589 Asclépium *W.*	oriental	♃	△	cu	2	jl.au	Y	Levant	...	D	s.l	Moris.s.9.t.18.f.9
3590 gargánica *W.*	Garganian	♃	△	cu	2	jl.au	L.Y	Barbary	1683.	D	s.l	Gouan.il.18. t.10
644. ACTINOTUS. *Lab.*	Actinotus.					*Umbelliferæ.*		*Sp.* 1.				
3591 Helian'thi *Lab.*	Sun-flower	£	⌊△⌋	cu	2	jn	W	N. Holl.	1821.	D	s.l	Bot. reg. 654
645. TRI'NIA. *Hoffm.*	Trinia.					*Umbelliferæ.*		*Sp.* 2.				
3592 Hoffman'ni *Bieb.*	Hoffmann's	♃	△	w		my.jn	W	England	rocks.	D	co	Eng. bot. 1209
Pimpinella dioica E. Bot.												
3593 Hennin'gii *Bieb.*	Henning's	♃	△	w		jn au	W	Hungary	1803.			Pl.rar.hung. t.27
646. SI'UM. *W.*	Water-parsnip.					*Umbelliferæ.*		*Sp.* 8—28.				
3594 latifólium *W.*	broad-leaved	♃	△	p	3	jl.au	W	Britain	rivul.	D	aq	Eng. bot. 204
3595 angustifólium *W.*	narrow-leaved	♃	△	w	1	jl.au	W	Britain	rivul.	D	aq	Eng. bot. 139
3596 nodiflórum *W.*	procumbent	♃	△	w	½	jl.au	W	Britain	rivul.	D	aq	Eng. bot. 639
3597 répens *W.*	creeping	♃	△	w	½	jn	W	Britain	moi.gr.	D	m.s	Eng. bot. 1431
3598 Sisarum *W.*	Skirret	♃	△	cul	1	jl.au	W	China	1548.	D	r m	Schk. han.1. t.69



History, Use, Propagation, Culture,

used by vermin-killers to scent poisonous baits, or to neutralise or obliterate other smells. Anise is sometimes sown in gardens for the leaves, to be used as a garnish, or for seasoning, like fennel.

636. *Phellandrium.* A name under which Pliny describes an umbelliferous plant, of similar nature to the one now so called. In running streams the leaves of this plant become divided, like those of Ranunculus aquatilis in the same situation. When the plant grows in an angle, out of the rapid course of the stream, it produces its flowers; but it flowers best on the muddy banks of ditches and ponds. According to Linnæus it renders horses paralytic, the disease being brought on by a Coleopterous insect, the Curculio paraplecticus, which breeds in the stalks, and is cured by pigs' dung The seeds are sometimes used in agues.

637. *Dondia.* A curious little plant resembling Astrantia, and named from Dondie Duprée, a French botanist

638. *Trachyspermum.* From τραχυς, rough, and σπερμα, seed; on account of the roughness of the seeds. Nearly related to Ammi, with which it agrees in habit.

639. *Ammi.* From αμμος, sand; because it grows in sandy places. Plants with a delicate habit, very finely cut leaves, and white flowers.

640. *Bubon.* *Bubonion* is a name of Pliny's, now applied to this plant; as Pliny's was used in medicine, so is this, and there the resemblance ceases. B. macedonicum is put among clothes to scent them, in some parts of the East From B. Galbanum (derivation obscure) the drug of that name is obtained, though it is not clear that it may not also be got from other species. It is collected from the spontaneous exudation of the

3564 Ramifications of leaves divaricating

3565 Leaves stalked digitate 3-lobed, Scape angular with only one umbel

3566 Leaves supra-decompound, Leaflets filiform, Umbels opp. the leaves, Leaves of involucre unequal

3567 Universal umbel united at base
3568 Lower leaves pinnate lanceolate serrate; upper multifid linear
3569 Segments of all the leaves lanceolate
3570 Leaves supra-decompound, Leaflets 3-parted pinnatifid

3571 Leaves rhomb-ovate cut-toothed, Teeth acuminate, Umbels numerous, Seeds hairy
3572 Leaflets linear

3573 Leaflets ovate wedge-shaped acute finely serrate, Umbels few, Seeds smooth, Stem glaucous
3574 Leaflets lanceolate very obtusely and obscurely crenate, Seeds smooth
3575 Leaflets cut acuminate: lower broadest, Seeds smooth

3576 The only species. Lower leaves broad, Upper capillary

3577 Stem declinate, Umbels nodding
3578 Stem erect flexuose, Leaves decompound very fine, Umbels dense very downy
3579 Leaf-stalks branch-bearing membranous oblong entire, Cauline leaves very narrow
3580 Leaf-stalks branch-bearing membranous obl. entire, Leaflets single and two together channelled smooth
3581 Radical leaves with imbricated leaflets
3582 Stem tall rigid, Leaflets linear fascicled
3583 Stem procumbent branched, Leaves bipinnatifid shining, Involucels halved
3584 Involucels connate one-leaved
3585 Stem ascending, Leaves triternate very fine, Umbel nodding with long rays
3586 Stem elongated with callous points, Leaves bipinnate, Pinnæ linear distant

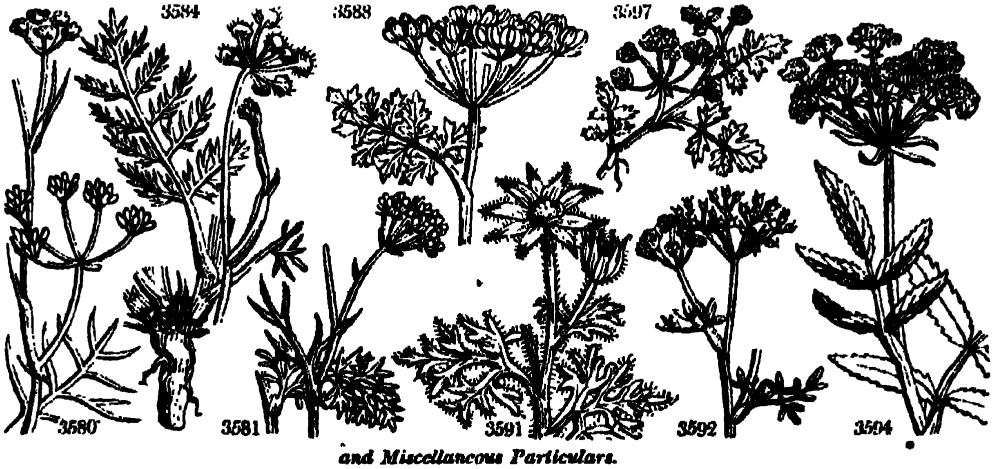
3587 Leaflets toothed villous united at base
3588 Leaflets many-cut narrowed at base
3589 Leaves digitate, Leaflets bipinnate finely many-cut
3590 Leaves bipinnate, Leaflets pinnatifid, Segm. lanceolate

3591 Downy, Leaves decursively pinnated, Invol. soft long with 10-18 rays

3592 Seeds rough with sharp ribs

3593 Seeds smooth with blunt ribs

3594 Leaves pinnate, Umbel terminal
3595 Leaves pinnate, Umbels axillary stalked, Common invol. pinnatifid
3596 Leaves pinnate, Umbels axillary sessile
3597 Stem creeping, Leaflets roundish toothed angular
3598 Leaves pinnate: floral ternate



and Miscellaneous Particulars.

stem, or by an incision in the stalk a little above the root, from which it immediately flows, and soon becomes sufficiently concreted for gathering. Medicinally considered, this gum-resin is said to hold a middle place between Asafœtida and Ammoniacum; but it is far less fœtid than the former.

641. *Cuminum.* From the Arabic name of the plant *gamoön.* (*Golius.*) This is a dwarf fennel-looking plant, cultivated in the south of Europe and lesser Asia for its seeds, which are hot and aromatic, and used like those of Anise, Caraway, &c.

642. *Seseli.* Golius (p. 167.) says, a plant related to this is called *Seyčelyous* in Arabic. There is also a Greek *σεσελι*.

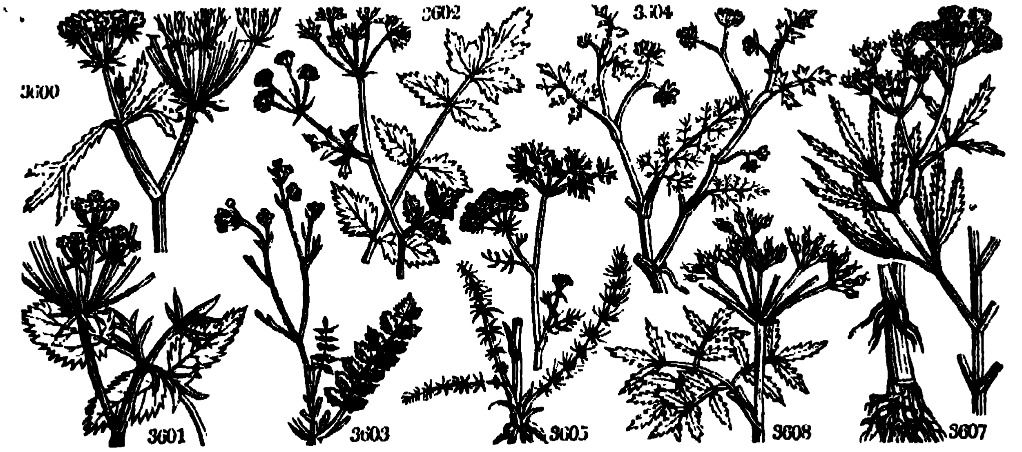
643. *Thapsia.* The Thapsia, says Dioscorides, derives its name from the isle Thapsus, where it was first discovered. Plants resembling Smyrnium in habit.

644. *Actinotus.* From *ακτιν*, a ray, in allusion to the ray-like appearance of the involucrum. Curious New Holland plants with the habit of Astrantia.

645. *Trinia.* Named by Hoffmann after Dr. Trinius, a celebrated Russian botanist, who has published some works upon grasses. Plants resembling Pimpinella in appearance.

646. *Sium.* *Siw* signifies *water* in Celtic. This is a genus of aquatic plants. S. nodiflorum bears a good deal of resemblance to the water-cress (Nasturtium officinale), and, unless when in flower, is not very easily distinguished from it by the inexperienced. It is commonly considered poisonous, though, according to Dr.

3599 rigidum *W.*	Virginian	♃	△	w	2	jl.au	W	Virginia	1774.	D	s.p	Moris.s.9. t.7. f.1
3600 Falcària *W.*	decurrent	♃	△	p	2	jl.au	W	Europe	1726.	D	s.p	Jac. aust. 3. t.257
3601 siculum *W.*	Sicilian	♃	△	w	1	jl.au	Y	Sicily	1686.	D	s.p	Jac. vind.2. t.133
647. SI'SON. *W.*	HONEWORT.					*Umbelliferæ.*		*Sp.* 5—16.				
3602 Amómum *W.*	hedge		○	w	3	jl.au	W	Britain	hed.	S	m.s	Eng. bot. 954
3603 ségetum *W.*	corn		○	w	2	jl.au	W	England	ch.fi.	S	m.s	Eng. bot. 228
3604 inundátum *W*	water		○	w	1	my.jn	W	Britain	dit.	S	aq	Eng. bot. 227
3605 verticillátum *W.*	whorl-leaved	♃	△	w	1	jl.au	W	Britain	m. me.	D	m.s	Eng. bot. 395
3606 sálsum *W.*	fine-leaved	♃	△	w	1	jl.au	P.Y	Siberia	1804.	D	co	P.a.p.1779t8.f1.3
648. CICU'TA. *W.*	COWBANE.					*Umbelliferæ.*		*Sp.* 2—5.				
3607 virósa *W.*	long-leaved	♃	△	m	3	jl	W	Britain	ditch.	D	m.s	Eng. bot. 479
3608 maculáta *W.*	spotted	♃	△	p	1½	jl.au	W	N. Amer.	1759.	D	co	Pl. alm. t. 76. f. 1
649. CO'NIUM. *W.*	HEMLOCK.					*Umbelliferæ.*		*Sp.* 2—3.				
3609 maculátum *W.*	common	♃	♂	m	5	jn.jl	W	Britain	hed.	S	co	Eng. bot. 1191
3610 africánum *W.*	Rue-leaved		○	w	3	jn.s	W	C. G. H.	1759.	[illegible]	s.l	Jac. vin. 2. t. 194
650. SMYR'NIUM *W.*	ALEXANDERS.					*Umbelliferæ.*		*Sp.* 6—7.				
3611 perfoliátum *W.*	perfoliate	♃	△	cul	3	my	Y	Italy	1596.	D	s.l	Pl. rar. h. 1. t. 23
3612 Olusátrum *W.*	common	♃	♂	cul	4	my.jn	G	Britain	sea co.	S	s.l	Eng. bot. 230
3613 apiifólium *W.*	Smallage-lvd.	♃	△	cu	1	my.jl	P.Y	Candia	1731.	D	s.l	
3614 cordàtum *Ph.*	heart-leaved	♃	△	or	1½	jn.jl	D.Pu	N. Amer.	1597.	D	s.l	
Thápsia trifoliata W.												
3615 aùreum *W.*	golden	♃	△	cu	1	my.jn	Y	N. Amer.	1699.	D	r.m	
3616 integérrimum *W.*	entire-leaved	♃	△	w	1½	[illegible]	Y	N. Amer.	1759.	D	r.m	
651. A'PIUM. *W.*	PARSLEY.					*Umbelliferæ.*		*Sp.* 2—5.				
3617 Petroselinum *W.*	garden	✱	♂	cul	3	jn.jl	L.Y	Sardinia	1548.	S	r.m	
3618 gravéolens *W.*	Celery	¥	♂	cul	4	jn.au	W	Britain	ditch.	S	m.s	Eng. bot. 1210
652 ÆGOPO'DIUM. *W.*	GOUT-WEED.					*Umbelliferæ.*		*Sp* 1.				
3619 Podagrària *W.*	common	♃	△	w	2	my.jl	W	Britain	sh. pl.	D	m.s	Eng. bot. 940
653. ME'UM. *Jacq.*	BAWD-MONEY.					*Umbelliferæ.*		*Sp.* 3—7.				
3620 Bùnius *Jacq.*	Coriander-lvd.	♃	♂	w	1	jl	W	Pyrenees	1778.	S	co	Jac. vin. 2. t. 198
3621 Mutellìna *P. S.*	alpine	♃	△	or	1	jl.au	Pu	Austria	1774	D	co	All. pe. t. 60. f. 1
3622 athamánticum *Jac*	common	♃	△	w	1½	ap.jl	P.Y	Britain	me.pa.	D	m.s	Jac. aust.4. t.303



History, Use, Propagation, Culture,

Withering, the juice, in doses of from two to four ounces, either alone or with milk, every morning, is an excellent alterative in cutaneous diseases.

S. sisarum (from *Dgizer*, its Arabic name, in which language it signifies carrot), *Chervis*, Fr., *Zuckerwürtzel*, Ger., and *Sisaro*, Ital., is cultivated for its roots or tubers, which, boiled and eaten with butter, are sweet and agreeable. A crop may either be raised from seed or offsets; if from the former, sow in March or the beginning of April, and when the plants come up, whether in rows or broadcast, [illegible] them, so as nine or ten square inches may be allowed to each plant. With the usual summer culture the [illegible] will have attained their full size in September, and may be taken up as wanted for use. In growing from offsets, allow about the same distance planting about the end of April, and giving the usual culture afterwards.

647. *Sison.* From the Celtic *sizun*, which signifies a running stream. Many of the plants grow in such situations. This genus is called Honewort, from its being used formerly to cure a swelling in the cheek called the Hone.

648. *Cicuta.* A word used by Virgil (*Ecl.* 2 and 5.), but of unknown meaning. C. virosa is poisonous to mankind and kine, but not to horses, sheep, or goats; the smell being weak in the spring, cows are apt to be killed by it, but afterwards the odour enables them to avoid it. C. maculata is used in medicine like Conium maculatum.

649. *Conium.* Said by Linnæus to be derived from *κωνος*, powder, dust; but the application of the term is not evident. C. maculatum is a well known poisonous plant, lately admitted into the Materia Medica. According to Linnæus, sheep eat the leaves, but horses, cows, and goats refuse them. Ray informs us, that the thrush will feed upon the seeds, even when corn is to be had. Curtis says hemlock is eaten by few or no insects. The dried fistulous stalks of this and several other umbelliferous plants are called by the country people kecksies. As a medicine, hemlock seems to act on the constitution in a great measure like opium.

650. *Smyrnium.* *Σμυρνα*, is a synonym of *μυρρα*, myrrh. Its juice smells like myrrh, saith Pliny. *Maceron*, Fr., *Smyrnerkraut*, Ger., and *Macerone*, Ital. S. perfoliatum and olusatrum are or may be cultivated as Asparaginous and salad plants, though they are now almost entirely supplanted by the celery, which they somewhat resemble in flavour. The seeds are sown in March in rows two feet apart, and afterwards thinned out to six inches. As the plants advance, they are earthed up like celery, and, like it, are ready for use during autumn and winter. Olusatrum is from *olus*, pot-herb, and *atrum*, black, from the dark colour of its foliage. Our English name, Alexanders, is certainly a mere corruption of Olusatrum.

651. *Apium.* From *apon*, water, in Celtic; from the place where the plant grows. A. Petroselinum, (*πετρα*, stone, and *selinum* — Stone Selinum) *Persil*, Fr., *Petersilie*, Ger., and *Petroselino*, Ital., is a well known seasoning herb, and it is also sown among pasture grasses as likely to counteract the liver rot in sheep. There is a variety called the Hamburgh or large rooted parsley, which is cultivated for its roots, which, as well as the

3599 Leaves pinnate, Leaflets lanceolate nearly entire
3600 Leaves linear decurrent connate
3601 Radical leaves ternate; cauline bipinnate

3602 Leaves pinnate, Umbels erect
3603 Leaves pinnate, Umbels cernuous
3604 Creeping, Umbels bifid
3605 Leaflets whorled capillary
3606 Rad. lvs. compound, Leaflets whorled fascicled lanc. Stem leafless, Umbellif. branches dichotomous

3607 Umbels opp. to the leaves, Leaf-stalks edged obtuse
3608 Serratures of leaves mucronate, Leaf-stalks membranous two-lobed at end

3609 Seeds unarmed, Stem branched shining spotted
3610 Seeds muricated, Petioles and peduncles smooth

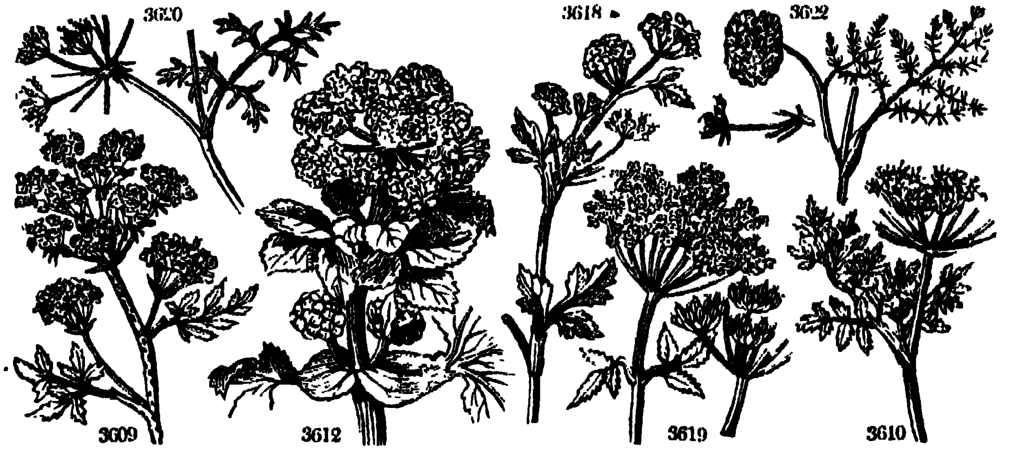
3611 Cauline leaves simple stem-clasping
3612 Cauline leaves ternate stalked serrate
3613 Cauline leaves wedge-shaped obtuse trifid toothed
3614 Radical leaves simple cordate crenate; cauline ternate serrate, Umbels terminal

3615 Leaves pinnate serrate, All the florets fertile
3616 Cauline leaves doubly ternate entire

3617 Cauline leaves linear with minute involucres
3618 Cauline leaves wedge-shaped

3619 Upper leaves ternate, Lower biternate sessile

3620 Stem diffuse branching, Radical leaves broad; cauline very narrow
3621 Stem simple, Sheaths of leafstalks dilated membranous, Leaflets multifid pinnatifid
3622 All the leaves very finely cut



and Miscellaneous Particulars

roots of the other varieties, communicate an agreeable flavor to soups and stews. The curled thick-leaved variety is that most esteemed for soups and as a garnish: it is sown in drills, and should be thinned out when it is so far advanced as to shew the finer curls of the leaves. It is too commonly left to grow as it came up which makes it but a very inferior article for garnishes. The Hamburgh sort should be thinned so as each plant may occupy ten or twelve square inches of surface.

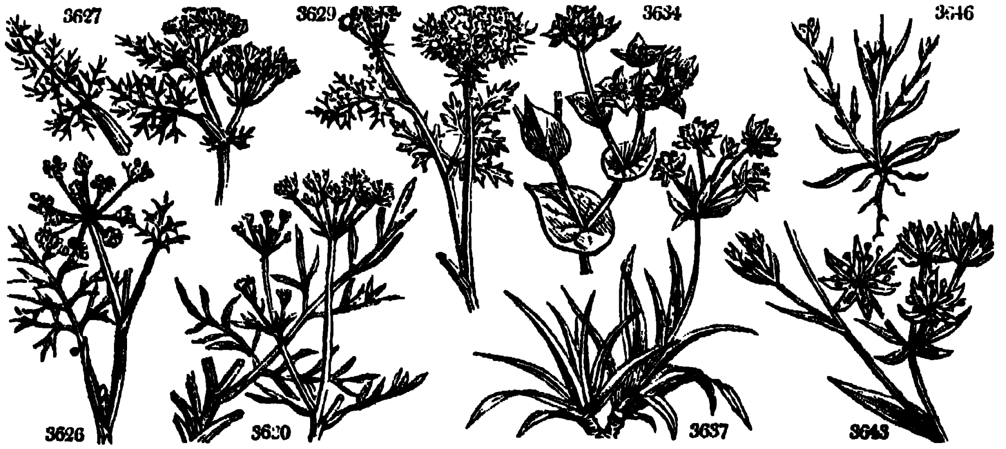
A. graveolens is one of our [illegible] valuable salad plants, and is a remarkable instance of the effect of cultivation, being in its wild state, rank, [illegible], and unfit to eat; and blanched in the garden, sweet, crisp, juicy, and of a most agreeable flavor. The green leaves are used in soups, and in Italy and the Levant, where the plant is grown, but not blanched, this is its principal application. Here both the leaves and seeds are used in soups and stews, and the blanched stalks in that way and also as a salad, either alone or in composition. One variety, the Celeriac, is grown entirely for the root or base of the leaves, which assumes a bulbous form, is solid and white, and used either in soups or as a salad.

In order to produce excellent celery, a deep rich light soil is required, and especially a soil on a dry bottom. The seed in the main crop is commonly sown in the beginning of April on a bed for transplantation; the plants so raised are commonly pricked out into other beds, and placed four or six inches asunder. At eight or twelve inches height the plants so brought forward are transplanted into trenches for blanching. These trenches are small open ditches of from six inches to a foot deep, and they are dug from two and a half to three feet apart from each other, in order to admit of earthing up the plants to the height of two feet or more above the natural surface. The excavated earth is laid in the intervals, and some dung is dug into the bottom of the trenches. Along these the plants are inserted at four or five inches apart, and as they grow, the earth from the sides of the trenches and from the wide intervals between them is applied to the plants in small layers at a time, till at the end of the autumn the ditches have become banks two or three feet high. The celery is now fit to use, and by earlier and later crops this salad is had in perfection from August or September till May following. Celery is grown to great perfection in Lancashire, where blanched stalks have been dug up four feet six inches long, and weighing nine or more pounds, of the best quality. A variety of modes of cultivating the celery are brought together in the Encyclopædia of Gardening, which well deserve the perusal of those who aim at growing this root in the best manner.

652. *Ægopodium.* From αιξ αιγος, a goat, and πους, a foot. Each of the parts of the leaf is split so as to resemble the cloven foot of a goat. The leaves of E. Podagraria smell like those of Angelica, and may be eaten in spring salads.

653. *Meum.* From μειον, very small, in allusion to the extreme delicacy of the leaves, which are as fine as hairs.

654. ANE'THUM. *W.*	Dill.						*Umbelliferæ.*	*Sp.* 4—5.				
3623 gravéolens *W.*	common	Ψ	♂	cul	3	jn.jl	Y	Spain	1570.	S	r.m	
3624 ségetum *W.*	Portugal		♂	w	½	jn.jl	Y	Portugal	1796.	S	co	
3625 Sówa *Roxb.*	Indian		○	m	...	jn.jl	...	E. Indies	1810.	S	co	
3626 Fœniculum *W.*	Fennel	Ψ	△	cul	6	jl.au	Y	England	ch. pl.	S	s.l	Eng. bot. 1208
β dulce	*Finochio*	Ψ	△	cul	4	jl.au	Y	Italy	...	S	s.l	
655. CA'RUM. *W.*	Caraway.						*Umbelliferæ.*	*Sp.* 2.				
3627 Cárui *W.*	common	Ψ	♂	clt	2	my.jn	W	Britain	me. pa.	S	s.l	Eng. bot. 1503
3628 simplex *W.*	simple-stalked	Ψ	♂	w	1	my.jn	W	Siberia	1816.	S	s.l	
656. CNIDIUM. *Cuss.*	Cnidium.						*Umbelliferæ.*	*Sp.* 5—6.				
3629 Monniéri *W.*	annual		○	w	1½	jl.au	W	S. Europe	1771.	S	co	Jac. vind. 1. t. 62
3630 Siláus *W.*	meadow	Ψ	△	w	2	jn.au	Y	England	mea.	D	co	Eng. bot. 2142
3631 alsáticum *W.*	small-headed	Ψ	△	w	6	jn.au	L.Y	Austria	1774.	D	co	Jac. aust. 1. t. 70
3632 aristátum *W.*	bearded	Ψ	△	w	1½	jn.jl	W	Pyrenees	1739.	D	co	
3633 pyrenæ'um *W.*	Pyrenean	Ψ	△	w	1	jn.jl	W	Pyrenees	1731.	D	co	Gou. ill. 11. t. 5
657. BUPLEU'RUM. *W.*	Hare's-ear.						*Umbelliferæ.*	*Sp.* 22—34.				
3634 rotundifólium *W.*	Thorough-wax		○	pr	2	jn.jl	Y	England	co. fi.	S	co	Eng. bot. 99
3635 stellátum *W.*	starry	£	△	pr	1	my.jl	G	Switzerl.	1775.	D	co	Ha. h. n.771. t.18
3636 petræ'um *W.*	rock	£	△	pr	1½	my.jl	G	Switzerl.	1768.	D	co	Plu. ph. t. 50. f. 5
3637 gramminifólium *W.*	Grass-leaved	£	△	pr	½	my.jl	G	Switzerl.	1768.	D	co	Jac. ic. 1. t. 56
3638 angulósum *W.*	angular-leaved	£	△	pr	1½	my.jl	G	Switzerl.	1759.	D	co	
3639 pyrenáicum *W.*	Pyrenean	£	△	pr	1	my.jl	G	Pyrenees	1814.	D	co	Go. ill. t 4. f. 1. 2
3640 longifólium *W.*	long-leaved	£	△	pr	3	my.jl	G	Switzerl.	1713.	D	co	Cam. hort. t. 38
3641 falcátum *W.*	twisted-stalked	£	△	pr	½	my.s	G	Germany	1739.	D	s.l	Jac. aus. 2. t. 158
3642 exaltátum *Bieb.*	tall	£	△	pr	2	jl	G	Tauria	1807.	D	s.l	
3643 odontites *W.*	narrow-leaved		○	pr	¾	jn.au	G	Italy	1749.	S	co	Jac. vind. 3. t. 91
3644 semicompósitum *W.*	dwarf		○	pr	¾	jn.au	G	Spain	1778.	S	co	Gou. ill. t. 7. f. 1
3645 ranunculoídes *W.*	Crowfoot-like	£	△	pr	½	jl.au	G	Pyrenees	1790.	D	l.p	Park. theat. f. 7
3646 tenuissimum *W.*	slender		○	pr	½	jl.au	G	England	sea sh.	S	s	Eng. bot. 478
3647 Gerárdi *W.*	branching		○	pr	1	jl.au	G	S. Europe	1804.	S	co	Jac. aus. 3. t. 256
3648 júnceum *W.*	linear-leaved		○	pr	1	jl.au	G	S. Europe	1722.	S	co	Mor. ox. 9. 12 3
3649 núdum *W.*	naked-stalked	⚘	[△]	pr	1½	o	G	C. G. H.	1778.	C	l.p	
3650 fruticósum *W.*	shrubby	♣		pr	3	jl.au	G	S. Europe	1596.	C	co	Dend. brit. 14
3651 coriáceum *W.*	thick-leaved	♣	⊔	pr	¾	...	G	Gibraltar	1784.	C	l.s	Jac. ic. 2. t. 351
3652 fruticéscens *W.*	Grass-lvd.-shr.	♣	⊔	pr	1½	au	G	Spain	1752.	C	l.s	Cav. ic. 2. t. 106
3653 canéscens *P. S.*	hoary	♣	⊔	pr	5	au.	G	Barbary	1809.	C	l.s	Desf. atl. 1. t. 57
3654 spinósum *W.*	thorny	♣	⊔	pr	1	au	G	Spain	1752.	C	l.s	Go. ill. 8. t. 2. f.3
3655 diffórme *W.*	various-leaved	♣	⊔	pr	1	au	G	C. G. H.	1752.	C	l.s	
658. HYDROCO'TYLE. *W.*	Pennywort.						*Umbelliferæ.*	*Sp.* 8—54.				
3656 vulgáris *W.*	marsh	⚲	△	w	¼	my.jn	R	Britain	wa. pl.	D	c.p	Eng. bot. 751
3657 nitídula *Rich.*	shining	⚲	[△]	w	½	my	G	Java	1820.	D	co	Hook. ex. fl. 29
3658 nepalénsis *Hook.*	Nepal	⚲	[△]	w	½	jl	G	Nepal	1820.	D	co	Hook. ex. fl. 30
3659 americána *Ph.*	tuberous	✳	△	w	¼	my.au	R	N. Amer.	1790.	D	p	Spr. um. t. 2. f. 3
3660 umbelláta *Ph.*	umbelled	⚲	△	w	½	jl.au	G	N. Amer.	1795.	D	p	Spreng. um. t. 1
3661 asiática *W.*	thick-leaved	⚲	[△]	w	1	jl.au	G	C. G. H.	1690.	D	p	Rh. mal. 10. t. 46
3662 repánda *Ph.*	Pilewort-leaved	⚲	[△]	w	1	jn jl	G	N. Amer.	1806.	D	p	Spr. um. t. 2. f. 4
3663 villósa *W.*	hairy-leaved	⚲	[△]	w	1	au	G	C. G. H.	1795.	D	p	
659. SPANAN'THE. *Jac.*	Spananthe.						*Umbelliferæ.*	*Sp.* 1.				
3664 paniculáta *Jacq.*	panicled	£	[○]	w	2	jl.au	W	Caracas	1795.	D	s.l	Jac. ic. 2. t. 350
660. ULOSPER'MUM. *Lk.*	Broad-seed.						*Umbelliferæ.*	*Sp.* 1.				
3665 dichótomum *Lk.*	dichotomous		○	cu	1½	jn.jl	W	Barbary	1800.	S	co	Desf. atl. 1. t. 66
661. ÆTHU'SA. *W.*	Fool's-parsley.						*Umbelliferæ.*	*Sp.* 2—3.				
3666 Cynápium *W.*	common		○	p	2	jl.s	W	Britain	co. fi.	S	co	Eng. bot. 1192
3667 fátua *W.*	fine-leaved	Ψ	△	p	2	jl.s	W	......	1781.	D	co	



History, Use, Propagation, Culture.

654. *Anethum.* From *αιθω*, to burn, the plant being very heating. Large quantities of the seeds are yearly imported into this country from the south of France. They are used in medicine as carminatives, and, as it is said, in the manufacture of the British gin. No one has succeeded in growing the plant for a crop in this country.

655. *Carum.* A native of Caria, according to Pliny, b. xix. c. 8. *Carvi*, Fr., *Kümmel*, Ger., and *Carvi*, Ital. C. Carvi is cultivated both in agriculture and horticulture: in the former for its seeds, which are used to flavor cakes, to form sugar plums, to flavor spirits, and form a carminative distilled water. In the culinary art the leaves are sometimes used as an ingredient in salads, or as a pot herb, like parsley; and the roots are said to be superior in flavor to those of the parsnip.

656. *Cnidium.* The ancient name of an herb, supposed to have been an Orach, and certainly having no affinity to the plants now called Cnidium.

657. *Bupleurum.* From *βους*, an ox, and *πλευρον*, a rib. How applied is not apparent. These are plants remarkable among the Umbelliferous tribes for having simple leaves.

3623 Fruit compressed
3624 Cauline leaves three, Fruit oval
3625 Leaves supra-decompound, Umbel with 5-15 rays, Fruit obl. flat with three ribs at base
3626 Fruit ovate

3627 Stem branched, Sheaths of leaves ventricose, Common involucre O.
3628 Stem quite simple, Sheaths of leaves appressed, Common invol. many-leaved

3629 Umbels close, Comm. invol. reflexed, Seeds with 5 membranous ribs
3630 Leaves thrice pinnated, Pinnules distinct with a nerve lanceolate 3-lobed with an odd one
3631 Leaflets pinnatifid, Segm. trifid bluntish
3632 Leafstalks of the branches somewhat membranous loose entire, Lvs. supra-decom. Leaflets lanc. awned
3633 Leaves doubly pinnate Leaflets cut acute, Involucels bristly longer than the umbel

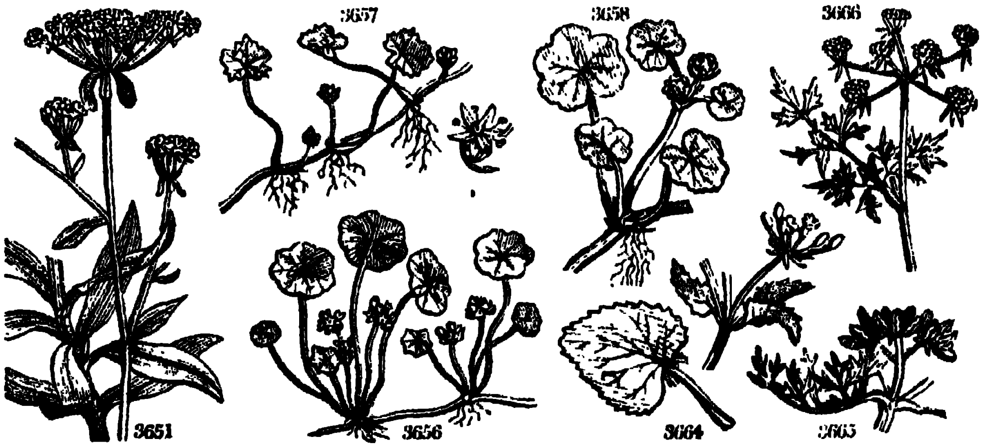
3634 Common involucres none, Leaves perfoliate
3635 Involucels joined together: the universal three-leaved
3636 Involucels about 5-leaved joined together, universal 5-leaved, Caul. leaves cord. lanc. stem-clasping
3637 Involucels 7-leaved; universal about 3-leaved, Radical leaves linear, Scape one-leaved
3638 Involucels 5-leaved orbicular; universal 3-leaved ovate, Leaves cord lanc. stem-clasping
3639 Invol. 5-leaved roundish emarginate con.; universal 3-leav. cut at base, Lvs. lanc. cordate stem-clasping
3640 Involucels 5-leaved ovate; universal about 5-leaved, Leaves stem-clasping
3641 Involucels 5-leaved acute; universal about 5-leaved, Leaves lanceolate, Stem flexuose
3642 Stem branched leafy, Lvs. lin.-lanc. chan. nerved, Invol. 4-leaved uneq. very narrow shorter than umbel
3643 Involucels 5-leaved acute, universal 3-leaved, Central florets tallest, Branches divaricating
3644 Leaves lanceolate, Umbels terminal and axillary, Seeds rough
3645 Involucels 5-leaved lanceolate longer; universal 3-leaved, Leaves cauline lanceolate
3646 Umbels simple alternate 5-leaved about 3-flowered
3647 Stem erect branching, Lvs lin. acum. Invol. 5-leaved, Involucels 5-leaved lin. subul. longer than umbel
3648 Stem erect panicled, Leaves linear, Involucr. 3-leaved as long as umbel, Involucels 5-leaved
3649 Stem branched leafless, Radical leaves decompound flat cut, Involucres and involucels lanceolate-oblong
3650 Leaves lanceolate obovate entire sessile
3651 Leaves lanceolate narrowed each way entire sessile
3652 Leaves linear, Involucre common and partial
3653 Lvs. peren. lanc. mucronate nerved, Flowering branches branched striated, Involucr. subulate appressed
3654 Branches of panicle sessile naked spiny, Leaves linear
3655 Vernal leaves decompound flat cut, Summer leaves filiform angular trifid

3656 Leaves peltate, Umbels 5-flowered
3657 Leaves orbicular reniform 5-7-lobed, Flowers capitate sessile, Peduncle shorter than petiole
3658 Leaves orbicular reniform 7-lobed crenated, Flowers in numerous heads on short stalks
3659 Root tuberous, Leaves peltate roundish lobed unequally crenate, Clusters subsessile few-flowered
3660 Leaves crenate peltate emarginate at base, Umbels many-flowered and flowers stalked
3661 Leaves cordate reniform equal toothed crenate smooth, Umbels axillary sessile many-flowered
3662 Lvs rounded cordate repand toothed beneath and stalks hairy, Umbels capitate about 3-fl. Fruit netted
3663 Stem decumbent and erect branches villous, Lvs. ov. cordate cuspidate 3-nerved, Umbels axillary sessile

3664 Stem erect smooth, Leaves triangular acuminate crenate bearded at base, Umbels axillary spreading

3665 The only species

3666 Leaves all of one shape
3667 Leaflets very fine whorled, Stem very leafy, Comm. invol. many-leaved



and Miscellaneous Particulars.

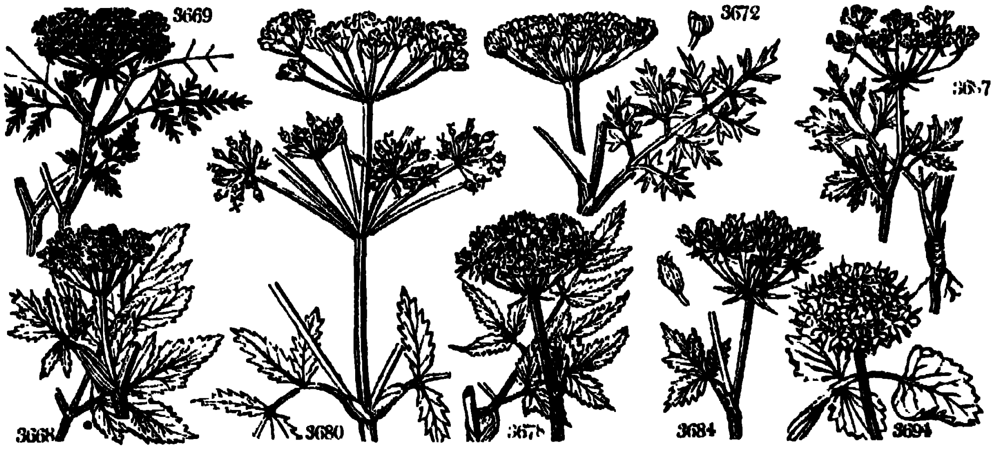
658. *Hydrocotyle.* From *ὑδωρ*, water, and *κοτυλη*, vessel; its leaf is round and a little depressed in the centre, so as to hold a drop of water. This is a genus of aquatics and marsh plants of no great beauty, their flowers being obscure and of dull colors. H. vulgaris, the *Wassernabel* of the Germans, has been supposed to communicate the liver rot to sheep. This is a vulgar error, arising from the circumstance of the fluke or flounder insect (Fasciola hepatica) being found in marshes where this plant, and also the Drosera and Pinguicula, abound, as well as in sheep's livers. It is a known fact, however, that sheep never feed on any of these plants.

659. *Spananthe.* From *σπανος*, rare, and *ανθος*, a flower, in allusion to the small number of flowers in the umbel.

660. *Ulospermum.* From *ουλος*, curled, and *σπερμα*, seed, on account of the membranous curled ribs of the seed. A plant referred to Conium by Desfontaines, and to Cachrys by Sprengel, but very distinct from both.

661. *Æthusa.* From *αιθω*, to burn, on account of its dangerous acridity. Æ. Cynapium (*κυνος απιον*, dog-parsley) is a common weed in gardens, and sometimes mistaken for parsley; from which, however, it is easily

662. IMPERATO'RIA. *W.*	Masterwort.					*Umbelliferæ.*		*Sp.* 1.				
3668 Ostrúthium *W.*	common	⚘	△	cu	2	my.jl	Pk	Scotland	m.al.p.	D	co	Eng. bot. 1380
663. SELI'NUM. *W.*	Milk-Parsley					*Umbelliferæ.*		*Sp.* 8—15.				
3669 palústre *W.*	marsh	⚘	△	w	4	jl.au	W	Britain	mar.	D	c.l	Eng. bot. 229
3670 montánum *W. en.*	mountain	⚘	△	w	4	jl.au	W	Switzerl.	1816.	D	co	
3671 austríacum *W.*	Austrian	⚘	△	w	2	jl.au	W	Austria	1804.	D	co	Jac. aus. 1. t. 71
3672 Carvifólia *W.*	Caraway-leaved	⚘	△	w	2	jl.au	W	Austria	1774.	D	co	Jac. aust. 1. t. 16
3673 Chabræ'i *W.*	fine-leaved	⚘	△	w	1	jl.au	W	Austria	1791.	D	co	Jac. aust. 1. t. 72
3674 Seguiéri *W.*	Fennel-leaved	⚘	△	w	4	jl.au	W	Italy	1774.	D	s.l	Jac. vind. 1. t.61
3675 latifólium *Bieb.*	broad-leaved	⚘	△	w	2	jl.au	W	Caucasus	1816.	D	s.l	
3676 decípiens *W.*	shrubby	▪	⊔	w	2	jn.jl	W	Madeira	1785.	C	s.l	Sch. se.h.3.t.1.13
664. ANGE'LICA. *W.*	Angelica.					*Umbelliferæ.*		*Sp.* 6—10.				
3677 Archangélica *W.*	garden	⚘	⦶	cul	4	jn.au	G	England	wa. pl.	S	m.s	Flor. dan. t. 206
3678 sylvéstris *W.*	wild	⚘	△	w	6	jn.au	F	Britain	m. wo.	D	m.s	Eng. bot. 1128
3679 Razoúlii *W.*	decurrent-lvd.	⚘	△	w	2	jn.au	P.Pu	Pyrenees	1816.	D	co	Gou. ill. 13. t. 6
3680 verticilláris *W.*	whorled-flower	⚘	△	w	6	jl	G	Italy	1683.	D	co	Jac. vin. 2. t. 130
3681 atropurpúrea *W.*	dark-purple	⚘	△	w	6	jl.au	Pu	Canada	1759.	D	co	Cor. can. t. 199
3682 lúcida *W.*	shining	⚘	⦶	w	2	jl.au	P.Y	Canada	1640.	S	co	Jac. vind. 3. t. 24
665. LIGUS'TICUM. *W.*	Lovage.					*Umbelliferæ.*		*Sp.* 10—20.				
3683 Levísticum *W.*	common	⚘	△	cul	6	jn.jl	P.Y	Italy	1596.	D	co	Blackw. t. 275
3684 scóticum *W.*	Scotch	⚘	△	w	2	jn.jl	W	Britain	sc. sh.	S	co	Eng. bot. 1207
3685 peloponénse *W.*	Hemlock-lvd.	⚘	△	w	4	my.jl	P.Y	Switzerl.	1596.	D	co	J. au. 5. t. ap. 13
3686 austríacum *W.*	Austrian	⚘	△	w	2	jn.au	W	Austria	1596.	S	co	Jac. aus. 2. t. 151
3687 cornubien'se *W.*	Cornish	⚘	△	w	1½	jl.au	W	England	bu. fi.	S	co	Eng. bot. 683
3688 pyrenáicum *W.*	Pyrenean	⚘	△	w	3	jl.au	W	Pyrenees	1804.	S	co	Go. il. p. 14. t. 10
3689 cándicans *W.*	pale	⚘	△	w	2	jl.au	P.Y	......	1780.	S	co	
3690 peregrínum *W.*	Parsley-leaved	⚘	⦶	w	2	jn.jl	L.Y	Portugal	1633.	S	co	Jac. vin. 3. t. 18
3691 baleáricum *W.*	Minorca	⚘	△	cu	1	jn.jl	Y	Minorca	1804.	D	co	
3692 longifólium *W.*	long-leaved	⚘	△	w	3	jn.jl	P.Pu	Siberia	1804.	D	co	M. s. 9. t. 15. f. 1
666. HASSELQUIS'TIA. *W.*	Hasselquistia.					*Umbelliferæ.*		*Sp.* 2.				
3693 ægyptíaca *W.*	Egyptian		○	w	1½	jl	W	Egypt	1768.	S	co	
3694 cordáta *W.*	heart-leaved		○	w	1½	jl	W	......	1787.	S	co	Jac. vind.2. t.193
667. ARTE'DIA. *W.*	Artedia.					*Umbelliferæ.*		*Sp.* 1.				
3695 squamáta *W.*	Fennel-leaved		○	w	1½	jl	W	Levant	1740.	S	co	Lam. ill. t. 193
668. FE'RULA. *W.*	Giant-Fennel.					*Umbelliferæ.*		*Sp.* 7—26.				
3696 commúnis *W.*	common	⚘	△	or	10	jn.jl	Y	S. Europe	1597.	D	s.l	Moris.s.9.t.15.f.3
3697 sibírica *W.*	Siberian	⚘	△	w	4	jn.jl	Y	Siberia	1816.	D	s.l	Pall it.2.app.t.N
3698 glaúca *W.*	glaucous	⚘	△	w	8	jn.jl	P.Y	Italy	1596.	D	s.l	Mor. ox. 9. 151
3699 tingitána *W.*	Tangier	⚘	⦶	w	8	jn.jl	Y	Barbary	1680.	S	s.l	Herm. par t. 165
3700 orientális *W.*	eastern	⚘	△	w	3	jl.au	Y	Levant	1759.	D	s.p	Tourn. it.3. t.239
3701 nodiflóra *W.*	knotted	⚘	△	w	3	jn.jl	Y	S. Europe	1596.	D	s.l	Jac.aust 5.t ap.
3702 pérsica *W.*	Assa-fœtida	⚘	△	m	2	jl.au	Y	Persia	1782.	D	s.l	Bot. mag. 2096
669. LASERPI'TIUM. *W.*	Laserwort.					*Umbelliferæ.*		*Sp.* 14—17.				
3703 latifólium *W.*	broad-leaved	⚘	△	w	3	jn.jl	W	Europe	1640.	D	co	Jac. aust.2. t.146
3704 trílobum *W.*	three-lobed	⚘	△	w	3	my.jl	W	Levant	1640.	D	co	
3705 aquilegifólium *W.*	Columbine-lvd.	⚘	△	w	5	my.jl	W	Austria	1796.	D	co	Jac. aust.2. t.147
3706 gállicum *W.*	French	⚘	△	w	3	jn.jl	Y	S. Europe	1683.	D	co	Plu.phy.t.198 f.6
3707 tríquetrum *P. S.*	winged	⚘	△	w	3	jn.jl	P.Y	Constant.	1816.	D	co	Vent. cels. t. 97
3708 angustifólium *W.*	narrow-leaved	⚘	△	w	2	jn.jl	Pk	S. Europe	1738.	D	co	Moris s.9.t.19.f.9
3709 pruténicum *W.*	Prussian	⚘	△	w	3	jl.au	W	Germany	1759.	D	co	Jac. aust.2. t.153



History, Use, Propagation, Culture,

distinguished by being of a darker green, a different shape, flat, and not curled, and of a disagreeable smell. When eaten in mistake for parsley it occasions vomiting, which may be stopped by a very large dose of brandy. It is deleterious to geese.

662. *Imperatoria.* A metaphorical name given to this plant to express its many virtues. For the same reason the English call it Masterwort. The root, which is very acrid, is sometimes used in toothache, and an infusion of it in wine instead of bark in quartan agues.

663. *Selinum.* From σιληνη, a name of the moon, in allusion to the crescent-like form of the seeds when cut across. The Greeks seem to have used the word *selinon*, with reference to the same plants as we call umbelliferous.

664. *Angelica.* So called, in allusion to its agreeable smell and medicinal qualities. A. archangelica (from αρχη, superior, an augmentative prefix), is sometimes cultivated in gardens for its leaf-stalks, to be blanched and eaten as celery, or candied with sugar. It is considered stimulant and anti-pestilential.

665. *Ligusticum.* This plant, says Dioscorides, grows in great abundance in Liguria, near Mount Appennine, from which circumstance it derives its name. L. levisticum and scoticum are sometimes used as pot-herbs or ingredients in salads, and are accounted emmenagogue. The root is carminative; and an infusion of the leaves is used as a purgative to calves in the Isle of Sky.

666. *Hasselquistia.* So named by Linnæus, in memory of his pupil, Frederick Hasselquist, M. D., who

3668 The only species

3669 Stem striated, Root fusiform divided, Rays of umbel hispid
3670 Leaves 3-parted thrice sinuated. A doubtful species, scarcely distinct from the next
3671 Stem furrowed, Common involucre many-leaved, Leaflets wedge-shaped cut
3672 Stem furrowed with acute angles, Comm. invol. O, Leaflets lanceolate cut at the end with a callous point
3673 Stem rounded striated, Comm. invol. O, Sheaths of leaves loose, Leaflets filiform linear
3674 Stem rounded striated, Comm. invol. O, Leaflets trifid linear mucronate
3675 Stem striated, Lvs. pinnat. subcor. Leaflets ov.-obl. at base cartil. serrate, Upper sheaths enlarged leafle
3676 Stem woody naked beneath, Lower leaves bipinnate, Pinnæ lanceolate entire and cut serrate

3677 Leaves doubly pinnate ovate lanc. serrated with the odd leaflet lobed
3678 Leaflets equal ovate lanceolate serrated
3679 Leaflets lanceolate serrated decurrent
3680 Leaves very much divaricating, Leaflets ovate serrate, Stem with the peduncles whorled
3681 Outer pair of leaflets united together; terminal leaflet stalked
3682 Leaflets equal ovate cut serrate

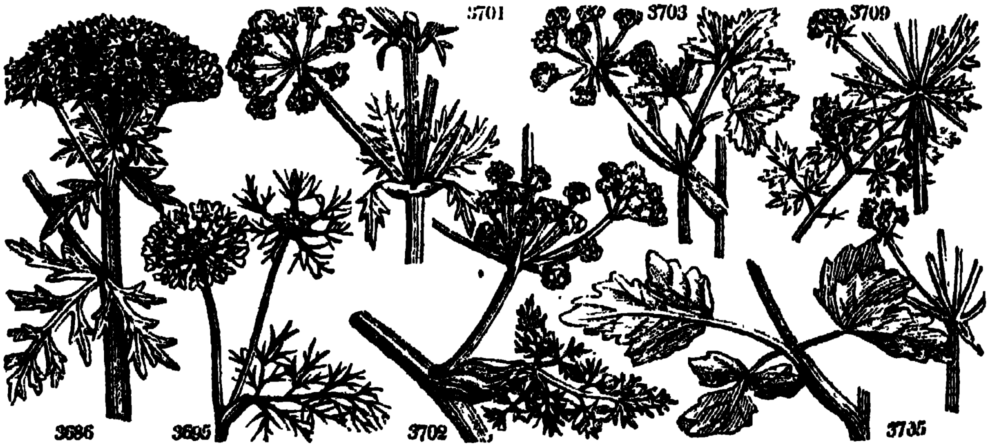
3683 Leaves multiple, Leaflets cut upwards
3684 Leaves biternate
3685 Leaves many times pinnate, Leaflets pinnately cut
3686 Leaves bipinnate, Leaflets confluent cut entire
3687 Leaves decompound cut: cauline ternate lanceolate entire, Furrows of seed obsolete
3688 Lvs. supra-decompound, Leaflets pinnatifid, Seg. linear mucronate, Comm. invol. scarcely any deciduous
3689 Lvs. supra-decom. Leaflets wedge-shaped cut smooth, Comm. invol 2-leav. leafy, Ribs of seed mem. smoot
3690 Invol. of the 1st umbel scarcely any: of the lateral umbels membranous at base, Rays branched
3691 Leaves pinnate, Lower leaflets acute with a smaller one
3692 Leaves biternate; radical decompound, Leaflets lin. lanc. entire

3693 Leaves pinnate, Leaflets pinnatifid
3694 Leaves cordate

3695 Seeds scaly

3696 Leaflets linear very long simple
3697 Leaflets linear subulate rounded, Comm. invol. O
3698 Leaves supra-decompound, Leaflets lanc. linear flat
3699 Leaves cut, Segm. 3-toothed unequal shining
3700 Pinnæ of leaves naked at base, Leaflets setaceous
3701 Leaflets with appendages, Umbels nearly sessile
3702 Leaves supra-decompound many cut acute decurrent, First umbel sessile

3703 Leaves obliquely cordate toothed, Teeth mucronate, Wings of seeds crisp
3704 Leaflets 3-lobed cut
3705 Leaves obtuse ovate at base lobed
3706 Leaflets wedge-shaped trifid, Segm. oblong bluntish with a callous point at end
3707 Stem naked 3-cornered, Branches angular, Leaflets obl. toothed crenate, Involucres many-leaved short
3708 Leaflets lanceolate obtuse mucronate entire sessile
3709 Leaves lanceolate entire: the outer joined together



and Miscellaneous Particulars.

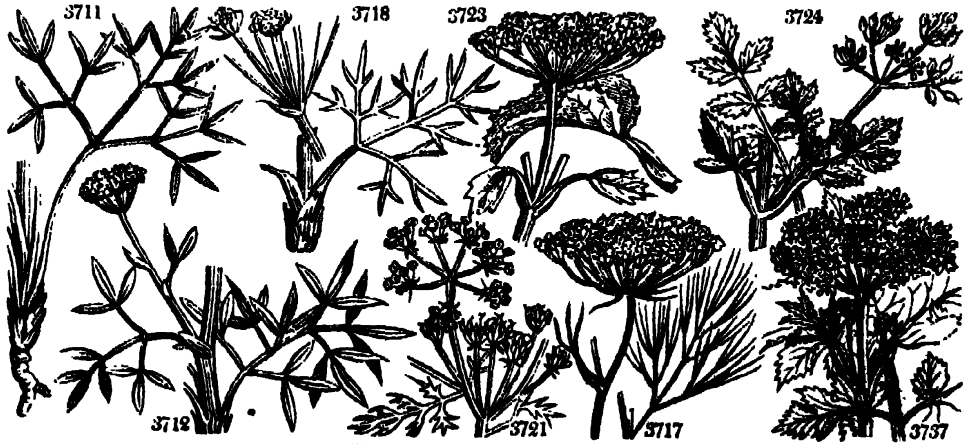
travelled into the Holy Land, &c. and died at Smyrna in 1752. Author of Travels in Palestine. A remarkable genus, supposed with some reason to be a monstrous alteration of a species of Tordylium.

667. *Artedia.* So named by Linnæus, in honor of Peter Artedi, a Swedish naturalist, one of the first who attempted to divide umbelliferous plants into genera. His method was followed by Linnæus, and was, perhaps, not more defective than many of those which have been proposed in modern days. He died in 1735.

668. *Ferula.* From *ferire*, to strike. The stalks were used as a rod for children, because they made more noise than harm. F. communis is one of the tallest of herbaceous plants. The flower-stalk soon becomes dry after the seeds ripen, and then the Sicilians take out the pith and use it for tinder. It is very abundant in Apulia, where it is eaten by buffaloes. Gerarde says, it grew to the height of fifteen feet in his garden in Holborn. The drug assafœtida is obtained from one or more species of this genus natives of Persia; and one species, the F. assafœtida, though introduced to our gardens in 1782, is now lost. The drug is the inspissated juice of the root, which being bared of earth and cut across at the top, it oozes out, and when dry, is scraped off as opium is from the capsule of the poppy. The plant grows three feet high, with yellow flowers and hemlock-like leaves and habit.

669. *Laserpitium.* The Latin name of the Silphion of the Greeks. D'Herbelot says, that the natives of Africa called the plant *silphi* or *serpi*, whence the Latins formed *lac serpitium* and *Laserpitium.* (*Bibl. Or.* p. 493.

3710 silaifólium *W.*	Sulphurw.-lvd.	♃	△	w	2	jn.jl	P.Y	Italy	1791.	D	co	Jac.aus.app. t.44
3711 peucedanoides *W.*	fine-leaved	♃	△	w	2	jn.jl	Pk	Italy	...	D	co	Jac. ic. 2. t. 350
3712 Siler *W.*	mountain	♃	△	w	3	my.jl	W	Austria	1640.	D	co	Jac. aust.2. t.145
3713 lúcidum *W.*	shining	♃	♂	cu	½	jl	P.Pu	Switzerl.	1775.	S	co	
3714 feruláceum *W.*	Fennel-leaved	♃	△	w	1½	jn	W	Levant	1752.	D	co	Tourn.it.2. t 121
3715 pilósum *W. en.*	sulphur-colored	♃	♂	w	1	jn.jl	P.Y	......	1759.	S	co	
3716 hirsútum *W.*	hairy	♃	△	w	1	jn.jl	P.Y	Alps	1759.	D	co	
670. PEUCE'DANUM. *W.*	SULPHURWORT.						*Umbelliferæ.*	*Sp.* 6—21.				
3717 officinále *W.*	officinal	♃	△	m	6	my.jl	Y	England	salt m.	D	c.l	Eng. bot. 1767
3718 arenárium *P. S.*	sand	♃	△	w	5	jn.jl	Y	Hungary	1816.	D	c.l	P.rar.hun.1. t.20
3719 itálicum *P. S.*	Italian	♃	△	w	8	my.jl	Y	Italy	...	D	c.l	Lob. ic. 781
3720 alpéstre *W.*	Alpine	♃	△	w	1½	jn.jl	P.Y	France	1739.	D	c.l	
3721 sibíricum *W.*	Siberian	♃	△	w	3	jn.jl	Y	Siberia	1804.	D	c.l	P.rar.hun.1. t.60
3722 aúreum *W.*	golden	♃	♂	cu	3	jn	Y	Canaries	1779.	C	co	
671. PASTINA'CA. *W.*	PARSNEP.						*Umbelliferæ.*	*Sp.* 4—6.				
3723 lúcida *W.*	shining-leaved	♃	♂	w	1½	jn.jl	Y	S. Europe	1771.	S	s.l	Jac. vind.2. t.199
3724 sativa *W.*	garden	✱	♂	cul	4	jl	Y	England	ch.pl.	S	s.l	Eng. bot. 556
3725 Opópanax *W.*	rough	✱	△	cu	6	jn.jl	Y	S. Europe	1640.	D	co	Gou.il.19.t.13,14
3726 dissécta *Vent.*	cut-leaved	♃	♂	w	1½	jn.jl	W	Levant	1816.	S	co	Vent. cels. t. 78
672. HERA'CLEUM. *W.*	COW-PARSNEP.						*Umbelliferæ.*	*Sp.* 10—19.				
3727 Sphondýlium *W.*	common	♃	△	ec	4	my.jn	W	Britain	hed.	D	co	Eng. bot. 939
3728 flavéscens *W.*	yellowish	♃	△	w	4	jn.jl	W	Austria	1789.	D	co	Jac. aust. 2. t.173
3729 angustifólium *W.*	narrow-leaved	♃	△	w	4	my.jn	W	Britain		D	co	Jac. aust.2. t.174
3730 élegans *W*	rough-leaved	♃	△	w	3	my.jn	W	Austria	1800.	D	co	
3731 sibíricum *W.*	Siberian	♃	△	w	2	my.jn	G	Siberia	1768.	D	co	Gmel. sib.1. t. 50
3732 Panáces *W.*	Fig-leaved	♃	△	w	3	jl.au	W	Siberia	1596.	D	co	Lobel. ic. 701
3733 austríacum *W.*	Austrian	♃	△	w	2	jn.jl	W	Austria	1752.	D	co	Jac. aust. 1. t. 61
3734 alpínum *W.*	Alpine	♃	△	w	1½	jn.jl	W	Switzerl.	1739.	D	co	Barr. ic. 55
3735 pyrenáicum *Cusson.*	Pyrenean	♃	△	w	3	jn.jl	W	Pyrenees	1798.	D	co	Hort. ber. t. 53
3736 púmilum *W.*	dwarf	♃	△	w	½	my.jl	W	Dauphiny	1800.	D	co	Vill.delph.2. t.14
673. TORDY'LIUM. *W.*	HARTWORT.						*Umbelliferæ.*	*Sp.* 6—8.				
3737 syríacum *W.*	Syrian		○	w	½	jl	W	Syria	1597.	S	co	Jac. vind. 1. t. 54
3738 officinále *W.*	officinal		○	w	2½	jl	F	England	corn fi.	S	co	Eng. bot. 2440
3739 peregrínum *W.*	oriental		○	w	2	jl	W	Levant	1596.	S	co	Cam.hor.37. t.11
3740 ápulum *W.*	small		○	w	1½	jl	W	Italy	1739.	S	co	Jac. vind. 1 t. 53
3741 máximum *W.*	great		○	w	2	jn.jl	W	England	corn fi.	S	co	Eng. bot. 1173
3742 siifólium *W.*	red-flowered		○	w	1½	jn.jl	R	Carniola	1816.	S	co	Scop. car.194. t.8
674. ASTRAN'TIA. *W.*	MASTERWORT.						*Umbelliferæ.*	*Sp.* 4.				
3743 máxima *B. M.*	Hellebore-lvd.	♃	△	pr	2	jn.jl	Pk	Caucasus	1804.	D	s.p	Bot. mag. 1553
3744 májor *W.*	great-black	♃	△	pr	2	my.s	Str	Al. of Eur.	1596.	D	p.l	Ex. bot. 2. t. 76
3745 minor *W.*	small	♃	△	pr	½	my.jn	Pk	Switzerl.	1686.	D	p.l	Bot. cab. 93
3746 carniólica *W.*	Carniolian	♃	△	pr	1	my.jn	Str	Carniola	1812.	D	p.l	Jac.aus.app. t 10
675. ZOSI'MIA. *Hoffm.*	ZOSIMIA.						*Umbelliferæ.*	*Sp.* 1.				
3747 absinthifolium *P. S.*	Wormwood-lvd.		○	w	2	jl.au	W	Persia	1816.	S	co	Vent. choix. t. 7
676. RU'MIA. *Hoffm.*	RUMIA.						*Umbelliferæ.*	*Sp.* 2.				
3748 taúrica *Hoffm.*	Taurian	♃	△	cu	1	jl	W	Crimea	18[illegible]	D	co	
3749 capénsis *Lk.*	Cape		○	cu	1	s	W	C. G. H.	1823.	S	co	



History, Use, Propagation, Culture,

670. *Peucedanum.* From πευκη, a pine-tree, and δανος, dwarf; a diminutive fir. The plant was so called on account of its strong smell, which resembles resin.

671. *Pastinaca.* One of the names given by the Latins to the *Daucus* of the Greeks. It is derived from *pastus*, nourishment. P. sativa is a well known culinary root, and grown also in agriculture for feeding cattle. It was much in use during Catholic times to eat with salted fish. In the north of Ireland a sort of beer is brewed from the roots mixed with hops; a very good wine is also made from them; and by distillation they yield an ardent spirit, similar to that afforded by the potatoe. The parsnep is much cultivated in Jersey and Guernsey, chiefly for feeding milch cows. The variety preferred is called the Coquaine, the roots of which, Dr. Macculloch informs us (*Caled. Hort. Mem.* i. 408.), sometimes run four feet deep, and are rarely so small in circumference as six inches. The time of sowing is February and March, in drills to admit of stirring the soil between the rows. They should be thinned so as that each plant may have a surface of twelve or fourteen square inches, and, with the usual routine culture, the crop will be mature in October. They may be taken up and housed like the carrot, or as wanted for use: as they are not easily injured by frost, the latter mode is the best, where they are grown only for the table.

P. opopanax (οπος, juice, παν, all, and ακος, cure: a cure for all complaints) produces from its stem, when it is cut, a gum resin which is a famous cure in the East for all sorts of maladies.

672. *Heracleum.* Named after the hero Hercules, who, according to a modern French author, was not only a warrior but a great doctor and botanist. H. Sphondylium (from σφονδυλος, a vertebra, in allusion to the jointed stem), the *Heilkraut* of the Germans, is common in most parts of Europe. The seeds smell somewhat

3710 Leaves pinnatifid, Segm. lanceolate, Common involucre scarcely any, Stem smooth
3711 Leaflets linear-lanceolate veiny striated distinct
3712 Leaflets oval-lanceolate entire stalked
3713 Leaves supra-decompound linear-subulate smooth, Comm. invol. pinnated
3714 Leaflets linear
3715 Hairy, Stem rounded simple, Lvs. tern. bipinnate, Leaflets alternate ovate pinnatifid cut wedge-shaped
3716 Leaves supra-decompound hairy, Leaflets many cut, Leaves of many-leaved invol. membranous at edge

3717 Leaves 5 times 3-parted filiform linear
3718 Leaves ternate decompound, Leaflets linear obtuse stiffish, Comm. invol. scarcely any
3719 Leaves 3-parted filiform longer, Umbels deformed
3720 Leaflets linear branched
3721 Leaflets linear acute, First umbels sessile
3722 Leaves thrice pinnate, Cauline leaflets linear lanceolate: radical oblong many-cut

3723 Leaves simple cordate lobed shining acutely crenate
3724 Leaves simply pinnate
3725 Leaves pinnate, Leaflets with their front base cut out
3726 Stem rounded rough branched, Leaves bipinnatifid, Peduncles rigid villous

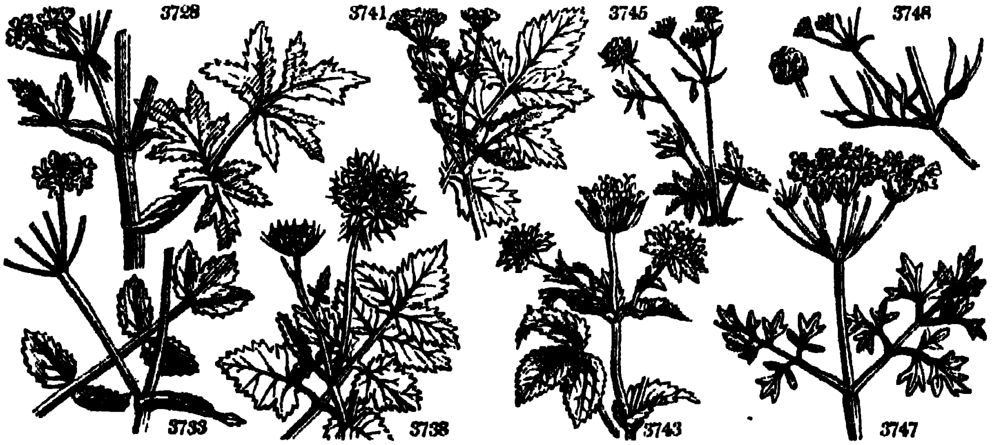
3727 Leaves pinnate, Leaflets 5 oblong pinnatifid acute toothed, Cor. of one shape
3728 Leaves pinnate, Leaflets 5 oblong pinnatifid acuminate toothed rough at edge, Flowers radiant
3729 Leaves cruciate pinnate, Leaflets linear, Corollas flosculous
3730 Leaflets pinnatifid crosswise toothed
3731 Leaves pinnated, Leaflets 5: the intermediate sessile, Cor. of one form
3732 Leaves pinnated, Leaflets 5: the intermediate sessile, Flowers radiant
3733 Leaves pinnated rugose on each side scabrous, Flowers somewhat radiant
3734 Leaves simple cordate obsoletely lobed serrated
3735 Leaves simple 3-leaved cordate toothed beneath pubescent
3736 Leaves simple and ternate many cut torn, Segments linear

3737 Involucres longer than the umbels
3738 Partial involucres the length of flowers, Leaflets ovate laciniate
3739 Seeds furrowed wrinkled plaited, Universal involucre 1-leaved trifid
3740 Umbellules remote, Leaves pinnated with roundish cut pinnæ
3741 Umbels clustered radiant, Leaflets lanceolate cut serrated
3742 Umbels clustered radiant, Leaflets angular toothed pubescent

3743 Radical lvs. palmate 3-lobed unequally twice serrated; cauline sessile lobed, Involucre longer than umbel
3744 Radical leaves 5-lobed, Lobes trifid acute toothed, Involucres lin. lanceolate entire
3745 Radical leaves digitate, Leaflets about 7 lanceolate acute deeply toothed
3746 Radical leaves 5-lobed, Lobes oblong acutish trifid mucronate-toothed, Involucres entire

3747 Hoary, Leaves decompound, Leaflets wedge-shaped trifid, Flowers angular, Fruit villous

3748 Stem dichotomous knotty, Leaves decompound, Involucre short, Female flowers with a long ray
3749 Stems decumbent, Sheaths loose, Seeds smooth



and Miscellaneous Particulars.

like a bug. Gmelin informs us, that the inhabitants of Kamtchatka, about the beginning of July, collect the footstalks of the radical leaves, and after peeling off the rind, which is very acrid, dry them separately in the sun, and then tying them in bundles, lay them up carefully in the shade in bags; in this state they are covered with a yellow saccharine efflorescence, tasting like liquorice; this being shaken off, is eaten as a great delicacy. From the stalks thus prepared and fermented with bilberries the Russians distil an ardent spirit, which, Gmelin says, is more agreeable to the taste than spirits made from corn. A kind of ale is brewed from the leaves and seeds in Poland and Lithuania, and attempts have been made to extract sugar from this plant, but forty pounds of the dried stalks only yielded a quarter of a pound of powdery sugar. The young shoots may be eaten as asparagus. Rabbits and swine are fond of the leaves, but not horses. H. sibiricum is used in the same manner in the north of Siberia and Kamtchatka.

673. *Tordylium.* Bodæus à Stapel thinks that the derivation of the name is to be found in *τορνος*, a lathe, and *ιλλω*, to turn, because the seeds seem as if turned in a lathe. But this seems to be a commentator's guess only.

674. *Astrantia.* From *αστρον*, a star, and *αντι*, similar; so called with reference to the beautiful starlike disposition of the involucrum of all the species, and of A. minor in particular.

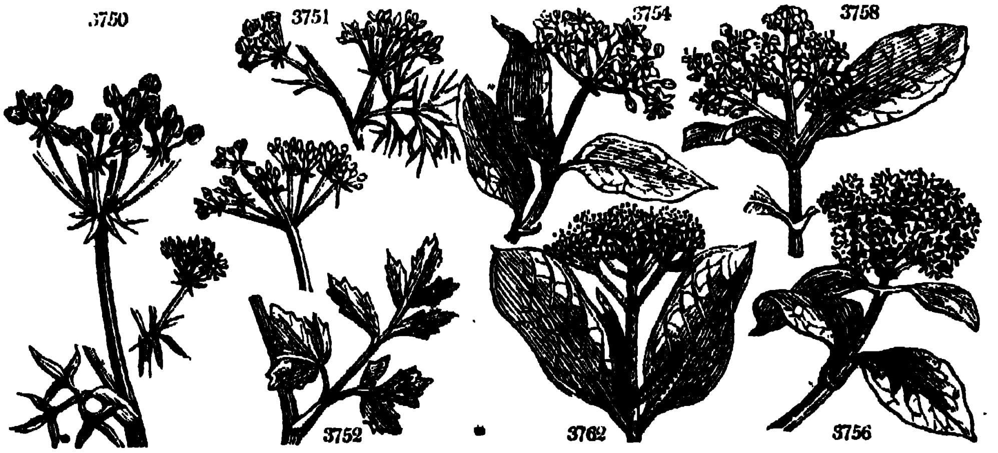
675. *Zosima.* Named by Hoffmann, in honor of the three famous brothers Zosimades, the celebrated patrons of so many fine editions of the Greek classics. A remarkable plant, formerly referred to Heracleum, native of most of the eastern parts of the world.

676. *Rumia.* Named by Hoffman after Rumia or Rumina, the goddess who presided over suckling, on

677. **CA'CHRYS.** *W.*	CACHRYS.					*Umbelliferæ.*		*Sp.* 3—10.				
3750 **Libanótis** *W.*	smooth-seeded	♃	△	w	3	jl.au	Y	Sicily	1570.	D	co	Schk. han.1. t.65
3751 **Morisóni** *W.*	Morison's	♃	△	cu	½	jl.au	Y	S. Europe	1710.	D	co	Mor.umb. t.3.f.1
3752 **panacifólia** *W.*	Parsnep-leaved	♃	△	w	4	jl.au	Y	Sicily	1752.	D	co	Boc. sic. 1 t. 1
678. **HIPPOMA'RATHRUM.** *Lk.*	HIPPOMARATHRUM.					*Umbelliferæ.*		*Sp.* 1.				
3753 **siculum** *Lk.*	hairy	♃	△	cu	3	jl.au	Y	Sicily	1640.	D	co	Bocc. sic. t. 18

TRIGYNIA.

679. **VIBUR'NUM.** *W.*	VIBURNUM.					*Caprifoliaceæ.*		*Sp.* 23—36.				
3754 **Tinus** *P. S.*	co. Laurestine	♣		or	4	mr.d	W	S. Europe	1596.	L	co	Bot. mag. 38
α hirtum	*hairy*	♣		or	4	mr.d	W	S. Europe	...	L	co	
β virgátum	*slender*	♣		or	4	mr.d	W	S. Europe	...	L	co	
γ strictum	*upright*	♣		or	4	mr.d	W	S. Europe	...	L	co	
3755 **lúcidum** *P. S.*	sh.-lvd.-Laures.	♣		or	6	mr.d	W	Spain	1596.	L	co	Clus. hist. 49
3756 **rugósum** *P. S.*	large-lvd.-Laur.	♣	⊔	or	4	...	W	Canaries	1796.	L	p.l	Bot. mag. 2082
3757 **prunifólium** *W.*	Plum-leaved	♣		or	8	my.jn	W	N. Amer.	1731.	L	p.l	Dend. brit. 23
3758 **odoratíssimum** *Ker.*	sweet-scented	♣	⊔	or		f	W	China	1818.	L		Bot. reg. 456
3759 **squamátum** *Muhl.*	scaly	♣		or	6	jl	W	N. Amer.	1822.	L	p.l	Dend. brit. 24
3760 **pyrifólium** *Ph.*	Pear-leaved	♣		or	6	my.jn	W	N. Amer.	...	L	p.l	Dend. brit. 22
3761 **Lentágo** *W.*	tree	♣		or	8	jl	W	N. Amer.	1761.	L	p.l	Dend. brit. 21
3762 **núdum** *W.*	oval-leaved	♣		or	8	my.jn	Pa.Y	N. Amer.	1752.	L	p.l	Bot. mag. 2281
3763 **daúricum** *Pall.*	Siberian	♣		or	2	jn.jl	W	Dahuria	1785.	L	p.l	Pall. ross. i. t. 38
3764 **obovátum** *Walt.*	obovate-leaved	♣		or	2	my.jn	W	N. Amer.	1812.	L	p.l	Bot. cab. 1476
β punicifólium	*narrow-leaved*	♣		or	2	my.jn	W	N. Amer.	1812.	L	p.l	
3765 **cassinoídes** *W.*	thick-leaved	♣		or	3	jn.jl	W	N. Amer.	1761.	L	p.l	Plu. alm. 381. 3
3766 **lævigátum** *W.*	Cassiober.-bush	♣		or	10	jl.au	Pa.B	N. Amer.	1724.	L	p.l	Mil ic.1. t.83. f.1
3767 **nítidum** *W.*	shining-l aved	♣		or	2	my.jn	W	N. Amer.	1758.	L	p.l	
3768 **dentátum** *Ph.*	tooth-leaved	♣		or	5	jn.jl	W	N. Amer.	1736.	L	p.l	Dend. brit. 25
3769 **pubéscens** *Ph.*	downy tooth-lv.	♣		or	3	jn.jl	W	N. Amer.	1736.	L	p.l	
3770 **lantanoídes** *Mich.*	Lantana-like	♣		or	5	my.jn	W	N. Amer.	...	L	p.l	Bot. cab. 1570
3771 **Lantána** *W.*	Wayfaring-tree	♣		or	10	my.jn	W	Britain	hed.	L	p.l	Eng. bot. 331
3772 **mólle** *Mich.*	soft	♣		or	6	jn.jl	W	N. Amer.	1812.	L	p.l	
3773 **acerifólium** *W.*	Maple-leaved	♣		or	4	jn.jl	W	N. Amer.	1736.	L	co	Dend. brit. 118
3774 **O'pulus** *W.*	Guelder Rose	♣		or	10	my.jn	W	Britain	moi.w.	L	p.l	Eng. bot. 332
β róseum	*Snowball-tree*	♣		or	14	my.jn	W	......	...	L	p.l	
3775 **Oxycóccos** *Ph.*	Cranberry-like	♣		or	12	jl	W	N. Amer.	...	L	p.l	Bot. cab. 1123
3776 **édule** *Ph.*	eatable-fruited	♣		or	12	jl	W	N. Amer.	1812.	L	p.l	
680. **SAMBU'CUS.** *W.*	ELDER.					*Caprifoliaceæ.*		*Sp.* 7—9.				
3777 **E'bulus** *W.*	dwarf	♃		cu	3	jn.jl	P.Pk	Britain	wa.gr.	D	co	Eng. bot. 475
3778 **chinénsis** *Lindl.*	Chinese	♃		cu	4	s.o	W	China	1823.	D	co	
3779 **nigra** *W.*	common	↟		ec	15	my.jl	W	Britain	hed.	C	co	Eng. bot. 476
β viridis	*green-fruited*	♣		or	8	my.jl	W			C	co	
3780 **laciniáta** *Lk.*	Parsley-leaved	♣		or*	8	my.jl	W	......	...	C	co	Schm. arb. t. 144
3781 **canadénsis** *W.*	Canadian	♣		or	6	jn.au	W	N. Amer.	1761.	C	s.l	Schmid. arb 142
3782 **púbens** *Mich.*	pubescent	♣		or	6	...	W	N. Amer.	1812.	C	s.l	
3783 **racemósa** *W.*	red-berried	♣		or	12	my.jn	Gr.Y	S. Europe	1596.	C	co	Jac. ic. 1. t. 59
681. **RHUS.** *W.*	SUMACH.					*Terebintaceæ.*		*Sp.* 33—75.				
3784 **Coriária** *W.*	Elm-leaved	↟		ec	10	jl	G	S. Europe	1596.	L	co	Dend. brit. 136
3785 **typhina** *W.*	Virginian	↟		ec	20	jl.au	G	N. Amer.	1629.	S	co	Dend. brit. 17,18
β frutéscens	*dwarf*	♣		cu	6	jl	G	......	...	S	co	



History, Use, Propagation, Culture,

which account all vascular substances, with firm outside but very cellular structure inside, were said to be Ruminosa. The seeds of this genus are of that nature. There was also a Dr. Rumy, professor of agriculture in some Polish university.

677. *Cachrys.* One of the names given by the Romans to the Rosemary. According to Morison, the name was derived from *καιω*, to grow hot, on account of the carminative qualities of the plant. The Cossacks of the Jiik chew the seeds of C. odontalgica for pain in the teeth, and obtain relief by the copious salivation which follows their use. This genus is well known by its corky large smooth seeds.

678. *Hippomarathrum.* From Ιππος μαραθρον, horse-fennel, on account of its size compared with that of common fennel.

679. *Viburnum.* This name is derived, according to the account of Sebastian Vaillant, from the Latin word *viere*, to tie, on account of the pliability of the branches of some species. V. tinus (*τινος*, small, dwarf, tiny) is one of the most ornamental of evergreen shrubs, with shining leaves and shewy white flowers, which appear during the winter months. V. lucidum and strictum are taller and more tender than the common species, of which they are by many considered as only varieties.

V. lantana (from *lento*, to tie) grows chiefly on calcareous soils: it has pliant mealy twigs, and the bark affords a bird lime.

V. opulus, (alteration of *populus*) var roseum, is a most ornamental shrub, producing large white bunches of

3750 Leaves bipinnate, Pinnæ opposite linear rather pungent, Seeds furrowed smooth
3751 Leaves supra-decompound setaceous many-cut, Seeds even smooth
3752 Leaves pinnate and ternate, Leaflets oblong crenate

3753 Leaves bipinnate, Leaflets linear, Stem furrowed

TRIGYNIA.

3754 Leaves ovate oblong entire, Divisions of the veins and the young branches glandular hairy
α Leaves oval oblong beneath and at edge hairy
β Leaves lanceolate oblong at the edge and veins beneath hairy
γ Leaves ovate hairy on both sides stiff
3755 Leaves coriaceous ovate lanceolate shining entire
3756 Leaves broad ovate rugose hairy beneath, Common involucre 7-leaved
3757 Leaves obovate roundish and oval smooth finely serrated with edged stalks
3758 Evergreen smooth, Leaves coriaceous elliptical oblong distantly toothed
3759 Leaves oblong obtusely serrated, Stalks and peduncles with scaly pubescence
3760 Smooth, Leaves ovate nearly acute subserrate, Leaf-stalks smooth, Fruit ovate oblong, Cymes stalked
3761 Leaves broad ovate acuminate finely serrated, Stalks edged crisp
3762 Leaves obl. narr. at base rather blunt entire revolute at edge smooth above shining with netted veins
3763 Leaves ovate serrate dotted with hairs, Cymes dichotomous few-flowered
3764 Smooth, Leaves obovate crenate toothed or entire obtuse, Umbels sessile, Fruit roundish ovate

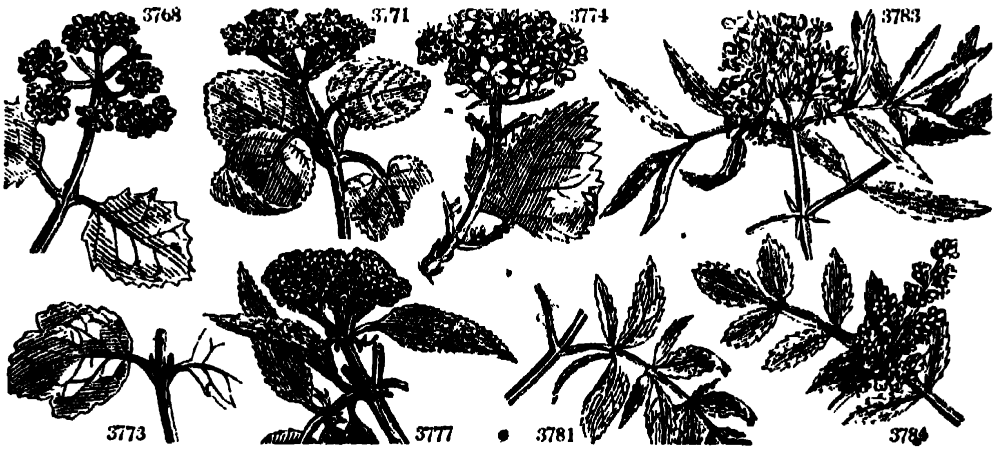
3765 Smooth, Leaves ovate lanceolate acute at each end crenate revolute at edge, Stalks keeled glandular
3766 Leaves obl. lanc. unequally and finely serrated at base wedge-shaped and entire, Branches compr. square
3767 Leaves linear lanceolate shining above obsoletely serrated or entire, Branches square
3768 Leaves ovate tooth-serrated plaited
3769 Leaves oval acuminate tooth-serrated plaited pubescent
3770 Somewhat decumbent, Lvs rounded cord. abruptly acumin. toothed with the stalks and nerves powdery
3771 Leaves ovate oblong cordate serrate beneath rugose with veins downy
3772 Leaves roundish cord. furrowed with plaits beneath downy with a very soft pubescence, Cymes radiant
3773 Leaves cord. ovate generally 3-lobed loosely serrat. stalks without glands at base with stipules and downy
3774 Leaves 3-lobed acuminate toothed, Stalks glandular smooth

3775 Leaves 3-lobed acute behind 3-nerved divaricating rarely toothed, Stalks glandular, Cymes radiant
3776 Leaves 3-lobed behind obtuse 3-nerved, Lobes very short tooth-serrated, Serrat. acumin. Cymes radiant

3777 Cymes 3-parted, Stipules leafy, Stem herbaceous, Leaves pubescent beneath
3778 Cymes with many abortive fleshy flowers, Stem herbaceous warted, Leaves quite smooth
3779 Cymes 5-parted, Stem arborescent

3780 Flowers umbelled, Leaves pinnatifid, Stem shrubby
3781 Cymes 5-parted, Leaves about twice pinnated, Stem shrubby
3782 Panicle ovate, Leaflets lanceolate acuminate unequal at base, Leaf-stalk hairy, Stem shrubby
3783 Panicle ovate, Leaflets oblong acuminate nearly equal at base, Stalks smooth, Stem arborescent

3784 Leaflets ovate oblong obtuse mucronate scabr. above villous beneath, The last joints of stalk membranous
3785 Leaflets lanceolate acuminate finely serrated hairy beneath



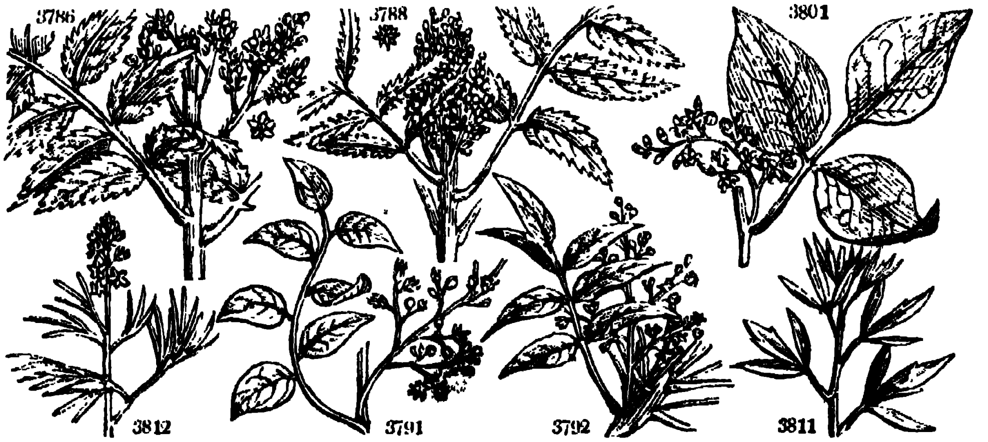
white flowers, resembling those of Hydrungea, and like them abortive. With lilac, laburnum, and scarlet thorn it forms an elegant group.

680. ***Sambucus.*** A musical instrument called by the Latins *sambuca*, is supposed to have been made of the wood of this tree, on account of its hardness. The tree was always famous for this quality; so that Pliny says it consists of nothing but skin and bones. (*b.* xvi. c. 39.) S. ebulus is supposed to prevent diseases in swine if used as litter: the root is violently cathartic, the leaves drive away mice, and the berries dye blue.

S. nigra with its varieties, and S. racemosa, are very shewy trees in shrubberies when in flower and fruit. S. nigra is narcotic, purgative, and acrid; the flowers in decoction are diaphoretic and expectorant; used to flavor vinegar, and deleterious to turkeys. The French put layers of them in heaps or casks of apples, to which they communicate a most agreeable odor. The berries are poisonous to poultry; but make a powerful wine much in esteem among country people. As the common elder will grow either exposed to the sea breeze or on high mountains, it is recommended as a nurse-plant in forming plantations. To thrive and be productive as a fruit tree however, it requires a deep, rather moist, and rich soil.

681. ***Rhus.*** Derived from the same root as Rosa, *rhudd*, in Celtic, signifying red, on account of the color of the fruit. Ρυς, in Greek. Sumach, its English name, is an alteration of *simâq*, its name in Arabic. (*Forsk.*) In some of the species of this genus the flowers are hermaphrodite; in others, as R. elegans, pentaphyllum, and Toxicodendron, the male and female are on separate plants. In R. toxicodendron, they

3786 javánica *W.*	Java	♣	☐	cu	10	jl.s	W	Java	1799.	S	p.l	Dend. brit. 15
3787 glábra *W.*	smooth	♣		or	8	jl.s	G	N. Amer.	1726.	L	p.l	Di. el. t 243.f.314
3788 élegans *W.*	scarlet	♣		or	10	jl	G	N. Amer.	1726.	S	p.l	Dend. brit. 16
3789 viridiflóra *Ph.*	green-flowered	♆		or	15	jl	G	N. Amer.	...	S	p.l	
3790 púmila *Ph.*	dwarf poisonous	♣		p	1	jl	G	N. Amer.	1806.	S	p.l	
3791 Vérnix *W.*	Varnish	♆		or	15	jl	G	N. Amer.	1713.	L	co	Dend. brit. 19
3792 succedánea *W.*	red Lac	♣	⊔	ec	10	jn	G	China	1768.	S	p.l	Kæm. am. t. 795
3793 Bucku-Améla *Wall.*	long-leaved	♣	⊔	or	10	...	G	Nepal	1823.	S	co	
3794 juglandifólia *Wall.*	Walnut-leaved	♣	⊔	or	10	...	G	Nepal	1823.	S	co	
3795 glaúca *Desf.*	glaucous	♣	⊔	cu	2	jl	G	C. G. H.	1821.	C	p.l	
3796 oxyacántha *Schousb.*	hawthorn	♣		or	6	...	G	Barbary	1823.	C	p.l	
3797 oxyacanthoídes *Dum.*	prickly	♣		or	6	...	G	Barbary	1824.	C	p.l	
3798 Zizyphína *Ten.*	Parsley-leaved	♣		cu	3	...	G	Sicily	1824.	C	p.l	
3799 semialáta *W.*	Service-leaved	♣	⊔	cu	6	...		Macao	1780.	L	p.l	Mur. co. g. 6. t.3
3800 copallína *W.*	Lentiscus-leav.	♣		ec	6	au s	G	N. Amer.	1688.	S	p.l	Jac. sch. 3. t. 341
3801 Toxicodéndron *Ph.*	Poison-Oak	⌇		p	3	jn jl	G	N. Amer.	1640.	S	co	Duh. 2. t. 48
α radicans L.	*common*	⌇		p	3	jn jl	G	N. Amer.	...	S	co	Bot. mag. 1806
β véra	*true*	⌇		p	2	jn.jl	G	N. Amer.	...	S	co	Duh.nov. n. t.48
γ microcárpa	*small-fruited*	⌇		p	2	jn.jl	G	N. Amer.	...	S	co	Dill. elth. f. 375
3802 aromática *Ph.*	female sweet	♣		or	8	my	G	N. Amer.	1759.	L	p.l	T. in an.m.5.t.30
β suavéolens W.	*male sweet*	♣		or	6	my	G	N. Amer.	...	L	p.l	
3803 pendulína *Jacq.*	pendulous	♣	⊔	cu	3	...	G	C. G. H.	...	L	p.l	
3804 dentáta *W.*	rough-stalked	♣	⊔	cu	2	...	G	C. G. H.	1798.	C	p.l	
3805 cuneifólia *W.*	wedge-leaved	♣	⊔	cu	2	...	G	C. G. H.	1816.	C	p.l	
3806 incísa *W.*	cut-leaved	♣	⊔	cu	2	...	G	C. G. H.	1789	C	p.l	
3807 tomentósa *W.*	woolly-leaved	♣	⊔	cu	10	...	G	C. G. H.	1691.	C	p.l	Com. ho. 1. t. 92
3808 villósa *W.*	hairy	♣	⊔	cu	6	jl	G	C. G. H.	1714.	C	p.l	Pl. al. t. 219. f. 8
3809 pubéscens *W.*	pubescent	♣	⊔	cu	10	...	G	C. G. H.	1800.	C	p.l	
3810 viminális *W.*	Willow-leaved	♣	⊔	cu	2	...	G	C. G. H.	1774.	C	p.l	Jac. sch. 3. t. 344
3811 angustifólia *W.*	narrow-leaved	♣	⊔	cu	6	...	W	C. G. H.	1714.	C	p.l	Pl. al. t. 219. f. 6
3812 rosmarinifólia *W.*	Rosemary-leav.	♣	⊔	cu	4	...	G	C. G. H.	1800.	C	p.l	Bur. afr. t.91. f.2
3813 pentaphýlla *Desf.*	various-leaved	♣	⊔	cu	4	...	G	Barbary	1816.	C	p.l	Desf. atl. 1. t. 77
3814 lævigáta *W.*	polished-leaved	♣	⊔	cu	6	...	G	C. G. H.	1758.	C	p.l	
3815 lúcida *W.*	shining-leaved	♣	⊔	cu	6	jl.au	G	C. G. H.	1697.	C	p.l	Bur. afr. t. 91. f.1
β minor	*small-shin.-lvd.*	♣	⊔	cu	6	jl.au	G	C. G. H.	1697.	C	p.l	Com. ho. 1. t. 93
3816 Cótinus *W.*	Venetian	♣		or	6	jn jl	G	S. Europe	1656.	L	co	Jac. au. 3. t. 210
682. CASSI'NE. *W.*	CASSINE.					*Rhamni.*		Sp. 1—8.				
3817 capénsis *W.*	Cape Phillyrea	♣	⊔	or	1	jl.au	W	C. G. H.	1629.	C	s.l.p	Bur. afr. t. 85
3818 Colpoon *W.*	Colpoon-tree	♣	⊔	or	6	...	W	C. G. H.	1791.	C	s.l.p	Bur. afr. t. 86
3819 Maurocénia *W.*	Hottentot Cher.	♣	⊔	or	5		W	C. G. H.	1690	C	s.l.p	Di. el. t.121.f 147
3820 xylocárpa *Vent.*	bony-seeded	♣	☐	or	3		Pa.Y	Antilles	1816.	C	s.l.p	Vent. Ch. t. 23
683. SPATHE'LIA. *W.*	SPATHELIA.					*Terebintaceæ.*		*Sp* 1.				
3821 símplex *W.*	Sumach-leaved	♀	☐	tm	40	...	R	Jamaica	1778.	S	s.p	Bot. reg. 670
684. STAPHYLE'A. *W.*	BLADDER-NUT.					*Rhamni.*		*Sp.* 2—4.				
3822 pinnáta *W.*	five-leaved	♣		or	6	ap jn	W	England	hed.	L	co	Eng. bot. 1560
3823 trifólia *W.*	three-leaved	♣		or	6	my.jn	W	N. Amer.	1640.	S	co	Schm. arb. t. 81



History, Use, Propagation, Culture,

are polygamous males, being mixed with the hermaphrodites. The species from the Cape of Good Hope rarely flower in this country, and are chiefly cultivated for the sake of their foliage, which is neat and not susceptible of injury from bad management.

R. Coriaria is used instead of oak bark for tanning leather, and it is said that that of Turkey is chiefly tanned with this plant. The seeds are in common use at Aleppo at meals to provoke an appetite. Both leaves and seeds are used in medicine as astringent and styptic.

R. javanica in China affords an oil by bruising the berries and boiling them in water: they use it as a varnish, but it does not keep its polish so well as the oil of R. vernix.

R. glabra has berries which dye red, and the branches boiled with the berries afford a black ink-like tincture. This plant is like a weed in some parts of North America, where it overruns land left for a few years in pasture.

R. vernix affords the true Japan varnish, which oozes out of the tree on its being wounded, and grows thick and black when exposed to the air. It is so transparent, that when laid pure and unmixed upon boxes or furniture, every vein of the wood may be clearly seen. With it the Japanese varnish over the posts of their doors and windows, their drawers, chests, boxes, scymitars, fans, tea-cups, soup-dishes, and most articles of household furniture made of wood. The milky juice of the plant stains linen a dark brown. The whole shrub is in a high degree poisonous; and the poison is communicated by touching or smelling any part of it. In forty-eight hours inflammation appears on the skin, in large blotches, principally on the extremities, and on the glandular parts of the body: soon after small pustules rise in the inflamed parts, and fill with watery matter, attended with burning and itching. In two or three days the eruptions suppurate; after which the inflammation subsides, and the ulcers heal in a short time. It operates, however, somewhat differently upon

3786 Leaflets ovate acuminate serrate beneath downy
3787 Leaflets lanceolate acuminate with close serratures smooth on both sides whitish beneath
3788 Leaflets lanceolate acuminate in the middle distantly serrated smooth on both sides, Flowers diœcious
3789 Smoothish, Leaflets lanceolate oblong serrated downy beneath, Racemes erect green
3790 Dwarf, Branches and leaf-stalks pubescent, Leaflets oval, Fruit very downy
3791 Leaflets entire annual opaque, Leaf-stalk entire equal
3792 Leaflets entire perennial shining, Leaf-stalk entire equal
3793 Leaves very large coarse rugose and downy
3794 Leaves pinnated in 9 pair rugose smooth above
3795 Leaflets obcordate, some of them very glaucous
3796 Stem shrubby unarmed, Leaves ternate hoary cuneate ovate, the middle one longest
3797 Prickly, Leaves ternate smooth, Leaflets narrow wedge-shaped at the end 3-lobed and entire
3798 Spiny, Leaflets wedge-shaped toothed beyond the middle, above shining with prominent nerves
3799 Leaflets unequally serrated, Outer petioles with membranous joints
3800 Leaflets entire, Leaf-stalk membranous jointed
3801 Stem rooting
  α Leaves large entire or rarely toothed, Creeping
  β Dwarf, Leaves variously sinuated downy about flowering time, Erect
  γ Leaflets oblong oval with a long point, Fruit very small
3802 Leaflets sessile ovate rhomb-shaped cut serrate hairy

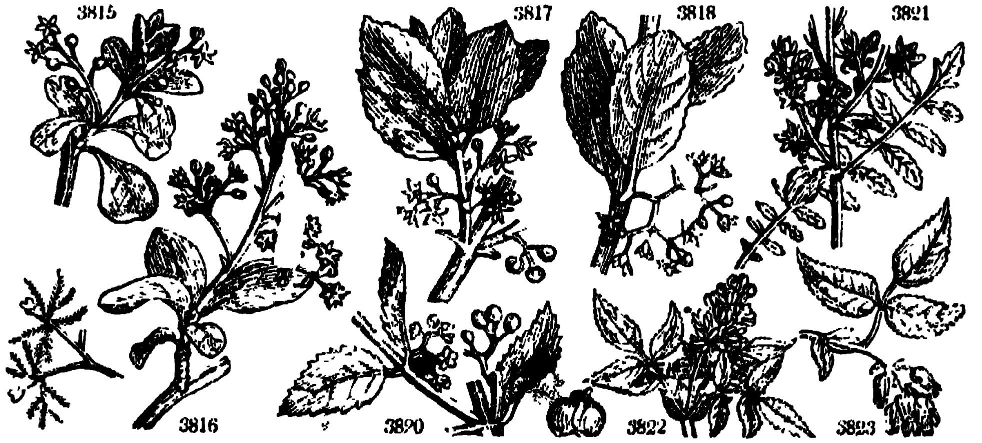
3803 Leaflets lanceolate entire sessile smooth on each side ciliated, Common stalk pubescent, Branches pend.
3804 Leaflets obovate mucronate toothed smooth, Stem scabrous
3805 Leaflets sessile wedge-shaped very smooth 7-toothed, Teeth mucronate
3806 Leaflets sessile wedge-shaped cut pinnatifid beneath downy and veiny
3807 Leaflets stalked rhomb-shaped angular downy beneath
3808 Leaflets obovate entire sessile hairy on both sides
3809 Leaflets obovate mucronate smooth, Branches villous
3810 Leaflets linear lanceolate entire smooth narrowed at base: the intermediate one stalked
3811 Leaflets stalked linear lanceolate entire downy beneath
3812 Leaflets sessile linear revolute rusty beneath
3813 Prickly, Leaves fingered, Leaflets linear lanceolate at the end toothed or entire
3814 Leaflets oblong entire sessile acute on each side smooth, Panicle terminal long
3815 Leaflets obovate sessile very narrow at the base smooth on both sides, Corymbs axillary

3816 Leaves obovate

3817 Leaves stalked ovate retuse crenated, Panicle twice as short as leaf
3818 Leaves stalked ovate subserrate entire at base
3819 Leaves sessile entire obovate coriaceous
3820 Leaves stalked ovate subserrate, Peduncles dichotomous shorter than the leaves, Fruit ovate

3821 Leaves like the mountain ash, Flowers in long erect panicles from among the leaves

3822 Leaves pinnate
3823 Leaves ternate



and Miscellaneous Particulars.

different constitutions; and some are incapable of being poisoned with it at all. Persons of irritable habits are most liable to receive it.

Rhus aromatica and suaveolens, the male and female of one species, have been made into a distinct genus called *Schmaltzia*, by Desvaux and Turpinia, and afterwards *Lobadium*, by the ingenious M Rafinesque Schmaltz. The expressed oil of the seed of this species, and also of R. succedanea, acquires the consistence of suet and serves for making candles.

R. Toxicodendron is poisonous to some persons, like R. vernix, but in a less degree. Kalm relates, that of two sisters, one could manage the tree without being affected by its venom, whilst the other felt its exhalations as soon as she came within a yard of it, or even, when she stood to windward of it, at a greater distance; that it had not the least effect upon him, though he had made many experiments upon himself, and once the juice squirted into his eye; but that on another person's hand, which he had covered very thick with it, the skin, a few hours after, became as a piece of tanned leather, and peeled off afterwards in scales.

R. pumila is another dangerous species. Lyons, the collector, suffered severely for several weeks, after only collecting the seeds.

R. cotinus is cultivated for tanning leather near Valcimara in the Apennines, where it is called Scotino.

682. *Cassine.* An American name. These are shrubs with handsome foliage, but generally inconspicuous white or green flowers. C. Maurocenia has its specific name in honor of the Venetian senator F. Mauroceni, who had a fine garden at Padua.

683. *Spathelia.* The upright habit and want of branches make this tree resemble a palm-tree, anciently called Σπαθη. A very handsome stove shrub, rarely flowering.

684. *Staphylea.* From σταφυλη, a bunch, in which form its fructification is disposed. Handsome hardy

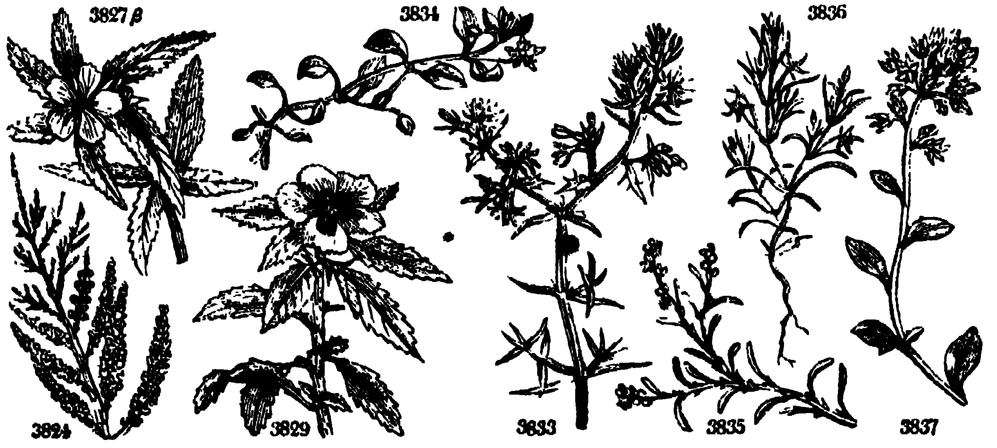
685. TA'MARIX. *W.*	Tamarisk.					*Portulaceæ.*	*Sp.* 3—18.					
3824 gállica *W.*	French	♣		or	12	my.o	F	England	so. co.	C	s.l	Eng. bot. 1318
3825 articuláta *W.*	Indian	♠	☐	or	30	...	Pk	E. Indies	...	C	l.p	Vah. sym. 2. t.32
3826 germánica *W.*	German	♣		or	8	jn.s	Pk	Germany	1582.	C	m.s	Mil. ic. t.262. f.2
686. TURNE'RA. *W.*	Turnera.					*Portulaceæ.*	*Sp.* 6—23.					
3827 ulmifólia *W.*	Elm-leaved	♣	☐	or	8	jn.s	Y	Jamaica	1733.	C	p.l	Hort. cliff. t. 10
β angustifólia B. M.	*narrow-leaved*	♣	☐	or	8	ap.s	Pa.Y	Jamaica	1733.	C	s.p	Bot. mag. 281
3828 élegans *Otto.*	elegant	♣	☐	or	3	...	Pa.Y	Brazil	1821.	C	s.p	
3829 trioniflóra *Sims.*	Ketmia	¥	[△]	or	2	ja.d	Pa.Y	Brazil	1812.	C	s.p	Bot. mag. 2106
3830 Pumiléa *W.*	Nettle-leaved		[○]	cu	½	jl	Y	Jamaica	1796.	S	s.l	Sl. ja. 1. t.127. f.6
3831 cistoídes *W.*	Betony-leaved		○	cu	¼	jn.o	Y	America	1774.	S	s.l	Pl. ic. t. 150. f. 1
3832 racemósa *W.*	clustered		[○]	or	2	jl.au	Y	Siberia	1789.	S	s.l	Jac. vind. 3. t. 94
687. DRY'PIS. *W.*	Drypis.					*Caryophylleæ.*	*Sp.* 1.					
3833 spinósa *W.*	prickly		◐	cu	¾	jn jl	P.Pu	Italy	1775.	S	s.l	Bot. mag. 2216
688. AL'SINE. *W.*	Chickweed.					*Caryophylleæ.*	*Sp.* 3—6.					
3834 média *W.*	common		○	w	1	jl.s	W	Britain	fields.	S	co	Eng. bot. 537
3835 segetális *L.*	corn		○	w	1	jl.s	W	France	1805.	S	co	
3836 mucronáta *L.*	bristly		○	w	1	jn jl	W	S. Europe	1777.	S	cc	Fl. græc. 293
689. TELE'PHIUM. *W.*	Orpine.					*Portulaceæ.*	*Sp.* 1—2.					
3837 Imperáti *W.*	true	♃	△	w	1	jn.au	W	S. Europe	1658.	D	s.l	Lam. ill. t. 213
690. CORRIGI'OLA. *W.*	Strapwort.					*Portulaceæ.*	*Sp.* 2—3.					
3838 littorális *W.*	sand		○	cu	½	jl.au	W	England	so. co.	S	s	Eng. bot. 668
3839 telephiifólia *Pourr.*	Orpine-leaved	♃	△	cu	¼	jl.au	W	Spain	1822.	S	s	
691. PHARNA'CEUM. *W.*	Pharnaceum.					*Caryophylleæ.*	*Sp.* 5—22.					
3840 Cerviána *W.*	umbelled		○	cu	1	jn	W	Russia	1771.	S	co	Gm. si. 3. t.20.f.2
3841 lineáre *W.*	linear-leaved	♎	⊔	cu	½	my.jn	W	C. G. H.	1795.	C	s.l	Bot. rep. 326.329
3842 Mollúgo *W.*	Ladies' Bedstr.	♎	☐	cu	¼	jl.au	W	E. Indies	1752.	C	s.l	Bur. ind t. 5. f.4
3843 incánum *W.*	hoary	♎	⊔	cu	1	my.o	W	C. G. H.	1782.	C	s.l	Bot. mag. 1883
3844 dichótomum *W.*	forked		[○]	cu	½	jl	W	C. G. H.	1783.	C	s.l	
692. PORTULACA'RIA. *W.*	Purslane-tree					*Portulaceæ*	*Sp.* 1.					
3845 áfra *W.*	African	♎	⊔	cu	3	...	Pu	Africa	1732.	C	r.m	Jac. col. 1. t. 22
693. BASE'LLA. *W.*	Malabar-Nightshade.					*Chenopodeæ.*	*Sp.* 5.					
3846 rúbra *W.*	red	✱	[○]	cul	8	jl.s	Pk	E. Indies	1731.	S	r.m	
3847 nigra *Lour.*	black	✱	[○]	cul	3	jl.s	W	China	1822.	S	r.m	
3848 álba *W.*	white	✱	[○]	cul	8	jl.n	W	E. Indies	1688.	S	r.m	Plu. al. t. 63. f. 1
3849 lúcida *W.*	shining	✱	[○]	cul	6	jl.n	W	E. Indies	1802.	S	r.m	
3850 cordifólia *P. S.*	heart-leaved	✱	[○]	cul	6	jl.n	P.Pu	E. Indies	1802.	S	r.m	

TETRAGYNIA.

694. PARNAS'SIA. *W.*	Grass of Parnassus.					*Hypericineæ.*	*Sp.* 3—5.					
3851 palustris *W.*	marsh	♃	△	pr	½	jl.au	W	Britain	bogs.	D	m.s	Eng. bot. 82
3852 caroliniána *Ph.*	Carolina	♃	△	pr	¼	my.jn	W	N. Amer.	1802.	D	m.s	Bot. mag. 1459
3853 asarifólia *Ph.*	Asarum-leaved	♃	△	pr	½	jl.au	W	N. Amer.	1812	D	m.s	Vent. mal. t. 39

PENTAGYNIA.

695 EVOL'VULUS. *L.*	Evolvulus.					*Convolvulaceæ.*	*Sp.* 5—21.					
3854 linifólius *L.*	flax-leaved		○	pr	2	au.s	B	Jamaica	1732.	S	co	Br. jam. t.10. f. 2
3855 emarginátus *L.*	emarginate		[○]	pr	1	s	B	E. Indies	1816.	S	co	Bur. ind.t. 30.f. 1
3856 nummularius *L.*	Money-wort		[○]	pr	¾	s	B	Jamaica	1816.	S	co	



History, Use, Propagation, Culture,

shrubs. S. pinnata has hard smooth nuts, which are strung for beads by the Catholics in some countries, while in others the kernels, though bitter, are eaten by the inhabitants.

685. *Tamaris.* Tamarisci were people who inhabited the Spanish side of the Pyrenees, where one species grows abundantly on the banks of the Tanaris, now called the Tambra. T. gallica, as it stands the sea breeze, is sometimes used as a hedge plant in such situations.

686. *Turnera.* So named by Plumier, in memory of William Turner, M. D. Prebendary of York, &c. author of " A new Herball," London, 1551: died in 1568. All the species are of the easiest culture, but few of them of any beauty. They are chiefly weeds with yellow Cistus-like flowers.

687. *Drypis.* From δρυπτω, to tear. Its leaves are armed with stiff spines.

688. *Alsine.* From αλσος, shady place, where alsine loves to grow. Little weeds of no beauty. *Morgeline*, Fr.

689. *Telephium.* Pliny says, Telephus was a king of Mysia, and had his wounds cured by Achilles with this plant. A little inconspicuous weed, with the appearance of a minute Euphorbia.

690. *Corrigiola.* A diminutive of *corrigia*, a thong; and applied to the plant we call Polygonum aviculare,

3824 Bractes shorter than flower-stalks, Spikes lateral panicled, Leaves lanceolate subulate stem-clasping
3825 Flowers sessile, Spikes lateral, Leaves very short sheathing, Branches with turbinate mucronate joints
3826 Spikes terminal solitary, Bractes longer than flower-stalks, Leaves linear lanceolate sessile

3827 Flowers sessile, Leaves oblong acute serrate pubescent with two glands at base

3828 Flowers sessile, Leaves ellipt. cuneate obtusely serrated scabrous with two glands at base
3829 Bractes subulate, Leaves ovate acute at each end with two glands at the base
3830 Flowers sessile, Leaves without glands
3831 Peduncles axillary leafless, Leaves serrated at end
3832 Raceme terminal long, Leaves ovate unequally obtusely serrated

3833 A small glaucous plant with rigid prickly leaves

3834 Petals bipartible, Leaves ovate cordate
3835 Petals entire, Leaves subulate
3836 Petals entire short, Leaves bristly, Calyxes awned

3837 Leaves alternate

3838 Flowers stalked, Calyxes membranous at edge
3839 Stem diffuse procumbent, Leaves oblong ovate, Branches leafless

3840 Peduncles umbelled lateral as long as linear leaves
3841 Umbels unequal, Leaves linear distant
3842 Peduncles 1-flowered lateral, Flowers as long as leaves, Stem depressed
3843 Common peduncles very long, Leaves linear, Stipules hairy
3844 Peduncles axillary elongate dichotomous, Leaves whorled linear

3845 A fleshy shrub with many small opposite fleshy roundish leaves

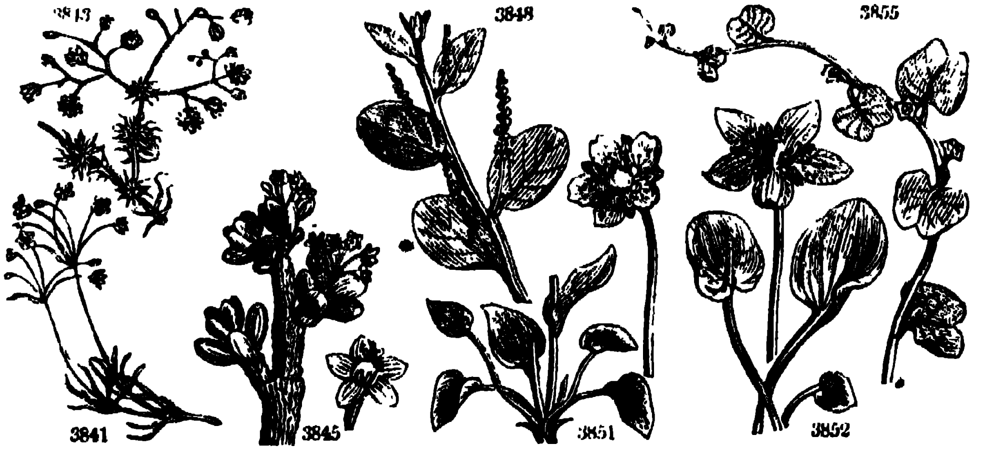
3846 Leaves flat, Peduncles simple
3847 Leaves round ovate, Spikes lateral
3848 Leaves ovate wavy, Peduncles simple longer than the leaf
3849 Leaves cordate, Peduncles clustered branched
3850 Leaves cordate roundish, Peduncles simple shorter than the leaf

TETRAGYNIA.

3851 Radical leaves cordate acuminate, Nectaries many-parted
3852 Radical leaves nearly orbicular, Nectaries with 3 bristles
3853 Radical leaves reniform, Petals unguiculated, Nectaries 3-parted

PENTAGYNIA.

3854 Leaves linear lanceolate sessile, Peduncles 1-3-fl. a little longer than the leaves
3855 Leaves reniform repand
3856 Leaves roundish, Stem creeping, Flowers nearly sessile



and Miscellaneous Particulars.

in allusion to the long and slender shoots of that plant. The Corrigiola of modern times is related to the Polygonum.

691. *Pharnaceum.* Named after Pharnaces, king of Pontus, who is said by Pliny to have been the first to use the plant. Pretty little herbaceous plants, with fine leaves, and elegant umbels of usually white flowers.

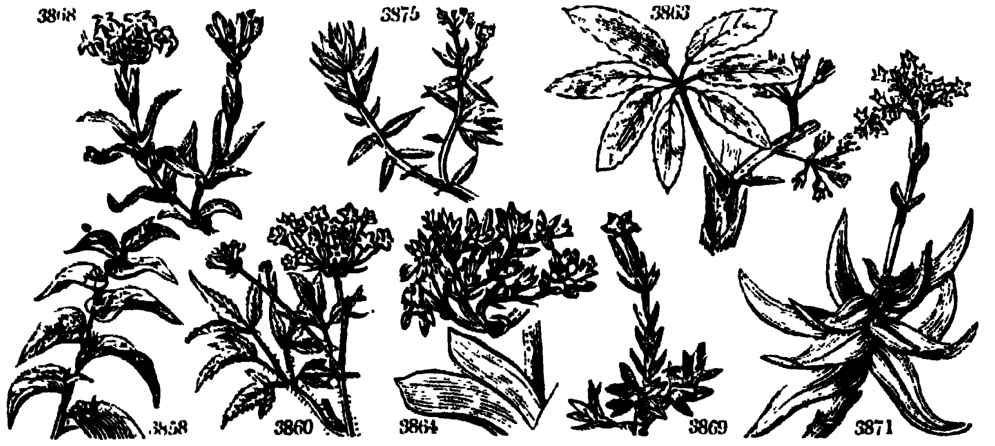
692. *Portulacaria;* that is to say, a Portulaca-like plant. The leaves of this plant resemble purslane, whence also the English name, as well as the Latin name.

693. *Basella.* A Malabar name. The species of this genus are used in China as spinage plants: they are also raised on a hotbed at Paris in spring, and transplanted into a warm border for the same purpose, and are said to furnish a summer spinage equal to that of the orache.

694. *Parnassia.* From Mount Parnassus, the abode of grace and beauty, where, on account of the elegance of its form, this plant is feigned to have first sprang up. P. palustris is one of the most elegant of marsh plants, well deserving a place in aquatic collections.

695. *Evolvulus.* Derived from *evolvo,* to turn; in the same sense as Convolvulus, which this genus entirely resembles in habit.

3857 alsinoides *L.*	Chickweed	⊡	pr	¼	jn.jl	B	E. Indies	1739.	S	co	Bur. zeyl. t. 6.f.1
3858 latifólius *Ker.*	broad-leaved	♃ ⊔△	pr	2	jn.jl	W	Brazil	1819.	D	co	Bot. reg. 401
696. ARA'LIA. *W.*	ARALIA.				*Araliaceæ.*		*Sp.* 4—32.				
3859 spinósa *W.*	Angelica-tree	♄	or	8		W	Virginia	1688.	R	p.l	Dend. brit. 46
3860 hispida *Ph.*	hispid	♄	or	2	jn.jl	W	N. Amer.	1799.	R	p.l	Bot. mag. 1085
3861 racemósa *Ph.*	berry-bearing	♃ △	or	4	jn.s	W	N. Amer.	1658.	D	s.p	Mor. s. 1. t. 2. f.9
3862 nudicaúlis *Ph.*	naked-stalked	♃ △	or	4	jn.jl	W	N. Amer	1731.	D	s.p	Pl. al. t. 238. f. 5
697. ACTINOPHYL'LUM. *R. & P.*	ACTINOPHYLLUM.				*Araliaceæ.*		*Sp.* 1—6.				
3863 digitatum *Wall.*	finger-leaved	♄ ☐	or	10	...	G	E. Indies	1820.	C	s.l	
698. RO'CHEA. *Dec.*	ROCHEA.				*Crassulaceæ.*		*Sp.* 7.				
3864 falcáta *P. S.*	sickle-leaved	♄ ⊔	or	2	jn.s	R	C. G. H.	1785.	C	s.l	Bot. mag. 2035
3865 coccínea *P. S.*	scarlet	♄ ⊔	or	1	jn.au	S	C. G. H.	1710.	C	s.l	Bot. mag. 495
3866 cymósa *Haw.*	cymose	♄ ⊔	or	½	au	R	C. G. H.	1800.	C	s.l	
3867 fláva *Haw.*	yellow	♄ ⊔	or	1	au.s	Y	C. G. H.	1802.	C	s.l	Pl. al. t. 314. f. 2
3868 odoratíssima *Haw.*	sweet-scented	♄ ⊔	or	1	jn.jl	Pk	C. G. H.	1793.	C	s.l	Bot. rep. 26
3869 jasmínea *Sms.*	jasmine-like	♄ ⊔	or	¾	ap.my	W	C. G. H.	1815.	C	s.l	Bot. mag. 2178
3870 versícolor *Burch*	changeable	♄ ⊔	or	2	mr.s	R	C. G. H.	1817.	C	s.l	Bot. reg. 320
699. CRAS'SULA. *W.*	CRASSULA.				*Sempervivæ.*		*Sp.* 44—83.				
3871 perfoliáta *L.*	perfoliate	♄ ⊔	or	3	jl.au	W	C. G. H.	1725.	C	s.l	Plant. grass. 13
3872 ramósa *W.*	branching	♄ ⊔	or	2	jl.au	Pk	C. G. H.	1774.	C	s.l	
3873 tetragóna *W.*	square-leaved	♄ ⊔	or	2	au	W	C. G. H.	1711.	C	s.l	Plant. grass. 19
3874 móllis *W.*	soft	♄ ⊔	or	1	au	W	C. G. H.	1774.	C	s.l	
3875 acutifólia *P. S*	acute-leaved	♄ ⊔	or	½	s.n	W	Greece?	1795.	C	s.l	Plant. grass t. 2
3876 nudicaúlis *W*	naked-stemmed	♄ ⊔	or	¼	my.s	G	C. G. H.	1732.	C	s.l	Plant. grass. 153
3877 arboréscens *W.*	tree	♄ ⊔	or	3	my.jn	Pk	C. G. H.	1739.	C	s.l	Bot. mag. 384
3878 oblíqua *W.*	oblique-leaved	♄ ⊔	or	4	ap.my	R	C. G. H.	1759.	C	s.l	Plant. grass. 79
3879 láctea *W.*	white	♄ ⊔	or	¾	s.o	W	C. G. H.	1774.	C	s.l	Bot. mag 1771
3880 cultráta *W.*	sharp-leaved	♄ ⊔	or	1	jl.au	W	C. G. H.	1732.	C	s.l	Bot. mag. 1940
3881 ciliáta *W.*	ciliated	♄ ⊔	or	½	jl.au	Y	C. G. H.	1732.	C	s.l	Plant. grass. 7
3882 unduláta *Haw.*	wave-leaved	♄ ⊔	or	½	au.n	W	C. G. H.	1797.	C	s.l	Bot. cab. 584
3883 scábra *W.*	rough-leaved	♄ ⊔	or	½	jn jl	P.y	C. G. H.	1730.	C	s.l	Di. el. t. 99. f.117
3884 biconvéxa *Haw.*	double-convex	♄ ⊔	or	½	au	W	C. G. H.	1800.	C	s.l	
3885 obvalláta *W.*	Houseleek-lvd.	♄ ⊔	or	½	jl au	W	C. G. H.	1795.	C	s.l	Plant. grass. 61
3886 ramuliflóra *Lk.*	branch-flower.	♄ ⊔	or	1	jn jl	W	C. G. H.	1822.	C	s.l	
3887 corymbulósa *Lk.*	corymbulose	♄ ⊔	or	1	jl au	W	C. G. H.	1822.	C	s.l	
3888 columnáris *W*	columnar	♄ ⊔	or	½	...	W	C. G. H.	1789.	C	s.l	Burm. afr. t. 9
3889 imbricáta *W.*	imbricated	♄ ⊔	or	1	jn jl	W	C. G. H.	1760.	C	s.l	
3890 canéscens	grey	♃ ⊔△	or	½	jl.au	W	C. G. H.	1800.	C	s.l	
Globulea canéscens	Haw.										
3891 perfiláta *P. S.*	threaded	♄ ⊔	or	1	s	Pk	C. G. H.	1785.	C	s.l	Sc. del. ins. 3. t.6
3892 punctáta *W*	dotted	♄ ⊔	or	1	ap au	W	C. G. H.	1759.	C	s.l	
3893 marginális *W.*	margined	♄ ⊔	or	2	jl au	P.y	C. G. H.	1774.	C	s.l	
3894 pellúcida *W.*	pellucid	♄ ⊔	or	1	jn.s	Pk	C. G. H.	1732.	C	s.l	Di. el. t.100.f.119
3895 spathuláta *W.*	notched-leaved	♄ ⊔	or	½	jl.s	W	C. G. H.	1774.	C	s.l	Plant. grass. 49
3896 cordáta *W.*	heart-leaved	♄ ⊔	or	½	my.au	Pk	C. G. H.	1774.	C	s.l	Bot. cab. 359
3897 tomentósa *W*	downy	♃ ⊔△	or	1	ap.my	W	C. G. H.	1790.	C	s.l	
3898 linguæfólia *Haw.*	tongue-leaved	♃ ⊔△	or	1	au	W	C. G. H.	1803.	C	s.l	
3899 Cotylédonis *W.*	Cotyledon-leav.	♃ ⊔△	or	1	...	W	C. G. H.	1800.	C	s.l	
3900 orbiculáris *W.*	starry	♃ ⊔△	or	½	jl.s	Pk	C. G. H.	1731.	C	s.l	
3901 retrofléxa *W.*	Orange-flower.	⊡	pr	¼	jn	Y	C. G. H.	1788.	C	s.l	
3902 lineoláta *W.*	channelled	♃ ⊡	pr	¼	jn.au	Y	C. G. H.	1774.	C	s.l	Bot. mag. 1765
3903 centauroides *W*	Centaury-flow.	♃ ⊡	pr	½	my.jn	Pk	C. G. H.	1774.	S	s.l	Herm. lug. t.558
3904 dichótoma *W.*	forked	⊡	pr	½	jn.jl	Y	C. G. H.	1774.	S	s.l	Plant. grass. 67
3905 glomeráta *W.*	rough-clustered	⊡	pr	½	au.o	W	C. G. H.	1774.	S	s.l	



History, Use, Propagation, Culture

696. *Aralia.* A name of unknown meaning, under which one species was sent to Fagon from Quebec, in 1764, by one Sarrazin, a French physician. A. spinosa is an ornamental low tree for lawns, on account of its Angelica-like leaves.

697. *Actinophyllum.* From ακτιν, a ray, and φυλλον, a leaf; because the leaflets are disposed as it were in rays round a centre. Fine Aralia-like plants, with beautiful foliage, but not with any attraction in the appearance of the flowers.

3857 Procumbent villous, Leaves oval subsessile, Capsules deflexed
3858 Very hairy, Leaves subsessile oblong cordate acuminate, Flowers sessile 3 together

3859 Arborescent, Stem and leaves prickly
3860 Stem suffruticose and leaf-stalks hispid, Leaves decompound
3861 Stem herbaceous smooth, Leaves decompound, Peduncles axillary branched umbelled
3862 Stemless, Leaves decompound, Scapes leafless

3863 Leaflets 5 very smooth shining elliptical entire

3864 Leaves opposite nearly connate oblong with an auricle on one side, falcate
3865 Leaves ovate oblong flat, edge with a cartilagin. fringe, at the base, connate sheathing, Flowers term. sessile
3866 Leaves linear with a cartilaginous fringed edge, Stem shrubby, Cyme terminal
3867 Leaves flat connate perfoliate smooth, Flowers in corymbose panicles
3868 Leaves linear flat fringed with cartilage connate sheathing at base, Flowers terminal sessile
3869 Stem decumbent, Leaves ovate cruciate, Head 2-flowered, Petals connate
3870 Erect, Leaves oblong lanceolate with cartilaginous teeth at base sheathing, Umbels double many-flow.

§ 1. *Shrubby, Leaves subulate.*

3871 Leaves lanceolate subulate sessile connate channelled convex beneath
3872 Leaves subulate above flat connate perfoliate smooth much spreading, Pedunc. long, Flowers cymose
3873 Leaves subulate incurved obscurely 4-cornered spreading, Stem erect shrubby rooting
3874 Leaves ½ cylindrical acute gibbous beneath smooth nearly erect, Cymes terminal compound
3875 Leaves connate rounded subulate spreading, Cymes few-flowered on long stalks, Stem shrubby decumbent
3876 Leaves subulate radical, Stem naked

§ 2. *Shrubby, Leaves broad, smooth.*

3877 Leaves roundish acute glaucous fleshy dotted, Cyme trichotomous
3878 Leaves opposite ovate oblique entire acute distinct somewhat cartilaginous at edge
3879 Leaves ovate attenuate at base connate entire dotted inside the edge, Cymes panicle-shaped
3880 Leaves opposite obovate cultrate oblique connate entire

§ 3. *Shrubby, Leaves broad, distant, ciliated.*

3881 Leaves opposite oval flattish distinct fringed, Corymbs terminal
3882 Leaves connate ovate expanded cartilaginous crenated ; upper ovate elliptical wavy, Stem dichotomous
3883 Leaves opposite spreading connate rough fringed, Stem rough backwards
3884 Leaves linear obtuse sheathing convex on both sides, Flowers cymose, Stem decumbent
3885 Leaves obl. con obtuse falcate with a cartilaginous fringed edge, Pan. long, Pedunc. opposite clustered
3886 Leaves obovate subconnate, Branches axillary few-flowered, Petals lanceolate reflexed
3887 Leaves lanceolate convex beneath, Corymbs small axillary, Petals lanceolate

§ 4. *Shrubby, Leaves broad, very closely imbricated.*

3888 Leaves round imbricated, Fascicle round terminal
3889 Leaves ovate acute smooth imbricated in rows, Flowers axillary sessile
3890 Leaves radical decussately imbricated fringed lanceolate cultrate hoary

§ 5. *Shrubby, Leaves broad, very much perfoliate.*

3891 Leaves connate perfoliate cordate dotted
3892 Leaves opposite ovate dotted fringed, Lower oblong
3893 Leaves cordate perfoliate acuminate flat spreading dotted within the edge
3894 Stem flaccid creeping, Leaves opposite

§ 6. *Shrubby, Leaves stalked.*

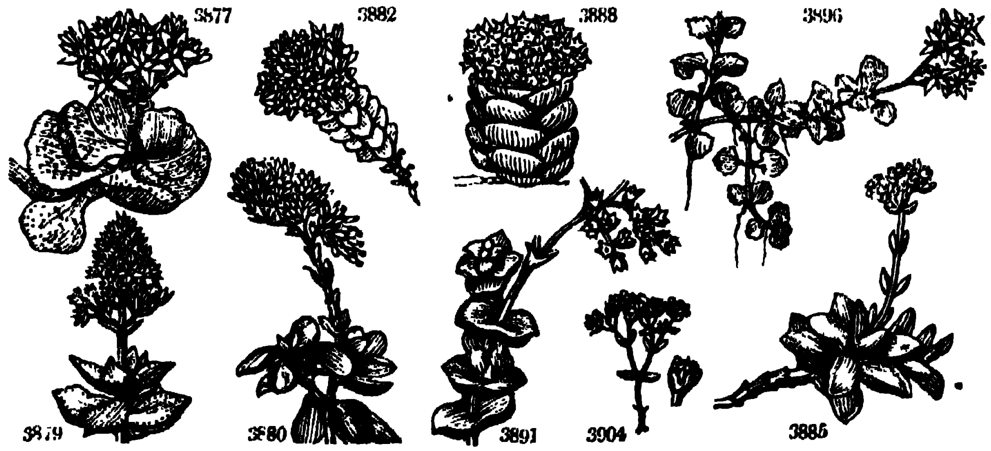
3895 Leaves stalked cordate roundish acute crenate, Corymbs panicle-shaped
3896 Leaves stalked cordate obtuse entire, Cymes panicle-shaped

§ 7. *Herbaceous.*

3897 Villous, Leaves connate lanceolate fringed, Stem nearly naked terminal, Spike whorled
3898 Lower leaves distinct opposite tongue-shaped ciliated pubescent, Flowers whorled sessile close, Stem leafy
3899 Leaves connate oblong downy fringed, Stem rather naked, Flowers corymbose close
3900 Leaves oblong obtuse cartilaginous-fringed tufted, Scape panicled, Branches opposite cymose

§ 8. *Annual or biennial.*

3901 Leaves connate oblong remote flat, Stem simple, Cyme compound, Flower stalks bent backwards
3902 Leaves cordate sessile, Peduncles terminal axillary approximate umbellate
3903 Stem dichotomous, Leaves sessile oblong ovate cordate flat, Peduncles axillary 1-flowered
3904 Stem dichotomous, Leaves sessile ovate oblong channelled recurved, Peduncles axillary 1-flowered
3905 Stem dichotomous rough, Leaves lanceolate, End flowers in bundles

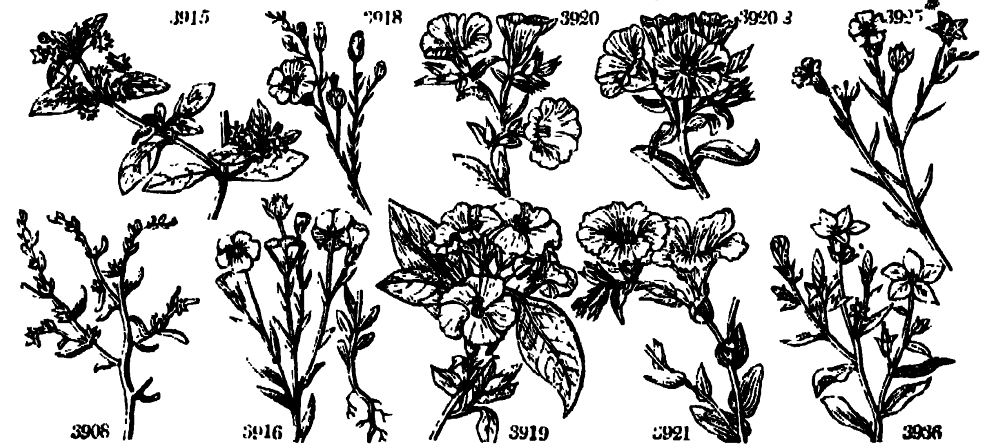


and Miscellaneous Particulars.

698. ***Rochea.*** Named after M. de la Roche, author of "Historia Eryngiorum," a work of reputation. This succulent genus thrives well in sandy loam, and requires but little water. "Young cuttings taken off and laid to dry a few days, and then potted, or stuck in the tan, will root directly." (*Sweet.*)

699. ***Crassula.*** From *crassus*, thick, in allusion to the fleshy nature of the leaves and stems of all the species. These plants grow best in sandy loam and brick rubbish, with the pots well drained. "Cuttings root

3906 glábra *Haw.*	smooth-cluster.		⊙	pr	¼	jn.o	W	C. G. H.	1774.	S	s.l	
3907 Aloides *W.*	Aloe-like	¥	⊙	pr	¼	jn.au	W	C. G. H.	1774.	S	s.l	
3908 capitélla *W.*	square-spiked	¥	⊙	pr	¼	jl.au	W	C. G. H.	1774.	S	s.l	Plant. grass. 55
3909 rúbens *W.*	annual red		⊙	pr	¼	my.jn	Pk	Italy	1759.	S	s.l	
3910 verticilláris *W.*	whorl-flowered		⊙	pr	¼	jl	Pk	S. Europe	1788.	S	s.l	
3911 expánsa *W.*	awl-leaved		⊙	pr	¼	jn.jl	W	C. G. H.	1774.	S	s.l	
3912 spársa *W.*	alternate-lvd.	¥	⊙	pr	¼	jn.jl	W	C. G. H.	1774.	S	s.l	
3913 diffúsa *W.*	diffuse		⊙	pr	¼	jn.jl	Pk	C. G. H.	1774.	S	s.l	
3914 moscháta *W.*	musky		⊙	pr	¼	my.n	W	N. S. W.	1794.	S	s.l	
700. GISE'KIA. *W.*	GISEKIA				*Portulaceæ.*	*Sp.* 1—5.						
3915 pharnaceoides *W.*	trailing		⊙	cu	1	jn	P.Gr	E. Indies	1783.			Rox. cor. 2. t. 183
701. LI'NUM. *W.*	FLAX.				*Caryophylleæ.*	*Sp.* 25—54.						
3916 usitatissimum *W.*	common		○	ag	1½	jn.jl	B	Britain	co. fi.	S	co	Eng. bot. 1357
3917 nervósum *W. & K.*	nerved	⚘	△	or	1½	jn.jl	B	Hungary	1822.	D	co	Wal. & kit. t 105
3918 perenne *W.*	perennial	⚘	△	or	3	jn.au	B	England	ch. so	D	co	Eng. bot. 40
3919 trigynum *Sm.*	three-styled	ħ	⌴	or	2	jn.o	Y	E. Indies	1799.	C	p.l	Bot. mag. 1100
3920 hirsútum *W.*	hairy	⚘	△	or	1½	jl.au	B	Austria	1759.	D	co	Jac. aust. 1. t. 31
β *hypericifólium* Sims.	*Mallow-flower.*	⚘	△	or	1½	jn.jl	Pu	Caucasus	1807.	D	co	Bot. mag. 1048
3921 áscyrifólium *H. K.*	blue and white	⚘	△	or	1	jl.au	W	Portugal	1800.	D	co	Bot. mag. 1087
3922 narbonénse *W.*	Narbonne	¥	△	or	2	my.jl	B	S. France	1759.	D	co	Bot. cab. 190
3923 refléxum *W.*	reflex-leaved	⚘	△	or	1	jl	B	S. Europe	1777.	D	co	
3924 tenuifólium *W.*	slender-leaved	⚘	△	or	1½	jn.jl	Pk	Europe	1759.	D	co	Jac. aus. 3. t. 215
3925 angustifólium *H. K.*	narrow-leaved	⚘	△	or	1	jl	Pu	England	sa. pa.	D	co	Eng. bot. 381
3926 gállicum *W.*	annual-yellow		○	or	1	jl.au	Y	France	1777	S	co	Ger. pr. t. 15. f. 1
3927 marítimum *W.*	sea	⚘	△	or	2	jl.au	Y	S. Europe	1596.	D	co	Jac. vin. 2. t. 154
3928 alpinum *W.*	Alpine	⚘	△	or	½	jl.au	B	Austria	1739.	D	co	Sweet fl. g. 17
3929 austriacum *W.*	Austrian	⚘	△	or	1	jn.jl	B	Austria	1775.	D	co	Bot. mag. 1086
3930 virginiánum *W.*	Virginian	⚘	⊙	or	1	jl	Y	N. Amer.	1807.	D	co	
3931 rigidum *Ph.*	stiff-leaved		○	or	1	jl	P.y	Missouri	1807.	S	co	
3932 flávum *W.*	yellow	⚘	△	or	½	jn.au	Y	Austria	1793.	C	p.l	Bot. mag. 312
3933 campanulátum *W.*	glaucous-leaved	⚘	△	or	½	jn.au	Y	Europe	1795.	C	p.l	Bot. cab. 1254
β *taúricum* W. en.	*Taurian*	⚘	△	or	½	jn.au	Y	Tauria	1795.	C	p.l	
3934 strictum *W.*	upright	⚘	⊙	or	1	my.jl	Y	S. Europe	1759.	C	p.l	
3935 suffruticósum *W.*	Spanish	ħ	⌴	or	1	au	Pk	Spain	1759.	C	p.l	Cav. ic. 2. t. 108
3936 arbóreum *W.*	tree	ħ	⌴	or	2	my.au	Y	Candia	1788.	C	p.l	Bot. mag. 234
3937 africánum *W.*	African	ħ	⌴	or	1	jn.jl	Y	C. G. H.	1771.	S	p.l	Bot. mag. 403
3938 nodiflórum *W.*	knotted	⚘	△	w	½	jl	W	Italy	1759.	D	s.l	Moris. s 5. t. 6 f 11
3939 cathárticum *W.*	purging		○	w	½	jn	W	Britain	dr. pa.	S	p.l	Eng. bot. 382
3940 quadrifólium *W.*	four-leaved	ħ	⌴	or	2	my.jn	Y	C. G. H.	1787.	S	p.l	Bot. mag. 431
702. DRO'SERA *W.*	SUN-DEW.				*Droseraceæ*	*Sp.* 4—32.						
3941 rotundifólia *W.*	round-leaved	✱	△	pr	¼	jl.au	W	Britain	tur. bo.	S	p	Eng. bot. 867
3942 longifólia *W*	long-leaved	✱	△	pr	¼	jl.au	W	Britain	tur. bo.	S	p	Eng. bot 868
3943 ánglica *H K*	great	✱	△	pr	¼	jl.au	W	England	tur. bo	S	p	Eng. bot. 869
3944 filifórmis *Ph.*	thready-leaved	✱	△	pr	¼	my.jn	Pu	N Jersey	1811.	S	p	
703 COMMERSO'NIA. *W.*	COMMERSONIA.				*Buttneriaceæ.*	*Sp.* 2—3.						
3945 platyphýlla *B M.*	broad-leaved	ħ	☐	or	3	jn.jl	W	Moluccas	1806.	C	l.p	Bot. mag. 1813
3946 dasyphýlla *B. Rep.*	hairy-leaved	ħ	⌴	or	4	ap.my	W	N. Holl.	1808.	C	l.p	Bot. rep. 603



History, Use, Propagation, Culture,

easily if laid to dry a few days after cutting off, before they are planted, to dry up the wound, that they may not rot. They require no covering, but may be placed in any convenient situation." (*Sweet.*)

700. *Giskia.* In honor of P. D. Giseke, a Danish botanist, who lived about the end of the last century. A small weed-like plant, with the habit of Chenopodium.

701. *Linum.* *Llin*, in Celtic, signifies thread, whence *λινον*, in Greek, and *linum*, and its derivations, in Latin. L. usitatissimum, is a well known thread or clothing plant, which has been cultivated from the remotest antiquity for its cortical fibres, or boon, which, when separated from the woody matter or harl, as it is technically called by the growers, forms the lint and tow which is spun into yarn, and wove into linen cloth. The seeds are sown on well comminuted loamy soil, which is in good heart, in April, broadcast: during summer weeds are carefully removed; and when the plant is in full flower, or (if seed is desired) when the seed capsules are ripe, it is pulled up by the roots, the capsules torn off by a comb, and the stalks tied in bundles and carried to a pond or pool of stagnated water. Into this water the bundles are thrown, and kept under the surface by being loaded with planks, stones, &c. for ten days or a fortnight, till an appearance of decay or softness is indicated by the bark; they are then taken out and spread on the grass, or on the gravelly banks of a river for a fortnight, where the alternate dews and heats accelerate the progress of decay. It is next taken up, and when quite dry tied into bundles and stacked till wanted by the flax-cleaner. Some cultivators do not steep the flax in water, but only spread it on the surface of grass ground, which is called dew-retting, and has nearly the same effect as the other; but the more recent practice, not yet however very general, is neither to steep or dew-ret, but to dry, bind, and stack as in saving a crop of corn, and afterwards to separate the capsules and the fibre by machinery. By this process the fibre is obtained of much greater

3906 Stem dichotomous pubescent, Leaves linear-lanceolate, End flowers in bundles
3907 Leaves ovate acute distinct ciliated, Stem simple downy, Raceme compound, Branches panicled
3908 Leaves oblong lanceolate acute connate ciliated, Stem smooth, Raceme elongated, Fl. in bundles sessile
3909 Leaves fusiform depressed, Cyme 4-fid leafy, Flowers sessile, Stamens reflexed
3910 Leaves spreading, Flowers whorled awned
3911 Leaves half cylindrical subulate channelled above spreading, Peduncles axillary solitary 1-flowered
3912 Leaves alternate somewhat spatulate acute entire, Raceme compound
3913 Leaves oblong narrowed at base remotely crenate, Peduncles opposite the leaves and axillary solitary
3914 Stem procumbent, Leaves connate oblong acute, Peduncles axillary 1-flowered, Flowers tetrandrous

3915 Leaves elliptical lanceolate

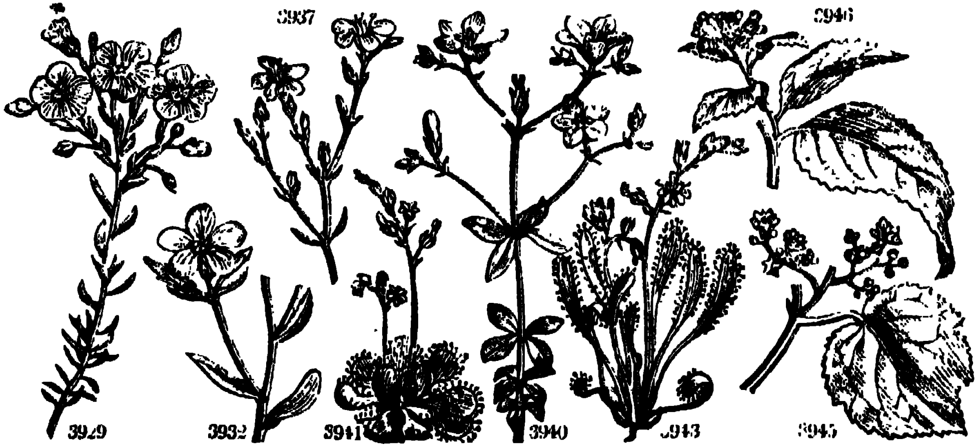
3916 Sepals ovate acute 3-nerved, Petals crenate, Leaves lanceolate, Stem nearly solitary
3917 Sepals and leaves lanceolate subulate 3-5 nerved smooth, Stems branched at end
3918 Sepals obovate obtuse about 5-nerved smooth, Stems numerous ascending
3919 Leaves elliptical acute nearly entire, Styles 3, Capsules 6-celled
3920 Sepals hairy acuminate sessile alternate, Leaves alternate; of the branches opposite

3921 Sepals hairy acuminate, Flowers spiked, Spikes revolute, Leaves cordate-ovate pubescent
3922 Sepals acuminate, Leaves lanceolate scattered upright rough acuminate, Stem rounded branched at base
3923 Sepals acuminate, Leaves ovate lanceolate acuminate reflexed smooth, Filaments connate
3924 Sepals acuminate, Leaves scattered setaceous rough backwards
3925 Sepals elliptical 3-nerved and capsules acuminate, Leaves linear lanceolate 3-nerved, Stems numerous
3926 Sepals subulate acute, Leaves linear lanceolate, Peduncles of panicle about 2-flowered, Flowers sessile
3927 Sepals ovate acute blunt, Leaves lanceolate lower opposite
3928 Sepals rounded obtuse, Leaves linear acutish, Stems declinate
3929 Sepals rounded obtuse, Leaves linear straight acute
3930 Sepals acute alternate, Capsules pointless, Stem panicled, Leaves lanceolate: radical ovate
3931 Sepals ovate acuminate 3-nerved fringed, Leaves very stiff short, Petals oblong very narrow
3932 Sepals acuminate scabrous, Leaves with two glands at base, smooth at edge, Cor. monopetalous
3933 Base of the leaves dotted with glands on both sides

3934 Sepals subulate, Leaves lanceolate upright mucronate rough at edge
3935 Leaves linear acute rough, Stems half shrubby
3936 Leaves wedge-shaped, Stems arborescent
3937 Leaves linear lanceolate, Flowers terminal stalked
3938 Flower leaves lanceolate, Flowers alternate sessile, Cal. as long as leaves
3939 Leaves obovate lanceolate entire, Stem dichotomous upwards, Petals acute
3940 Leaves 4-together

3941 Leaves orbicular radical, Scape racemose erect
3942 Scapes radical ascending, Leaves oval, Stigmas emarginate
3943 Scapes radical erect, Leaves oblong lanceolate, Stigmas clavate
3944 Scapes radical branched, Leaves filiform very long

3945 Leaves cordate ovate acuminate unequally tooth-serrated, rough above downy beneath
3946 Leaves long cordate unequally serrate hairy on both sides



and Miscellaneous Particulars.

strength; there is less loss of seed, less demand for labor at a busy season, and the refuse of the operation forms an excellent food for horses or cattle. The machines for breaking and cleaning flax are worked by hand, and the best at present is considered that of Bundy. The process of steeping and spreading flax has the further effect on the fibre of bleaching it: when the machine is used, the bleaching progress is effected by steeping in soft soap. Flax seed yields by expression a valuable oil; in powder it is much used in poultices; and the refuse, after pressing for oil, forms a cake fit to feed broken-winded horses, to fatten cattle, and for manure.

L. perenne may be used for the same purpose as the other: both species have been proposed by some gardeners to be adopted as border-flowers.

702. *Drosera.* From δροσος, dew, on account of the pellucid dew-like glands on the surface of the leaves, whence also our English name *sun-dew*. The famous Italian liqueur is called *Rossoli*, on account of the usage of this plant in its composition. D. rotundifolia is an acrid caustic plant, by some supposed to occasion the rot in sheep: it curdles milk, removes warts and corns, and takes away freckles and sunburn: distilled with wine it produces a very stimulating spirit, and it was formerly much used as a tincture spiced and sweetened. The leaf hairs support globules of clear liquor even in the hottest weather, are very irritable, and close upon small insects that touch them, after which the leaf itself bends and holds the dead insect imprisoned.

703. *Commersonia.* Named by Forster in memory of M. Commerson, the French traveller and botanist, who accompanied Bougainville in his voyage round the world. He stopped at the Isle of France, where he died in 1774, after having discovered an immense quantity of new plants. C. dasyphylla is a pretty flowering shrub: both species grow freely from cuttings in sand under a hand-glass.

704. RULINGIA. *R. Br.* Rulingia. *Buttneriaceæ.* *Sp.* 1.

3947 pannósa *R. Br.*	cloth-leaved	¤	⊔ or	1	my	W	N. Holl	1819.	C	l.p	Bot. mag. 2191

705. ARME'RIA. *W. en.* Thrift. *Plumbagineæ.* *Sp.* 11—20.

3948 vulgáris *W. en.*	common	¥	△ or	½	jn.au	R	Europe	...	D	co	Sch.bot.han.t.87
3949 marítima *W. en.*	sea-side	¥	△ or	½	my.jl	R	Britain	sea co.	D	s.l	Eng. bot. 226
3950 alpína *W. en.*	flat-stemmed	¥	△ or	½	my.au	Pu	Carinthia	...	D	s.l	
3951 arenária *P. S.*	sand	¥	△ or	½	my.au	Pk	France	...	D	s.l	
3952 littorális *W. en.*	ciliated	¥	△ or	½	my.au	Pk	S Europe	...	D	s.l	
3953 alliácea *W.*	Garlic-leaved	¥	△ or	1	my.jn	W	Spain	1798.	D	s.l	Cav. ic. 2. t. 109
3954 denticuláta *Bertoloni.*	toothed	¥	△ or	1½	my.jn	F	Naples	1816.	D	s.l	
3955 plantagínea *W. en.*	Plantain-leav'd	¥	△ or	1	my.jn	R	S. Europe	1816.	D	s.l	
3956 scorzoneræfólia *w.en*	large-headed	¥	△ or	1	my.jn	S	S. Europe	1816.	D	s.l	
3957 latifólia *W. en.*	broad-leaved	¥	△ or	2	my.jl	L.R	Algarbia	1740.	D	p.l	Jac. vind. 1. t. 42
3958 fasciculáta *W. en.*	bundled	¥	△ or	1	ap.au	Pu	Portugal	...	D	s.l	Vent. cels. t. 38

706. STA'TICE. *W. en.* Sea-lavender. *Plumbagineæ.* *Sp.* 32—70.

3959 graminifólia *W.*	Grass-leaved	¥	△ or	1	jn.jl	R	Siberia	1780.	D	s.l	
3960 Limónium *W.*	common	¥	△ or	1	my.au	B	England	mud.s.	D	s.l	Eng. bot. 102
3961 Gmelini *W.*	Gmelin's	¥	△ or	1	jn.au	B	Siberia	1796.	D	s.l	Gmel. sib.2. t.90
3962 scopária *W.*	Broom	¥	△ or	1	jn.au	B	Siberia	1796.	D	s.l	
3963 latifólia *W.*	broad-leaved	¥	△ or	1	my.jl	B	Siberia	1791.	D	p.l	
3964 oleifólia *W.*	Olive-leaved	¥	△ or	1	my.au	R	Italy	1688.	D	s.l	Scop. ins. 1. t. 10
3965 auriculæfólia *W.*	Auricula-leaved	¥	⌊△⌋ or	½	jl.au	R	Barbary	1781.	D	s.l	
3966 emarginàta *W. en.*	emarginate	¥	⌊△⌋ or	¼	my.jl	B	Gibraltar	...	D	s.l	
3967 cordáta *W.*	blunt-leaved	¥	⌊△⌋ or	¼	my.jl	B	S Europe	1752.	D	s.l	Barr. ic. 805
3968 scábra *W.*	rough-branched	¥	⌊△⌋ or	1	my.jl	B	C. G. H.	1788.	S	r.m	
3969 virgáta *W. en.*	twiggy	¥	△ or	1½	jn.au	B	Spain	...	D	s.l	
3970 reticuláta *W. en.*	matted	¥	△ or	½	jl.au	B	England	mud.s.	D	s.l	Eng. bot. 328
3971 cáspia *W. en.*	Caspian	¥	△ or	½	jl.au	P.B	Caspian Sea ...		S	s.l	Gm.sib.2.t.89.f.2
3972 echioídes *W*	rough-leaved	¥	⌊○⌋ or	1	jl.au	P.B	S. Europe	1752.	D	s.l	Fl. græc. 298
3973 spathuláta *Desf.*	spatula-leaved	¥	⌊△⌋ or	1	jn.au	Pu	Barbary	1804.	D	s.l	Bot. mag. 1617
3974 speciósa *W.*	Plantain-leaved	¥	⌊△⌋ or	1	jl.au	W	Russia	1776.	D	p.l	Bot. mag. 656
3975 conspícua *B. M.*	showy	¥	⌊△⌋ or	1	jl.au	Pk	Russia	1804.	D	s.l	Bot. mag. 1629
3976 tatárica *W.*	Tartarian	¥	△ or	1½	jn	Pk	Russia	1731.	D	p.l	Sweet fl. g. 37
3977 flexuósa *W.*	zigzag	¥	△ or	1	jl	Pu	Siberia	1791.	S	p.l	
3978 purpuráta *Thunb.*	purple	¥	⊔ or	6	jl	Pu	C. G. H.	1800.	S	p.l	
3979 minúta *W.*	small	¥	△ or	¼	jl	R	Mediterr.	1658.	S	p.l	Plu. al. t. 200. f.3
3980 pectináta *W.*	triangular-stlk.	¥	⊔ or		[illegible]	B	Canaries	1780.	S	p.l	
3981 suffruticósa *W.*	narrow-leaved	¥	⊔ or	½	my.s	B	Siberia	1779.	C	r.m	Gm.s.2 t.88.f.2,3
3982 monopétala *W.*	Sicilian-shrubb.	¥	⊔ or	3	jl.au	Pu	Sicily	1731.	C	r.m	Boc. sic. t. 16, 17
3983 ferulácea *W*	Fennel-leaved	¥	△ or	1	my	Y	Siberia	1796.	D	s.l	Plu.alm. t.28. f.4
3984 sinuáta *W.*	scollop-leaved	¥	⌊△⌋ or	1	my.s	P.Y	Levant	1629.	S	r.m	Bot. mag. 71
3985 aláta *W. en*	winged	¥	⌊△⌋ or	1	jn.au	P.Y	......	1806.	D	s.l	
3986 mucronáta *W.*	curled	¥	⌊△⌋ or	½	jn.au	R	Barbary	1784.	C	r.m	L'Her.stirp. t.13
3987 globularifólia *Desf.*	tough-leaved	¥	⌊△⌋ or	1	my.s	W	Sicily	1822.	C	r.m	Barr. ic. t. 793
3988 incána *L.*	hoary	¥	△ or	1	jn.au	Pk	Egypt	1823.	D	r.m	
3989 macrophýlla *Link.*	large-leaved	¥	⌊△⌋ or	2	my.jn	W	Canaries	1824.	C	r.m	
3990 ægyptíaca *Delisle.*	Egyptian	¥	⌊△⌋ or	1½	my	W	Egypt	1823.	D	r.m	Bot. mag. 2363

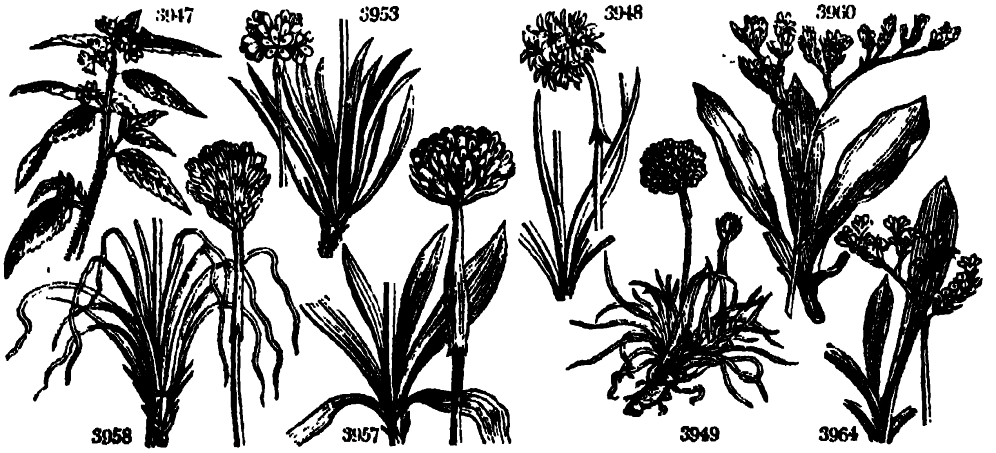
POLYGYNIA.

707. MYOSU'RUS. *W.* Mouse-tail. *Ranunculaceæ.* *Sp.* 1.

3991 mínimus *W.*	small	○ cu	¼	ap.my	Y	Britain	cor. fi.	S	co	Eng. bot. 435

708. CERATOCE'PHALUS. *P. S.* Ceratocephalus. *Ranunculaceæ.* *Sp.* 1—2.

3992 falcátus *P. S.*	sickle-leaved	○ w	½	my	Y	S. Europe	1739.	S	co	Jac. aust. t. 48



History, Use, Propagation, Culture,

704. *Rulingia.* Named in honor of J. P. Ruling, author of an Essay on the Natural Orders. A plant related to Commersonia.

705. *Armeria.* Derivation unexplained. This is a genus of handsome plants, for the most part well suited for rock-work, or growing in pots. A. vulgaris is considered the most valuable edging plant next to the box.

706. *Statice.* From στατιζω, to stop. This plant, says Pliny, stops diarrhœa. This is a very ornamental

3947 The only species

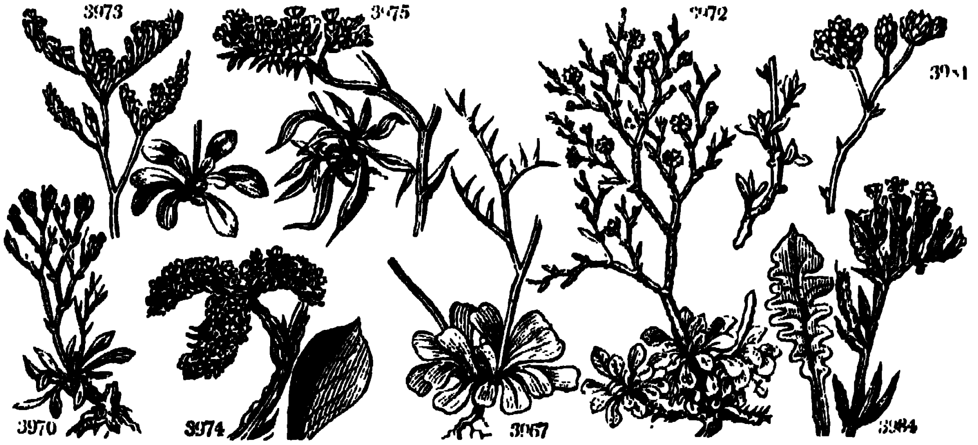
3948 Scape rounded smooth, Outer leaves of involucrum acute, Leaves linear flat obtuse
3949 Scape rounded pubescent, Leaves of involucr. obtuse, Leaves linear flat obtuse ciliated at base
3950 Scape compressed smooth, Leaves of involucr. ellipt. rounded, Leaves lin. flat acute membr. at edge
3951 Scape long, Bractes 2 or 3 longer than head, Leaves linear stiff smooth
3952 Scape rounded smooth, Outer leaves of involucr. lanceol. acute as long as head, Leaves lin. flat fringed
3953 Scape rushy, Leaves linear lanceolate acute flat narrowed downwards
3954 Quite smooth, Scape simple, Leaves linear flat, the first toothletted, Leaves of involucr. ovate lanc. acum.
3955 Scape rounded roughish, Outer leaves of invol. obl. ov. acute: inner obl. obtuse, Leaves lanc. flat 3-nerved
3956 Scape rounded smooth, Outer leaves of involucr. elliptical mucronate, Leaves lanc. flat acute 3-nerved
3957 Leaves long lanceolate entire smooth 3-nerved acute soft, Leaves of involucr. acute edged
3958 Scape rounded smooth, Leaves of involucr. elliptical obtuse, Leaves linear acute channelled

3959 Branches 3-cornered, Leaves linear channelled
3960 Scape panicled rounded, Leaves wavy at edge oblong smooth obtuse mucronate beneath
3961 Scape panicled pubescent, Leaves elliptical mucronate beneath and nearly smooth
3962 Scape panicled much branched and lvs. ovate oblong obtuse somewhat wavy, beneath mucronate smooth
3963 Scape panicled much branched rough, Leaves pubescent, Hairs in starry bundles
3964 Scape panicled rounded, Lower branches sterile, Leaves oblong spatulate obtuse smooth nearly blunt
3965 Scape simple rounded, Spikes lateral and terminal 1-sided, Leaves spatulate acute
3966 Leaves spatulate emarginate, Scape erect panicled, Upper branches simple, Lower bifid, Flow. 1-sided
3967 Scape panicled, Leaves spatulate retuse
3968 Leaves somewhat radical obovate-oblong obtuse, Branches rough
3969 Lvs. lanc. wedge-shaped acute, Scape erect roughish branched panicled, Fl. 1-sided, Cal. at edge membr.
3970 Lvs. lanc. cuneate obtuse, Scape decumbent branched panicled, Fl. branches long, Bractes mem. at edge
3971 Lvs. spatul. ret. Scape erect branched rough, Sterile branches pectinate, Fl. very close, Brac transparent
3972 Rough with hoary dots, Scape panicled rounded jointed much branched divaricating, Leaves spatulate
3973 Radical leaves spatulate obtuse glaucous entire on long stalks, Scape rounded, Flowers racemose 1-sided
3974 Scape branched nearly round, Branches 2-edged winged, Fl. imbricated, Lvs. obov. cuspidate mucronate
3975 Scape leafy, Branches 3-cor. winged, Fl. aggregate in interrupted spikes, Bractes acum. longer than cal.
3976 Scape dichotomous, Leaves lanceolate mucronate, Flowers alternate distant
3977 Scape dichotomous corymbose, Spike-headed, Fl imbricated, Lvs. lanc. wedge-shaped mucronate 3-nerved
3978 Stem leafy, Leaves obovate wedge-shaped 3-nerved mucronate
3979 Stem shrubby leafy, Leaves clustered wedge-shaped smooth pointless, Scape few-flowered
3980 Stem and branches panicled 3-cornered, Leaves obovate stalked, Spikes 1-sided
3981 Stem shrubby naked above and branched, Heads sessile, Leaves lanceolate sheathing
3982 Stem shrubby leafy, Flowers solitary, Leaves lanceolate sheathing
3983 Stem shrubby branched, Branches imbricated, Paleæ with a bristle at end
3984 Stem herbaceous two-edged, Radical leaves lyrate; cauline linear
3985 Stem winged, Radical leaves sinuate; cauline lanceolate, Peduncles cuneate 3-winged
3986 Stem crisp, Leaves elliptical entire, Spikes 1-sided
3987 Scape panicled rounded, Branches clustered, Leaves obovate spatulate mucronate smooth, Cal. acute
3988 Scape panicled, Leaves lanceolate 3-nerved wavy mucronate at end, Branches of panicle 3-cornered
3989 Leaves broad lanceolate glaucous mucronate, Scape winged, Flowers close corymbose
3990 Radical leaves alternately pinnatifid sinuated, Intermediate segments of cor. linear

POLYGYNIA.

3991 Leaves quite entire

3992 Horns of the pericarp falcate ascending



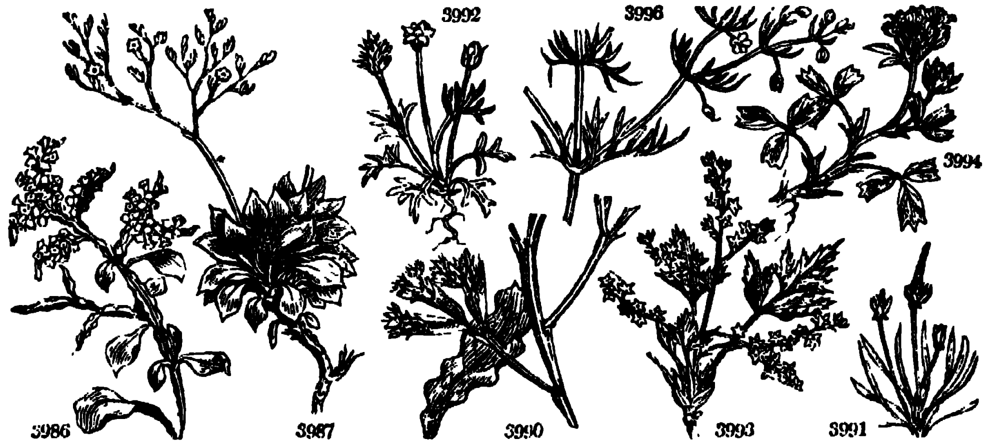
and Miscellaneous Particulars.

genus; the species are not common, and require a little care in cultivation. Statice speciosa and tatarica, are among the prettiest of hardy border flowers. S. limonium is an inhabitant of salt marshes in many parts of England, whence its name, from λειμων, a marsh.

707. *Myosurus.* From μυς μυος, a mouse, and οὐρα, a tail. Its seeds are situated upon a very long slender receptacle, which looks exactly like the tail of a mouse.

708. *Ceratocephalus.* From κερας, a horn, and κεφαλη, a head, on account of the horn-like ends of the seeds in the heads of the capsules.

709. XANTHORHI'ZA. *W.*	Yellow-root.			*Ranunculaceæ.* *Sp.* 1.					
3993 apiifólia *W.*	Parsley-leaved	♣ or	3	f.ap	Pu.Gr	N. Amer.	1766.	Sk s.p	Bot. mag. 1736
710. SIBBAL'DIA. *W.*	Sibbaldia.			*Rosaceæ.* *Sp.* 3— .					
3994 procúmbens *P. S.*	procumbent	⚘ △ cu	¼	jn.au	Y	Britain	sc. al.	D s l	Eng. bot. 897
3995 parviflóra *P. S.*	small-flowered	⚘ △ cu	½	jn.au	Y	Cappadocia ...		D s.l	
3996 erécta *W.*	upright	⚘ △ cu	1	jn.au	Pk	Siberia	1806.	D s.l	Am.rut.112. t.15



History, Use, Propagation, Culture, and Miscellaneous Particulars.

709. *Xanthorhiza.* From ξανθος, yellow, and ῥιζα, a root, on account of the deep yellow color of the roots. A small shrub, with much cut leaves, and branches of dull purplish brown small flowers.

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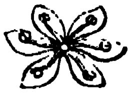


Class VI. — HEXANDRIA. 6 Stamens.

This class contains the most beautiful of the herbaceous plants of our gardens. With a few exceptions, it is to a considerable degree a natural assemblage, comprehending a large proportion of those favorites of gardeners, the orders Amaryllideæ, Asphodeleæ, Bromeliaceæ, Liliaceæ, and Melanthaceæ. The class also includes a few grasses and palms, some genera of Berberideæ, all Hypoxideæ, and many Junceæ.

The Amaryllideæ, or lilies of the hot-houses, consist of a number of beautiful species, the generic distribution of which is uncertain, and difficult to determine. Much attention has been paid to the subject by Messrs. Ker, Herbert, and others; by the former, perhaps, with the most success; a great deal still remains to be done. The limits of the genera are very obscure, and their extreme characters similar. Among the Bromeliaceæ are found the delicious pine-apple, and the curious Tillandsias, some of which are called air-plants. The asparagus and the officinal squill are included in Asphodeleæ. To the same class are related the lily of the valley, the Solomon's seal, and many other curious little plants. The Phormium tenax, which produces the strong flax of New Zealand; the aloes, curious for their fantastic foliage; the fragrant tuberose; the plantains, so valuable as an important article of food in all the tropics, are all contained in this class. Hither also, are referred the valuable rice, the curious bamboo, and the rush, some of the species of which are well known for their use in œconomical purposes, others as the most worthless weeds of our heaths.

Hexandria Trigynia is chiefly made up of the natural order Melanthaceæ, among which the Colchicum and Trillium are found.

Order I. MONOGYNIA. 6 Stamens. 1 Style.

1. *Monocotyledons. Perianth superior, colored.*

A. *Perianth with the orifice surmounted by a corona or nectary.*

711. *Narcissus.* Sepals 6, equal. Cup funnel-shaped, of a single leaf. Stamens inserted within the cup.

712. *Pancratium.* Flower funnel-shaped, with a long tube. Sepals 6. Cup 12-cleft, membranous. Stamens inserted on the edge of the cup.

713 *Eucrosia.* Flower ringent nodding. Crown formed by the dilated bases of the stamens. Stamens declinate, united into a tube, which is split on its upper side.

714. *Eurycles.* Flower funnel-shaped, regular. Crown fleshy, short. Stamens inserted into the edge of the cup.

715. *Chlidanthus.* Flower funnel-shaped, irregular. Stamens erect, included, united by their dilated bases; the short filaments 2-toothed. Anthers innate. Ovary 3-celled, many-seeded. Style filiform. Stigma 3-lobed. Capsule cartilaginous, 3-valved. Seeds membranous.

716. *Calostemma.* Flower funnel-shaped, with a 6-parted limb. Crown tubular, with a 12-toothed mouth, the alternate teeth anther-bearing. Ovary 1-celled, 2-3-seeded. Style filiform. Stigma obtuse. Berry 1-2-seeded.

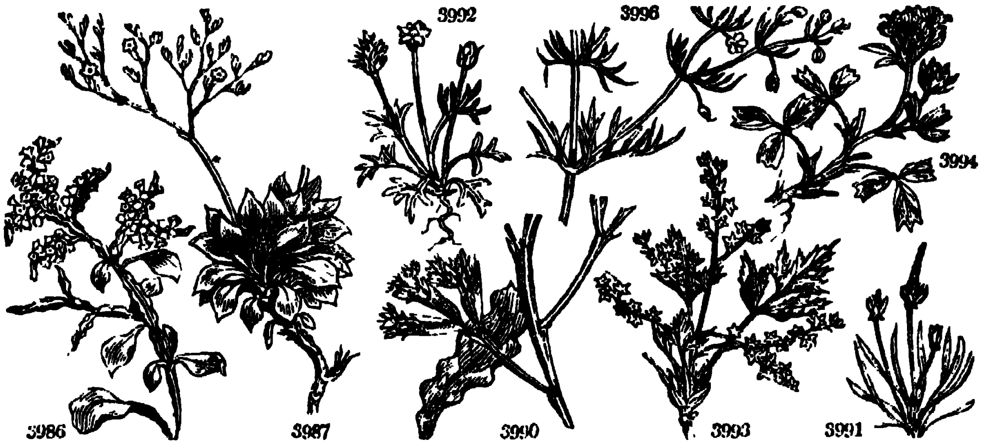
717. *Chrysiphiala.* Flower funnel-shaped, with a tube narrowed downwards thickened at the base, with a dilated 6-cleft limb. Crown 6-cleft. Stamens erect, upright. Stigma thickened, obsoletely trifid.

709. XANTHORHI'ZA. *W.* YELLOW-ROOT. *Ranunculaceæ.* *Sp.* 1.

3993 apiifólia *W.*	Parsley-leaved	♄		or	3	f.ap	Pu.Gr	N. Amer.	1766.	Sk s.p	Bot. mag. 1736

710. SIBBAL'DIA. *W.* SIBBALDIA. *Rosaceæ.* *Sp.* 3— .

3994 procúmbens *P. S.*	procumbent	♃	△	cu	½	jn.au	Y	Britain	sc. al.	D s l	Eng. bot. 897
3995 parviflóra *P. S.*	small-flowered	♃	△	cu	½	jn.au	Y	Cappadocia ...		D a.l	
3996 erécta *W.*	upright	♃	△	cu	1	jn.au	Pk	Siberia	1806.	D a.l	Am.rut.112. t.15



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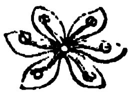

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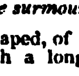
Order I. MONOGYNIA.  6 Stamens. 1 Style.

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3993 Roots very yellow, Leaves compound

3994 Leaves ternate, Leaflets smooth above hairy beneath, Flowers corymbose, Petals as long as calyx
3995 Procumbent, Leaves ternate, Leaflets 3-toothed on each side rough with hairs, Flowers clustered
3996 Leaflets linear multifid, Plant erect

B. *Perianth with the orifice naked.*

* *Stigma undivided.*

718. *Lophiola.* Flower woolly, 6-parted, bearded inside. Anthers erect. Filaments naked. Ovary nearly superior.

719. *Argolasia.* Flower woolly, longer than the filaments: limb 6-parted, spreading. Pericarp 3-celled.

720. *Anigozanthus.* Flower tubular, incurved: with a 6-parted irregular limb. Stamens inserted into the mouth, ascending.

* *Stigma 3-lobed.* Guzmannia has Perianth inferior.

721. *Musa.* Spathe superior. Cor of 2 petals: one of which is erect and 5-toothed; the other concave and honey-bearing. Berry oblong, 3-cornered, many-seeded

722. *Urania.* Cal. O. Cor. 3 petals Nect. 2-leaved: one of the leaves bifid. Caps. 3-celled, many-seeded. Seeds in two rows with an arillus.

723. *Bonapartea.* Calyx 2-leaved. Petals 3 convolute. Stamens inserted in the receptacle. Anthers exserted. Style 3-cornered. Caps. 3-celled, 3-valved. Seeds numerous, terminated by a bristle.

724. *Agave.* Flower erect, tubular, or funnel-shaped. Filaments longer than flower, erect. Capsule triangular, many-seeded.

725. *Furcræa.* Flower campanulate, 6-parted. Stamens inserted in a gland, thickened downwards, compressed, subulate at end. Capsule 3-valved, 3-celled, many-seeded.

726. *Bromelia.* Cal 3-fid. Petals 3. A honey-bearing scale at base of petal. Berry 3-celled.

727. *Guzmannia.* Cal. 3-parted, not superior, with convolute segments. Petals 3, rolled together into a tube. Anthers united in a cylinder. Caps. 3-celled, 3-valved. Seeds numerous, oblong, naked.

728. *Pitcairnia.* Cal. 3-leaved, half inferior. Petals 3. Stigmas 3, twisted together. Caps. 3, opening inwards. Seeds winged or terminated at each end in a long bristle.

729. *Tillandsia.* Cal. 3-fid, persistent, convolute. Cor. 3-fid, campanulate. Caps. 1-3-celled. Seeds comose.

730. *Pontederia.* Flower monosepalous, 6-cleft, 2-lipped. Stamens inserted into the tube of flower at the top. Caps. 3-celled.

731. *Hæmanthus.* Involucre many-leaved, many-flowered. Flower 6-parted. Berry 3-celled.

732. *Galanthus.* Sepals 3, concave. Cup formed of 3 small emarginate sepals. Stigma simple.

733. *Leucoium.* Flower campanulate, 5-parted, with the ends of the sepals thickened. Stigma simple.

734. *Strumaria.* Sepals 6, spreading. Style thickened below the middle, and cohering occasionally with the filaments. Stigma trifid. Capsule inferior, roundish, 3-celled.

735. *Crinum.* Flower funnel-form, half six-cleft, with a filiform tube, and a spreading recurved limb. Sepals subulate, channelled. Seeds fleshy.

736. *Cyrtanthus.* Flower incurved, tubular, clavate, 6-cleft: segments ovate, oblong. Filaments inserted into the tube, conniving at end.

737. *Brunsvigia.* Flower 6-parted. Capsule turbinate, 3-winged, nearly transparent, many-seeded.

738. *Nerine.* Sepals 6, spreading, wavy. Stamens declinate, unequal in direction or proportion. Capsule few-seeded. Seeds round like peas.

739. *Amaryllis.* Flower nodding, irregular, funnel-shaped, ringent. Filaments declinate, unequal in proportion or direction Seeds flat, numerous.

740. *Vallota.* Flower vertical, regular. Stamens regularly spreading Seeds numerous, flat.

741. *Griffinia.* Flower 6-parted, ringent. Stamens declinate, with the upper one erect, and away from the rest. Seeds few, round, fleshy.

742. *Sternbergia.* Flower vertical, regular, funnel-shaped, with an erect limb. Stamens slightly declinate. Anthers versatile. Seeds round like peas.

743. *Zephyranthes.* Flower vertical, nearly regular; funnel-shaped, with an erect limb. Stamens nearly regular. Anthers versatile. Seeds flat.

744. *Habranthus.* Flower campanulate, nodding Stamens declinate, unequal, inserted into a fleshy rim of the base of the tube. Stigma 3-lobed.

745. *Doryanthes.* Flower 6-parted. Filaments shorter than flower. Anthers erect.

746. *Gethyllis.* Flower 6-parted, with a filiform very long tube. Spathe obliquely truncated. Berry clavate, radical, 1-celled.

747. *Polyanthes.* Flower funnel-shaped, incurved. Filaments inserted into the throat. Ovary at the bottom of tube.

748. *Alstrœmeria.* Sepals 6, campanulate or 2-lipped, the two lower half-tubular at the base. Stamens declinate or erect. Stigmas 3, linear. Caps. roundish-oval, 3-6-angular, 3-valved, or pulpy within, and not opening.

749. *Conanthera.* Sepals 6, reflexed. Anthers united in an acute cone. Caps. oblong, 3-celled, 3-valved. Seeds few, roundish.

750. *Hypoxis.* Spathe 2-valved. Flower 6-parted, superior. Caps. long, narrow at the base. Seeds roundish, naked.

751. *Curculigo.* Sepals 6, flat. Spathe of one valve. Style very short. Stigmas 3, diverging. Caps. 1-celled, 4-seeded, spongy, beaked.

2. *Monocotyledons. Perianth inferior.*

A. *Perianth glumaceous, irregular.*

752. *Bambusa.* Scales 3, covering the 5-flowered spikelets. Glume 2-valved. Style bifid. Seed 1.

753. *Calamus.* Sepals 6. Berry dry, 1-seeded, imbricated backwards.

754. *Ehrharta.* Glume 2-valved, abbreviated, 1-flowered. Paleæ 4, in pairs, the outer compressed acinaciform, transversely wrinkled.

B. *Perianth not coloured, regular. Stems herbaceous.* Aroideæ and Junceæ.

755. *Acorus.* Spadix cylindrical, covered with florets. Sepals 6, naked. Style O. Caps. 3-celled.

756. *Orontium.* Spadix cylindrical, covered with florets. Sepals 6, naked. Style O. Follicles 1-seeded.

757. *Tupistra.* Cor. 1-petalous, 6-fid, nearly equal. Anthers sessile in middle of sepals. Style 3 cornered, thick. Stigma clypeate, 3-lobed.

758. *Tacca.* Cal. 6-parted. Cor. 6-petalous, inserted into the calyx, bearing the anthers. Stigma stellate. Berry dry, hexangular, many-seeded.

759. *Aspidistra.* Cor. 1-petalous, 6-fid, equal. Anthers at bottom of tube. Style stipitate. Stigma clypeate.

760. *Juncus.* Sepals 6, persistent. Stigmas 3. Caps. 1-celled, 3-valved. Seeds very numerous.

761. *Luzula.* Sepals 6. Stigmas 3. Caps. 1-celled, 3-valved, 3-seeded. Seeds fixed to a central receptacle.

C. *Perianth not colored, regular. Fruit, a drupa. Stems arborescent.* Palms.

762. *Corypha.* Cal. 3-leaved. Cor. of 3-petals. Berry 1-seeded. Seed large, round, bony.

763. *Licuala.* Cal. 3-parted. Cor. 3-parted. Cup truncated, band-like. Drupe 1-seeded.

764. *Thrinax.* Cal. 6-toothed. Cor. O. Stigma funnel-form, oblique. Berry 1-seeded.

D. *Perianth partly or wholly colored, regular.*

765. *Tradescantia.* Cal. 3-leaved. Petals 3. Filaments with jointed hairs. Caps. 3-celled.

766. *Dichorizandra.* Cal. 3-leaved. Petals 3 Two of the stamens separate from the rest. Caps. 3-celled.

767. *Agapanthus.* Flower funnel-shaped, regular, six-parted. Stamens declinate.

768. *Blandfordia.* Flower tubular, withering, with a 6-lobed mouth. Stamens inserted on the tube. Anthers fixed to a base like an extinguisher. Ovary stalked. Stigma simple. Capsule 3-partible. Seeds in two rows, with a loose downy skin.

769. *Hemerocallis.* Flower campanulate, with a cylindrical tube. Stamens declinate. Stigma small, simple, villous.

770. *Aloe.* Flower tubular, with a 6-cleft spreading mouth, and honey at the bottom of the tube. Filaments inserted into the receptacle. Caps. 3-celled, 3-valved, many-seeded. Seeds in two rows, with a membranous edge.

771. *Lilium.* Sepals 6, campanulate, with a longitudinal honey-line, and generally reflexed. Valves of the capsule connected by a mesh of hairs.

772. *Tulipa.* Sepals 6, campanulate. Style O.

773. *Fritillaria.* Sepals 6, campanulate, with a honey-pore above the claws.

774. *Dracæna.* Flower 6-parted, erect. Filaments thickest in the middle, or simple. Berry 3-celled, 1-seeded.

775. *Phylloma.* Flower 6-parted, tubular Sepals imbricated. Stamens hypogynous, included. Style setaceous. Stigma simple. Berry coriaceous, many-seeded.

776. *Aletris.* Flower funnel-shaped, wrinkled. Stamens inserted into base of segments. Capsule 3-celled, with many seeds.

777. *Tritoma.* Flower 6-toothed. Stamens inserted into the receptacle, exserted, alternately longer. Capsule 3-celled, many-seeded.

778. *Veltheimia* Flower tubular, 6-toothed. Stamens inserted in the tube. Caps. membranous, 3-winged, with 1-seeded cells.

779. *Sanseviera.* Cor. monosepalous, with a filiform tube, and a 6-parted revolute limb. Stamens inserted into the limb. Berry 1-seeded.

780. *Tulbaghia.* Flower funnel-shaped, with a 6-cleft limb. Crown of the throat 3-leaved; the leaves bifid as large as the segments.

781. *Yucca.* Flower campanulate, spreading. Style O. Caps. 3-6-celled, with a hole at the end.

782. *Erythronium.* Sepals 6, campanulate. Two little tubercles attached to the base of every other sepal.

783. *Gloriosa.* Sepals 6, wavy, reflexed. Style oblique, trifid at end.

784. *Bulbocodium.* Sepals 6, funnel-shaped, with narrow claws bearing the stamens.

785. *Uvularia.* Sepals 6, erect. A hollow at the base of the sepals. Filaments very short. Flowers solitary, axillary. Capsule compressed, 3-cornered. Seeds with an arillus.

786 *Streptopus.* Sepals 6, campanulate. Stigmas very short. Berry globose, polished, papery. Seeds naked.

787. *Convallaria.* Flower 6-cleft, campanulate. Berry spotted, 3-celled.

788. *Smilacina.* Flower 6-parted, spreading. Filaments diverging, fixed to the base of the segments. Berry globose, 3-celled. Flowers terminal, panicled, or umbelled.

789. *Polygonatum.* Flower 6-cleft, cylindrical. Filaments inserted into top of tube. Berry globose, 3-celled, with 2-seeded cells. Flowers axillary.

790. *Ophiopogon.* Flower half-superior, persistent. Anthers sessile. Stigma simple. Berry 1-seeded.

791. *Eucomis.* Flower 6-parted, persistent, spreading. Filaments united at base into a circle. Capsule 3-celled. Seeds ovate. Scape with a leafy crown.

792. *Brodiæa.* Flower campanulate, 6-parted. Filaments inserted into the throat. Ovary stalked. Capsule 3-celled, with many-seeded cells.

793. *Peliosanthes.* Flower rotate, 6-parted; sepals vaulted at base. Ovary 3-celled, with 2-seeded cells.

794. *Aphyllanthes.* Spathe glumaceous, imbricated. Flower 6-parted, with a spreading limb. Capsule 3-celled, 3-valved, many-seeded

795. *Sowerbæa.* Sepals 6. Filaments 3, each bearing two anthers, with three sterile filaments between them.

796. *Allium.* Flower 6-parted, spreading. Spathe many-flowered. Umbel clustered.

797. *Albuca.* Sepals 6: the inner conniving; the outer spreading, generally with a green stripe at their back. Style 3-cornered. Seeds flat.

798. *Xanthorrhœa.* Sepals 6, persistent. Filaments flat, naked. Caps. 3-cornered. Seeds two, compressed, edged.

799. *Thysanotus.* Flower 6-parted, spreading, persistent; with the inner segments fringed. Stamens 6-declinate. Filaments smooth. Ovary with two seeded cells Seeds 2, one erect, one pendulous.

800. *Eriospermum.* Sepals 6, campanulate, persistent. Filaments dilated at base. Caps. 3-celled. Seeds enveloped in wool.

801. *Gagea.* Stamens adhering to base of sepals. Style clavate. Caps. 3-celled, 3-valved, covered by the remains of flower. Seeds small, numerous, round.

802. *Ornithogalum.* Sepals 6, erect, persistent, spreading above the middle. Filaments dilated at base, or subulate. Caps. roundish, angular, 3-celled. Seeds roundish, naked. Flowers white or green.

803. *Scilla.* Sepals 6, spreading, deciduous. Filaments filiform, attached to base of sepals. Flowers blue or pink.

804. *Puschkinia.* Flower 6-parted. Cup very short, 6-toothed, covering the throat. Stamens within the cup.

805. *Massonia.* Limb of flower 6-parted. Filaments attached to the neck of the tube. Capsule 3-celled, 3-winged, many-seeded.

806. *Eremurus.* Sepals 6, after flowering, rolled together. Stamens naked, rolled together inside the flower, barren, much exserted. Style after fecundation reflexed.

807. *Bulbine.* Sepals 6, spreading. Filaments smooth. Caps. ovate. Seeds angular. Leaves flat. Flowers generally white or purple.

808. *Asphodelus.* Flower 6-parted, spreading. Six valves covering the ovary.

809. *Anthericum.* Sepals 6, spreading. Filaments bearded. Caps. ovate. Seeds angular. Leaves succulent, fistular. Flowers yellow.

810. *Arthropodium.* Sepals 6, spreading: the three inner wavy at the edge or fringed. Filaments bearded. Capsule nearly round.

811. *Chlorophytum* Flower 6-parted, spreading, equal, persistent. Stamens 6. Filaments filiform, smooth. Ovary with many-seeded cells. Style filiform. Stigma 1. Capsule deeply 3-lobed, with compressed veiny lobes; three-celled, 3-valved. Seeds few, compressed.

812. *Cæsia.* Flower 6-parted, spreading, equal, deciduous. Stamens 6. Filaments beardless, narrowed at each end. Anthers inserted by an emarginate base. Ovary 3-celled, with 2-seeded cells. Style filiform. Capsule lobed, or clavate at end. Seeds ventricose.

813. *Narthecium.* Sepals 6, spreading, persistent. Filaments filiform, hairy. Caps. prismatical. Seeds with an appendage at each end.

814 *Dianella.* Sepals 6, spreading. Filaments thickened at end. Berry 3-celled, many-seeded.

815. *Eustrephus.* Flower 6-parted, the 3 inner sepals fringed. Capsule berried, 3-celled, 3-valved, many-seeded.

816. *Asparagus.* Flower 6-parted erect; the 3 lower sepals reflexed at end. Berry 3-celled, many-seeded.

817. *Drimia.* Flower campanulate, 6-cleft, with revolute segments. Stamens inserted into the sepals. Stigma capitate.

818. *Uropetalon.* Flower six-cleft, with the alternate segments shortest. Capsule membranous. Seeds black, shining.

819. *Hyacinthus.* Flower erect, 6-cleft, with equal segments. Stamens inserted in the middle of the flower. Cells of capsule 2-seeded.

820. *Zuccagnia.* Sepals cylindrical: the 3 outer longest, lanceolate, setaceous, reflexed. The other characters of Hyacinthus.

821. *Muscari.* Flowers ovate or cylindrical, very shortly divided. The other characters of Hyacinthus.

822. *Lachenalia.* Sepals 6, obtuse, the 3 inner the longest. Stamens erect. Capsule 3-winged. Seeds globose

823. *Phormium.* Sepals 6, the 3 inner the longest. Stamens ascending, exserted. Capsule oblong, 3-cornered. Seeds compressed.

824. *Cyanella.* Sepals 6: the 3 lower hanging down. Style and lowest stamen declinate. Capsule roundish, 3-celled.

3. *Dicotyledons.*

825. *Leontice.* Cal. 6-leaved, deciduous. Petals 6. Six leaves inserted upon the claws of the corolla, spreading at end.

826. *Caulophyllum.* Cal 6-leaved. Petals 6, opposite the calyx. Cells of anther opening at edge.

827. *Diphylleia.* Cal. 3-leaved, deciduous. Petals 6, opposite the calyx. Anthers opening with a membrane dividing from the base to the tip. Berry 1-celled. Seeds 2-3, roundish.

828. *Prinos* Cal. 6-cleft. Cor. monopetalous, rotate. Berry 6-seeded.

829 *Berberis.* Cal. 5-leaved. Petals 6, with glands upon their claws. Style O. Stigma umbilicate. Berry 1 celled, 2-4-seeded.

830. *Nandina.* Cal. many-leaved, imbricated. Petals 6. Berry juiceless, 2-seeded.

831. *Cossignia.* Cal 5-parted. Petals 4 or 5. Capsule 3-celled, opening at end with about 3-seeded cells. Flowers in panicled racemes.

832. *Hillia.* Cal. double, the lower 6-leaved, the upper superior, 2 or 4-leaved. Cor. 6-cleft, with a very long cylindrical tube Anthers sessile, in the throat of the corolla. Seeds comose.

833 *Richardia.* Cal. 6-parted, persistent, superior. Cor. funnel-form, 6-cleft. Stigmas 3, capitate. Fruit 3-partible. Seeds 5, truncate.

834. *Canarina.* Cal. 6-leaved. Cor. 6-cleft, campanulate. Stigmas 6. Capsule inferior, 6-celled, many-seeded.

835. *Frankenia.* Cal. 5-cleft, funnel-shaped. Petals 5. Stigma 2-3-parted Caps 1-celled, 3-valved.

836. *Peplis.* Cal. campanulate, with a 12-cleft mouth. Petals 6 or O, inserted in the calyx. Caps. 2-celled, many-seeded.

Order 2. DIGYNIA. 6 Stamens. 2 Styles.

837. *Oryza.* Glumes 2, 1-flowered. Paleæ 2, nearly equal, adhering to the seed.

838. *Atraphaxis.* Cal. 2-leaved. Petals 2, sinuated. Stigmas capitate. Seed 1.

Order 3. TRIGYNIA 6 Stamens 3 Styles.

1. *Monocotyledons.*

839. *Flagellaria.* Sepals 5. Berry 3-1-seeded.

840. *Scheuchzeria.* Sepals 6. Anthers linear. Stigmas sessile, lateral. Capsules inflated, distinct, 2-seeded.

841. *Triglochin.* Sepals 6, the 3 outer in a different row from the inner. Style O. Capsule opening by the base.

842. *Lichtensteinia.* Sepals 6, withering, persistent, wavy, spreading. Stamens hypogynous, shorter than the sepals. Capsule many-seeded, half 3-valved.

843 *Myrsiphyllum.* Flower 6-parted, revolute. Styles 3, contiguous, straight. Ovary stalked. Berry 3-celled, with 2-seeded cells.

844. *Tofieldia.* Bracteæ 3. Sepals 6. Capsules 3, superior, united at the base, many-seeded.

845. *Melanthium.* Polygamous. Flower rotate, 6-parted, with 2 glands at the base of each segment. Filaments from the elongated claws of flower. Capsule 3-fid, 3-celled. Seeds membranous

846. *Medeola.* Flower 6-parted, revolute. Berry 3-seeded.

847. *Xerophyllum.* Flower 6-parted. Stigmas 3, oblong, sessile. Caps. 3-celled, with 2-seeded cells.

848. *Wurmbea.* Flower 6-parted, with an hexangular tube. Filaments inserted in the throat. Styles conniving. Caps. oblong, 3-cornered. Seeds round.

849 *Androcymbium.* Sepals 6, unguiculate, cucullate. Stamens inserted in the middle of sepals. Ovaries 3. Styles filiform.

850. *Trillium.* Cal. spreading, 3-leaved. Petals 3. Berry 3-celled.

851. *Colchicum.* A spatha. Flower 6-parted, with a tube proceeding directly from the root. Anthers incumbent. Caps. 3, connected, inflated.

852. *Helonias.* Sepals 6. Styles 3, distinct. Capsule 3-celled, 3-horned, few-seeded.

853. *Nolinea.* Flower 6-parted, spreading. Style very short. Capsule 3-cornered, membranous, 3-celled, opening by bipartible dissepiments. Seeds solitary, convex on one side.

854. *Aponogeton.* An amentum composed of scales. Neither calyx nor corolla. Capsules 4, 3-seeded. Stamens varying from 6 to 7 and 12.

855. *Sabal.* Spathes partial. Filaments free, thickened at base. Berry 1-3-seeded. Seed bony. Embryo lateral. A palm.

2. *Dicotyledons.*

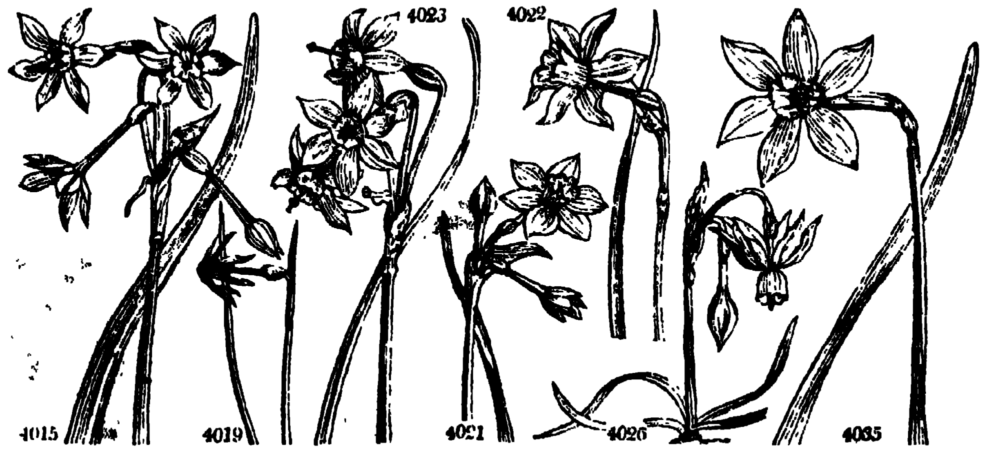
856. *Rúmex.* Calyx 3-leaved. Petals 3, conniving. Seed 1, 3-cornered.
857. *Oxyria.* Calyx 2-leaved. Petals 2. Styles 2.

Order 4. POLYGYNIA. ⁂ 6 Stamens Many Styles.

858. *Wendlandia.* Sepals 6. Petals 6, succulent. Style reclinate. Caps. 6, 1-celled, many-seeded.
859. *Damasonium.* Spathe 1-leaved, half-bifid, winged. Flowers superior, 6-parted, with the 3 inner segments petaloid. Stamens 6-12. Ovary with 6-8-parietal prominent placentas. Style short. Stigmas 6-12.
860. *Actinocarpus.* Flower 6-parted: the 3 outer sepals falling off late, the inner petaloid. Stamens 6. Ovaries 6-8, connate at base, 2-seeded. Capsules connate at base, stellate above.
861. *Alisma.* Flower 6-parted: the 3 outer sepals falling off late, like a calyx; the 3 inner petaloid. Stamens 6. Ovaries indefinite in number, 1-seeded. Capsules distinct, not opening.

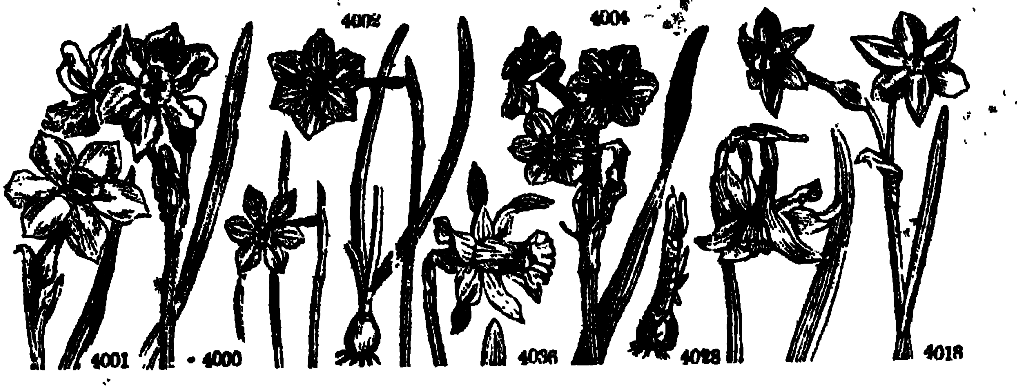
MONOGYNIA.

711. NARCISSUS. *W.*	Narcissus.				*Amaryllideæ.*		*Sp.* 55—59.				
3997 poéticus *Sal.*	Poet's	♉	△ or	1	my	W	S. Europe	...	O	co	Park. par. 76
3998 recúrvus *Haw.*	drooping-leav'd	♉	△ or	1	my	W	S. Europe	...	O	co	
3999 patelláris *Sal.*	spreading-flow.	♉	△ or	1	my	W	England		O	co	Eng. bot. 275
4000 angustifólius *H. K.*	narrow-leaved	♉	△ or	1	ap.my	W	S. Europe	1570.	O	co	Bot. mag. 193
4001 biflórus *W.*	two-flowered	♉	△ or	1	ap.my	W	Britain	mea.	O	co	Eng. bot. 276
4002 tenúior *H. K.*	slender	♉	△ or	1	my	L.Y	......	1789.	O	co	Bot. mag. 379
4003 crenulátus *Haw*	Bazelman-min.	♉	△ or	1	mr.ap	W	Spain	...	O	co	
4004 Trewiánus *B. M.*	Bazelman-maj.	♉	△ or	1½	mr.ap	W.Y	Spain	...	O	r.m	Bot. mag. 940
4005 floribúndus *Sal.*	Grand-Monarq.	♉	△ or	1½	mr.ap	W.Y	Spain	...	O	r.m	
4006 fistulósus *Haw.*	hollow-stalked	♉	△ or	2	ap	W.Y	......	...	O	r.m	
4007 cerinus *Haw.*	waxen-cupped	♉	△ or	1	ap	W	......	...	O	r.m	
4008 Tazétta *W.*	Polyanthus	♉	△ or	1	mr.	W	Spain	1759.	O	s.l	Bot. mag. 925
4009 Macleaii *Lindl.*	Mac Leay's	♉	△ or	½	ap.	W	Mediterr.	1815.	O	s.l	
4010 orientális *L.*	oriental	♉	△ or	1	mr.	W	Levant	...	O	co	Bot. mag. 948
4011 papyráceus *B. M.*	paper	♉	△ or	1	mr.ap	W	......	...	O	co	Bot. mag. 947
4012 itálicus *B. M.*	Italian	♉	△ or	1	mr.ap	P.Y	S. Europe	...	O	co	Bot. mag. 1188
4013 tereticaúlis *L. T.*	round-stalked	♉	△ or	1½	mr.ap	P.Y	Spain	...	O	co	
4014 compréssus *L. T.*	flat-stalked	♉	△ or	1	mr.ap	L.Y	Spain	...	O	co	
4015 bífrons *B. M.*	Jonquil-scent.	♉	△ or	1	mr.ap	Y	S. Europe	...	O	co	Bot. mag. 1186
4016 primulínus *Haw.*	Cowslip-cupped	♉	△ or	1	mr.ap	Y	......	...	O	co	Bot. mag. 1299
4017 Jonquílla *W.*	Jonquil	♉	△ or	¾	ap.my	Y	Spain	1596.	O	r.m	Bot. mag. 15
β *flore-pléno*	*double*	♉	△ or	1	ap.my	Y	Spain	1596.	O	r.m	
4018 grácilis *Lindl.*	slender	♉	△ or	1½	ap.my	Y	......	...	O	co	Bot. reg. 816
4019 viridiflórus *B. M.*	green-flowered	♉	△ or	½	au.o	G	Barbary	1629.	O	r.m	Bot. mag. 1687
4020 serotínus *W.*	late-flowered	♉	△ or	½	au.o	P.Y	Barbary	1629.	O	r.m	Clu. hist. t. 252
4021 calathínus *L.*	great Jonquil	♉	△ or	1	ap.my	Y	S. Europe	1629.	O	r.m	Bot. mag. 78
4022 odórus *L.*	sweet-scented	♉	△ or	1	ap.my	Y	S. Europe	1629.	O	s.l	Bot. mag. 934
4023 nútans *H. K.*	nodding	♉	△ or	1	mr.my	Y	S. Europe	1789.	O	s.l	Bot. mag. 945
4024 infundibuláris *Sal.*	funnel-flowered	♉	△ or	½	mr.my	Y	......	...	O	s.l	Park. par. 92
4025 pulchéllus *B. M.*	neat	♉	△ or	½	mr.my	Y	Spain	...	O	s.l	Bot. mag. 1262
4026 triándrus *B. M.*	Rush-leaved	♉	△ or	¾	ap.my	W	Portugal	1629.	O	s.l	Bot. mag. 48
4027 cápax *Sal.*	capacious	♉	△ or	½	ap.my	P.Y	......	...	O	s.l	Red. lil. 177 ?
4028 montánus *B. Reg.*	mountain	♉	△ or	1	ap.my	W	Portugal	...	O	s.l	Bot. reg. 123
4029 galánthifólius *Haw*	Snowdrop-leav.	♉	△ or	¾	my	W	......	...	O	s.l	Park. par. 73
4030 álbicans *Haw.*	whitish	♉	△ or	½	mr.ap	P.Y	......	1789.	O	s.l	Park. par. 105
4031 Bulbocódium *W.*	Hoop-petticoat	♉	△ or	½	mr.ap	Y	Portugal	1629.	O	s.l	Bot. mag. 88
4032 inflátus *Haw.*	inflated	♉	△ or	½	mr.ap	Y	......	...	O	s.l	
4033 lobulátus *Haw.*	lobed	♉	△ or	½	ap.my	Y	......	...	O	s.l	
4034 tenuifólius *L. T.*	slender-leaved	♉	△ or	¾	ap.my	W	......	...	O	s.l	
4035 incomparábilis *W.*	Butter & Eggs	♉	△ or	1	ap.my	Y	Portugal	1629.	O	co	Bot. mag. 121
4036 tortuósus *Haw.*	twisted-petaled	♉	△ or	1½	ap	W	Spain	1629.	O	co	Bot. mag. 924
4037 moschátus *L.*	musk	♉	△ or	1	mr.ap	W	Spain	1759.	O	co	Bot. mag. 1300



History, Use, Propagation, Culture,

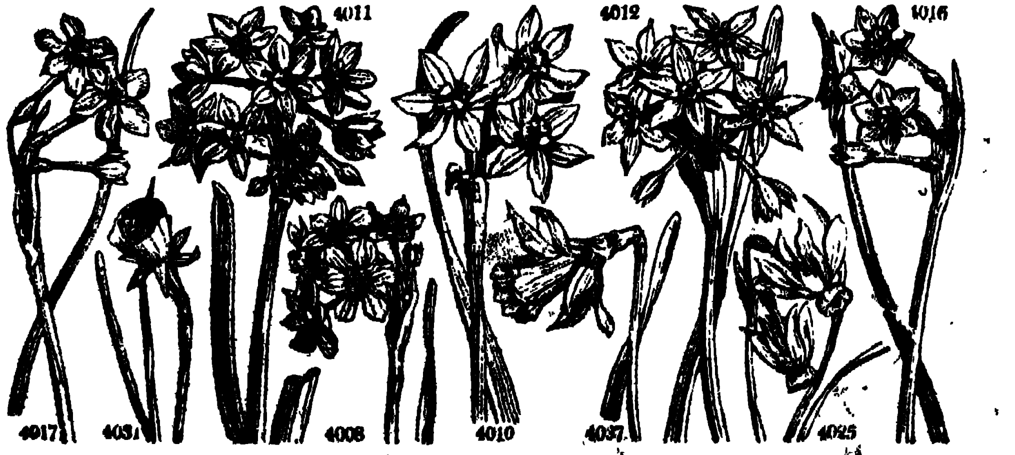
711. *Narcissus.* From ναρκη, stupor, on account of the dangerous effects produced by the smell, even of the least perfumed kinds, upon the nerves. For this reason Narcissus was consecrated to the Furies, who by means of it were accustomed to stupify those whom they wished to punish. *Jonquilla*, a name applied to one



MONOGYNIA.

3997 Segm. refl. imbr. at base, Cup expanded flat, Three anthers shorter than the tube, Leaves erect narrow
3998 Lvs. ½ an inch broad glauc. at end rec. Seg. imbr. Cup plait. with scarlet rim, Stig. as long as inner stamens
3999 Lvs. erect glauc. Seg. imbric. with deflexed edges, Cup yel. minutely plaited, Stig. as long as inner stamens
4000 Seg. horizontal obo. not imbric. Cup saucer-shaped with very red edge, Lower anth. half included in tube
4001 Scape kneed before flowering usually 2-3-flowered, Cup all yellow
4002 Very slender, Spathe 1-2-fl. Seg. white, Cup yellow cup-shaped 3 or 4 times as long as segm.
4003 About 3-flowered, Seg. reflexed white, Cup spreading plaited crenulate yellow
4004 Like N. Tazetta, differing in the 3-lobate cup, and in the edges of the upper leaves not being turned up
4005 Flowers about 16, Seg. round-oval reflexed incurved white, Cup large straight yellow entire
4006 Segm. white almost twice as long as the straight inflated nearly entire yellow cup
4007 2-3-fl. Cup very large thick truncate entire waxen twice as short as white segm.
4008 Spathe many-flowered, Cup camp. truncate shorter than petals, Leaves flat
4009 Spathe 1-2-fl. Scape compr. 2-edged, Sepals spread. imbricated a little longer than truncated entire cup
4010 About 10-fl. Seg. white round ov. thrice as long as pale yel. spread. irreg. cut cup, Scape striat. rounded
4011 Few-flowered, Seg. stellate as long as tube, Cup cupulate crenate, Style within the crown
4012 Many-flowered, Cor. bent back, Segm. stellate, Cup spreading cupulate slightly trifid
4013 About 6-fl. Seg. round-ovate imbr. white, Cup citron spreading entire or lobed, Scape rounded below
4014 Many-fl. Pedunc. nearly erect, Seg. imbr. 3 times as long as the erect eroded cup, Lvs. remarkably broad
4015 Scape obtusely compressed smooth, Segm. very yellow ovate imbr. 3-4-times as long as cup
4016 Like the last, but the cup is more entire and the leaves broader
4017 Spathe 1-3-flowered, Seg. reflexed spatulate, Cup much shorter than seg. saucer-shaped spreading crenate

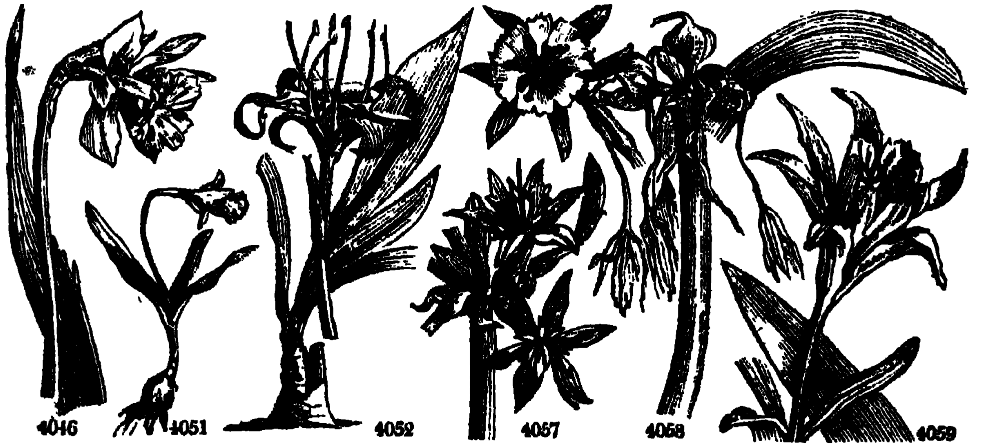
4018 12-18 inches high, Lvs. linear subulate chann. Scape rounded 1-2-fl. Ovary inflated, Fl. sulphur-colored
4019 Leafless at flowering, Flowers green with acute segm.
4020 Spathe 1-flowered, Cup 6-parted very short, Leaves subulate
4021 About 3-flow. Cup obsoletely curled outside obtusely angular not twice as short as seg. Scape 1½ ft. high
4022 Segm. of starry cor. distinct at base, Cup even distinctly 6-lobed
4023 About 2-fl. Seg. refl. pale yellow, twice as long as cup which is deeper col. trun. cylind. Style exserted
4024 A slight variety of N. incomparabilis
4025 1-7-fl. Leaves erect, Segm. reflexed lanceolate longer than cup which is cyathiform 6-fid repand
4026 All white, Cup twice as short as segm. which are reflexed
4027 A very obscure plant of which no description is anywhere given
4028 Cor. pendulous white with straight half-expanded segm. Cup cyathiform with a crenulate mouth
4029 Segm. twisted stellate, Cup cyathiform much plaited twice as short as segm.
4030 Sulphur-colored or nearly white, Cup turgid entire as long as segm. Style protruded, Leaves obtuse
4031 Flower yellow, Crown turgid truncate entire, Style included, Leaves erect before flowering
4032 Fl. yel. Crown inflated at the end contracted entire, Style exserted, Lvs. always spreading on the ground
4033 Crown undulate lobed at end, Style included
4034 Crown deeply 6-lobed, Style very long, Leaves shining erect before flowering
4035 Segm. sulphur, Crown campanulate yellow at the end spreading 6-lobed, Lobes inbricated
4036 Leaves flat and scape striated, Segm. much twisted shorter than crown, Germ. 6-furrowed
4037 Leaves twisted, Scapes and germens smooth, Segm. twisted the length of crown



and Miscellaneous Particulars.

of the species, is a diminution of *juncus*, a rush; as *Tazetta* is of *tazza*, the Italian name for a cup. This is a popular flower of great beauty, some species very fragrant, and all of them of the easiest culture. They also force well, either in pots of earth or in glasses of water. Their forcing may be greatly accelerated by retard.

4038 serrátus *Haw.*	serrated	♉	Δ or	½	mr.ap	P.Y	S. Europe	...	O	co	
4039 spúrius *Haw.*	spurious	♉	Δ or	1	ap	Y	England	...	O	co	
4040 Pseudo-Narcissus *L.*	Daffodil.	♉	Δ or	1	mr.ap	P.Y	England	woods.	O	co	Eng. bot. 17
4041 tubiflórus *Sal.*	tube-flowered	♉	Δ or	1	mr.ap	W.Y	......	...	O	co	
4042 bicolor *B. M.*	two-colored	♉	Δ or	1	ap.my	W.Y	Spain	1629.	O	co	Bot. mag. 1187
4043 Sabini *Lindl.*	Sabine's	♉	Δ or	1	ap.my	Y	......	...	O	co	Bot. reg. 762
4044 niveus *W. en.*	snowy	♉	Δ or	1	my	W	S. Europe	...	O	co	
4045 obvalláris *Sal.*	Sibthorp's	♉	Δ or	1	mr.ap	Y	Spain	...	O	co	B. m.1301. f. inf.
4046 májor *B. M.*	large	♉	Δ or	1	mr.ap	Y	Spain	1629.	O	co	Bot. mag. 51
4047 propinquus *Sal.*	allied	♉	Δ or	1	mr.ap	Y	Spain	1629.	O	co	B. m. 1301. f. su.
4048 nóbilis *Haw.*	noble	♉	Δ or	1	mr.ap	Y	......	...	O	co	
4049 Ajax *Sal.*	great	♉	Δ or	1	mr.ap	Y	......	...	O	co	
4050 púmilus *Sal.*	low	♉	Δ or	½	mr.ap	Y	Spain	[illegible]	O	co	Pass. hort. 8
4051 minor *W.*	small	♉	Δ or	½	mr.ap	Y	Spain	1629.	O	s.l	Bot. mag. 6
712. PANCRA'TIUM. *W.*	PANCRATIUM.				*Amaryllideæ.*		*Sp.* 24.				
4052 zeylánicum *W.*	one-flowered	♉	[Δ] or	1	jn.jl	W	Ceylon	1752.	Sk	r.m	Bot. reg. 479
4053 verecúndum *K. R.*	Narcissus-leav.	♉	[Δ] or	1½	jn.au	W	E. Indies	1776.	Sk	r.m	Bot. reg. 413
4054 maritimum *L.*	sea	♉	Δ or	2	my.jl	W	S. Europe	1597.	Sk	s.p	Bot. reg. 161
4055 caroliniánum *K. R.*	Carolina	♉	⌊Δ⌋ or	2	jn.jl	W	Carolina	1759.	Sk	r.m	Cat. car. 3. t. 5
4056 canariénse *K. R.*	Canary	♉	⌊Δ⌋ or	1½	jn.jl	W	Canaries	1815.	Sk	r.m	Bot. reg. 174
4057 illýricum *L.*	Illyrian	♉	Δ or	1½	my.jn	W	S. Europe	1615.	Sk	s.p	Bot. mag. 718
4058 Amáncaes *K. R.*	Narcissus-flow.	♉	[Δ] or	1½	jn.jl	Y	Peru	1804.	Sk	r.m	Bot. reg. 600
4059 calathinum *K. R.*	cup-flowered	♉	[Δ] or	2	jn.jl	W	Brazils	...	Sk	r.m	Bot. reg. 215
4060 nútans *K. R.*	nodding	♉	[Δ] or	2	jn.jl	W	Brazils	...	Sk	r.m	Bot. mag. 1561
4061 undulátum *K. R.*	wave-leaved	♉	[Δ] or	1	jn.jl	W	S. Amer.	...	Sk	r.m	
4062 littorále *L.*	fan-leaved	♉	[Δ] or	2	my.au	W	S. Amer.	1758.	Sk	r.m	Bot. mag. 1879
4063 Dryándri *K. R.*	tall	♉	[Δ] or	2	my.au	W	......	...	Sk	r.m	Bot. mag. 825
4064 angústum *K. R.*	narrow-leaved	♉	[Δ] or	1½	my.au	W	......	...	Sk	r.m	Bot. reg. 221
4065 rotátum *K. R.*	large-crowned	♉	[Δ] or	1	jl.s	W	Carolina	1803.	Sk	r.m	Bot. mag. 1082
4066 mexicánum *K. R.*	Mexican	♉	[Δ] or	1	au	W	Mexico	1732.	Sk	r.m	Bot. cab. 274
4067 guianénse *Ker.*	Guiana	♉	[Δ] or	2	n	W	Guiana	1815.	Sk	r.m	Bot. reg. 265
4068 pátens *Red.*	spreading	♉	[Δ] or	2	jl.au	W	W. Indies	1822.	Sk	r.m	Bot. cab. 558
4069 pediále *Lodd.*	long-flowered	♉	[Δ] or	3	au	W	Brazil	1820.	Sk	r.m	Bot. cab. 809
4070 frágrans *Red.*	fragrant	♉	[Δ] or	1	my.au	W	W. Indies	1819.	Sk	r.m	Bot. cab. 834
4071 biflórum *Roxb.*	two-flowered	♉	[Δ] or	1	my.au	W	E. Indies	1820.	Sk	r.m	
4072 caribæ'um *L.*	Caribean	♉	[Δ] or	1½	my.au	W	W. Indies	1730.	Sk	r.m	Bot. mag. 826
4073 amæ'num *W.*	handsome	♉	[Δ] or	1	my.au	W	Guiana	1790.	Sk	r.m	Bot. mag. 1467
4074 ovátum *K. R.*	oval-leaved	♉	[Δ] or	1	my.au	W	W. Indies	...	Sk	r.m	Bot. reg. 43
4075 speciósum *L.*	large	♉	[Δ] or	1½	my.au	W	W. Indies	1759.	Sk	r.m	Bot. mag. 1453
713. EUCRO'SIA. *B. Reg.*	EUCROSIA.				*Amaryllideæ.*		*Sp.* 1.				
4076 bicolor *B. Reg.*	two-colored	♉	[Δ] or	1	ap.my	O	Cape Hor.	1816.	O	lt.l	Bot. reg. 207
714. EU'RYCLES. *Salisb.*	EURYCLES.				*Amaryllideæ.*		*Sp.* 2—3.				
4077 amboinénsis *Sal.*	heart-leaved	♉	[Δ] or	2	my.jn	W	Amboyna	1759.	O	lt.l	Bot. mag. 1419
4078 australásica	Cunningham's	♉	[Δ] or	1	my	W	N. Holl.	1821.	O	lt.l	Bot. reg. 715
Pancratium australasicum Ker.											
715. CALOSTEMMA. *R. Br.*	CALOSTEMMA.				*Amaryllideæ.*		*Sp.* 2—3.				
4079 lúteum *Ker.*	yellow	♉	[Δ] or	1	n	Y	N. Holl.	1819.	O	s.l	Bot. reg. 421
4080 purpúreum *Ker.*	purple	♉	[Δ] or	1	n	Pu	N. Holl.	1819.	O	s.l	Bot. reg. 422
716. CHLIDAN'THUS. *Herb.*	CHLIDANTHUS.				*Amaryllideæ.*		*Sp.* 1.				
4081 frágrans *Lindl.*	fragrant	♉	⌊Δ⌋ or	1	my.jn	Y	B. Ayres	1820.	O	lt.l	Lindl. coll. 34
717. CHRYSIPHIALA.* *Ker.*	CHRYSIPHIALA.				*Amaryllideæ.*		*Sp.* 2—5.				
4082 fláva *Ker.*	yellow	♉	⌊Δ⌋ or	1	my	O	Peru	1820.	O	lt.l	Bot. reg. 778
4083 pauciflóra *Lindl.*	few-flowered	♉	⌊Δ⌋ or	½	my	O	Peru	1822.	O	lt.l	Hook. ex. fl. t. 132



History, Use, Propagation, Culture.

bulbs one season in an ice-house. Many fine bulbs of this genus, are annually imported from Holland,
from Naples, especially the italicus, which grows wild round that city in great beauty. The genus
dicciously separated into several by Haworth, whom however no one has followed.

um. A name given by the Greeks to a kind of Scilla. The word signifies all-force, from
allusion to its powerful effects in medicine. This is a free-flowering genus; several of the
ndsome and fragrant, and are met with in most collections of stove plants. A mixture of
vegetable mould suits them best, and care must be taken not to give them much water,
n a growing state. They are to be increased by suckers, or from seeds, which often ripen
it happen to lose its heart, if it be kept dry, it will throw out abundance of suckers, which
y of propagating it. (*Bot. Cult.* 89.) P. maritimum, illyricum, and carolinianum, are
species are stove-plants. P. amancaes has yellow flowers, and is not less beautiful than

4015

711. *Narciss*
least perfume
means of it

4038 Scape striated compressed, Segm. flat: the outer ovate acuminate not so long as the serrated crown
4039 Scape smooth compressed, Crown very yellow deeply 6-cleft spreading, Segm. ½ erect lanceolate
4040 Scape two-edged straight striated, Segm. sulphur, Crown yellow with serrate crenate orifice
4041 Segm. incurved horizontal a little twisted, Crown funnel-shaped ventricose at base very short
4042 Like the last, but the crown is yellow, the segm. of flower yellowish
4043 Spathe 1-fl. Scape 2-edged, Cup columnar plaited shorter than the sepals, Tube about as long as sepals
4044 Scape 2-edge nearly trian. Spat. 1-2-fl. Seg. of cor. lanc. acute, Crown plaited crenate thrice as long as limb
4045 Segm. half as long as tube ovate, Crown funnel-form 6-cleft plaited upwards
4046 Leaves twisted very glaucous, Crown campanulate very large very open at orifice
4047 Segm. ½ erect twisted incurved spreading, Crown as long as segm. deeply and irregularly cut
4048 Scape deeply striated, Seg. much spread. twisted ellipt. shorter than crown which has a very open orifice
4049 Scape deeply striated, Mouth of crown 6-cleft expanded deeply and irregularly crenate
4050 Pet. narrow obcuneate not imbricating at base, Crown 6-cleft at mouth spreading minutely rugose
4051 Spathe 1-flowered, Crown curled waved lobed, Scape 6 inches high

4052 One-flowered, Leaves lig. lanc. Segments of limb longer than tube, Stamens incurved conniving
4053 Spathe 2-4-fl. Lvs. lin. acute, Limb of cor. shorter than tube, Altern. div. of crown deeper, Stam. incurved
4054 Many-fl. Lvs. sheath. downw. very glauc. with an obt. point, Cr. much unit. to turb. limb, Anth. bent inw.
4055 Many-flowered, Leaves neither glaucous? nor sheathing downwards, Anthers incumbent
4056 Many-fl. Lvs. strap-shap. somew. glauc. obt. Tube twice as short as limb, Fil. not longer than teeth of cr.
4057 Many-fl. Lvs. strap-shap. cor. Scape 2-edged, Pet. lanc. conv. longer than tube, Cr. short with very deep div.
4058 Many-fl. Leaves bright-green, Tube as long as stellate nodding limb, Stamens short abruptly bent inwards
4059 1 or many-fl. Spat. herb. Limb erect turb. a little shorter than blunt. 3-cor. tube, Cro. not much shorter than [limb
4060 Few-flowered, Leaves obt. Spathe dry, Cor. nodding, Anthers longer than filaments
4061 Lvs. stalked ellip. shortly pointed, Scape compressed, Petals linear wavy, Racemes of crown 1-toothed
4062 Many-flowered, Leaves many lorate narrowed each way, Tube rounded twice as long as limb
4063 Leaves lanc. lorate, Petals little shorter than tube, 5 times as long as crown
4064 Many-fl. Lvs. lorate with long points shin. Petals spread. longer than tube 3 times as short as nar. crown
4065 Two or many-flowered, Leaves linear-lorate obtuse many, Crown turbinate rotate longer than filaments
4066 Two-flowered, Lvs. few linear-lanceolate with long points, Crown rotate turbinate longer than filaments
4067 Many-flowered, Leaves oval-oblong stalked, Spathe 4-valved, Cup narrow 4 times as short as the limb
4068 Lvs. broad-lin. Flowers many sessile with linear straightish segments longer than tube, Crown obconical
4069 Leaves lanceolate dark-green, Flowers a foot long, Stamens short
4070 A slight variety of P. amænum, No. 4073
4071 One or 3-fl. Leaves linear cuneate, Tube as long as lin. petals, Seg. of crown eroded, Fil. length of crown
4072 Many-fl. Lvs. many lin. lanc. Tube twice as short as limb, Cr. twice as short as stam. with 1-tooth. recesses
4073 Lvs. many oval-lanc. 3 or 4 times as broad as stalk, Umbel sessile spreading, Tube shorter than limb
4074 Compactly many-fl. Lvs. oval stri. nar. each way, Tube round. nearly as long as limb, Teeth of crown entire
4075 Lvs. many lanc. elliptical with a point three times as broad as their stalk, Tube twice as short as limb

4076 The only species

4077 Leaves stalked cordate rounded with concentric distant nerves
4078 Like the last, but is smaller with a 6-parted crown

4079 Flowers yellow
4080 Flowers purple

4081 A small plant with bright yellow flowers appearing before the leaves

4082 Leaves linear ligulate, Flowers 6-7-cylindrical, with oblong obtuse segments
4083 Leaves oblong lanceolate stalked, Flowers 2 campanulate funnel-shaped

and Miscellaneous Particulars.

713. *Eucrosia.* From ευ, well, and κροσσος, a fringe, in allusion, we presume, to the beautiful fringe to the flower, formed by the cup of united stamens. A pretty half-hardy bulbous plant, extremely rare.

714. *Eurycles.* From ευρυς, wide, and κλημα, a portion of a thing, in allusion to the broad divisions of the crown. A genus formerly included in Pancratium, from which it is distinguished not only by its flowers, but by its broad leaves, which are like those of the Hemerocallis

715. *Calostemma.* From καλος, beautiful, and στεμμα, a crown, in allusion to the beauty of the colored corona of the flower. Very pretty New Holland bulbs, requiring the cultivation of other greenhouse bulbs.

716. *Chlidanthus.* From χλιδανος, delicate, and ανθος, a flower; on account of the delicate color and texture of the beautiful yellow flowers. The plant requires a stove, and produces the scape before the leaves.

717. *Chrysiphiala.* So named by Mr. Ker, in allusion to the golden cup-like flowers; χρυσος, gold, and φιαλη, a goblet. Bulbous plants from the same country and with the same habits as the last.

718. **LOPHI'OLA.** *B. M.*	Lophiola.					*Hæmodoraceæ.*	*Sp.* 1.					
4084 aùrea *B. M.*	golden-flower.	£	△	or	1½	my.jl	Y	N. Amer.	1811.	D	p.l	Bot. mag. 1596
719. **ARGOLA'SIA.** *Juss.*	Argolasia.					*Hæmodoraceæ.*	*Sp.* 1.					
4085 plumòsa *W.*	woolly	¥	[△]	or	1½	...	W	C. G. H.	1787.	D	s.l.p	
720. **ANIGOZAN'THOS.** *R. Br.*	Anigozanthos.					*Hæmodoraceæ.*	*Sp.* 1—2.					
4086 flàvida *R. Br.*	russet-green-fl.	£	⊔			my.s		N. Holl.	1803.	R	s.p	Bot. mag. 1151
721. **MU'SA.** *W.*	Plantain-Tree.					*Musaceæ.*	*Sp.* 4—5.					
4087 paradisìaca *W.*	common	♀	□	clt	20	o.d	Pk	India	1690.	Sk	s.p	Tr. eh. 3 t. 18. 20
4088 sapiéntum *W.*	Banana-tree	♀	□	clt	20	mr.o	Pk	W. Indies	1729.	Sk	s.p	Tr. eh 4. t. 21. 23
4089 rosàcea *W.*	rose-colored		□	or	20	f.my	Pu	Mauritius	1805.	Sk	s.p	Bot. reg. 706
4090 coccìnea *W.*	scarlet-flowered	♀	□	or	20	mr.d	S	China	1792.	Sk	s.p	Bot. mag. 1559
722. **URA'NIA.** *W.*	Urania.					*Musaceæ.*	*Sp.* 1.					
4091 speciòsa *W.*	Plantain-leaved	♀	□	or	20	...	R	Madagasc.	...	Sk	p.l	Jac. sch. 1. t. 93
723. **BUONAPAR'TEA.** *F. P.*	Buonapartea.					*Bromeliaceæ.*	*Sp.* 1—2.					
4092 jùncea *Fl. p.*	Rush-leaved	£	□	or	1½	...	B	Peru	1800.	C	s.l	Fl. per. 3. t. 262
724. **AGA'VE.** *H. K.*	Agave.					*Bromeliaceæ.*	*Sp.* 10.					
4093 yuccæfòlia *Haw.*	Yucca-leaved	●	□	or	6	...	Y.w	......	1819.	Sk	r.m	
4094 americàna *W.*	common Amer	●	□	or	20	au.o	Y	S. Amer.	1640.	Sk	r.m	Bot. rep. 433
4095 Millèri *Haw.*	Miller's	●	□	or	6	...	G	......	1768.	Sk	r.m	
4096 flàccida *Haw.*	flaccid	●	⊔	or	6	...	G	S. Amer.	1790.	Sk	r.m	
4097 lùrida *Jacq.*	Vera Cruz	●	⊔	or	8	jn.jl	G	Vera Cruz	1731.	Sk	s.p	Bot. mag. 1522
4098 angustifòlia *Haw.*	narrow-leaved	●	⊔	or	6	...	G	......	1790.	Sk	r.m	
4099 Karàtto *Mill.*	Karatto	●	[□]	ec	5	...	G	S. Amer.	1768.	Sk	r.m	
4100 vivìpara *W.*	viviparous	●	[□]	or	15	au.o	G	S. Amer.	1731.	Sk	s.p	Com. præl. t. 15
4101 virgìnica *W.*	Virginian	●	[△]	or	3	s	P.G	N. Amer.	1765.	Sk	r.m	Bot. mag. 1157
4102 geminiflòra *Ker*	pair-flowered	●	[△]	or	10	...	B	America	1810.	Sk	r.m	Jo. of sc. No 3. t. 1

History, Use, Propagation, Culture.

718. *Lophiola.* From λοφα, a crest, on account of the little crest of the petals. It is a very rare North American plant, and thrives best in pots set in saucers of water.

719. *Argolasia.* From αργος, white, and λασιος, wool, on account of its calyx, which is white and velvety on the outside. It requires the same culture as the last.

720. *Anigozanthus.* Named by Labillardiere, from ανοιγω, to raise up, and ανθος, a flower. Its flowers are raised upon very long conspicuous scapes. Curious New Holland plants, with yellow or green flowers.

721. *Musa.* So named by Plumier, in memory of Antonius Musa, the brother of Euphorbus, and the the freedman of Augustus. Such is the sense in which Linnæus admits the word. But the Arabic name for the plant, *mauz*, is a much more likely derivation. This splendid genus consists of species which have perennial, roundish, solid, watery bulbs, with biennial, and sometimes longer enduring stems. The stems are straight, erect, varying from five to twenty-five feet in height, simple, thick, round, smooth, fungous, watery, and lamellated. The leaves are oblong, entire, from three to ten feet in length, and under two feet in width. The flowers are in large terminating racemes, without a calyx or perianthium, generally whitish: the fertile flowers occupying the lower, and the barren the upper, part of the raceme. The former are succeeded by oblong, angular, fleshy berries, sweet, eatable, and containing many black seeds. They are natives of the old world, and for the most part cultivated there: none appear to be natives of America.

M. paradisiaca rises with a soft herbaceous stalk fifteen or twenty feet high, with leaves often more than six feet long, and near two feet broad. When the plant is full grown, the spike of flowers appears from the centre of the leaves; it is near four feet in length, and nods on one side. The fruit which succeeds the fertile flowers on the lower part of the spike is eight or nine inches long, and above an inch in diameter, a little incurved, with three angles; at first green, but when ripe of a pale yellow color. The skin is tough, and within is a soft pulp of a luscious sweet flavor. The spikes of fruit are often so large as to weigh upwards of forty pounds. Gerarde, and other old authors, name it Adam's apple, from a notion that it was the forbidden fruit of Eden; whilst others supposed it to be the grapes brought out of the promised land by the spies of Moses. It is certainly one of the most useful fruits in the world, and seems to have migrated with mankind into all the climates in which it can be cultivated. The fruit is so much esteemed by all Europeans who settle in America, that the first thing they do in establishing a plantation is to begin with a Plantain walk; enlarging it as their family increases. Some or other of the trees are bearing most part of the year; and their fruit is often the whole food on which a family subsists. When used instead of bread, it is roasted or boiled when just full grown: it is also eaten boiled with salt-meat or fish, and when ripe it is made into tarts, sliced and fried with butter, or dried and preserved as a sweetmeat. A fermented liquor is made from them, and in some places a cloth from the fibres of the trunk; the leaves make excellent mats, or serve for stuffing mattrasses. Long (*Jam.* 788.) says, this fruit and the banana are among the greatest blessings bestowed by Providence upon the inhabitants of hot climates. Three dozen plantains are sufficient to serve one man for a week instead of bread, and will support him much better.

M. sapientum is by some considered a variety of the plantain, from which it differs in having its stalks marked with dark purple stripes and spots. The fruit is shorter and rounder, with a softer pulp, of a more luscious taste. An excellent marmalade, and a drink like the best Southnam cider, are made from it. There are many varieties both of the plantain and banana.

M. rosacea and *coccinea*, are very ornamental plants, on account of the color of the flowers, but scarcely to be distinguished from *M. paradisiaca*. The culture of all the species is easy in lofty houses, with abundance

4084 The only species

4085 Leaves linear carinate smooth, Scape angular corymbose, Flowers woolly

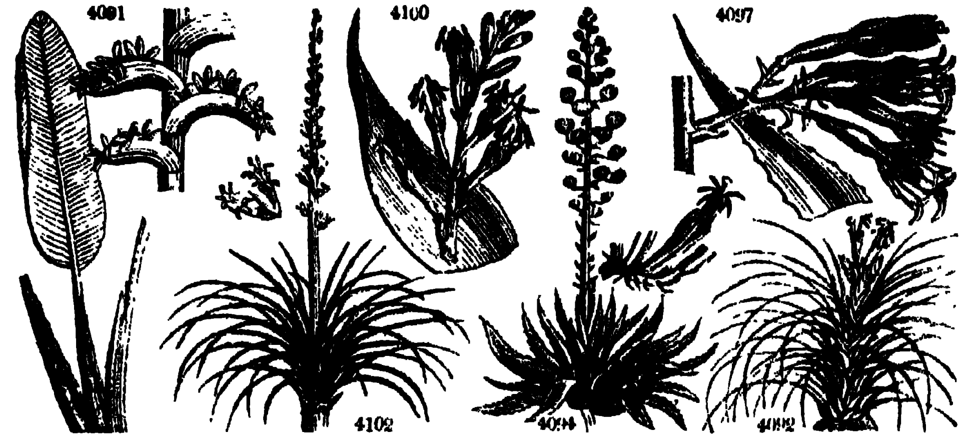
4086 Stem and leaves smooth, Down of branches deciduous, Anthers with a reflexed end

4087 Spadix nodding, Male flowers persistent
4088 Stem spotted, Spadix nodding, Male flowers deciduous
4089 Spadix nodding or erect, Male flowers deciduous, Spathes elliptical obtuse, Fruit oblong
4090 Spadix erect, Flowers capitate, Spathes clustered scarlet very large yellow at end

4091 A plant like a Banana

4092 Leaves multifarious cæspitose recurved very narrow and rigid

4093 Lvs. lorate atten. erect recurved glaucous above chan. with marginal minute dense white serrulations
4094 Stemless, Lvs. toothed spiny, Scape branched, Tube of cor. contracted in middle, Stem longer than cor,
4095 Leaves toothed spiny, Scape quite simple
4096 Leaves narrow lanceolate flaccid recurved, Spines marginal minute
4097 A little stemmed, Leaves toothed spiny, Scape branched, Stam. longer than cylind. cor.
4098 With a stem, Leaves narrow lanceolate glaucous tooth-serrated
4099 Leaves erect bright green with an entire brown edge
4100 Stemless, Leaves toothed, Scape branched, Tube of cor. narrowed in middle, Stem as long as cor.
4101 Stemless, Leaves cartilaginous sawed, Scape simple
4102 Leaves thready at edge, Flowers of spike approximating by pairs



and Miscellaneous Particulars.

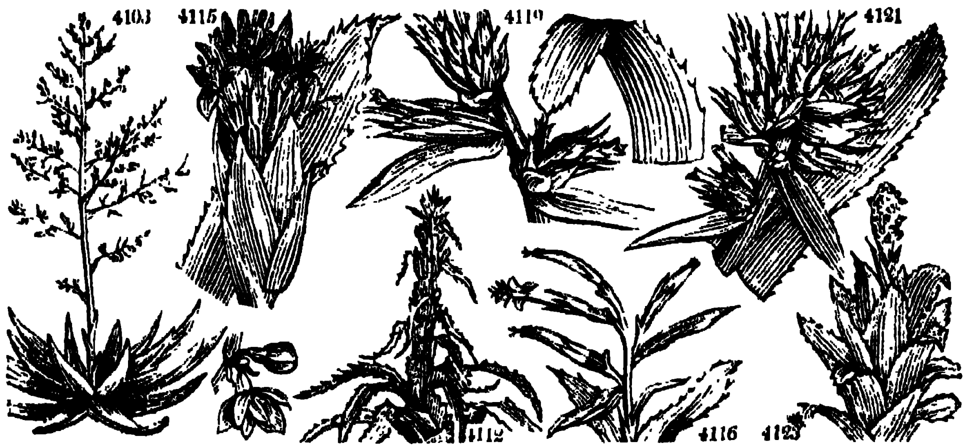
of room for the roots, and a rich loamy soil kept rather moist. A plant of the banana was planted in the pit of a stove about 1811. "It was then about six feet high, with a single stem. In each succeeding year it has produced a bunch of fruit, and in 1819 two bunches; the first ripe in May, the other in August, having about four dozen of fruit on each bunch. The plant is now sixteen feet high, and measures three feet round at the bottom." (*Hort. Trans.* iv. 138.)

722. *Urania.* A name of one of the muses, unjustifiably applied to this genus by Schreber, in the room of that of Ravenala, which it bears in Madagascar. To grow this plant luxuriantly, a strong heat and a good supply of water are required. Fresh imported seeds will grow freely.

723. *Buonapartea.* So named by the authors of the Flora Peruviana, after Napoleon Bonaparte, emperor of the French. Fine plants like Bromelia, with long, narrow, recurved leaves, and spikes of simple blue flowers, which were never yet seen in this country.

724. *Agave.* Altered from ἀγαυος, admirable, which this genus may well be said to be, considering its appearance, its size, and the beauty of its flowers. In mythology, Agave is the name of one of the Nereids. A. americana is a popular succulent throughout Europe. "It grows wild or is acclimated in Sicily, the south of Spain, and Italy, and is much used in the latter country, planted in vases as an ornament to piers, parapets, and about houses. About Milan and other towns in Lombardy, where it will not endure the winter, they use imitations of copper so well formed and painted, as to be readily mistaken for the original. In France and Germany it is still very common; and in this country formerly used to be the regular companion of the orange, myrtle, and pomegranate, then our principal greenhouse plants. An idea used to prevail that the American Aloe only flowered once in a hundred years; but, independently of this unnatural application of time to the inflorescence, it has long been known to flower sooner or later, according to the culture bestowed on it. Many have flowered within these few years in this country; and if the plant had the same treatment as the pine-apple, it would probably flower nearly as often. There is a variety with striped foliage, and sometimes the stripes are of different shades of white, yellow, and red, as in the queen pine apple. There are hedges of the plant in Spain, Portugal, Sicily, Calabria, and the West Indies. According to *Long*, (*Jamaica*, iii. 710.) the leaves are useful as a succedaneum for soap. For this purpose, after being cut, they are passed between the rollers of a mill with their point foremost; and the juice being conducted into wide shallow receivers, through a coarse cloth or strainer, it is exposed to a hot sun, until the aqueous part being exhaled, it is reduced to a thick consistence. It may then be made up into balls, with the help of ley ashes. It will lather with salt water as well as fresh. This soap may also be prepared by pounding the leaves in a wooden mortar, and then expressing the juice, which may be brought to a consistence by the sun or by boiling. One gallon of juice thus prepared, will yield about one pound of a soft extract. The juice, in both these ways, must be carefully strained; and the extract must never be combined with tallow or other unctuous materials. The leaves are also used for scowering pewter, and other kitchen utensils, and floors. The inward spongy substance of the decayed stalk is used for tinder." The fibres of the leaves, separated by bruising and steeping in water, and afterwards beating them, make a strong thread for common uses. All the species greatly resemble each other, and it is doubted, whether, in the works of several travellers, different species of Agave Aloe, and even Bromelia, are not confounded in their descriptions of their uses. There is, for example, a variety of the Agave americana, called Karatas by *Long*, and there is a species of Bromelia of that designation; hedges of Karatas are frequently mentioned without noticing the generic name of the plant.

725. FURCRÆ'A. *V.*	Furcræa.					*Bromeliaceæ.*		*Sp.* 5—7.			
4103 gigantéa *Vent.*	gigantic	£	⍍	or	20	ja.s	Gr	S. Amer.	1690.	Sk r.m	Bot. mag. 2250
4104 tuberósa *H. K.*	tuberous	£	⍍	or	10	au.s	Gr	S. Amer.	1739.	Sk r.m	
4105 cubénsis *W.*	Cuba	£	⍍	or	6	...	Gr	S. Amer.	1739.	Sk r.m	J. am. t. 260. f. 25
4106 rígida *Mill.*	rigid	£	⍍	or	6	...	...	S. Amer.	1768.	Sk r.m	
4107 austrális *Haw.*	entire-leaved	£	⍍	or	...	...	...	N. Holl.	1811.	Sk r.m	
726. BROME'LIA. *W.*	Pine-apple.					*Bromeliaceæ*		*Sp.* 16—29.			
4108 Anánas *W.*	common	£	⍍	fr	4	ja.d	P	S. Amer.	1690.	Sk r.m	Bot. mag. 1554
4109 semiserráta *W. en.*	half-sawed-lvd.	£	⍍	or	3	ja.d	Gr	S. Amer.	...	Sk r.m	
4110 lúcida *W. en.*	King-Pine	£	⍍	fr	4	ja.d	Pk	S. Amer.	...	Sk r.m	D. el. 25. t. 21. f. 22
4111 Pinguin *W.*	broad-leaved	£	⍍	ec	3	mr.ap	R	W. Indies	1690.	Sk r.m	Jac. am. pic. t. 91
4112 sylvéstris *W.*	wild	£	⍍	or	3	jl	Cr	S. Amer.	1820.	Sk r.m	Bot. mag. 2392
4113 fastuósa *Lindl.*	noble	£	⍍	or	4	au.s	Pu	S. Amer.	1815.	Sk s.p	Lindl. coll. 1.
4114 Karátas *W.*	upright-leaved	£	⍍	or	2	...	Pk	W. Indies	1739.	Sk r.m	Jac. v. 1. t. 31, 32
4115 nudicaúlis *W.*	naked-stalked	£	⍍	or	2	f.mr	Cr	R. Janiero	...	Sk r.m	Bot. reg. 203
pyramidalis B. M.											
4116 pállida *Ker.*	pale	£	⍍	or	1½	n	G.y	S. Amer.	1817.	Sk s.p	Bot. reg. 344
4117 chrysántha *Jacq.*	golden-flowered	£	⍍	or	2	...	Y	Caraccas	1819.	Sk s.p	Jacq. sch. 1. t. 55
4118 linguláta *W.*	tongue-leaved	£	⍍	or	1½	my.jn	Y	S. Amer.	1759.	Sk r.m	Plum. ic. t. 64. f. 1
4119 bracteáta *W.*	red-bracted	£	⍍	or	2	s.o	Pk	Jamaica	1785.	Sk r.m	Par. lond. 40
4120 Acánga *L.*	recurved	£	⍍	or	2	...	...	Brazil	1822.	Sk s.p	Pis. bras. t. 91
4121 exsúdans *Lodd.*	sweating	£	⍍	or	2	s.o	Y	W. Ind.	1820.	Sk r.m	Bot. cab. 801
4122 húmilis *W.*	dwarf	£	⍍	or	1	mr	Pk	......	1789.	Sk r.m	Jac. ic. 1. t. 60
4123 melanántha *Ker.*	black-flowered	£	⍍	or	1½	my	Bl	Trinidad	1824.	Sk r.m	Bot. reg. 766
727. GUZMAN'NIA. *Fl. Per.*	Guzmannia.					*Bromeliaceæ.*		*Sp.* 1.			
4124 tricolor *Fl. Per.*	three-colored	£	⍍	or	1	my	G.s	S. Amer.	1820.	Sk r.m	Lindl. coll. 8
728. PITCAIR'NIA. *W.*	Pitcairnia.					*Bromeliaceæ.*		*Sp.* 9—14.			
4125 bromeliæfólia *W.*	scarlet	£	⍍	or	2	jn	S	Jamaica	1781.	Sk s.p	Bot. mag. 824
4126 angustifólia *W.*	narrow-leaved	£	⍍	or	2	ja d	S	Sant. Cruz	1777.	Sk s.p	Bot. mag 1547
4127 integrifólia *B. M.*	entire-leaved	£	⍍	or	2	au	R	W. Indies	1800.	Sk s.p	Bot. mag. 1462
4128 latifólia *W.*	broad-leaved	£	⍍	or	2	au.s	S	W. Indies	1785.	Sk s.p	Bot. mag. 856
4129 bracteáta *H. K.*	large bract.-red	£	⍍	or	2	ap.my	R	W. Indies	1799.	Sk s.p	Red. lil. 73, 74
4130 sulphúrea *B. R.*	yellow-flower'd	£	⍍	or	2	jn.au	Y	W. Indies	1797.	Sk s.p	Bot. mag. 1416
4131 furfurácea *W. en.*	drooping-leav'd	£	⍍	or	2	jn.au	R	S. Amer.	1816.	Sk r.m	
4132 coarctáta *R & P.*	contracted	£	⍍	or	2	my jn	Y	Chile	1822.	Sk r.m	Feuill. chil. t. 39
4133 staminea *B. M.*	long-stamened	£	⍍	or	2	ja	S	S. Amer.	1823.	Sk r.m	Bot. mag. 2411
729. TILLAN'DSIA. *W.*	Tillandsia.					*Bromeliaceæ*		11—27.			
4134 utriculáta *W.*	bladder	£	⍍	or	2	...	P.Y	S. Amer.	1793.	Sk s.p	
4135 serráta *W.*	saw-leaved	£	⍍	or	2	jn	Y	Jamaica	1793.	Sk s.p	Pl. ic. 63. t. 75. f. 1



History, Use, Propagation, Culture,

725. *Furcræa.* Named in honor of M. Fourcroy, the famous French chemist. A noble genus resembling the last.

726. *Bromelia.* So named by Linnæus, in memory of Olaus Bromel, a Swede, author of Lupulogia, and other works, 1694, &c. *Ananas*, Fr., Ger., and Ital.; and *Nanas* among the Peruvians, where it was originally found by Europeans. This fruit may, without hesitation, be pronounced the first in the world, though it has not been known in Europe above two centuries, and has only been cultivated about a century as a fruit plant in Britain. It passed from Brazil to the West, and thence to the East Indies, where it has long been successfully cultivated. About the middle of the seventeenth century it was brought to Holland, by Mr. La Court, a merchant, and cultivated at Driehoek, his seat, near Leyden; and from thence it was imported into this country, and first fruited by Sir Matthew Decker, at Richmond, about 1715, or earlier. La Court began by growing his pines without bottom heat, as dry stove plants; but afterwards had recourse to low pits and tanner's bark. Plans of his pits, and an account of his mode of culture, are published in his work, entitled, Aenmerkingen over Lusthoven, Plantagion, &c. (See *Ency. of Gard.* p. 1129, Anno. 1737.) Sir M. Decker, Bradley informs us, adopted pits; and soon after pine stoves, or larger and more commodious pits, were, by the year 1730, in most of the first English gardens, and some also in Scotland, where the pine-apple was first fruited by Justice, at Crichton, near Edinburgh, in 1732. The pine is now cultivated very generally in Britain, in several places in Ireland, and at most of the capital cities on the continent. In one or two of the southern provinces of Spain, it is grown in sheltered situations in the open air.

There are many varieties of the pine in the West Indies, procured by raising from seed: in this country there are upwards of thirty sorts, but the queen, New Providence, and one or two others, are most esteemed. The plants are propagated by suckers, and by that singular production, proceeding from the summit of the fruit, called a crown: from large suckers fruit is sometimes obtained in eighteen months, but, in general, a period of two or three years is required, and for the New Providence sometimes longer. Loamy soil well enriched with rotten dung, and the pots sufficiently drained, with abundance of heat without sudden extremes, will ensure large and well flavored fruit. (See *The various Modes of cultivating the Pine-Apple from its first Introduction to the Improvements of Mr. Knight, &c.* 8vo. 1822.)

Some of the other species of true Bromelia have crowns, and the fruit of most of them is eatable, though small. B. Pinguin has the fruit separately in clusters, and not in a cone or pine, as in the Ananas. It is very common in Jamaica, in most of the Savannahs, and on the rocky hills. It is used there for fencing pas-

4103 Leaves entire, Scape branched
4104 Root tuberous, Leaves very long spiny at edge
4105 Cor. hexapetalous, Leaves ciliate spiny
4106 Leaves linear lanceolate entire upwards, at the base serrate spiny
4107 An obscure plant described by Haworth only and supposed to be *Doryanthes excelsa!!*

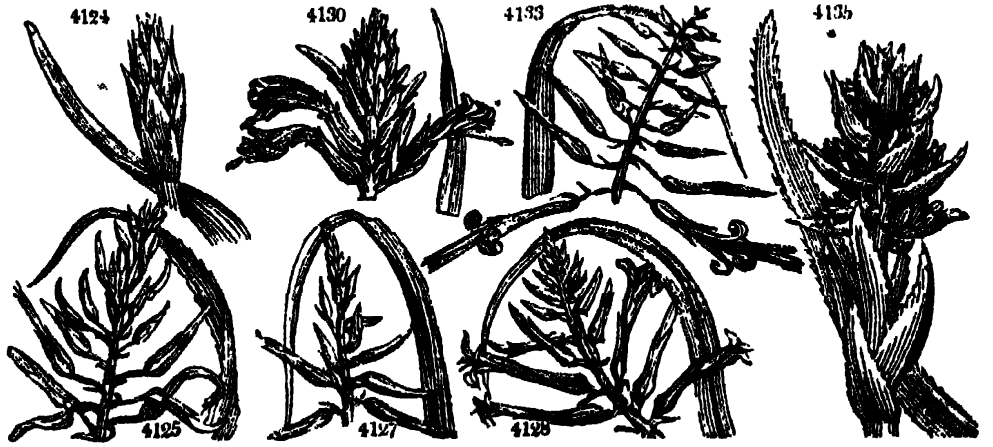
4108 Leaves fringed with spines mucronate, Spike comose
4109 Leaves at the end toothed spiny, Spike comose
4110 Leaves entire, Spike comose
4111 Leaves ciliated spiny mucronate, Raceme terminal
4112 Leaves ciliated spiny with a very long point, Raceme term. comp Flowers sessile shorter than bractea
4113 Leaves ciliated spiny with a very long point, Raceme rigid compound, Flow. in numerous lateral spikes
4114 Leaves erect, Flowers stemless sessile aggregate
4115 Radical leaves toothed spiny: cauline entire

4116 Panicle lax few-fl. spreading, Peduncles 1-flowered, Upper spathes fertile as long as flower spreading
4117 Leaves serrate spiny, Bractes lanceolate toothed, Raceme compound shorter than leaves
4118 Leaves serrated spiny obtuse, Spikes alternate
4119 Leaves serrate spiny, Bractes ovate lanceolate, Scape elongated, Raceme compound
4120 Panicle diffuse, Leaves ciliate spiny mucronate recurved
4121 Raceme compound, Flowers heaped shorter than the long red entire bracteæ, Calyx acute
4122 Nearly stemless, Leaves aggregate sessile, Axillæ stoloniferous
4123 Leaves ligulate oblong very blue, Spike oval woolly with small sessile flowers

4124 Scape upright, Spike imbricated, The lower bracteæ green; the upper scarlet

4125 Leaves ciliate spiny, Peduncles and germens quite smooth
4126 Leaves ciliate spiny, Peduncles and germens downy
4127 Leaves narrow glaucous entire, Calyx villous
4128 Leaves entire somewhat spiny at base
4129 Leaves entire a little spiny at base, Bractes as long as peduncle and calyx
4130 Leaves entire white beneath, Raceme imbricated dense
4131 Leaves toothed spiny recurved, above shining smooth, beneath mealy
4132 Spike compound contracted, Leaves ensiform aculeate, Cor. with a black spot at bottom
4133 Leaves linear lanc. entire, Petals revolute, Stamens longer than cor.

4134 Culm panicled
4135 Leaves upwards serrate spiny, Spike comose



and Miscellaneous Particulars.

ture lands, on account of its prickly leaves. These, stripped of their pulp, soaked in water, and beaten with a wooden mallet, yield a strong thread which is twisted into ropes and whips, and manufactured by the Spaniards into a good cloth. The juice of the fruit in water makes a cooling draught in fevers; it is extremely diuretic, destroys worms, and makes a good vinegar.

B. Karatas, so called from its Brazilian name, *Karaguata-acanga*, generally grows at the root of some shady tree, in hilly and woody places in America and the Caribbee islands. It is an elegant plant, producing numerous radical leaves, which are of a subulate-linear shape, sharp pointed, and edged with spines. The flowers are scentless, seated in the bosom or middle part of the plant, rose colored, with the calyx and germ downy. The length of the leaves is six or seven feet. The fruits are oval, two or three hundred in number, and grow sessile in a heap or central group, surrounded by paleaceous expanded leaves or bractes; they contain a succulent whitish or yellowish flesh, under a coriaceous and yellowish bark. When ripe, they are far from unpleasant; but when unripe they set the teeth on edge, and excoriate the mouth. The economy of this plant in the preservation of its fruit to maturity is wonderful: being so protected by the spines of the surrounding leaves, as to be secure from all injuries.

B. humilis propagates itself by runners or shooting processes, which proceed from the axillæ of the lower leaves, and produce a young plant from their extremities.

Bromelia fastuosa is the most beautiful of the genus. It has never flowered more than once in this country, when the figure in Mr. Lindley's Collectanea Botanica was obtained. Bromelia sylvestris resembles this, but is less beautiful.

727. *Guzmannia.* Named after Anastatio Guzman, an industrious apothecary, and zealous collector of objects of natural history in South America. A beautiful evergreen herbaceous plant, with the foliage of Tillandsia, and a spike of bracteæ, the uppermost of which are richly colored with rose.

728. *Pitcairnia.* So named by Mons. L'Heritier, in honor of William Pitcairn, M. D. an eminent physician of London, and a collector of foreign plants, particularly from the Alps. The species are remarkable for their long, narrow, green, prickly leaves, and for their uniform panicles of bright red. Pitcairnia staminea is very handsome. They require the same treatment as Bromelia.

729. *Tillandsia.* So named by Linnæus, in memory of Elias Tillandsius, professor of physic at Abo, author

4136 amœ́na *Lodd.*	charming	ℰ	⊡ or	2	jn	V	W. Indies	1819.	Sk	s.p	Bot. cab. 76
4137 usneoídes *W.*	pendulous	ℰ	⊡ or	6	....	Pu	W. Indies	1823.	Sk	p	Pl. alm. t. 26. f.6
4138 lingulàta *W.*	tongue-leaved	ℰ	⊡ or	2	jn.jl	Y	Jamaica	1776.	Sk	s.p	Jac. amer. t. 62
4139 flexuósa *W.*	flexuose	ℰ	⊡ or	1	....	B	W. Indies	1790.	R	s.p	Jac. amer. t. 63
β pállida	*pale*	ℰ	⊡ or	1	jn.jl	Y	W. Indies	1815.	R	s.p	Bot. reg. 749
4140 ánceps *Lodd.*	two-edged	ℰ	⊡ or	½	ap	B	W. Indies	1820.	R	s.p	Bot. cab. 271
4141 nútans *W.*	nodding	ℰ	⊡ or	2	au	B	Jamaica	1793.	R	s.p	
4142 stricta *B. M.*	stiff-leaved	ℰ	⊡ or	½	n	B	Brazil	1810.	R	s.p	Bot. mag. 1529
4143 recurvàta *W.*	recurve-leaved	ℰ	⊡ or	½	jl	Pu	Jamaica	1793.	R	s.p	Sl. ja. 1. t. 121.f.1
4144 xiphioídes *B. Reg.*	Air-plant	ℰ	⊡ or	½	jl	W	Buen. Ay.	...	R	s.p	Bot. reg. 105
730. PONTEDE'RIA. *W.*	Pontederia.				*Commelineæ.*		*Sp.* 4—7.				
4145 cordàta *Ph.*	heart-leaved	♆	△ or	2	jn.au	B	N. Amer.	1759.	D	l	Bot. mag. 1156
4146 angustifólia *Ph.*	narrow-leaved	♆	△ or	2	jn.au	B	N. Amer.	1806.	D	l	
4147 dilatàta *H. K.*	spreading	♆	⊡ or	2	my	B	E. Indies	1806.	D	l	Bot. rep. 490
4148 lanceolàta *Lodd.*	lanceolate	♆	⊡ or	2	au	B	N. Amer.	1815.	D	l	Bot. cab. 613
731. HÆMANTHUS. *W.*	Blood-flower.				*Amaryllideæ.*		*Sp.* 14—16.				
4149 coccíneus *W.*	salmon-colored	♉	⌊△⌋ or	1	au.o	R	C. G. H.	1629.	O	r.m	Bot. mag. 1075
4150 coarctàtus *W.*	compressed	♉	⌊△⌋ or	1	f.mr	Pk	C. G. H.	1795.	O	r.m	Bot. reg. 181
4151 rotundifólius *B. M.*	round-leaved	♉	⌊△⌋ or	1	jn.o	S	C. G. H.	1790.	O	s.l.p	Bot. mag. 1618
4152 puníceus *W.*	wave-leaved	♉	⌊△⌋ or	1	my.s	S	C. G. H.	1722.	O	r.m	Bot. mag. 1315
4153 multiflórus *W.*	many-flowered	♉	⊡ or	1	my.s	D.R	S. Leone	1783.	O	r.m	Bot. mag. 961
4154 tigrínus *W.*	tiger-spotted	♉	⌊△⌋ or	1	f.d	F	C. G. H.	1790.	O	r.m	Bot. mag. 1705
4155 quadriválvis *W.*	four-valved	♉	⌊△⌋ or	1	s.o	F	C. G. H.	1790.	O	r.m	Bot. mag. 1523
4156 pubéscens *W.*	pubescent	♉	⌊△⌋ or	1	au	W	C. G. H.	1774.	O	r.m	Bot. cab. 702
β albiflós W.	*white-flowered*	♉	⌊△⌋ or	1	ap.au	W	C. G. H.	1791.	O	r.m	Bot. mag. 1239
4157 maculàtus *Jacq.*	spotted-leaved	♉	⌊△⌋ or		ap.au	...	C. G. H.	1790.	O	s.l.p	
4158 lanceæfólius *W.*	spear-leaved	♉	⌊△⌋ or	1	s.o	R	C. G. H.	1794.	O	r.m	Jac. sch. 1. t. 60
4159 carinàtus *W.*	keel-leaved	♉	⌊△⌋ or	½	au.s	Pk	C. G. H.	1759.	O	r.m	
4160 pumílio *W.*	dwarf	♉	⌊△⌋ or		au.s	Pk	C. G. H.	1789.	O	s.l.p	Jac. sch. 1. t. 61
4161 cárneus *Ker.*	flesh-colored	♉	⌊△⌋ or	½	jn.jl	Pk	C. G. H.	1819.	O	s.l.p	Bot. reg. 509
4162 Hyalocárpus *Jacq.*	china-fruited	♉	⌊△⌋ or	1	jl	R	C. G. H.	1822.	O	s.l.p	Jacq. sch. t. 409
732. GALAN'THUS. *W.*	Snowdrop.				*Amaryllideæ.*		*Sp.* 2.				
4163 nivàlis *W.*	common	♉	△ or	½	ja.mr	W	Britain	mea.	O	co	Eng. bot. 19
4164 plicàtus *Bieb.*	plaited	♉	△ or	½	ja.ap	W	Crimea	1818.	O	co	Bot. reg. 545
733. LEUCO'JUM. *W.*	Snow-flake.				*Amaryllideæ*		*Sp.* 5.				
4165 vérnum *W.*	spring	♉	△ or	½	ja.mr	W	Germany	1596.	O	s.l	Bot. mag. 46
4166 æstívum *W.*	summer	♉	△ or	1½	ap.my	W	England	m.mo.	O	s.l	Eng. bot. 621
4167 pulchéllum *P. L.*	neat	♉	△ or	1½	ap.my	W	......	...	O	s.l	Par. lond. t. 21
4168 autumnàle *W.*	autumnal	♉	△ or	½	s	Pk	Portugal	1629.	O	s.l	Bot. mag. 960
4169 trichophýllum *P. S.*	narrow-leaved	♉	△ or	½	ja.f	W	Barbary	1812.	O	s.l	Bot. reg. 544

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History, Use, Propagation, Culture,

of Flora Aboensis, 1673. Several species of this genus are parasitical, and others require the same treatment as Pitcairnia or Bromelia.

T. utriculata is a valuable plant in the woods of the West Indies, as containing a supply of water in dry seasons. The seed being pappose, is carried about by the wind, and sticks readily on the bark of trees: there, especially on decaying ones, it sends out small brown fibres which take hold of the bark, and weave and mat themselves among one another: from this foundation rise several leaves on every side, like those of Aloes or Ananas; they are folded or inclosed one within another, each three feet and a half long, and three inches broad at the base, but ending in a point, having a very hollow or concave inward side, and a round or convex outward one, forming a bason or cistern, containing about a quart of water, which, in the rainy season falls upon the upper parts of the spreading leaves, and being conveyed down them by channels, lodges in the bottom as in a bottle; for the leaves, having swelled out at the base, bend inwards close to the stalk, thus hindering the evaporation of the water by the heat of the sun. From the midst of the leaves rises a round, smooth, straight, green stalk, three or four feet high, having many branches, and when wounded yielding a clear white mucilaginous gum. The flowers come out here and there on the branches. The corolla is of a yellowish-white or herbaceous color; and the calyx is made up of three green viscid leaves with purple edges. Men, birds, and insects supply themselves with water from this plant. Dampier says, he has many times, to his great relief, stuck his knife into the leaves just above the roots, and let out the water into his hat.

T. usneoides deserves, for its appearance and uses, to be shortly described. The stem is no bigger than a thread; the skin whitish, as if covered with hoar-frost, within tough and black like a horse hair. Many of these together stick on the branches of the ebony or other trees superficially by the middle, and send down on each side some of the same stems, very often a yard long, hanging on both sides, curled, or turning and winding one within another, and resembling an old man's beard, whence its common name in Jamaica. The stems are branched, and the branches, which are two or three inches long, are set with roundish, white, frosted leaves. The flowers come out at the end of the branches. This slender parasitical plant is found among the trees in many parts of Jamaica, but does not grow so commonly there, nor so luxuriantly, as it does in the more northern provinces of the main continent, where it is said to overrun whole forests. It is frequently imported from Jamaica to North America, for the use of the

4136 Leaves lanceolate channelled slightly prickly, outer acute inner retuse
4137 Filiform branched twisted rough
4138 Leaves lanceolate ligulate entire ventricose at base
4139 Leaves linear subulate entire imbricate, Spike lax

4140 Leaves narrow channelled recurved, Spike imbricated simple oval two-edged
4141 Spikes subdivided nodding, Flowers distinct ovate, Leaves ovate lanceolate membranous
4142 Leaves radical stiff frosted, Flowers imbricated in an ovate spike of whitish bractes
4143 Leaves subulate rough reclinate, Stems 1-flowered, Glumes 2-flowered
4144 Flower tubular trifid, Segments of the tripetaloid limb reflexed twice as short as tube, Lvs. entire

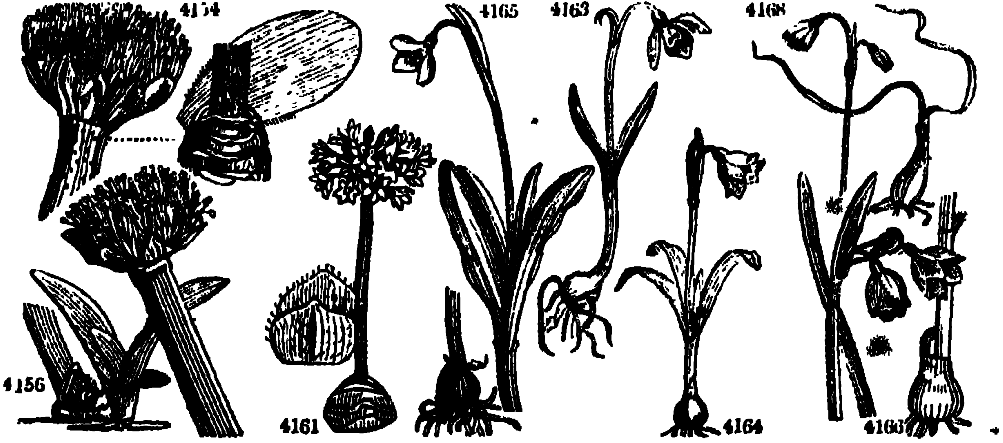
4145 Leaves cordate, Flowers spiked
4146 Leaves long-triangular narrowed by degrees, at the base truncate cordate, Petals lin. lanc.
4147 Leaves sagittate obtuse, Flowers in crowded umbels
4148 Leaves lanceolate elliptical cordate, Spike oblong

4149 Leaves linguiform flat smooth pressed on the ground 2-ranked, Umbel shorter than the spathe
4150 Leaves linguiform oblong flat smooth callous at end, Umbel contracted shorter than spathe, Limb erect
4151 Leaves rounded fringed with pink hairs, Umbel few-flowered, Leaves of spathe cordate blunt
4152 Leaves oblong elliptical acute retuse wavy, Umbel contracted, Limb and stamens erect
4153 Leaves ellipt. lanceol. acute concave erect, Umbel longer than spatha, Limb spreading, Stam. ascending
4154 Leaves linguiform flat smooth fringed at edge depressed, Umbel contracted, Limb and stamens erect
4155 Leaves lanceolate ciliated villous above smooth beneath, Spathe campanulate 4-valved
4156 Leaves oblong lanceolate hairy all over, Umbel fastigiate rounded, Limb and stamens erect

4157 Leaves broad much spotted with brown
4158 Lvs. ellipt. atten. at base depressed flat smooth ciliated at edge, Pedunc. longer than spathe and flower
4159 Leaves linear carinated
4160 Leaves linear lanceolate erect smooth, Peduncles length of spathe and flowers, Limb spreading
4161 Leaves 2 round ovate acuminate and scape hairy backwards, Spathe reflexed withered, Stam. included
4162 Leaves oblong obtuse smooth erect not spotted, Umbel rounded, Limb erect

4163 Leaves smooth
4164 Leaves plaited

4165 Spathe 1-flowered, Style clavate
4166 Spathe many-flowered, Style clavate
4167 A slight variety of the last
4168 Spathe many-flowered, Style filiform
4169 Vernal, Sepals entire, Style filiform with a blunt stigma



and Miscellaneous Particulars.

sadlers and coachmakers, who commonly stuff their pannels, cushions, &c. with it. In Louisiana and the neighbouring settlements, this plant being very carefully gathered and stripped of the bark, is made into mattrasses, cushions, pannels, &c. It is manufactured by tying the stalks in bunches, and sinking them in water, or burying them under ground in a moist place, until the bark rots: they are then taken up, boiled in water, and washed, until the fibres are quite cleared of the pulp. These are not only used instead of horse-hair, but are so very like it, that a man cannot distinguish them, without a strict examination, and that even with a glass, unless he observes the branchings of it.

The Bonana bird's nest is always made of the fibres of this plant, and is generally found hanging by a few threads from the tops of the most expanded branches of the most lofty trees, especially those that spread over ponds or rivers.

In cultivating Tillandsia in our stoves, the parasitical species may either be hung up in baskets of moss, or fastened in moss to some plant, or to the stump of a tree set up on purpose: if planted in pots, they require but little water, and a sandy loam, with bits of sticks and small pieces of potsherds mixed with it. (*Sweet.*) They are, however, extremely difficult to manage under any mode of treatment.

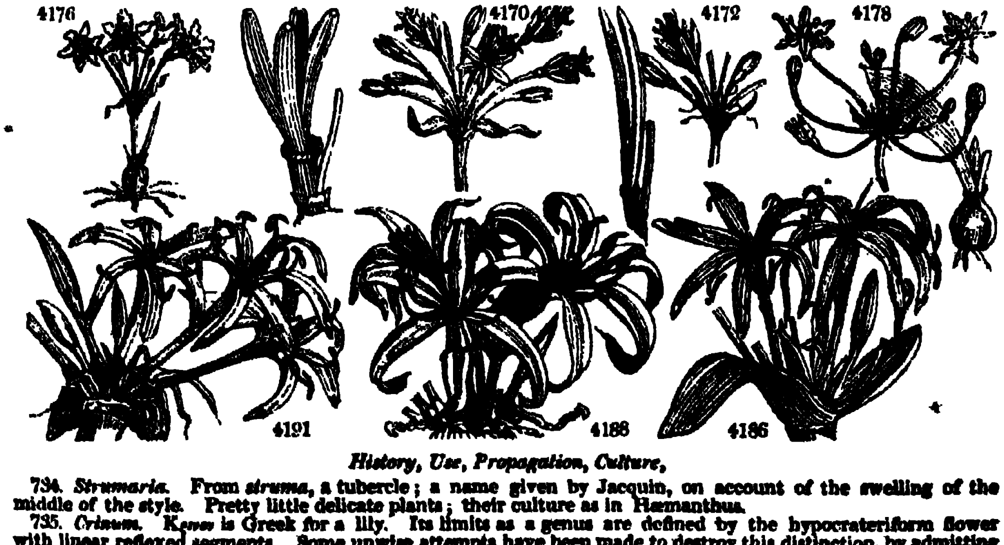
730. *Pontederia.* So named in memory of Julius Pontedera, professor of botany at Padua, author o Tabulæ Botanicæ, 1718, &c. This is a genus of aquatic, herbaceous, perennial plants, with fibrous roots sheathing stem-leaves, and blue flowers in spikes or umbels from the cloven sheath of the leaves. A loamy soil in a cistern of water grows them well, and they are not without beauty.

731. *Hæmanthus.* From αιμα, blood, and ανθος, a flower, in allusion to the brilliant red colors of the flowers. An ornamental genus, which thrives best in sandy loam and a little peat, and placed in a dry stove or bulb-house near the glass. The species require no water when in a dormant state, as the bulbs then ripen, and afterwards flower freely. (*Sweet.*)

732. *Galanthus.* From γαλα, milk, and ανθος, a flower, on account of the milky whiteness of the blossoms. It is rather singular, and also to be regretted, that no variations or hybrids have been produced from this early and pretty little flower.

733. *Leucojum.* From λευκος, white, and ιον, a violet. A genus resembling the last in habit, but differing in technical characters. The little autumn species is very pretty, but difficult to cultivate.

734. STRUMA'RIA. *Jac.*	Strumaria.					*Amaryllideæ.*		*Sp.* 9—11.				
4170 truncáta *W.*	truncated	♉	⌊∆⌋	or	½	ap.my	W	C. G. H.	1795.	O	s.l	Jac. ic. 2. t. 357
4171 rubélla *W.*	pale-red	♉	⌊∆⌋	or	½	my.jn	Pk	C. G. H.	1795.	O	s.l	Jac. ic. 2. t. 358
4172 angustifólia *W.*	narrow-leaved	♉	⌊∆⌋	or	½	ap.my	Pk	C. G. H.	1795.	O	s.l	Jac. ic. 2. t. 359
4173 linguæfólia *W.*	tongue-leaved	♉	⌊∆⌋	or	½	ap.my	W	C. G. H.	...	O	s.l	Jac. ic. 2. t. 356
4174 filifólia *H. K.*	fine-leaved	♉	⌊∆⌋	or	½	n	W	C. G. H.	1774.	O	s.l	Bot. reg. 440
4175 spirális *H. K.*	spiral	♉	⌊∆⌋	or	½	ap.au	Pk	C. G. H.	1774.	O	s.l	Bot. mag. 1393
4176 críspa *B. M.*	curled-flower'd	♉	⌊∆⌋	or	½	ap.au	Pk	C. G. H.	1790.	O	s.l	Bot. mag. 1368
4177 stelláris *Jacq.*	starry	♉	⌊∆⌋	or	1	o.n	Pk	C. G. H.	1794.	O	s.l	Jac. sch. 1. t. 71
4178 gemmáta *B. M.*	Jewel-flowered	♉	⌊∆⌋	or	1	au	Pa.Y	C. G. H.	1812.	O	s.l	Bot. mag. 1620
735. CRI'NUM. *W.*	Crinum.					*Amaryllideæ.*		*Sp.* 26—28.				
4179 americánum *W.*	American	♉	[∆]	or	2	jl.au	W	S. Amer.	1752.	O	r.m	Bot. mag. 1034
4180 erubéscens *W.*	blush-colored	♉	[∆]	or	2	jn.au	Pa.w	W. Indies	1789.	O	r.m	Bot. mag. 1232
4181 Commelini *Ker.*	Commelin's	♉	[∆]	or	2	jn.au	W	S. Amer.	1798.	O	r.m	Jac. sch. 2. t. 202
4182 deflxum *Ker.*	marsh	♉	[∆]	or	2	au.s	W	E. Indies	1810.	O	r.m	Rhe. m. 11. t. 38
4183 amœ'num *Roxb.*	delightful	♉	[∆]	or	2	...	W	E. Indies	1810.	O	r.m	
4184 sumatránum *Ker.*	Sumatra	♉	[∆]	or	5	...	W	Sumatra	1810.	O	r.m	Bot. reg. 1049
4185 longifólium *Ker.*	long-leaved	♉	[∆]	or	3	...	W	Bengal	1810.	O	r.m	
4186 cruéntum *Ker.*	red-flowered	♉	[∆]	or	4	jn.au	R	E. Indies	1810.	O	r.m	Bot. reg. 171
4187 asiáticum *W.*	Poison-bulb	♉	[∆]	p	3	jn.au	W	China	1732.	O	r.m	Bot. mag. 1073
C. toxicarium Roxb.												
4188 amábile *Donn.*	beautiful	♉	[∆]	or	5	jn.au	Pu	E. Indies	1810.	O	r.m	Bot. mag. 1605
4189 bracteátum *W.*	bracteated	♉	[∆]	or	2	jn.au	W	Mauritius	1810.	O	r.m	Bot. reg. 179
4190 canaliculátum *Ker.*	channelled-lvd.	♉	[∆]	or	4	...	W	......	1810.	O	r.m	
4191 pedunculátum *B. R.*	long-peduncled	♉	⌊∆⌋	or	3	jn.au	W	N. S. W.	1790.	O	r.m	Bot. reg. 52
4192 ensifólium *Roxb.*	sword-leaved	♉	[∆]	or	3	...	W	Pegu	1819.	O	r.m	
4193 lorifólium *Roxb.*	strap-leaved	♉	[∆]	or	5	...	W	Pegu	1819.	O	r.m	
4194 augústum *Roxb.*	noble	♉	[∆]	or	4	jn.au	Pk	Mauritius	1818.	O	r.m	Bot. reg. 679
4195 brachyándrum *Herb.*	short-stamened	♉	[∆]	or	5	jn.au	W	N. Holl.	1819.	O	r.m	
4196 plicátum *Hort.*	plaited	♉	⌊∆⌋	or	2	jn.au	W	China	1818.	O	r.m	
4197 declinátum *Herb.*	sloping	♉	[∆]	or	2	my	W	Silhet	1818.	O	r.m	Bot. mag. 2231
4198 submérsum *Herb.*	lake	♉	[∆]	or	1½	jl	Pk	Rio Janei.	1820.	O	r.m	Bot. mag. 2463
4199 Careyánum *Herb.*	Carey's	♉	[∆]	or	2	jl	W	Mauritius	1821.	O	r.m	Bot. mag. 2466
4200 confértum *Herb.*	crowded	♉	[∆]	or	2	jn	W	N. Holl.	1822.	O	r.m	Bot. mag. 2522
4201 aquáticum *Burch.*	water	♉	[∆]	or	4	au.s	Pk	C. G. H.	1820.	O	r.m	Bot. mag. 2352
4202 arenárium *Herb.*	sand	♉	[∆]	or	2	my	W	N. Holl.	1822.	O	r.m	Bot. mag. 2355
4203 mauritiánum *Herb.*	African	♉	[∆]	or	4	mr	Pk	Mauritius	1812.	O	r.m	Bot. cab. 650
4204 scábrum *Herb.*	rough	♉	[∆]	or	4	my	Pk	Azores	1810.	O	r.m	Bot. cab. 529
736. CYRTAN'THUS *H. K.*	Cyrtanthus.					*Amaryllideæ.*		*Sp.* 7—8.				
4205 angustifólius *W.*	narrow-leaved	♉	⌊∆⌋	or	1	my.jn	O	C. G. H.	1774.	O	r.m	Bot. mag. 271
4206 collínus *B. Reg.*	hill	♉	⌊∆⌋	or	¾	my.au	Cr	C. G. H.	1816.	O	r.m	Bot. reg. 162
4207 spirális *B. Reg.*	spiral-leaved	♉	⌊∆⌋	or	1	my.au	S	C. G. H.	1790.	O	r.m	Bot. reg. 167
4208 oblíquus *W.*	oblique-leaved	♉	⌊∆⌋	or	2	my.au	G.o	C. G. H.	1774.	O	r.m	Bot. mag. 1133
4209 uniflórus *Ker.*	one-flowered	♉	⌊∆⌋	or	½	my.au	W.s	C. G. H.	1816.	O	r.m	Bot. reg. 168
4210 odórus *Ker.*	sweet	♉	⌊∆⌋	or	¾	my.jl	Cr	C. G. H.	1818.	O	r.m	Bot. reg. 503
4211 pállidus *Sims.*	pale	♉	⌊∆⌋	or	1	my.jl	Pk	C. G. H.	1822.	O	r.m	Bot. mag. 2471
737. BRUNSVI'GIA. *Heist.*	Brunsvigia.					*Amaryllideæ.*		*Sp.* 8.				
4212 Josephínæ *R. L.*	Josephine's	♉	⌊∆⌋	or	1½	jn.au	S	C. G. H.	1814.	O	r.m	Red. lil. t. 370. 372
β *minor* B. Reg.	*smaller*	♉	⌊∆⌋	or	1	jn.au	S	C. G. H.	1814.	O	r.m	Bot. r. 192, 193
4213 multiflóra *H. K.*	many-flowered	♉	⌊∆⌋	or	1	jn.au	R	C. G. H.	1752.	O	r.m	Bot. mag. 1619
4214 marginàta *H. K.*	red-margined	♉	⌊∆⌋	or	1	s.o	S	C. G. H.	1795.	O	r.m	Jac. sch. 1. t. 65
4215 Rádula *H. K.*	rasp-leaved	♉	⌊∆⌋	or	½	ap.au	R	C. G. H.	1790.	O	r.m	Jac. sch. 1. t. 68
4216 striáta *H. K.*	striated	♉	⌊∆⌋	or	½	s.o	Pk	C. G. H.	1795.	O	r.m	Jac. sch. 1. t. 70
4217 falcáta *B. M.*	sickle-leaved	♉	⌊∆⌋	or	¾	my.jn	R	C. G. H.	1774.	O	r.m	Bot. mag. 1443
4218 toxicária *Ker.*	Poison-bulb	♉	⌊∆⌋	p	1	s.o	Pk	C. G. H.	1774.	O	r.m	Bot. reg. 567
β *coranica* Ker.	*cor. Poison-bulb*	♉	⌊∆⌋	p	1	s.o	Pk	C. G. H.	1815.	O	r.m	Bot. reg. 139
4219 ciliáris *Ker.*	fringed	♉	⌊∆⌋	or	1	...	Pk	C. G. H.	1752.	O	r.m	Breyn. cent. t. 39



History, Use, Propagation, Culture,

734. *Strumaria.* From *struma*, a tubercle; a name given by Jacquin, on account of the swelling of the middle of the style. Pretty little delicate plants; their culture as in Hæmanthus.

735. *Crinum.* Κρινον is Greek for a lily. Its limits as a genus are defined by the hypocrateriform flower with linear reflexed segments. Some unwise attempts have been made to destroy this distinction, by admitting into this genus plants with the characters of Amaryllis. We, however, have adhered to the old, and, as we think, most intelligible, mode of understanding the genus. This is a fine stately genus of the Amaryllideæ: several beautiful species have lately been introduced. They grow best in rich loam, mixed with a little rotten dung, and potted in large pots they will flower abundantly. They may be increased by suckers from the root, or by seed. If the plant be shy in producing suckers, it may be cut down near to the root, and it will send out plenty. (*Bot. Cult.* 46.)

4170 Leaves linear ensiform rounded obtuse flat, Scape compressed, Stamens longer than cor.
4171 Leaves linear obliquely bent, Petals flat
4172 Leaves linear flat, Germen with three glands
4173 Leaves linear ensiform rounded obtuse flat, Scape rounded, Stamens as long as cor.
4174 Leaves filiform, Petals acute
4175 Leaves filiform spiral, Petals acute colored outside
4176 Leaf filiform straight, Umb. many-flowered, Petals wavy flat
4177 Sepals spreading alternately bearded beneath the ends
4178 Scape flexuose much longer than the lanceol. ciliated leaves, Pedunc. very long, Petals wavy channelled

4179 Leaves striated, Umbel sessile many-flowered, Tube furrowed about as long as limb
4180 Lvs. lanc. lor. with cartil. teeth, Umb. subs. many-fl. Tube longer than limb, Stam. little long. than style
4181 Ends of sepals hooked inwards, Leaves linear channelled, Scape 4-fl.
4182 Bulb with a very long tap-root, Leaves stiff erect with long points smooth at edge, Umb. sess. many-fl.
4183 Bulb spherical, Leaves narrow with a nearly smooth edge, Umb. few-fl. sess. Sep. lin. lanc. as long as tube
4184 Bulb oval not with a neck, Lvs. broad lin. lanc. straight with a white cartil. toothed edge, Umb. of fl. sess.
4185 Bulb round, Leaves narrowed lax channelled hispid at edge, Umb. sess. many-fl. Seg. shorter than tube
4186 Bulb ovate with a neck, Leaves broad subulate roughish at edge, Spathe herbaceous
4187 Bulb cylind. above ground, Lvs. lanc. smooth at edge longer than scape, Umb. stalk. Sep. long lin. reflexed

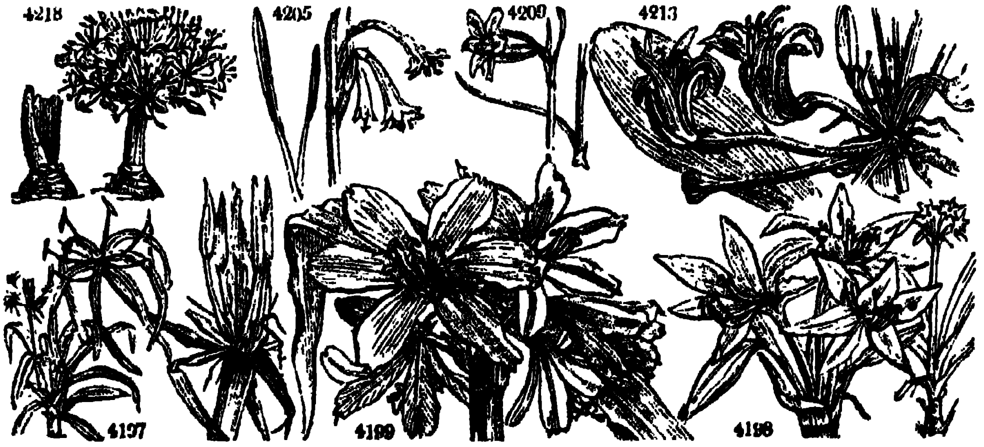
4188 Bulb very large with long red neck, Lvs. broad glauc. smth. at edge, Umb. many-fl. Tube shorter than limb
4189 Bulb with long neck, Lvs. obl. lanc. with obt. point smooth wavy at edge, Umb. many-fl. with pale bractes
4190 Bulb cylindrical scarcely with a neck, Leaves lorate with a smooth edge, Umb. on a very long stalk
4191 Bulb cylindrical like a leek, Scape central broad compressed, Umb. many-fl. lax stalked
4192 Bulb ovate, Leaves scattered straight of one form
4193 Bulb cylindrical ovate, Leaves lorate very long, Umb. many-fl. stalked
4194 Bulb colum. above ground, Lvs. many lanc. with smooth edge, Scape as long as lvs. Umb. stalk. 20-30-fl.
4195 Bulb columnar, Leaves many bluntly acuminate, Flowers sessile, Segments longer than tube
4196 Like C. asiaticum, but with leaves strong plaited backwards about their middle
4197 Bulb oblong, Leaves acute wavy smooth at edge, Flowers many stalked declinate
4198 Bulb oblong ovate red, Leaves rough at edge, Flowers spreading, Sepals lanceolate flat not revolute
4199 Bulb round, Lvs. wavy rough at edge, Sepals obov. flat, Flowers very large with a tinge of pink at back
4200 Bulb ovate, Leaves narrow channelled acute, Flowers upright crowded
4201 Bulb ovate, Leaves very long narrow green twisted, Flowers campanulate, Stamens spreading
4202 Bulb ovate, Leaves a little rough at edge, Umbel 5-flowered shortly stalked, Sepals lanc. flat
4203 Leaves long narrow weak, Scape shorter than leaves, Umbel 5-6-flowered
4204 Leaves long narrow recurved rough at edge, Scape 2-edged, Umb. 5-flowered, Sepals broad

4205 Leaves linear channelled, Flowers cernuous, Tube cylindrical
4206 Leaves 3 linear glaucous, Pedunc. somewhat shorter than flower, Stamens included
4207 Many-flowered, Leaves 3 ligulate spiral obtuse glaucous
4208 Leaves lanceolate obtuse flat oblique, Cor. pendulous obversely conical
4809 Leaf solitary linear glaucous, Limb as long as throat
4210 Flowers about 4 straightish nodding, Anthers included, Leaves linear not glaucous
4211 Leaves linear lanc. keeled appearing after the flowers, Cor. nodding, Limb as long as tube

4212 Lvs. strap-shaped erect spreading glaucous, Scape twice as long as the rays of the many-flowered umbel

4213 Leaves linguiform lying on the ground smooth
4214 Leaves lingulate pressed on the ground with a cartilaginous edge
4215 Leaves elliptical pressed on the ground rough with little pustules
4216 Leaves elliptical ovate erect edged
4217 Leaves falcate with a muricated discolored cartilaginous edge
4218 Umbel hemispherical close, Leaves many erect oblique glaucous

4219 Leaves strongly fringed with white hairs

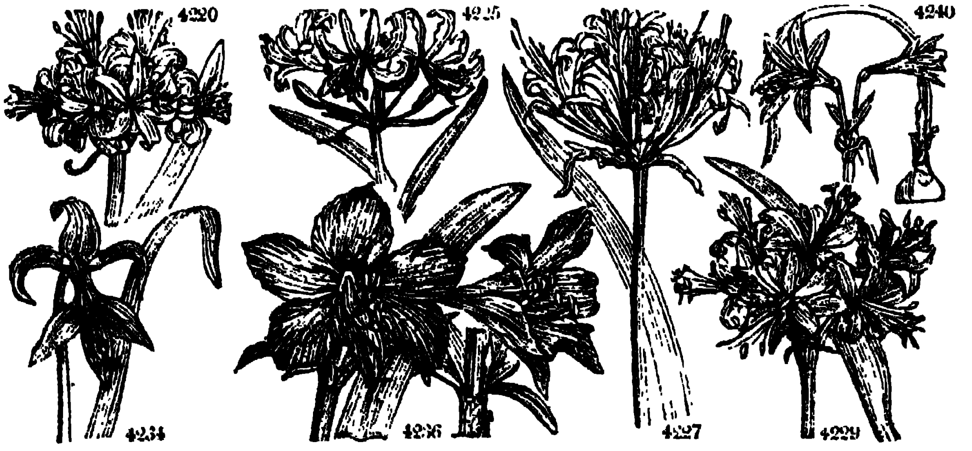


and Miscellaneous Particulars.

736. *Cyrthanthus.* From κυρτος, curved, and ανθος, a flower. The tube of the flower is long and round. This is an elegant genus, and the species grow well in sandy loam mixed with a little peat. They require plenty of water when in a growing state, but scarcely any when dormant; and they should be fresh potted just before they begin to grow, when they will flower freely. They may be increased by offsets from the bulbs, or from seeds. (*Bot. Cult.* 176.)

737. *Brunsvigia.* Named after the noble family of Brunswick. This is a splendid genus; some of the bulbs grow to a great size, and require large pots to have them thrive and flower in perfection. They require plenty of water when in a growing state; but must when dormant be kept so by wholly withholding water.

738. **NERI'NE.** *Herb.*	Nerine.				*Amaryllideæ.*			*Sp.* 12.				
4220 curvifólia *W.*	Fothergill's	♉	⌊Δ⌋	or	1	my.s	P	C. G. H.	1777.	O	r.m	Bot. mag. 725
4221 corúsca *B. M.*	glittering	♉	⌊Δ⌋	or	1	jl.au	S	C. G. H.	1809.	O	r.m	Bot. mag. 1089
4222 sarniénsis *W.*	Guernsey Lily	♉	⌊Δ⌋	or	1	s.o	R	Japan	1659.	O	r.m	Bot. mag. 294
4223 venústa *B. M.*	poppy-colored	♉	⌊Δ⌋	or	1	jn.jl	S	C. G. H.	1806.	O	r.m	Bot. mag. 1090
4224 flexuósa *W.*	Zigzag	♉	⌊Δ⌋	or	1	s.o	Pk	C. G. H.	1795.	O	r.m	Bot. reg. 172
4225 húmilis *W.*	small	♉	⌊Δ⌋	or	2	jn.jl	R	C. G. H.	1795.	O	r.m	Bot. mag. 726
4226 unduláta *W.*	waved-flowered	♉	⌊Δ⌋	or	¾	my.jn	Pk	C. G. H.	1767.	O	r.m	Bot. mag. 369
4227 aúrea *W.*	golden	♉	⌊Δ⌋	or	1	au.s	Y	China	1777.	O	r.m	Bot. mag. 409
4228 radiáta	Snowdrop-leav.	♉	⌊Δ⌋	or	1½	jn.jl	Pk	China	1758.	O	r.m	Bot. rep. 95
4229 rósea *Herb.*	rose-colored	♉	⌊Δ⌋	or	½	jl	Pk	C. G. H.	1818.	O	r.m	Bot. mag. 2124
4230 laticóma *Ker.*	broad-headed	♉	⌊Δ⌋	or	1	au	Pk	C. G. H.	1818.	O	r.m	Bot. reg. 497
4231 pulchélla *Herb.*	pretty	♉	⌊Δ⌋	or	2	jl	Pk	C. G. H.	1820.	O	r.m	Bot. mag. 2407
739. **AMARYL'LIS.** *W.*	Amaryllis.				*Amaryllideæ.*			*Sp.* 33—39.				
4232 Pumílio *W.*	dwarf	♉	⌊Δ⌋	or	½	n	Pk	C. G. H.	1774.	O	r.m	
4233 pudíca *Ker.*	modest	♉	⌊Δ⌋	or	½	my.jl	Pk	C. G. H.	1795.	O	r.m	Ker's rev. pl. 8. f. 8
4234 formosíssima *W.*	Jacobea Lily	♉	⌊Δ⌋	or	¾	my.au	D.R	N. Amer.	1658.	O	r.m	Bot. mag. 47
4235 aúlica *Ker.*	crowned	♉	[Δ]	or	1½	my.au	G.s	Brazil	...	O	r.m	Bot. reg. 444
4236 psittácina *Ker.*	parrot	♉	[Δ]	or	1½	my.au	G.s	Brazil	1816.	O	r.m	Bot. reg. 199
4237 calyptráta *Ker.*	green-flowered	♉	[Δ]	or	1½	my.au	G	Brazil	1816.	O	r.m	Bot. reg. 164
4238 equéstris *W.*	Barbadoes lily	♉	[Δ]	or	1	jl.o	S	W. Indies	1710.	O	r.m	Bot. mag. 305
β *májor*	*larger*	♉	[Δ]	or	1½	jl.o	S	W. Indies	1710.	O	r.m	Bot. reg. 234
4239 regínæ *W.*	Mexican Lily	♉	[Δ]	or	2	my.jn	S	America	1725.	O	r.m	Bot. reg. 453
4240 ádvena *R. M.*	streaked-flow.	♉	[Δ]	or	¾	my.jn	S	Chili	1807.	O	r.m	Bot. reg. 1125. 1
β *cerina* Lindl.	*pale*	♉	[Δ]	or	¾	my.jn	P.y	Chili	1821.	O	r.m	Bot. reg. 1125. 2
4241 solandræflóra *Lindl.*	Solandra-flow.	♉	[Δ]	or	1½	ap	P.y	S. Amer.	1820.	O	r.m	Lindl. coll. 11
4242 pulverulénta *Herb.* *acuminata* Ker.	pointed	♉	[Δ]	or	1	ap.my	R	Brazil	1819.	O	r.m	Bot. reg. 534
4243 cyrtanthoídes *Sims.*	Cyrtanthus-like	♉	[Δ]	or	¾	jn	Cr	Chili	1821.	O	r.m	Bot. mag. 2399
4244 ígnea *Lindl.*	fiery	♉	[Δ]	or	1	n	S	Chili	1824.	O	r.m	Bot. reg. 809
4245 can'dida *Lindl.*	white	♉	Δ	or	½	s	W	Peru	1822.	O	r.m	Bot reg. 724
4246 marinénsis *Ker.*	Maranhão	♉	[Δ]	or	1	my.jn	R	Maranhão	1821.	O	r.m	Bot. reg. 719
4247 reticuláta *W.*	netted-veined	♉	[Δ]	or	1	ap.my	Pu	Brazil	1777.	O	r.m	Bot. reg. 657
β *striatifolia*	*striped-leaved*	♉	[Δ]	or	1	ap.my	Pu	Brazil	1815.	O	r.m	
4248 australásica *Ker.*	New Holland	♉	⌊Δ⌋	or	2	jl.au	W	N. Holl.	1816.	O	r.m	Bot. reg. 426
4249 insígnis *Ker.* *Crinum latifolium* Roxb	noble	♉	[Δ]	or	3	jl.au	Pk	E. Indies	1819.	O	r.m	Bot. reg. 579
4250 moluccána	Molucca	♉	[Δ]	or	2	jl.au	Pk	Moluccas	1819.	O	r.m	Bot. mag. 2292
4251 croceáta *K. R.*	saffron-flower.	♉	[Δ]	or	1	ap.my	Ve	Brazil	1815.	O	r.m	Bot. reg. 38
4252 rútila *K. R.*	fiery	♉	[Δ]	or	¾	ap.my	S	Brazil	1815.	O	r m	Bot. reg 23
4253 fúlgida *B. Reg.*	striped-tubed	♉	[Δ]	or	¾	ap.my	Ve	Brazil	...	O	r m	Bot. reg. 226
4254 blánda *K. R.*	charming	♉	⌊Δ⌋	or	1½	my.jn	Pk	C. G. H.	1754.	O	r.m	Bot. mag. 1450
4255 Belladónna *W.*	Belladonna Lily	♉	Δ	or	2	jl.s	F	W. Indies	1712.	O	p.l	Bot. mag. 733
β *pállida*	pale-flowered	♉	Δ	or	2	jl s	F	C. G. H.	...	O	p.l	Red. lil. 470
4256 vittáta *W.*	superb	♉	⌊Δ⌋	or	1	ap my	St	......	1769.	O	r.m	Bot. mag. 129
β *major* Lindl.	*large*	♉	⌊Δ⌋	or	2	my.jl	St	C. G. H.	1774.	O	r.m	
4257 coránica *K. R.*	sickle-leaved	♉	⌊Δ⌋	or	2	jl.au	P.Pu	C. G. H.	1816.	O	r.m	Bot. reg. 139
4258 longifólia *W.*	long-leaved	♉	Δ	or	2	jl	Pk	C. G. H.	1752.	O	r.m	Bot. mag. 661
β *Gowenia*	*Gowen's*	♉	Δ	or	2	jn.jl	Pk	......	...	O	r.m	
4259 revolúta *W.*	revolute	♉	⌊Δ⌋	or	2	s	Pk	C. G. H.	1774.	O	r m	Bot. reg. 623
4260 zeylánica *W.*	Ceylon	♉	[Δ]	or	3	jl.au	Pu	Ceylon	1771.	O	r m	Bot. mag. 1171
4261 ornáta *W.*	Yucca-flowered	♉	[Δ]	or	2	jn.jl	W.pu	Guinea	1774.	O	r.m	Bot. mag. 1253
4262 gigantéa *K. R.*	gigantic	♉	[Δ]	or	2	jl.au	W	S Leone	1792.	O	r.m	Bot. mag 923
4263 latifólia *W.*	broad-leaved	♉	[Δ]	or	3	jl s	W	E. Indies	1806.	O	r.m	Rh. mal. 11. t. 39
4264 tatárica *Pall.*	Tartarian	♉	Δ	or	½	...	B	Siberia	1822.		r.m	
740. **VALLO'TA.** *Herb.*	Vallota.				*Amaryllideæ.*			*Sp.* 1.				
4265 purpúrea *Herb.*	scarlet	♉	⌊Δ⌋	or	1½	my.jn	S	C. G. H.	1774.	O	r.m	Bot. reg. 552
β *minor*	*smaller*	♉	⌊Δ⌋	or	1	my.jn	S	C. G. H.	1774.	O	r.m	Bot. mag. 1430



History, Use, Propagation, Culture,

738. *Nerine.* A fanciful name. *Nerine* was the daughter of Nereus. The plant has become naturalized in Guernsey, having been part of the cargo of a Cape ship, which was cast away many years ago on the coast of the island. N. sarniensis is a popular autumnal bulb, imported annually from the islands of Jersey and Guernsey, where it is grown in the open air in a sandy soil. Here it requires the protection of a frame to perfect the bulbs, so as it may flower the following year. The reason is, that the leaves on which the perfection and future flowering of every bulb depends, are protruded in the beginning of winter, and our winters are too long, gloomy, and severe, to admit of these leaves performing their functions properly. Hence two or more winters in a very mild situation in the open air are required to do what in Jersey is done in one winter; or two winters (as W. Williamson experienced) in a cold frame, or one winter only (agreeably to Knight's experience) in a frame with artificial heat. (*Hort. Trans.* iii. 450. iv. 177, and *Caled. Mem.* ii. 62.)

4220 Leaves narrow sub-involute glaucous falcate, Petals lin.-lanc. wavy, Stamens erect sub-exserted
4221 A mere variety of the foregoing, from which it differs in having crimson flowers
4222 Many-fl. Leaves many narrow sub-involute not glaucous upright
4223 Like the last, but the flowers are scarlet and appear at the same time as leaves
4224 Lvs. very narrow obt. min. pustulate, Sepals recurved divaricating: the one bearing the stamens remote
4225 Leaves few ligulate channelled, Sepals turned upwards oblique, Stam. declinate shorter than cor.
4226 Laxly many-fl. Lvs. few lin. Cor. recurved stel. irregular, Sepals curled; the lowest placed under the stam.
4227 Fl. stalked erect, Cor. infundibulif. clavate, Sepals linear lanceolate, Stamens straight, Leaves quite blue
4228 Five sepals, or all rising in a semicircular ray wavy, Stam. deflexed twice as long as cor.
4229 Leaves broad nerved lying on the ground, Sepals equally revolute, Stamens very long
4230 Leaves linear lorate, Scape flat smooth, Peduncles upright hispid 3-cornered twice as long as flower
4231 Leaves glaucous, Cor. deformed pale streaked with red

4232 Flower sessile, Leaf one linear, Sepals longer than tube ovate obl. reflexed acute, Stamens inclined
4233 One-flowered, Cor. regular erect turbinate conniving, One sepal pushed aside by the stamens
4234 Tube fringed, Cor nodding with a very ringent limb, Stam. included in the involute lower segments
4235 Tube crowned by a short entire green membrane
4236 Two-flowered half ringent, Membrane of the tube very short two-colored toothletted, Stamens included
4237 Mem. of orifice entire, Limb half ringent nodding with outer seg. incurved at end, the inner recurved
4238 Tube fringed, 2-3-fl. Stalks shorter than the erect spatha, Tube horizontal, Limb curved upwards

4239 Tube fringed, 2-4-fl. Lvs. few lorate acum. with a keeled rib, Cor. cernu. deeply turbin. Tube short thick
4240 Many-fl. Tube fringed, Leaves 1 or more linear ligulate involute glaucous, Stalks as long as nodding cor.

4241 Flowers about 2 with a very long tube and a nearly regular limb
4242 Leaves long strap-shaped with the scape very cæsious, Flowers 4 ringent with taper pointed segments

4243 Cor. funnel-shaped campanulate drooping, Stamens straight exserted, Leaves green lorate obtuse
4244 Umbel 6-fl. Sepals rolled into a cylindrical tube, Flower-stalks the length of flowers, Stigma simple
4245 Flower solitary erect, Sepals conniving, Stamens ascending, Anthers innate, Leaves linear fleshy
4246 Flower nodding ringent, Outer sepals broadest, Throat naked, Tube the length of the ovary
4247 Leaves several lorate-oblong narrow. towards the base, Flower cernuous cucull. tubular obliquely ringent

4248 Leaves linear very long and weak, Limb nodding 2-lipped, Flower-stalks many times longer than ovary
4249 Lvs. numerous spreading flat with rough edge, Fl. about 10 with nodd. spreading obsoletely 2-lipped limb

4250 Bulb spherical, Spathe bifid erect obtuse, Flowers sessile, Leaves with a long point wavy downwards
4251 Spathe withered scarcely as long as stalks, Cor. cern. uneq. Tube as long as germen, Upper sepal remote
4252 About 2-fl. Spathe arid refl. Limb turbin. bilabiate: three upper sep. conniv. recurv. lower narr. remote
4253 Leaves obl. lanc. not glaucous, Flowers nodding with an oblique mouth, the upper one much reflexed
4254 Lvs. many obl. obtuse, Pedunc. divaricating as long as fl. Tube short turbin. Limb recurved spreading
4255 With many fl. on stalks, Lvs. ligul. Cor. regular turbin. nodd. Sepals recurv. at end, Tube scarcely any

4256 Cor. cucul. campanulate, Outer sepals separate to the bottom; inner united half way by the interior ribs

4257 Lvs. altern. turn. both ways fal. Scape flat, Cor. regul. Tube twice as short as revol. limb. Stam. erect spread.
4258 Umb. many-fl. shortly stalked, Leaves attenuated glaucous, Tube about twice as long as limb

4259 Many-fl. Leaves acuminate glaucous, Flowers erect recurved stalked cucullate, Limb spreading revolute
4260 Leaves many lorate lanceolate wavy thick in the middle, Limb cernuous as long as tube
4261 Lvs. many lorate atten. channelled rough at edge, Limb obsoletely 2-lipped shorter than tube nodding
4262 Leaves obl. lanceolate narrowed both ways wavy rough at edge, Limb nodding shorter than tube
4263 Spathe many-fl. Flowers stalked tubular at base, Leaves obl. lanceolate
4264 Spathe 2-fl. Cor. campan. deeply 6-parted, Upper seg. very narr.; lower ob. acum. Lvs. lin. longer than scape

4265 The only species, *Amaryllis purpurea* of Willd.

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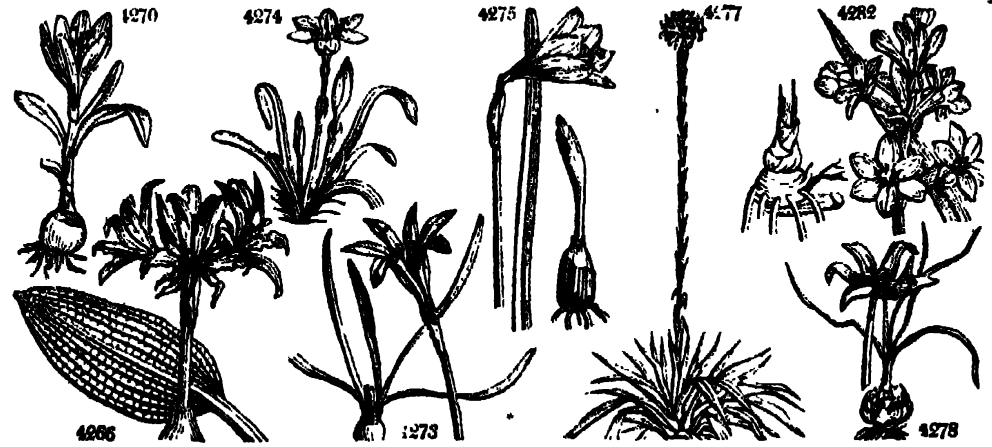
and Miscellaneous Particulars.

739. ***Amaryllis.*** Name of a nymph celebrated by the poets, and especially by Virgil. Derived from *αμαρυσσω*, to be resplendent. This is a superb genus: the greenhouse sorts thrive best in a rich loamy soil, and should have but little water given them after they have done flowering, so that the bulbs may harden, to produce more flowers the following season. Most of them are increased freely by offsets, and ripen plenty of seed. A shell taken from the bulb, with a leaf on it, and planted in a pot of mould, will produce a bulb; as will almost any bulbous-rooted plant. (*Bot. Cult.* 131.)

The stove Amaryllises grow best in light loam and rich soil, and the strong growing kinds require large pots to flower in perfection; they are increased by offsets and by seeds, which they bear plentifully, if care be taken to shake some pollen on the stigma at the proper period.

740. ***Vallota.*** A name of unknown meaning. The only species of this genus is a beautiful Cape plant, with bright purple flowers, of which two varieties are known in gardens

741. GRIFFI'NIA. *Ker.*	Griffinia.					*Amaryllideæ.*	*Sp.* 2.					
4286 hyacinthina *Ker.*	blue	♉	[△]	or	1	jn.s	B	S. Amer.	1815.	O	r.m	Bot. reg. 163
4287 parviflóra *Ker.*	small-flowered	♉	[△]	or	½	jn.s	Pa.P	S. Amer.	1815.	O	r.m	Bot. reg. 511
742. STERNBER'GIA. *W.*	Sternbergia.					*Amaryllideæ.*	*Sp.* 4—5.					
4268 colchiciflóra *W.& K.*	Colchicum-fl.	♉	△	or	¼	au.s	Y	Hungary	1816.	O	r.m	W.&Kit. 2. t.157
4269 clusiana *Ker.*	Ecluse's	♉	△	or	½	au.s	P.Y	Constant.	...	O	r.m	Clu. hist. 1. t.163
4270 lútea *Ker.*	yellow	♉	△	or	½	au.s	Y	S. Europe	1596.	O	r.m	Bot. mag. 290
4271 chloroleúca *Ker.*	one-leaved	♉	△	or	½	my.au	P.Gr	......	...	O	r.m	Ker. rev. pl.8.f.2
743. ZEPHYRAN'THES. *Herb.*	Zephyranthes.					*Amaryllideæ.*	*Sp.* 3.					
4272 tubispátha *Herb.*	tube-sheathed	♉	[△]	or	½	my.jl	W	S. Amer.	...	O	r.m	Bot. mag. 1586
4273 atamas'co *Herb.*	Atamasco-Lily	♉	△	or	½	my.jn	W	N. Amer.	1620.	O	r.m	Bot. mag. 239
4274 rósea *Lindl.*	rosy	♉	[△]	or	½	my.jn	R	Havana.	1823.	O	r.m	Bot. reg. 821
744. HABRAN'THUS. *Herb.*	Habranthus.					*Amaryllideæ.*	*Sp.* 2.					
4275 versicolor *Herb.*	changeable	♉	△	ft	½	s	Pk	S. Amer.	1821.	O	r.m	Bot. mag. 2485
4276 gracilifólius *Herb.*	slender	♉	△	ft	½	ja	W	S. Amer.	1821	O	r.m	Bot. mag. 2464
745. DORYAN'THES. *R. Br.*	Doryanthes.					*Amaryllideæ.*	*Sp.* 1.					
4277 excélsa *R. Br.*	gigantic	♃	⊔	or	20	jl.au	Cr	N. S. W.	1800.	Sk	s.p	Bot. mag. 1685
746. GETHYL'LIS. *H. K.*	Gethyllis.					*Amaryllideæ.*	*Sp.* 4—10.					
4278 spirális *W.*	spiral-leaved	♉	⌊△⌋	or	¼	jn.jl	W	C. G. H.	1780.		s.p	Bot. mag. 1088
4279 ciliáris *W.*	fringed	♉	⌊△⌋	or	½	jn.jl	W	C. G. H.	1788.		s.p	Jac.schœn.1.t.79
4280 villósa *W.*	hairy	♉	⌊△⌋	or	¼	jn.jl	W	C. G. H.	1787.		s.p	
4281 lanceoláta *W.*	spear-leaved	♉	⌊△⌋	or	¼	jn	W	C. G. H.	1790.		s.p	
747. POLIAN'THES. *L.*	Tuberose.					*Hemerocallideæ.*	*Sp.* 2.					
4282 tuberósa *W.*	common	✳	⌊△⌋	or	3	au.s	W	E. Indies	1629.	O	r.m	Bot. reg. 63
β *flore pléno*	*double*	✳	⌊△⌋	or	3		W	......	...	O	r.m	
4283 grácilis *Lk.*	slender	✳	[△]	or	3	au.s	P.Y	Brazil	1822.	O	r.m	
748. ALSTRŒME'RIA. *W.*	Alstrœmeria.					*Amaryllideæ.*	*Sp.* 5—14.					
4284 Pelegrina *W.*	spotted-flower.	✳	⌊△⌋	or	1	jn.s	St	Peru	1753.	S	r.m	Bot. mag. 139
4285 Ligtu *W.*	striped-flower'd	✳	[△]	ft	¾	f.mr	S	Peru	1776.	R	l.s.p	Bot. mag. 125
4286 salsilla *W.*	eatable-rooted	✳	[△]	clt	6	jn.jl	G.Cr	S. Amer.	1806.	R	l.s.p	Bot. mag. 1613
4287 Flos Martini *Ker.*	Flor de St. Mar.	✳	[△]	or	1½	jn	W.P.Y	Chili	1822.	S	l.s.p	Bot. reg. 731
4288 pulchel'la *Sims.*	red-flowered	✳	[△]	or	3	jn	S	Chili	1822.	S	l.s.p	Hook. ex. fl. 64
749. CONANTHE'RA. *Fl per.*	Conanthera.					*Amaryllideæ.*	*Sp.* 1—2.					
4289 campanuláta *Lindl.*	bell-flowered	♉	⊔	or	¾	mr	B	Chili	1823.	R	l.s.p	Bot. mag. 2496
750. HYPOX'IS. *W.*	Hypoxis.					*Hypoxideæ*	*Sp.* 15—19.					
4290 eréeta *W.*	upright	♃	△	or	½	jn.jl	Y	N. Amer.	1752.	O	p.l	Bot. mag. 710
4291 sobolifera *W.*	creeping	♃	⌊△⌋	or	½	jn.s	Y	C. G. H.	1774.	O	p.l	Bot. mag. 711
4292 villósa *W.*	villous	♃	⌊△⌋	or	¼	jn.s	Y	C. G. H.	1774.	O	p.l	Jac. ic. 2. t. 307
4293 decúmbens *W.*	decumbent	♃	[△]	or	½	jn.s	Y	Jamaica	1755.	O	p.l	Mill ic.1. t.39.f.2
4294 obliqua *W.*	oblique-leaved	♃	⌊△⌋	or	½	jn.jl	Y	C. G. H.	1795.	O	p.l	Bot. rep. 195
4295 aquática *W.*	water	✳	⌊△⌋	or		jn.jl	Y	C. G. H.	1787.	O	p.l	
4296 álba *W.*	white	♃	⌊△⌋	or	½	jn	W	C. G. H.	1806.	O	p.l	Jac. coll.4. t.2.f.1
4297 obtúsa *B. Reg.*	obtuse	♃	⌊△⌋	or	½	jn	Y	C. G. H.	1816.	O	p.l	Bot. reg. 159
4298 ováta *W.*	smooth-leaved	♃	⌊△⌋	or	½	f.my	Y	C. G. H.	1806.	O	s.p	Bot. mag. 1010
4299 stelláta *W.*	star-flowered	♃	⌊△⌋	or	¼	ap.jn	W.B	C. G. H.	1752.	O	s.p	Bot. mag. 662
β *élegans* P. S.	*white star-flow.*	♃	⌊△⌋	or	¼	ap.jn	W.B	C. G. H.	1752.	O	s.p	Bot. mag. 1223



History, Use, Propagation, Culture,

741. *Griffinia.* Named by Mr. Ker, after William Griffin, Esq. of South Lambeth, an amiable man, and most assiduous and successful collector of bulbous plants. His collection is even now one of the finest in Europe. These species resemble Amaryllis, but have broad-stalked leaves, and blue flowers.

742. *Sternbergia.* Named after Count Caspar Sternberg, a celebrated botanist and patron of botany. The species consist of the hardy plants formerly referred to Amaryllis; they are all hardy, and, with the exception of S. lutea, very rare.

743. *Zephyranthes.* A fanciful name employed by Mr. Herbert. It seems to mean wind-flower. These are pretty plants, with solitary white or pink flowers. The species are so nearly hardy, as to survive in a warm border all but our severest winters.

744. *Habranthus.* From ἁβρὸς, delicate, and ανθος, a flower. Small Chilian plants resembling the last in habit, and principally distinguished by their very unequal declinate stamens.

745. *Doryanthes.* So called by Correa de Serra, from δορυ, spear, and ανθος, a flower, on account of the long straight stem, surmounted by a head of crimson flowers. This is a fine plant from New South Wales. It grows freely in a mixture of sandy loam and peat, but does not flower till it gets large: a conservatory is the most proper place for it, as the flower-stem grows to a great height before the flowers expand. It may be increased by suckers from the roots, but these are sparingly produced. (*Bot. Cult.* 181.)

746. *Gethyllis.* From γηθεω, to rejoice. The flowers are much valued at the Cape of Good-Hope for the delicious perfume of their flowers. The species are very curious: but few have been introduced. Their bulbs require the usual attention as to not watering them when in a dormant state; *they are increased by offsets or* seeds.

4266 Leaves with a flat stalk, The three lower sepals wavy, Scape with a prominent line along each side
4267 Leaves oval-lanceol. with a stalk two-edged crosswise, Umbel remarkably stalked, Sepals uniform

4268 Leaves linear obliquely twisted shining
4269 Leaves lorate flat very glaucous laxly spiral
4270 Leaves many-keeled, Flower sessile on a two-edged scape, Sepals oval-oblong obtuse
4271 About 2-flowered, Leaf linear, Tube very short, Sepals rounded at end

4272 Leaves few linear, Spathe 1-leaved sheathing erect bifid twice as short as stalk
4273 Leaves many ligulate, Spathe bifid longer than stalk, Sepals acuminate
4274 Leaves lying flat on the ground shorter than the one-flowered scape, Spathe bifid fleshy at end

4275 Leaves linear
4276 Leaves cylindrical

4277 The only species

4278 Leaves linear spiral smooth, Sepals ovate oblong
4279 Leaves linear spiral ciliated, Sepals ovate oblong
4280 Leaves linear filiform spiral villous, Sepals ovate oblong
4281 Leaves lanceolate flat, Sepals lanceolate

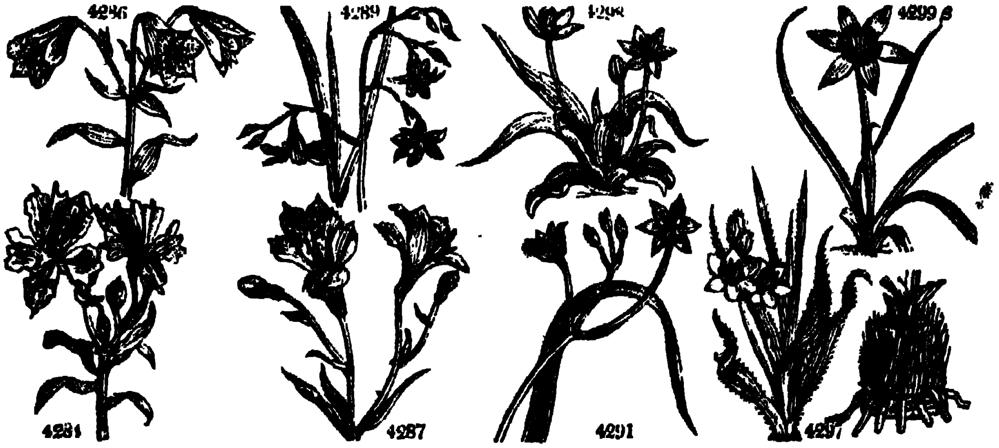
4282 Leaves linear lanceolate, Sepals oblong

4283 Leaves linear, Scape racemose, Sepals linear

4284 Stem erect, Cor. spreading, Three outer sepals wedge-shaped 3-toothed, Leaves lin. lanc. sessile
4285 Stem erect, Leaves spatulate oblong, Pedunc. longer than involucr. Cor. 2-labiate
4286 Stem twining, Cor. cylindrical in branched umbels
4287 Stem erect, Leaves linear lanceolate, Flower-stalks twisted, Outer sepals obcordate mucronate
4288 Stem weak, Leaves spatulate ciliated, Umbel many-flowered, Peduncles 2-flowered

4289 Flower campanulate spreading

4290 Hairy, Scape 4-fl. shorter than lin. lanc. leaves, Pedunc. twice as short as leaves
4291 Like the last, but the leaves are shorter more villous and incurved, Petals more obtuse
4292 Villous, Scape 4-fl. shorter than lin. lanc. lvs. Pedunc. shorter than flower, Fruit cylindrical
4293 Pilose, Scape 2-fl. decumbent shorter than lin. lanc. leaves
4294 Scape 3-fl. pilose as long as leaves, Pedunc. thrice as long as fl. Leaves lanc. smooth obliquely bent
4295 Leaves linear, Scapes umbelliferous or 1-fl. Height depending on depth of water
4296 Scape 1-flowered shorter than filiform rounded smooth leaves
4297 Leaves at the edge and keel hairy, Scape hispid many-flowered racemose, Sepals obtuse
4298 Leaves ovate-lanceolate entire smooth, Scapes 1-flowered
4299 Scape 1-flowered shorter than the lin. lanc. loose keeled smooth leaves



and Miscellaneous Particulars.

747. *Polianthes.* From πολυς, many, and ανθος, a flower; in allusion to the abundance of the blossoms. This is a very popular bulb, on account of its highly odoriferous flowers. It is imported annually from Italy and America, and flowers freely in pots of sandy loam and some rotten dung or leaf mould. R. A. Salisbury is of opinion that we might grow our own bulbs, by planting the offsets in such a situation as would obtain for them a "sufficient degree of heat in summer to bring their leaves out to their full magnitude, that of the roots following of course." "The theory," he adds, "which I would recommend any intelligent gardener to adopt in its general management is, *to keep the roots growing as vigorously as possible from May to October, but in a state of complete rest and drought for the rest of the year.*" (*Hort. Trans.* i. 55.)

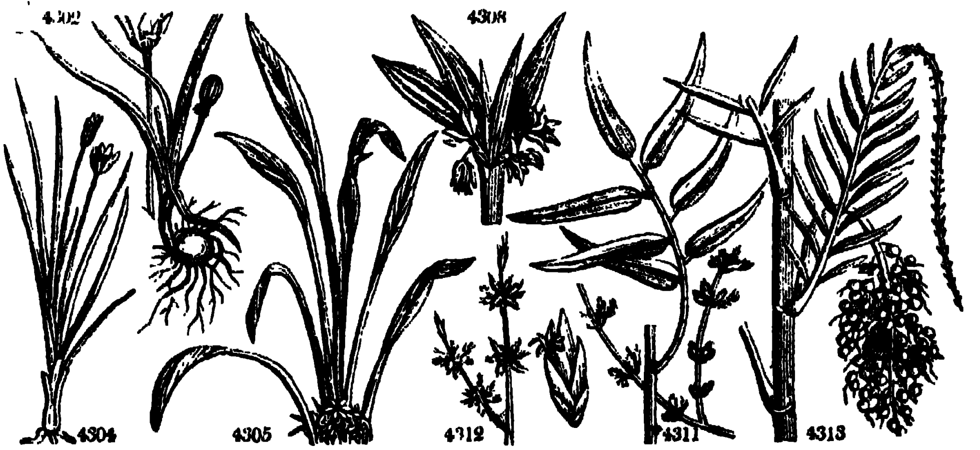
748. *Alstroemeria.* So named from Baron Claudius Alstroemer, of Sweden, who in his travels through Europe sent many plants to Linnaeus. The species are beautiful, and *A. Ligtu is as fragrant as mignionette. A. Salsilla* is cultivated in Peru and the West Indies for its roots, which are used like the tubers of the potatoe.

A. Ligtu, Sweet observes, "is generally considered difficult to flower; but it will blossom well by letting the pots be dry for a considerable time till the shoots are all dried up; then give it a good watering, and put it in a moist heat, and it will flower abundantly. It may be increased by parting the roots or by seed." (*Bot. Cult.* 15.) The finest kinds have not yet been introduced to this country.

749. *Conanthera.* From κωνος, a cone, and ανθηρα, an anther; their anthers being, which is singular among these plants, united into a cone. A pretty little Peruvian genus, of which two species are now known.

750. *Hypoxis.* From ὑπο, beneath, and οξυς, pointed, in allusion to the sharp points of the inferior sepals. The species are plants with yellow flowers of little beauty, if we except *H. stellata*, which has a dark spot at the claws of its white petals. They increase fast by seeds or offsets.

4300 stellipilis *Ker.*	starry-haired	¥	⌊Δ⌋	or	1	jl	Y	C. G. H.	1821.	O	s.p	Bot. reg. 663
4301 veratrifólia *W.*	plaited-leaved	¥	⌊Δ⌋	or	2	jn.jl	Y	C. G. H.	1788.	O	l.p	Jac. ic. 2. t. 367
4302 lineáris *B. Rep.*	linear-leaved	¥	⌊Δ⌋	or		ap.my	Y	C. G. H.	1792.	O	l.p	Bot. rep. 171
4303 serráta *W.*	saw-leaved	¥	⌊Δ⌋	or	1	jn.jl	Y	C. G. H.	1788.	O	l.p	Bot. mag. 709
4304 júncea *W.*	rushy	¥	⌊Δ⌋	or	½	jn.jl	Y	Carolina	1787.	O	l.p	Smi. spic. 15. t. 16
751. CURCU'LIGO. *H. K.*	Curculigo.					*Hypoxideæ.*		*Sp.* 6—10.				
4305 sumatrána *Roxb.*	Sumatra	¥		or	3	jl	Y	Sumatra	1818.	O	l.p	Bot. cab. 443
4306 plicáta *H. K.*	plaited-leaved	¥	⌊Δ⌋	or	1½	jn.jl	Y	C. G. H.	1788.	O	l.p	Bot. reg. 345
4307 orchioides *W.*	narrow-leaved	¥	[Δ]	or	½	jn.jl	Y	E. Indies	1800.	O	l.p	Roxb. cor. 1. t. 13
4308 brevifólia *H. K.*	short-leaved	¥	[Δ]	or	½	my.jl	Y	E. Indies	1804.	O	l.p	Bot. mag. 1076
4309 latifólia *H. K.*	broad-leaved	¥	[Δ]	or	1½	my.au	Y	Poolo Pin.	1804.	O	l.p	Bot. mag. 2034
4310 recurváta *H. K.*	recurved-leav'd	¥	[Δ]	or	1	...	Y	Bengal	1805.	O	l.p	Bot. reg. 770
752. BAMBU'SA. *W.*	Bamboo Cane.					*Gramineæ.*		*Sp.* 2—10.				
4311 arundinácea *W.*	common	‡	□	ec	40	...	Ap	India	1730.	S	l	Roxb. cor. 1. t. 79
4312 verticilláta *W.*	whorl-flowered	‡	□	cu	20	...	Ap	India	1802.	S	l	Roxb. cor. 1. t. 80
753. CA'LAMUS. *W.*	Calamus.					*Palmæ.*		*Sp.* 2—10.				
4313 ruden'tum *W.*	common	¥	□	ec	50	...	Ap	E. Indies	1812.	S	a.l	Rumph. 5. t. 58
4314 Zalácca *W.*	Java	¥	□	cu	20	...	Ap	E. Indies	1812.	S	a.l	Rumph. t. 57. f. 2
754. EHRHAR'TA. *W.*	Ehrharta.					*Gramineæ.*		*Sp.* 1—8.				
4315 panicea *W.*	Panic-grass	♣	⌊Δ⌋	cu	2	my.jl	Ap	C. G. H.	1790.	S	co	Smith ined. 1. t. 9
755. A'CORUS. *W.*	Acorus.					*Aroideæ.*		*Sp.* 2—3.				
4316 cálamus *W.*	sweet-flag	⚘	Δ	m.	2	jn.jl	Ap	Britain	pools.	D	m.s	Eng. bot. 356
4317 gramineus *W.*	grass-leaved	¥	Δ	cu	½	f	Ap	China	1786.	D	s.p	Smi. spic. 15. t. 17
756. ORON'TIUM. *W.*	Orontium.					*Aroideæ.*		*Sp.* 2—4.				
4318 aquáticum *W.*	aquatic	⚘	Δ	cu	½	jn	Ap	N. Amer.	1775.	D	s.p	Hook. ex. fl. 19
4319 japónicum *W.*	Japan	⚘	Δ	ec	2	ja.ap	Ap	Japan	1783.	D	s.p	Bot. mag. 898
757. TUPIS'TRA. *B. M.*	Tupistra.					*Aroideæ.*		*Sp.* 1.				
4320 squálida *B. M.*	Amboyna	¥	[Δ]	cu	2	ap	Ld	Amboyna	1810.	R	l.p	Bot. reg. 704
758. TAC'CA. *W.*	Tacca.					*Aroideæ.*		*Sp.* 2.				
4321 pinnatifida *W.*	Salep	¥	[Δ]	ec	2	...	Pu	E. Indies	1793.	R	l.p	Bot. cab. 692
4322 integrifólia *B. M.*	entire-leaved	¥	[Δ]	cu	2	my.jl	Pu	E. Indies	1810.	Sk	l.p	Bot. mag. 1488



History, Use, Propagation, Culture.

751 *Curculigo.* From *Curculio*, the weevil, one of the Coleopterous insects; the seed having a process resembling the rostrum or beak of that animal. The species are of the easiest culture and increase, but of little beauty. They in most respects resemble Hypoxis.

752. *Bambusa.* Latinized from the Indian name *Bambos.* B. arundinacea has a woody, hollow, round, straight culm, forty feet high and upwards, simple and shining; the internodes a foot in length and circumference; sheaths thick, hairy, rough, convolute, deciduous; branches alternate, slender, solid, spiny, reclining, springing out from the base to the very top; the lower ones being usually cut off. Panicle of flowers diffused in spikes

It grows naturally almost every where within the tropical regions. Over a great part of Asia it is very common; in China, Cochin-China, Tonquin, Cambodia, Japan, Ceylon, the peninsula of India, and the islands. It has been long introduced into the West Indies, and is said to flourish likewise in South Carolina.

There is, perhaps, scarcely any plant that serves for such a variety of domestic purposes. In the East Indies great use is made of it in building, and the houses of the meaner people are almost entirely composed of it. Dr. Patrick Brown mentions, that it was yet strong and perfect in some of the houses which had been built by the Spaniards in Jamaica above a hundred years before. Bridges also are made of it, masts for their boats, boxes, cups, baskets, mats, and a great variety of other utensils and furniture, both domestic and rural. Paper also is made from it, by bruising and steeping it in water, and thus forming it into a paste. It is the common fence for gardens and fields; and is frequently used as pipes for conveying water. The leaves are generally put round the chests of tea which are sent to Europe from China, as package, fastened together so as to form a kind of mat. The tops of the tender shoots are frequently pickled in the West Indies.

In the cavities or tubular parts of the bamboo is found at certain seasons a concrete white substance, called Tabasheer or Tabachir, an article which the Arabian physicians hold in high estimation. It is commonly found in what are called the female or large bamboos. The bamboos which contain this concrete are found on shaking to contain a fluid, which, after some time, gradually lessens, and then they are opened in order to extract the Tabasheer. The nature of this substance is very different from what might have been expected in the product of a vegetable. Its indestructibility by fire, its total resistance to acid, its uniting by fusion with alkalies in certain proportions into a white opaque mass, into a transparent permanent glass, and it being again separable from these compounds entirely unchanged by acids, &c. seem to afford the strongest reasons for considering it as very nearly identical with common siliceous earth. As to its medical virtues, though the drug be, as before observed, in much esteem with the orientalists, yet they are not such as to cause it to have any regard paid it in the modern practice of physic in Europe.

The bamboos grow rapidly to a great height in our stoves in moist loamy soil, and they are readily increased by suckers.

753. *Calamus.* From *καλαμος*, a reed, in Greek; *qalam*, in Arabic; *calam*, in Sclavonic; *calamus*, and *culmus*, in Latin. This genus seems to form the connecting link between the palms and the gramineous plants, having the inflorescence of the former, and the habit of the latter. It furnishes the rattan canes, of which

4300 Leaves radical numerous white beneath with stellate hairs, Umbel few-flowered
4301 Scape 1-fl. shorter than the oblong elliptical smooth plaited leaves
4302 Leaves linear smooth channelled, Flower solitary green outside
4303 Scape 1-fl. shorter than the linear ciliate serrate keeled leaves, Flowers out of flower reflexed
4304 Leaves channelled hairy entire, Scapes 1-fl.

4305 Leaves lanceolate on long stalks, Head sessile, Flowers shorter than bractes
4306 Leaves linear subulate, Flowers sessile
4307 Leaves linear subulate, Flowers stalked
4308 Leaves lanceolate, Tube of flower very long
4309 Leaves elliptical, Head sessile, Tube of flower scarcely longer than limb
4310 Leaves elliptical recurved, Head stalked cernuous, Tube of flower very short

4311 Panicle branched divaricating
4312 Spike terminal simple whorled

4313 Prickles of stem reflexed, Spadix divaricating straight
4314 Prickles spreading, Spadix radical

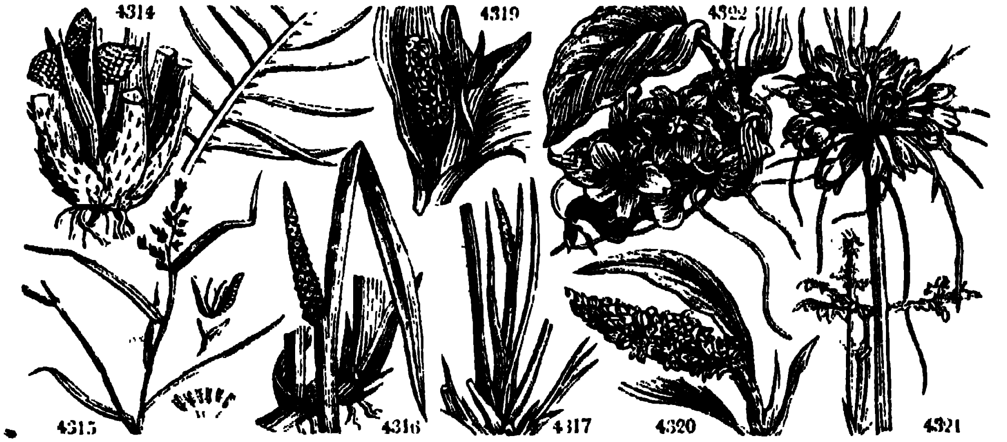
4315 Culm divided, Panicle branched, Flowers erect digynous

4316 Point of scape very long leafy
4317 Point of scape scarcely longer than spadix

4318 Leaves lanceolate-ovate
4319 Leaves ensiform

4320 The only species

4321 Leaves tripartite multifid
4322 Leaves ovate lanceolate entire stalked



and Miscellaneous Particulars.

there are several species or varieties, all distinguished by a stem which is perennial, unbranched, long, round, solid, jointed, scandent when near trees, but without prickles or tendrils, extremely tough and pliable. The different sorts grow on the banks of rivers in the East, like our reeds, and furnish valuable props for plants, cables, ropes, withs, wicker and wattled work, baskets, hoops for petticoats, walking-sticks, &c

C. Zalacca, the Salxck, is cultivated for the fruit, which is about the size of a walnut, and covered with scales like those of a lizard, within the scales are two or three sweet yellow kernels. This tree is supposed to yield the dragon's blood.

754. *Ehrharta.* So named by Linnæus, in honor of Frederick Ehrhart, a native of Switzerland, a very diligent and acute observer. These are very curious grasses, of which an account has been published in the Transactions of the Linnean Society.

755. *Acorus.* From *α*, privative, and *κορη*, the pupil of the eye, maladies in which are supposed to be cured by the virtues of this plant. Acorus Calamus, Linnæus observes, is the only native aromatic plant of northern climates; the root powdered might supply the place of foreign spices. It has a strong aromatic smell, and a warm, pungent, bitterish taste. The flavor is greatly improved by drying. The roots are commonly imported from the Levant, but those of our own growth are full as good. The Turks candy them, and regard them as a preservative against contagion. In many counties of England, in which the plant abounds, it was formerly used to strew the floors of houses instead of rushes, a purpose for which its fragrant leaves made it very suitable

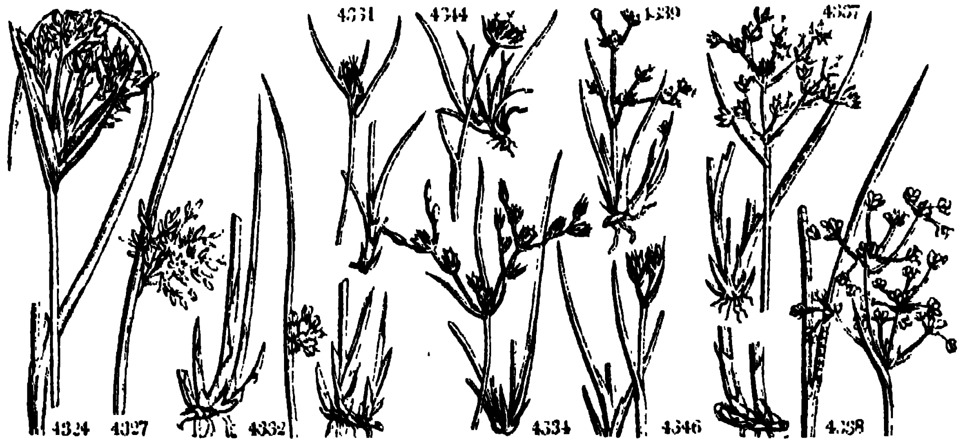
The aromatic principle is an essential oil, which can be obtained by distillation. The root has been employed in medicine since the time of Hippocrates. By the moderns it is successfully used in intermittent fever even after bark has failed, and is certainly a very useful addition to Cinchona. It is also a useful adjunct to bitters, and stomachic infusions. Thomson says, (*Mat Med* 124.) it is too seldom prescribed. Though the plant is abundant in the fenny districts of England, yet what is used by the druggists is imported from the Levant. No cattle whatever eat the plant.

756. *Orontium.* The Greek name of a plant now unknown to us as such It is thought to have been so called from growing on the edge of the Orontes, a river of Asia Minor. O. japonicum has broad leaves like those of the lily of the valley, green on the upper side, and covered with very minute hairs, so that they look like a fine velvet. Cattle, hogs, and stags, are very fond of these leaves in the spring, and they come out among the earliest. Kalm states, that the Indians gather the seeds and eat them when dried like peas, boiling them repeatedly in water before they are fit for use; they also boil them in milk or butter, and use them instead of bread. They call the plant *Tawkee.* It grows in marshes, near moist and low grounds, very plentifully in Virginia, Canada, and other provinces of North America.

757. *Tupistra.* A diminutive of *τυπις*, a mallet, on account of the peculiar form of the flower. An obscure plant, supposed to belong to the order Aroideæ. It has long lanceolate broad leaves, and radical spikes of dingy purple flowers. It requires the heat of a bark-bed.

758. *Tacca.* The Malay name of the plant. T. pinnatifida has a red root, the size of a man's fist, roundish

759. **ASPIDIS'TRA.** *Ker.*	Aspidistra.					*Aroideæ.* *Sp.* 1.						
4323 lurida *Ker.*	dingy	£	☒	cu	1	jl	Pu	China	1822.	Sk	co	Bot. reg. 628
760. **JUN'CUS.** *L.*	Rush.					*Junceæ.* *Sp.* 23—39.						
4324 acútus *W.*	great sharp sea	£	Δ	ec	6	jl.au	Ap	Britain	sea co.	S	s	Eng. bot 1614
4325 marítimus *P. S.*	lesser sharp sea	£	Δ	ec	4	au	Ap	Britain	sal. m.	S	s	Eng. bot 1725
4326 conglomerátus *W.*	common	£	Δ	ec	2	jn.jl	Ap	Britain	moi.p.	S	m.s	Eng. bot. 835
4327 effúsus *W.*	soft	£	Δ	ec	3	my.au	Ap	Britain	moi.p.	S	m s	Eng. bot. 836
4328 glaúcus *W.*	hard	£	Δ	ec	2	jl	Ap	England	moi.p.	S	m.s	Eng. bot. 665
4329 bálticus *W.*	coast	£	Δ	cu	1½	jl	Ap	Europe	1820.	S	s	
4330 árcticus *L.*	arctic	£	Δ	cu	1	my	Ap	Norway	1822.	S	m.s	Flor. Dan. t. 1094
4331 filifórmis *W.*	least	£	Δ	cu	½	au	Ap	Britain	tur.bo.	S	m.s	Eng. bot. 1175
4332 trífidus *W.*	three-leaved	£	Δ	cu	¼	jl	Ap	Scotland	sc alp.	S	m.s	Eng. bot. 1482
4333 squarrósus *W.*	Goose-corn	£	Δ	w	½	jn.jl	Ap	Britain	sa.hea.	S	m.s	Eng bot. 933
4334 grácilis *E. B.*	slender	£	Δ	cu	½	jl.au	Ap	Scotland	sc.alp.	S	m.s	Eng. bot. 2174
4335 capitátus *W.*	headed		○	cu	¼	jl.au	Ap	Europe	1823.	S	s	
4336 lampocárpus *L. T.*	shining-fruited	£	Δ	w	2	jn.au	Ap	Britain	moi.p.	S	m.s	Eng. bot 2143
4337 acutiflórus *L. T.*	sharp-flowered	£	Δ	w	2	jl.au	Ap	Britain	moi.p.	S	m.s	Eng. bot. 238
4338 obtusiflórus *L. T.*	blunt-flowered	£	Δ	w	1½	au	Ap	Britain	mar.	S	m.s	Eng bot. 2144
4339 uliginósus *H. K.*	little-bulbous	£	Δ	w	1	jn.jl	Ap	England	tur.he.	S	m.s	Eng. bot. 801
4340 aristátus *Mich.*	bearded	£	Δ	cu	1	jl	Ap	N. Amer.	1823.	S	s	
4341 subverticillátus *W.*	half-whorled	£	Δ	cu	¾	jl.au	Ap	Europe	1821.	S	m.s	Fl. dan. 817
4342 bulbósus *W.*	bulbous-rooted	£	Δ	w	1	jl.au	Ap	Britain	...	S	m s	Eng. bot. 934
4343 bufónius *W.*	toad		○	w	¼	jl.au	Ap	Britain	w.s.gr.	S	m.s	Eng. bot. 802
4344 triglúmis *W.*	three flowered	£	Δ	cu	½	jl	Ap	Britain	bgs.m.	S	m.s	Eng. bot. 899
4345 biglúmis *W.*	two-flowered	£	Δ	cu	¼	au	Ap	Scotland	bgs m.	S	m.s	Eng. bot. 898
4346 castáneus *H. K.*	black-spiked	£	Δ	cu	1	jl	Ap	Scotland	sc.alp.	S	m s	Eng. bot. 900
761. **LU'ZULA.** *Dec*	Luzula					*Junceæ.* *Sp.* 10—25.						
4347 pilósa *W.*	hairy	ш	Δ	w	½	mr my	Ap	Britain	groves.	S	m.s	Eng. bot 736
4348 Forstéri *E. B.*	Forster's	ш	Δ	w	¾	my.jn	Ap	England	woods	S	m s	Eng bot 1293
4349 máxima *W.*	wood	ш	Δ	w	2	my	Ap	Britain	woods	S	m s	Eng bot 737
4350 lútea *W.*	yellow	ш	Δ	cu	1	my jn	Ap	Switzerl.	...	S	m s	
4351 álbida *W.*	white-headed	ш	Δ	cu	1	my jn	Ap	Switzerl	...	S	m s	Leer her t 13.f 6
4352 nívea *W.*	snowy	ш	Δ	cu	1	my jn	Ap	Switzerl.	1770.	S	m.s	Sch.gram t 7 f 7
4353 campéstris *W.*	field	ш	Δ	w	½	ap.my	Ap	Britain	bar.pa	S	m.s	Eng bot. 672
4354 congésta *W. en.*	close-headed	ш	Δ	w	¾	jn	Ap	France	1805.	S	m.s	Hos gr 3 t.97 f.5
4355 spicáta *W.*	spiked	ш	Δ	cu	½	jl	Ap	tland	sc.alp	S	m.s	Eng bot. 1176
4356 flavéscens *Lk.*	yellowish	ш	Δ	cu	½	jl	Ap	ope	1820.	S	m.s	Hos gram.3 t.94
762. **CO'RYPHA.** *W*	Fan-palm.					*Palmæ.* *Sp* 2—10						
4357 umbraculífera *W.*	great	Ϯ	□	ec	100	...	Y	E. Indies	1742	S	r m	Rheede.3 t 1.12
4358 Taliéra *Roxb.*	Taliera Palm	Ϯ	□	or	100	...	W.gr	E. Indies	1823.	S	r.m	



History, Use, Propagation, Culture,

In its natural state it is one of the most bitter and acrid, but loses something of these qualities by culture. The raw root is rasped, and washed frequently in water, when a white meal falls to the bottom like starch; this is again washed twice or thrice, till no more acrimony can be perceived in the water. The meal is then dried in the sun. The first infusions are thrown away carefully, being looked upon as noxious and even deadly. In Otaheite and the other Society isles, they make of this meal a tasteful, nourishing, gelatinous cake-like salep. In Banda, where sago bread is not common, they use this as a succedaneum, and it is even preferable to the other. They also apply it as a plaster to deep wounds. The petioles and stalk boiled a long time lose their acrimony, and are rendered fit for food, as well as the roots, in China and Cochin-China.

759. *Aspidistra.* From ἀσπίς, a little round shield, on account of the form of the flower. A plant with the same habit as Tupistra, but with solitary radical flowers half buried in the earth.

760. *Juncus.* From the Latin, *jungo*, to join: the first ropes were made of rushes. The Junceæ and Cyperaceæ form intermediate links between the Gramineæ and the Liliaceæ; some of the latter, as Anthericum, bearing considerable resemblance to the Junceæ.

J. acutus and maritimus are planted on the sea-embankments of Holland, and also in some parts of our own coasts, and in America. The roots run deep into the sand, and form a matted body which holds it together. In Holland, when the plants are fully grown and in flower, they are cut down down, dried, and bound up like corn. The J. acutus, being very rough, is used for scouring copper and other vessels, and is one of the plants imported into this country for that purpose, under the name of the Dutch rush. The other species, and often both, are plaited into mats, baskets, chair-bottoms, ropes, &c

J. conglomeratus and effusus are used when green for making little baskets and children's ornaments; and the pith of this and other species is used as wicks for watch-lights, and children's toys.

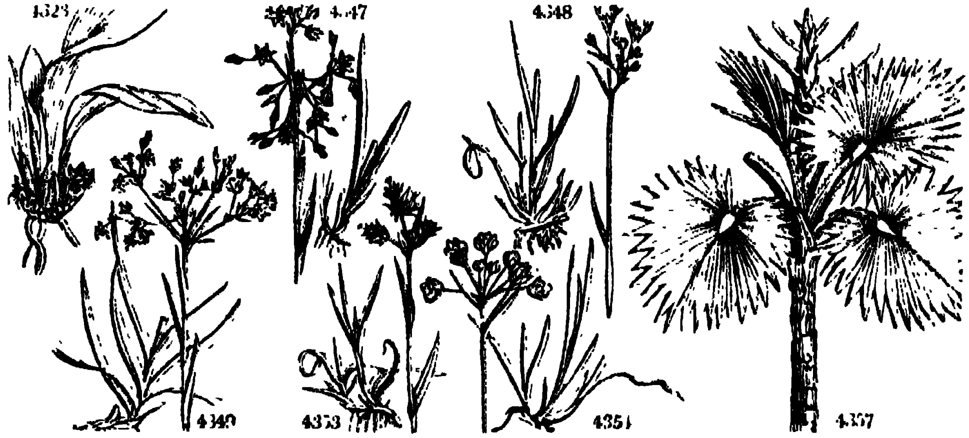
J. glaucus and conglomeratus are bad weeds in wet-bottomed clayey pastures. The best way of removing them is to dig them out, and to prevent their growth, to lay the land dry by surface and under-drainage. These species, and some others, are gathered green by the Dutch gardeners, and used when dry as tyes for fruit-trees. Sir J. E. Smith says, " they both, probably, served for strewing floors in England, as mentioned by Shakspeare and Sir Thomas More, about the time of Edward IV., and later; till more refined manners wrought

4323 The only species

4324 Culm rounded mucronate, Panicle terminal, Invol. 2-leaved spiny
4325 Panicle terminal proliferous, Involucre 2-leaved spiny, Caps. obl. acute as long as sepals
4326 Culm upright, Pan. lateral globose, Caps. retuse, Flowers triandrous
4327 Culm upright, Pan. lateral decompound effuse, Caps. clavate truncate at end
4328 Culm glaucous at the end bent inwards and rounded, Pan. lat. erect, Caps. oblong acute
4329 Culm pungent, Panicle effuse
4330 Culm erect, Umbel lateral, Pedunc. many-fl. Flowers sessile
4331 Culm filiform nodding, Panicle lateral
4332 Leaves and flowers ternary terminal
4333 Leaves setaceous, Heads clustered leafless
4334 Leaves linear flat, Stem dichotomous racemose higher than leaves, Flowers solitary
4335 Culm filiform, Head terminal sessile solitary in an involucre
4336 Leaves jointed compressed, Culm not jointed, Panic. erect, Caps. colored shining
4337 Leaves jointed compressed, Culm not jointed, Panic. compound dichotomous, Sepals acute
4338 Leaves and stem jointed round, Panic. divaricating, Sepal obtuse as long as capsule
4339 Leaves bristly somewhat knotty, Heads 3-flowered proliferous, Culm bulbous rooting
4340 Bulbous, Culm leafy erect compressed, Flowers 3-androus and bracteæ bearded
4341 Culm procumbent, Leaves setaceous jointed, Corymb dichotomous divaricating, Head 5-fl sessile
4342 Leaves linear channelled, Culm leafy at base, Pan. cymose, Caps. obtuse
4343 Leaves linear channelled, Culm dichotomous racemose, Flowers solitary
4344 Leaves flat, Head 3-flowered terminal erect leafless with bracteæ
4345 Leaves flat, Head 2-flowered terminal one-sided leafy at base
4346 Leaves flat stem-clasping, Head terminal double many-flowered leafy at base, Bractes acute

4347 Leaves pilose, Panic. cymose divaricating, Flowers solitary, Caps. obtuse
4348 Leaves pilose, Panic. cymose erect, Flowers solitary, Caps pointed
4349 Leaves pilose taper-pointed, Panic. cymose decompound, Flowers in bundles
4350 Leaves and sheaths smooth, Corymb comp. close, Pedunc. many-flowered, Sepals acute shining
4351 Leaves pilose, Corymb decomp. spreading shorter than leaves, Sepals mucronate equal, Root fibrous
4352 Leaves pilose, Corymb comp. contracted shorter than leaves, Sepals acute unequal, Root creeping
4353 Leaves pilose, Spikes terminal, Capsules obtuse
4354 Like the last, but the culm is panicled with ovate spikes
4355 Leaves flat, Spike racemose nodding compound at base, Capsules acute
4356 Like Luzula pilosa, but heads are yellower, Leaves broader, Flowers and capsules larger

4357 Fronds pinnate palmate with a thread between the segments, Spadix erect
4358 Seeds roundish dark-colored rugose the size of a nutmeg



and Miscellaneous Particulars.

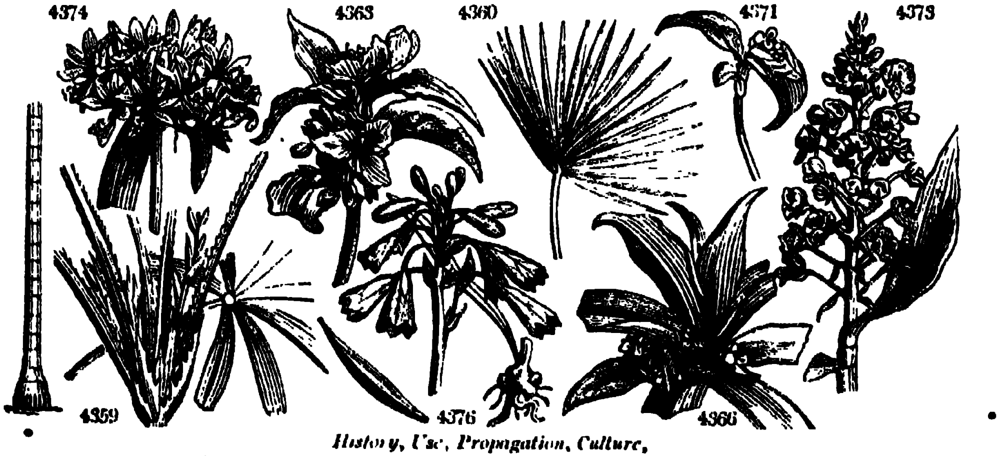
them into mats, and foreign commerce at length introduced carpets. For the former purpose, indeed, as well as for chair-bottoms and hassocks, Scirpus lacustris has superseded their use (*English Flora*, p 162.)

761. *Luzula.* These plants were called by the ancient botanists *Gramen Luzulæ*; whence this name has been contrived by Decandolle to distinguish the rushes with flat leaves, from those which have leaves resembling the stem.

762. *Corypha.* From κορυφη, the summit of any thing; a name applied by Linnæus to this noble genus of palms, the topmost leaves of which form immense fans twenty feet long and fifteen wide. In Ceylon this palm is called Tallipot, and, according to Knox (*Hist. of Ceylon.*), it grows as big and tall as a ship's mast, and very straight. The leaves are of great use, one being so broad and large, that it will cover fifteen or twenty men Being dried it is very strong and limber; and though it be very broad when open, yet it will fold close like a fan, and then is no bigger than a man's arm. The whole leaf spread is round, but is cut into triangular pieces for use: these they lay upon their heads as they travel, with the narrow end foremost, to make their way through thickets. Soldiers all carry them, not only to shade them from the sun, and to keep them dry in case of rain on their march, but to make their tents for them to lie under. These leaves all grow on the top of the tree. It bears no fruit until the last year of its life, and then yellow blossoms, most lovely to behold, but smelling very strongly, come out on the top, and spread abroad in great branches; these come to a fruit, round and very hard, as big as our largest cherries; in such abundance, that one tree will yield seed enough for a country, but not good to eat. The flowers smell so strong, that they cut down the trees when they are near houses. The trunk within is a pith only, which they beat in a mortar to flour, and bake cakes of it, which taste much like white bread. The leaves also serve for covering their houses, and for writing on with an iron style. Most of the books which are shown in Europe for the Egyptian papyrus, are made from the leaves of this palm. In Malabar it is called Codda-pana. Rumphius, Loureiro, and Adanson mention several other species of this palm.

The C taliera is a fine tree of prodigious use in the northern provinces of India for covering houses and for other useful purposes.

763. **LICUA'LA.** *W.*	LICUALA.					*Palmæ.*	*Sp.* 1—2.					
4359 spinósa *W.*	spiny	Ŧ	☐	ec	6	...	W.gr	E. Indies	1802.	S	r.m	Rump.amb.1. t.9
764. **THRI'NAX.** *W.*	THRINAX.					*Palmæ.*	*Sp.* 1—3.					
4360 parviflóra *W.*	small	Ŧ	☐	ec	15	...	W.gr	Jamaica	1778.	S	r.m	
765 **TRADESCAN'TIA.** *W.*	SPIDERWORT.					*Commelineæ.*	*Sp.* 12—29.					
4361 virgínica *W.*	common	¥	△	or	1½	my o	B	N. Amer.	1629.	D	p.l	Bot. mag. 105
4362 rósea *Ph.*	rose-flowered	¥	△	or	1	my.o	Pk	Carolina	1802.	D	r.m	Bot. cab. 370
4363 subáspera *B. M.*	Lyon's	¥	△	or		my o	Pu	N Amer.	1812.	D	r.m	Bot. mag. 1597
4364 crassifólia *W.*	thick-leaved	¥	△	or	3	jl o	B	Mexico	1796.	L	s.p	Bot. mag. 1598
4365 eréćta *W.*	upright		○	or	2	jl au	B	Mexico	1794.	S	r.m	Bot. mag. 1340
4366 díscolor *W.*	purple-leaved	¥	☐	or	1	ap.s	W	S. Amer.	1783.	Sk	s.p	Bot. mag. 1192
4367 malabárica *W.*	Grass-leaved	¥	[△]	or	1	jl au	Pu	E. Indies	1776.	Sk	r.m	Rheed.ma.9.t.63
4368 fuscáta *Lodd.*	rusty	¥	[△]	or	½	s o	B	S. Amer.	1820.	L	r.m	Bot. reg. 482
4369 parviflóra *Fl per*	small-flowered	¥	[△]	or	1	au s	B	Peru	1822.	L	r.m	Fl. per. t. 272
4370 geniculáta *W.*	knotted	¥	[△]	or	1	jl au	B	W. Indies	1783.	L	s p	Jac amer. t. 64
4371 cristáta *W.*	crested		[○]	or	1	jl s	B	Ceylon	1770.	D	r m	Bot mag. 1435
4372 Zanónia *Red.*	Gentian-leav'd	¥	[△]	or	1½	jl.d	B	W. Indies	1759.	S	r.m	Red. lil. 192
766 **DICHORIZAN'DRA.** *Vand.*	DICHORIZANDRA.					*Commelineæ.*	*Sp.* 1—4.					
4373 thyrsiflóra *Vand.*	thyrsoid	¥	[△]	or	4	au	B	Brazil	1822.	R	r.m	Bot. reg 682
767. **AGAPAN'THUS.** *W.*	AFRICAN LILY.					*Hemerocallideæ.*	*Sp.* 2—3.					
4374 umbellátus *W.*	large flowered	ʊ	⌊△⌋	or	3	ja.au	B	C. G H.	1692	R	r.m	Bot. mag. 500
β variegatus	*striped-leaved*	ʊ	⌊△⌋	or	2	ja.au	B	......	...	R	r.m	
4375 præ'cox *W. en*	small-flowered	ʊ	⌊△⌋	or	4	ja.au	P B	C. G. H.	...	R	r.m	Bot. cab 42
768 **BLANDFOR'DIA.** *R. Br.*	BLANDFORDIA					*Hemerocallideæ.*	*Sp.* 2—3.					
4376 nóbilis *R. Br.*	noble	¥	⌊△⌋	or	2	jl au	Or	N. S. W.	1803	S	s.l p	Ex. bot. 1 t. 4
4377 grandiflóra *R. Br.*	large-flowered	¥	⌊△⌋	or	2	jl au	Cr	N S W.	1812	S	s.l p	Lab. no ho t 111
769. **HEMEROCAL'LIS.** *W.*	DAY LILY.					*Hemerocallideæ*	*Sp* 7—9					
4378 gramínea *H. K.*	narrow-leaved	¥	△	or	1	jn jl	L Y	Siberia	1759.	R	s.l	Bot mag 873
4379 fláva *H K.*	yellow	¥	△	or	2	jn	Y	Siberia	1596.	R	s l	Bot. mag 19
4380 dísticha *Donn.*	fan-like	¥	△	or	2	my jl	Or	China	1798.	R	s.l	Sweet fl. gar 28
4381 fúlva *W.*	copper-colored	¥	△	or	4	jn.au	Ful	Levant	1596.	R	s l	Bot mag. 64
4382 Liliástrum *W. en*	Savoy-Spiderw.	¥	△	or	1½	my.jn	W	Switzerl.	1629.	R	s l	Bot mag 318
Anthericum Liliastrum L.												
4383 Japónica *B M*	white-flowered	¥	△	or	1	au.s	W	Japan	1790.	R	p.l	Bot. mag 1433
4384 cærúlea *H K*	blue-flowered	¥	△	or	1½	my jl	B	Japan	1790	R	p l	Bot mag 894
770 **A'LOE.** *W.*	ALOE.					*Hemerocallideæ.*	*Sp* 99—116.					
4385 atrovírens *Dec.*	dark-green	ᴫ	⌊_⌋	gr	1	my	G	C G. H	1823.	S	s l	Bot. mag. 1361
4386 tortuósa *Haw*	twisted	ᴫ	⌊_⌋	gr	1	my.s	G	C. G. H	1794	S	s.l	Bot mag. 1337
4387 rígida *Dec.*	rigid	ᴫ	⌊_⌋	gr	1	my s	G	C G H	1795	C	s l	Plant. grass. 62
4388 áspera *Haw*	rough	ᴫ	⌊_⌋	gr	1	jn	G	C G H	1795.	C	s l	
4389 viscósa *Haw*	clammy	ᴫ	⌊_⌋	gr	1½	jn jl	G	C G H	1727.	Sk	s.l	Bot. mag. 814
4390 álbicans *Haw*	white-edged	ᴫ	⌊_⌋	gr	1	jl	G	C. G H	1795	Sk	s l	Bot. mag 1452
4391 cymbifórmis *Haw.*	boat-leaved	¥	⌊△⌋	gr	¼	my au	G	C G H	1795	Sk	s l	Bot mag 802
4392 reticuláta *Haw*	netted	¥	⌊△⌋	gr	½	my au	G	C. G H.	1794	C	s l	Bot mag. 1314
4393 recúrva *Haw.*	recurve-leaved	¥	[△]	gr	1	au	G	C G. H.	1795.	C	s l	Bot mag. 1353
4394 retúsa *W.*	smooth cushion	¥	⌊△⌋	gr	1	my jl	G	C G. H.	1720	Sk	s l	Bot. mag 455
4395 mirábilis *Haw*	rough cushion	¥	⌊△⌋	gr	¾	my.au	G	C G H.	1795.	Sk	s l	Bot mag. 1354
4396 translúcens *H K*	transparent	¥	⌊_⌋	gr	½	my.au	G	C. G. H.	1795.	Ls	s.l	Bot. mag. 1117



History, Use, Propagation, Culture,

763. *Licuala.* The Macassar name of this plant in the Moluccas. The fruit of this palm is a fleshy oval drupe, about the size of sweet-bay berries; it continues long green, but finally becomes brown or blackish: the nut is oblong, hard, and striated. In the Isle of Celebes, and in Macassar, they make much use of the narrow leaves for tobacco pipes, and of the middle broad one for wrapping up fruit, &c. The wood, if the pith and hard rind may be so called, like that of most palms, is of little use.

764. *Thrinax.* From θρῖναξ, a fan The leaves of this little palm form a sort of fan. Brown (*Hist. of Jamaica*) says, that this tree covers whole fields in many parts of Jamaica; that it grows both in the rocky hills and low moist plains near the sea, but seems to thrive best in the former. It shoots by a simple stalk, and rises generally from four or five, to ten or fourteen feet in height. It is always furnished with leaves in form of a fan, sustained by slender compressed foot-stalks, and bears a great abundance of small berries, which serve to feed both the birds and beasts of the wood, when they are in season. The trunk seldom exceeds four or five inches in diameter: it is much used for piles in wharfs, and other buildings made in the sea; for it stands the water well, and is never touched by the worms. The foot-stalks of the leaves split and pared, serve to make baskets, bow-strings, ropes, &c. where strength and toughness are required. The leaves are called thatch, and are used as such, especially for out-houses, and stand the weather many years; but such coverings are apt to harbour rats and other vermin.

765 *Tradescantia* So named by Ruppius, in memory of John Tradescant, gardener to Charles I. He introduced the first species to Europe. The museum of the Tradescants is celebrated as one of the earliest ever

4359 Frond palmate, Segments linear toothed truncate at end, Stem spiny

4360 Fronds flabelliform palmate plaited with stiff lanceolate segments, Stem compressed not prickly

4361 Erect, Leaves lanceolate smooth, Flowers umbelled clustered terminal
4362 Erect, Leaves grassy very long, Peduncles few-flowered, Cal. smooth
4363 Erect smooth branched, Leaves long recurved ciliated, Pedunc. lat. and term.
4364 Leaves ovate at the edge and under woolly, Flowers umbelled clustered terminal
4365 Erect, Leaves ovate narrow at base smooth, Peduncle terminal naked bifid racemose
4366 Stemless smooth, Bractes equitant compressed, Leaves lanceolate colored beneath
4367 Erect smooth, Peduncles solitary very long
4368 Stemless with rusty hairs, Leaves elliptical acuminate radical
4369 Creeping, Leaves ovate oblong: under the flowers cordate, Pedunc. umbelled axillary
4370 Procumbent hairy
4371 Creeping smooth, Spathes 2-leaved imbricated
4372 Erect, Leaves broad lanceolate, Pedunc. lateral solitary many-flowered, Bractes double

4373 Leaves oval lanceolate whole-colored, Racemes thyrsoid many-flowered

4374 Peduncles length of corolla, Leaves linear

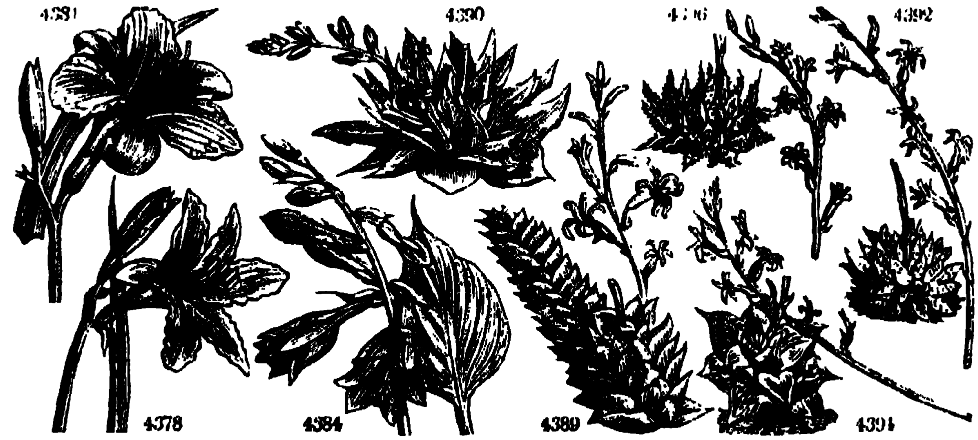
4375 Peduncles twice as long as corolla, Leaves linear

4376 Bractes twice as short as flower-stalks, Leaves very narrow
4377 Bractes as long as flower-stalks: the inner much the shortest

4378 Leaves linear keeled, Three inter petals wavy, Nerves of the petals undivided
4379 Leaves linear keeled, Petals flat acute, Nerves of the petals undivided
4380 Leaves linear keeled distichous, Sepals wavy acute spreading reflexed, Nerves branched
4381 Leaves linear keeled, Three inner petals obtuse wavy, Nerves of outer petals branched
4382 Leaves linear flat, Scape simple, Nerves of petals undivided

4383 Leaves cordate acuminate, Cor. funnel-shaped
4384 Leaves ovate acuminate, Limb of cor. campanulate

§ 1 *Flowers small. Cor. bilabiate.* (APICRA. *W.*)
4385 Leaves spreading ovate 3 cornered, Edge and keel with short subulate teeth
4386 Leaves spirally trifarious spreading blackish, on the outside smooth, Stem much twisted
4387 Nearly stemless, Leaves multifarious green not spotted: the upper horizontal rugose
4388 Leaves trifarious orbicular ovate acuminate green beneath very rough, Stem erect
4389 Leaves trifarious ovate acute very green not warted, Stems upright simple
4390 Leaves polished mucronate whitish, Edges and keel cartilaginous
4391 Leaves cymbiform obtuse glaucous very hollow above, Suckers numerous
4392 Leaves equilaterally triquetrous obtuse glaucous netted above concave
4393 Leaves subulate thick erect recurved concave above warted beneath, Edges obscurely pearly
4394 Leaves 6-farious at the end retuse deltoid pale-green lined above
4395 Leaves ciliate spiny 5-farious deltoid cuspidate at the edge and keel ciliate spiny, Obsoletely netted below
4396 Proliferous, Leaves multifarious lanceolate rounded elegantly ciliated; at end with obl. pellucid spots



and Miscellaneous Particulars.

formed in this country: it was left to Ashmole, from whom it came to the university of Oxford, bearing his name. All the species are of the easiest culture, but few of them can be called beautiful. *T. virginica* is usually admitted as a border-flower.

766. *Dichorizandra.* A name contrived by Mikan, from δις, two, χωρις, separately, and ανηρ, in botanical composition, a stamen; to express the separation of two anthers, upon which the character of the genus depends. Beautiful herbaceous stove plants, with the foliage of Commelina or Tradescantia.

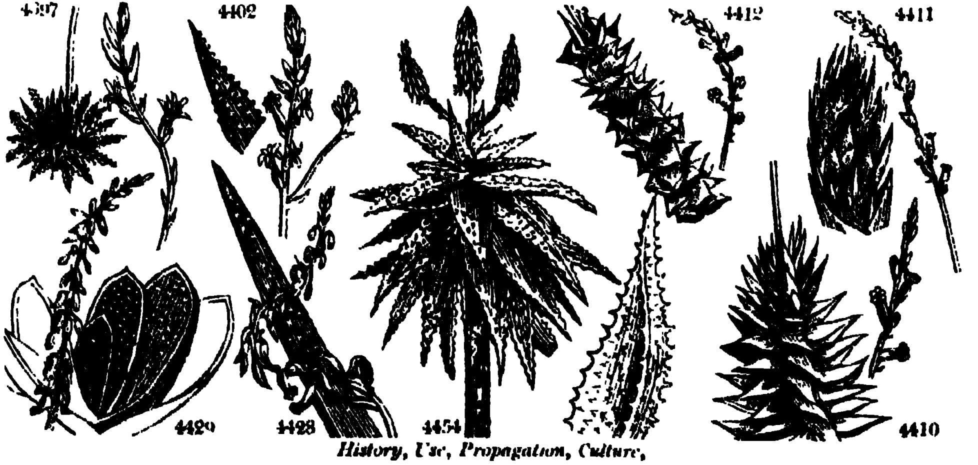
767 *Agapanthus* From αγαπαω, to love, and ανθος, a flower; lovely-flower. The blossoms are of a bright agreeable blue color, and the plant itself much prized. It is nearly hardy, and cultivated without any trouble, in large pots of common earth.

768 *Blandfordia.* In compliment to George, Marquis of Blandford, son of the second Duke of Marlborough, a lover of plants, but not of honor. Beautiful New Holland liliaceous plants, very rarely seen in collections. Their flowers resemble those of Cyrtanthus.

769 *Hemerocallis.* From ἡμερα, the day, and καλος, beautiful: beautiful day-lily This is an ornamental genus of the easiest culture. The species are remarkable among border flowers for their fine orange, yellow, or blue flowers. The Hemerocallis cærulea has been considered a distinct genus by Mr. Salisbury, and called *Saussurea.*

770. *Aloe.* A word for which several derivations have been offered. That it has been obtained from the Arabic *álloëh*, seems most probable. The genus has been divided by Mr. A. H. Haworth and others into

4397 púmila *Haw*	small-cobweb	£	△	gr	1	my	G	C. G. H.	1752.	Sk s.l	Bot. mag. 1361
4398 arachnoídes *Haw.*	cobweb	£	⊔	gr	1	au	G	C. G. H.	1727.	Ls s.l	Bot. mag. 756
4399 rádula *Haw*	raspy-pearl	£	△	gr	1½	au	G	C. G. H.	1805.	Sk s.l	Jac. schœn. t. 35
4400 attenuáta *Haw*	chalky-pearl	£	△	gr	1	my.au	G	C. G. H.	1790.	Sk s.l	Bot. mag. 1345
4401 mínima *Haw.*	least-pearl	£	△	gr	¾	my.s	G	C. G. H.	1725.	Sk s.l	
4402 minor *Haw*	lesser-pearl	£	△	gr	1	my.au	G	C. G. H.	...	Sk s.l	Bot. mag. 815
4403 margaritifera *H. K.*	larger-pearl	£	△	gr	1	my.s	G	C. G. H.	1739.	Sk s.l	Brad. succ. 3. t. 21
4404 Hawórthii *Hort.*	largest-pearl	£	△	gr	1	au	G	C. G. H.	1801.	Sk s.l	
4405 bullulàta *Jacq*	blistered	£	△	gr	1½	my jn	G	C. G. H.	...	Sk s.l	
4406 pseudo-rígida *Salm.*	gunpowdered	£	△	gr	½	ap my	G	C. G. H.	...	Sk s.l	
4407 bicarináta *Haw.*	double-keeled	ħ	⊔	gr	1	jn	G	C. G. H.	1820.	S s.l	
4408 spirális *Haw*	great-spiral	ħ	⊔	gr	1	au.s	G	C. G. H.	1790.	S s.l	
4409 spirélla *Haw*	small-spiral	ħ	⊔	gr	1½	au	G	C. G. H.	1808.	S s.l	
4410 pentagóna *Haw*	five-sided	ħ	⊔	gr	1½	jn.jl	G	C. G. H.	1731.	Sk s.l	Bot. mag. 1338
β *torta*	*twisted*			gr	1						
4411 imbricáta *Haw*	rough-flowered	ħ	⊔	gr	1½	jn jl	G	C. G. H.	1731.	Sk s.l	Bot. mag. 1455
4412 foliolósa *Haw*	small-leaved	ħ	⊔	gr	1	jn au	G	C. G. H.	1795.	C s.l	Bot. mag. 1352
4413 semiglabráta *Haw*	half-smoothed	ħ	⊔	gr	½	...	G	C. G. H.	1811.	Sk s.l	
4414 eréeta *Haw.*	erect-pearl	ħ	⊔	gr	½	...	G	C. G. H.	1818.	Sk s.l	Pl. grasses, 57
4415 brevis *Haw.*	short-pearl	ħ	⊔	gr	½	jn jl	G	C. G. H.	1810.	Sk s.l	Bot. mag 1360
4416 fasciáta *Haw.*	barred-pearl	ħ	⊔	gr	½	...	G	C. G. H.	1818.	Sk s.l	
4417 scábra *Haw.*	rough	ħ	⊔	gr	½	jn jl	G	C. G. H.	1818.	Sk s.l	
4418 papillósa *Salm*	papillose	ħ	⊔	gr	1		G	C. G. H.	1820.	Sk s.l	
4419 pseudo tortuósa *Sal*	twisted-triang.	ħ	⊔	gr	1	jl.au	G	C. G. H.	1818.	Sk s.l	
4420 concínna *Haw*	mat	ħ	⊔	gr	½	...	G	C. G. H.	1818.	Sk s.l	
4421 cordifólia *Haw.*	heart-leaved	ħ	⊔	gr	½		G	C. G. H	1817.	Sk s.l	
4422 asperiúscula *Haw*	small-thick	ħ	⊔	gr	½	jn	G	C. G. H	1818.	Sk s.l	
4423 cúrta *Haw*	short-twisted	ħ	⊔	gr	½	...	G	C. G. H.	1816	Sk s.l	
4424 tortella *Haw.*	little-twisted	ħ	⊔	gr	½	jl	G	C. G. H.	1817.	Sk s.l	
4425 nítida *Salm.*	shining	ħ	⊔	gr	1	jl	G	C. G. H.		Sk s.l	Bot. mag. 2304
4426 setáta *Haw.*	bristle-edged	ħ	⊔	gr	½	jn	G	C. G. H.	1818	Sk s.l	
4427 oblíqua *Haw*	broad-marbled	ħ	□	gr	1½	jn au	R	C. G. H	1759.	Ls s.l	Bot. mag 979
4428 maculáta *H. K*	narr.-marbled	ħ	□	gr	3	jl.au	R	C. G. H.	1759	C s.l	Bot. mag. 765
4429 nigricans *Haw*	dark-tongue	£	△	gr	2	jn.jl	R	C. G. H.	1790.	Ls s.l	Bot. mag 838
4430 glábra *Haw*	smooth-keeled	£	△	gr	3	jn jl	"	C. G. H	1796.	Sk s.l	
4431 carináta *W.*	rough-keeled	£	△	gr	2	jn jl		C. G. H.	1731.	Ls s.l	Bot. mag. 1331
4432 lingua *W.*	acute-tongue	£	△	gr	3	mr n		C. G. H.	...	Ls s.l	
4433 anguláta *Haw*	retuse-tongue	£	△	gr	2	mr n	R	C. G. H.	1791	Sk s.l	
4434 acinacifólia *Haw*	longsword-lvd	ħ	⊔	gr	3	mr s	Or	C. G. H.	1819	Sk s.l	Bot. mag. 2369
4435 brevifolia *Haw*	sht.-lvd.-tongue	£	△	gr	3	jl.au	R	C. G. H.	1809	Sk s.l	
4436 intermedia *Haw.*	middle-tongue	£	△	gr	2	mr n	R	C. G. H.	1790	Sk s.l	
4437 verrucósa *W.*	warted	£	△	gr	2	mr n	R	C. G. H	1731.	Sk s.l	Bot. mag 837
4438 nitens *Haw.*	shining	£	△	gr	3	mr n	Or	C. G. H.	1818.	Sk s.l	
4439 subcarináta *Salm.*	obscure-keeled	£	△	gr	2	jn jl	Or	C. G. H.	1818	Sk s.l	
4440 turgida *Haw.*	turgid-cushion	£	△	gr	½	s	P.Gr	C. G. H.	1818.	Sk s.l	
4441 acumináta *Haw*	mid.-hedgehog	£	△	gr	3	mr.my	Or	C. G. H.	1795.	Sk s.l	Bot. mag. 757
4442 tuberculáta *Haw*	tuberc.-hedgeh.	£	△	gr	2	mr my	Or	C. G. H.	1796.	Sk s.l	
4443 húmilis *W.*	dwarf-hedgeh	£	△	gr	1	mr jn	Or	C. G. H.	1731.	Sk s.l	Plant. grass. 39
4444 can'dicans *Haw*	marbled-white	£	△	gr	1	jl	R	C. G. H.	1796.	Sk s.l	
4445 virens *Haw.*	apple-green	£	△	gr	5	au.s	Y	C. G. H.	1790.	Sk s.l	Bot. mag 1355
4446 dichótoma *W.*	smooth-stem'd	ħ	□	gr	8	...	R	C. G. H.	1780.	Ls s.l	
4447 pseudo-africana *Sal*	narrow-tongue	£	△	gr	6	mr n	Or	C. G. H.	1731.	Sk s.l	Bot. mag. 1322
4448 Prin'cipis *Haw.*	the Prince's	£	△	gr	5	mr.n	Y	C. G. H.	1821	Sk s.l	
4449 echináta *Salm.*	great tuberc	ħ	⊔	gr	6	...	...	C. G. H.	1821.	Sk s.l	
4450 vulgáris *H. K.*	yellow-flower'd	ħ	⊔	m	12	my.au	Y	Levant	1596	Sk s.l	Plant. grass 27
4451 purpurascens *Haw.*	purple	●	⊔	m	12	jl.o	Pu	C. G. H	1789.	C s.l	Bot. mag. 1474
4452 soccotrína *Haw.*	soccotrine	●	⊔	m	12	f.ap	R	C. G. H	1731	C s.l	Bot. mag. 472
4453 arboréscens *H. K.*	tree	●	⊔	m	12	mr n	R	C. G. H.	1731.	C s.l	Bot. mag. 1306
4454 ferox *H. K.*	great-hedgeh.	ħ	⊔	gr	6	ap.my	Y	C. G. H.	1759.	C s.l	Bot. mag. 1975
4455 supralæ'vis *H. K.*	uprig.-hedgeh.	ħ	⊔	gr	5	...	Or	C. G. H.	1731.	S s.l	Com præ. 71. t 20



History, Use, Propagation, Culture,

many genera, but their opinion has not been adopted by men of science. The species consist of odd looking succulents; some of them may be classed as trees, others as shrubs, but the greater number have more the habit and appearance of evergreen herbaceous plants. One or two species are used in medicine or the arts.

A. vulgaris purpurascens, soccotrina, and arborescens, which some consider as not specifically different

4397 Leaves very green, Spines marginal herbaceous, Tubercles numerous
4398 Leaves expanded lanceolate flat above, with the edges cartilaginous thick ciliated
4399 Leaves erect recurved subulate all over rough, Tubercles very minute numerous and pearly
4400 Leaves erect recurved subulate, Tubercles above large pearly below very minute
4401 Leaves spreading ovate acuminate with very numerous small warts
4402 Leaves long oblong acuminate with middle-sized pearly warts in rows
4403 Dichotomous, Leaves long ovate acuminate with great pearly warts, Capsules wrinkled across
4404 Stemless, Lvs. ovate acum. cuspidate upw. 3-cor. keeled, Edges and keeled cren. with coarse pearly warts
4405 Leaves rigid spirally 5-farious ovate acuminate sparingly warted with dark-green tubercles
4406 Leaves spirally trifarious recurved at end covered all over with minute dark-green warts
4407 Lvs. multifarious cordate very hard deep-green twice keeled, with dark-green raised warts on under side

§ 2. *Flowers small. Cor. regular.*

4408 Leaves very spiral 5-farious ovate acum. smooth dark-green with some obscure spots beneath
4409 Leaves very spiral 5-farious lanc. acumin. smooth pale-green with some obscure spots beneath
4410 Leaves 5-farious and spiral smooth green obsoletely spotted beneath

4411 Erect rounded, Cor. rugose, Leaves multifarious erect polished not spotted
4412 Leaves multifarious very short and close together orbic. ovate horizontal polished bright-green
4413 Stemless dichotomous, Leaves dark-green erect ovate obl. acum. mucronate
4414 Leaves upright straight the old ones incurved ovate-obl. abruptly acuminate with small warts
4415 Soboliferous, Leaves spreading ovate acute with large warts
4416 Leaves erect lanc. acuminate above flat and smooth barred with large warts beneath
4417 Leaves semi-cylindrical 3-cornered thickened upwards very rough except at base
4418 Leaves attenuated erect with large white warts depressed in the centre
4419 Stem twisted, Leaves trifarious spiral imbricated spreading ovate acute smooth
4420 Leaves nearly trifarious densely imbricated spreading with an obtuse recurved point
4421 Leaves very rigid cordate stem-clasping thick dark-green above keeled and rough, Edge rough
4422 Leaves rigid rounded cordate closely inflexed dark-green edged a little rough above
4423 Leaves spirally trifarious blackish-green equilaterally triangular very rough
4424 Leaves close spirally trifarious blackish quite smooth outside, Stem much branched

§ 3. *Flowers curved.* (GASTERIA. *Haw.*)

4425 Differs from A. acinacifolia only in having blunter points to the leaves
4426 Leaves lorate lanceolate with a long bristly point keeled above at the edge fringed with memb. bristles
4427 Leaves spirally multifarious mottled narrow linguiform obtuse with a point
4428 Leaves tongue-shaped smooth pointed, Flowers racemose cernuous curved
4429 Differs from A. lingua only in having broader and shorter leaves
4430 Smooth, Lvs. multifarious acuminate spotted deeply keeled beneath with a cartilaginous edge and keel
4431 Stemless, Leaves acinaciform papillose
4432 Leaves distichous tongue-shaped acute spotted serrated with tubercles at edge
4433 Leaves distichous tongue-shaped retuse with a point obscurely spotted curved to one side
4434 Stemless, Leaves distichous acinaciform with cartilaginous prickly edges
4435 Leaves exactly distichous parabolically tongue-shaped short obtuse with edges smooth upwards
4436 Leaves bifarious ensiform bright-green
4437 Leaves ensiform acute papillose distichous
4438 Leaves spiral multifarious shining deeply keeled at the sides obscurely spotted, Edges cartilaginous
4439 Lvs. bright-green multifarious spreading with white warts obtuse with a point, Edges densely cartilaginous
4440 Leaves oblong acute entire above towards the end swollen pellucid with darker markings

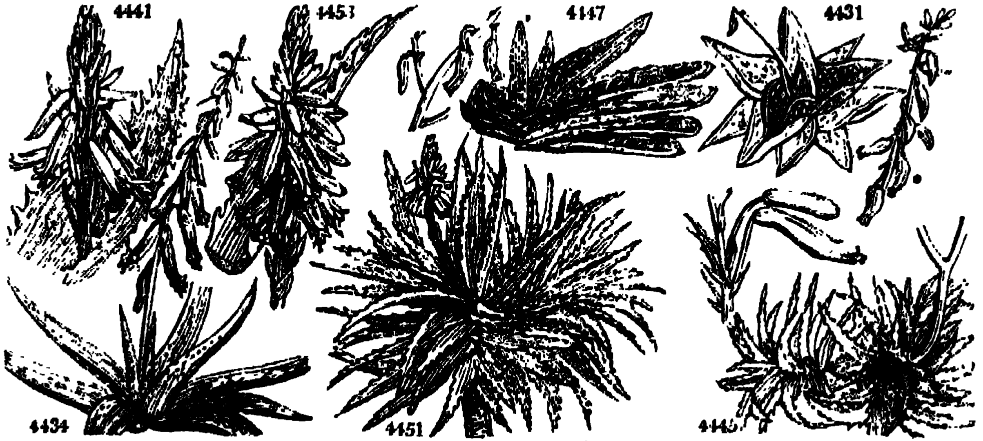
§ 4. *Flowers large.* (ALOE.)

* *Stemless*

4441 Leaves acuminate glaucous above flat smooth sparingly prickly beneath very rough
4442 Leaves acuminate above a little hollow very prickly all over
4443 Stemless, Leaves spiny ascending 3-cornered subulate
4444 Leaves distichous ensate lean smooth beneath white with warts running together
4445 Leaves oblong lanceolate green sparingly spotted, Edges with a few distant green spines
4446 Stem dichotomous, Leaves ensiform serrated, Stamens longer than cor.
4447 Stem shrubby simple, Lvs. revol. recurved narrow ensiform glauc. Warts prickly scatt. over both sides
4448 Leaves very green erect recurved, marginal and dorsal spines at the end red
4449 Leaves oblong lanceolate spiny toothed beneath white with warts, Petals unequal

** *With a stem.*

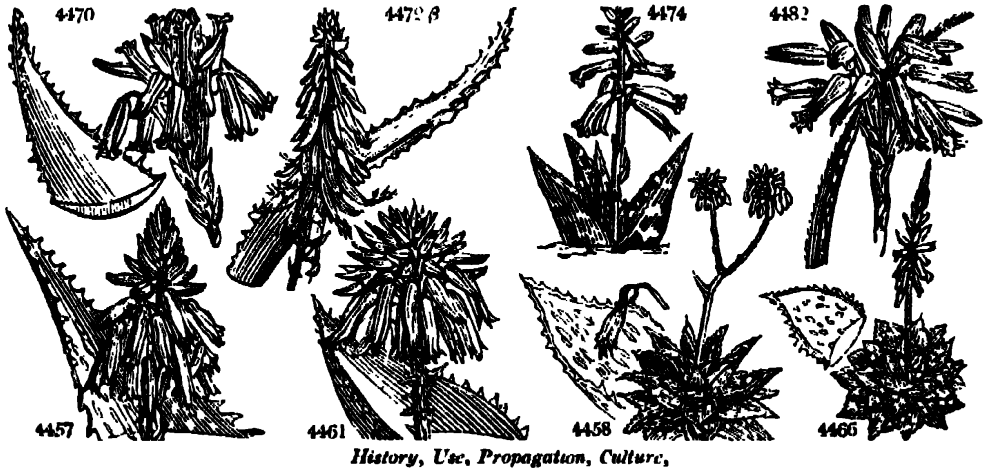
4450 Leaves spreading ascending spiny at edge, Pedunc. branched, Branches with a double bract
4451 Leaves ensiform glaucous recurved at end, Marginal serratures white
4452 Leaves oblong ensiform somewhat spotted, Edges cernuous white with straight spines
4453 Leaves stem-clasping reflexed spiny at edge
4454 Leaves ovate ensiform glaucous deflexed covered over especially beneath with scattered spines
4455 Leaves oblong ensiform glaucous incurved above smooth beneath covered with scattered prickly warts



and Miscellaneous Particulars.

are cultivated in Barbadoes and other West India islands, to obtain the hepatic aloes, which are brought to England and used chiefly for horses. The aloes known by the name of Succotrine, is made chiefly from the species of that name, and A. spicata; being originally manufactured in the island of Zocotra or Socotora, in the straits of Babelmandel it retains the name: this drug is lighter colored, and not so coarse as the horse or

4456 flavispína *Haw*	yellow-spined	♄	⊔	gr	5	au	R	C. G. H.	1790.	C	s.l	
4457 pícta *H. K.*	great-soap	♄	⊔	gr	4	au o	R	C. G. H.	1727.	C	s.l	Bot mag. 1323
4458 latifólia *Haw.*	broad-lvd.-soap	♄	⊔	gr	6	jl.au	S	C. G. H.	1795.	Sk	s.l	Bot. mag. 1346
4459 saponária *Haw.*	common-soap	♄	⊔	gr	4	jl.au	R	C. G. H.	1727.	Sk	s.l	Bot. mag. 1460
4460 serruláta *H. K*	saw-leaved	♄	⊔	gr	7	jl.au	R	C. G. H.	1789.	C	s.l	
4461 mitræfórmis *Dec*	common-mitre	♄	⊔	gr	6	au	R	C. G. H.	1732.	C	s.l	Bot. mag. 1270
4462 nóbilis *Haw.*	great-mitre	♄	⊔	gr	5	au	R	C. G H.	1800.	Sk	s.l	
4463 distans *Haw*	small-mitre	♄	⊔	gr	6	au	R	C. G. H.	1732.	Sk	s.l	Bot. mag. 1362
4464 albispína *Haw.*	white-spined	♃	[△]	gr	7	...	S	C. G. H.	1796.	La	s.l	
4465 distans *H K.*	short-leaved	♃	[△]	gr	2	jn.au	R	C. G. H.	1731.	C	s.l	Plant. grass. 81
4466 depréssa *H K.*	flat-leaved	♃	[△]	gr	6	au	O	C. G. H.	1731.	La	s.l	Bot. mag. 1332
4467 suberécta *Haw.*	lesser-hedgeh	♄	⊔	gr	5	mr jn	S	C. G. H.	1789.	S	s.l	
4468 paniculáta *Jacq.*	streaked	♄	⊔	gr	5	...	S	C. G. H.	1795.	Sk	s.l	Jacq. fragm. t.62
A. striata Haw.												
4469 lineáta *H. K*	lined	♄	□	gr	5	...	S	C. G. H.	1789.	Sk	s.p	
4470 glaúca *H. K.*	glaucous	♄	⊔	gr	4	ja.s	R	C. G. H.	1731.	Sk	s.l	Bot. mag. 1278
4471 spicáta *W.*	spike-flowered	♄	⊏⊐	in	4	...	R	C. G H.	1795.	Sk	s p	
4472 africána *H K.*	African	♄	⊔	gr	8	ja	R	C. G. H.	1731.	Sk	s.l	
β *angustifolia*	*narrow-leaved*	♄	⊔	gr	7	ja	R	C. G H.	1819.	Sk	s.l	Bot. mag. 2517
4473 plicátilis *W.*	fan	♄	⊔	gr	8	jn jl	R	Africa	1723.	C	s.l	Bot. mag. 457
4474 variegáta *W*	partridg.-breast	♄	⊔	gr	4	mr.s	Pk	C. G. H.	1720.	Sk	s.l	Bot. mag. 513
4475 Commelini *Salm.*	Commelin's	♄	⊔	gr	3	...	...	C G. H.	1819.	Sk	s.l	
4476 mácra *Haw.*	lean	♄	⊐	gr	3	jn	O	Mauritius	1817.	Sk	s.l	
4477 albocíncta *Haw.*	white-edged	♄	⊔	gr	3	jn	O	......	1812.	Sk	s.l	
4478 sérra *Dec.*	saw-leaved	♄	⊔	gr	4	jl	O	C. G. H.	1818.	Sk	s.l	
4479 chinénsis *Hort.*	Chinese	♄	⊔	gr	3	...	Y	China	1821.	Sk	s l	
4480 rufocíncta *Haw.*	rosy-edged	♄	⊔	gr	3	jn	O	E. Indies	1818.	Sk	s.l	
4481 cæ'sia *Salm*	cæsious	♄	⊔	gr	5	jl	O	C. G. H.	1818.	Sk	s.l	
4482 micracan'tha *B. M.*	small-spined	♄	⊔	gr	3	jl	Pk	C. G. H.	1819.	Sk	s l	Bot. mag. 2272
4483 xanthacántha *Salm.*	yellow-spined	♄	⊔	gr	3	jn	O	C. G. H.	1817.	Sk	s.l	
771 LI'LIUM. *W.*	Lily.					*Liliaceæ.*	*Sp.* 20—24.					
4484 cándidum *W.*	white	♉	△	or	3	jn jl	W	Levant	1596.	O	r.m	Bot mag. 278
4485 japónicum *W.*	Japan	♉	△	or	2	jl au	W	China	1804.	O	r.m	Bot. mag. 1591
4486 longiflórum *Thunb*	long-flowered	♉	[△]	or	2	my.jn	W	China	1820.	O	r.m	Bot reg. 560
4487 caroliniánum *Psh.*	Carolina	♉	△	or	2	jl.au	O	N. Amer.	1819.	O	r.m	Bot reg. 580
autumnale Lodd.												
4488 bulbiferum *W.*	orange	♉	△	or	3	jn jl	O	Italy	1596	O	p.l	Bot. mag. 36
β *umbellátum*	*umbel-fl. orange*	♉	△	or	3	jn.jl	O	Italy	1596.	O	p l	Bot mag 1018
4489 daúricum *Ker.*	Daurian	♉	△	or	2	jn.jl	.. O	Dauria	1754.	O	p l	Bot. mag 872
pensylvánicum B. M												
4490 con'color *H K.*	self-colored	♉	△	or	2	jl	R	China	1806.	O	p l	Bot mag. 1165
4491 Catesbæ'i *W.*	Catesby's	♉	△	or	1	jl au	O	Carolina	1787.	O	p.l	Bot. mag. 259
4492 philadélphicum *W*	Philadelphian	♉	△	or	5	jl au	L O	N. Amer.	1757.	O	r l	Bot. mag. 519
β *andinum* Ker.	*Louisiana red*	♉	△	or	4	jl.au	Sc	N. Amer.	1819	O	r l	Bot reg. 594
4493 canadénse *W.*	Canadian	♉	△	or	4	jl.au	L O	N. Amer	1629.	O	p l	Bot. mag. 800
β *rúbrum*	*red-flowered*	♉	△	or	4	jl au	O	N Amer	1629.	O	p.l	Bot. mag 858
4494 supérbum *W*	superb	♉	△	or	6	jn au	L O	N Amer	1727.	O	p l	Bot mag. 936
4495 Martagon *W.*	Turk's Cap	♉	△	or	3	jl.au	Pu	Germany	1596	O	co	Bot. mag. 893
4496 cróceum *Bernh*	yellow	♉	△	or	3	jl au	Y	......	1596	O	co	Bot. cab. 784
4497 spectábile *Link.*	showy	♉	△	or	3	jl.au	O	......	1596	O	co	
4498 chalcedónicum *W.*	Scar.-Martagon	♉	△	or	4	jl au	R	Levant	1596.	O	p l	Bot. mag 30
4499 pyrenáicum *W. en.*	Pyrenean	♉	△	or	2	jl au	D O	Pyrenees	1596.	O	p l	Red lil. 145
4500 pompónium *W.*	Scar.-Pompone	♉	△	or	2	my jn	R	Siberia	1629	O	r.l	Bot mag. 971
4501 monadelphum *B M.*	monadelphous	♉	△	or	2	jn.jl	Y	Caucasus	1800.	O	r l	Bot. mag. 1405
4502 tigrinum *H K*	tiger-spotted	♉	△	or	6	jl.s	O	China	1804.	O	r l	Bot mag 1237
4503 púmilum *R. L.*	dwarf	♉	△	or	1	jn	Sc	Dauria	1816.	O	r.l	Bot reg. 132



History, Use, Propagation, Culture,

hepatic aloes. A. spicata is cultivated extensively at the Cape of Good Hope, and a considerable part of what is sold as coming from Socotora is from that quarter. All the medicinal aloes are grown on the poorest soil. In preparing the drug, the leaves are cut off close to the stem, then cut in pieces, and the juice expressed; this is allowed to remain at rest for forty-eight hours, during which time a feculent matter is deposited; after which the supernatant liquor is poured off into flat dishes and evaporated in the sun. At the Cape, in the month of July, the leaves are pulled, then cut into pieces, the juice expressed, and inspissated by means of heat

The month of March is the period for cutting the aloes in the island of Barbadoes. The leaves are cut off close to the stem, and disposed in tubs, in such a manner that the juice runs out. After a sufficient quantity of it is collected, it is exposed to heat in copper boilers; and as it becomes more inspissated by a constant and regular fire, it is ladled from one boiler to another, and fresh juice added, until that in the last, which is called the *teache*, acquires the consistence of honey; when it is poured into calabashes, and hardens by age. It is

4456 Suckers from the root, Lvs. obl. acum. glauc. spread. cover. at side and back with very broad brown spines
4457 Caulescent, Leaves ensiform toothed mottled spreading
4458 Leaves ovate lanc. pale-green with obl. obsolete whitish barred spots, Spines rufous
4459 Leaves obl. lanc. dull green rather glaucous with obl. large transverse spots and rufous spines
4460 Leaves spotted, Edges and keel serrulate at end
4461 Leaves thick spiny at edge below spinulose appressed not dotted, Racemes in umbels
4462 Leaves erect broadly ovate acute, Spines marginal numerous white
4463 Leaves erect spreading remote ovate acute, Spines marg few large yellow
4464 Leaves ovate acum. green, Edge and keel very spiny, Spines long very white
4465 Leaves cæspitose very short glaucous 3-cornered at end, Angles with numerous white spines
4466 Distinguished from A. serra by the spines not being united at base
4467 Leaves acuminate above flat smooth beneath warted
4468 Leaves glaucous streaked, Edges obsoletely toothletted

4469 Leaves green lined, Spines red
4470 Leaves very glaucous, Spines red
4471 Leaves lorate ensiform downward spotted with white, Marginal spines middle-sized red
4472 Leaves broad ensiform recurved smooth hard, Spines marginal and dorsal red at end

4473 Leaves tongue-shaped smooth distichous, Flowers racemose pendulous cylindrical
4474 Leaves trifarious painted channelled, Angles cartilaginous
4475 Leaves ovate oblong attenuate spreading glaucous, The edge and keel upwards with white spines
4476 Caudex leafy, Leaves lorate ensiform channelled spreading green serrulate
4477 Glaucous polished, Leaves oblong acuminate with a deep white entire cartilaginous edge
4478 Leaves tufted with the spines of the edge united at base, Scape toothed
4479 Leaves smooth pale-green straight erect-spreading soft
4480 Leaves lorate lanceolate acuminate green, Edge red with many white teeth
4481 Stem shrubby, Leaves long-lanceolate recurved at end glaucous smooth spotted with red spines
4482 Lvs. narrow sword-shaped beneath spotted with white, Spots warty scatt. Edge with minute white spines
4483 Caulescent, Lvs. ovate acum. glaucous spreading at the edge and back spiny, Spines very broad yellow

4484 Leaves lanc. scattered narrowed at base, Cor camp. smooth inside
4485 Leaves scattered lanc. Cor. cernuous campanulate
4486 Leaves scattered lanceolate, Cor tubular campan. Stem smooth
4487 Leaves nerveless whorled cuneate-lanceolate, Flowers solitary with revolute spotted sepals

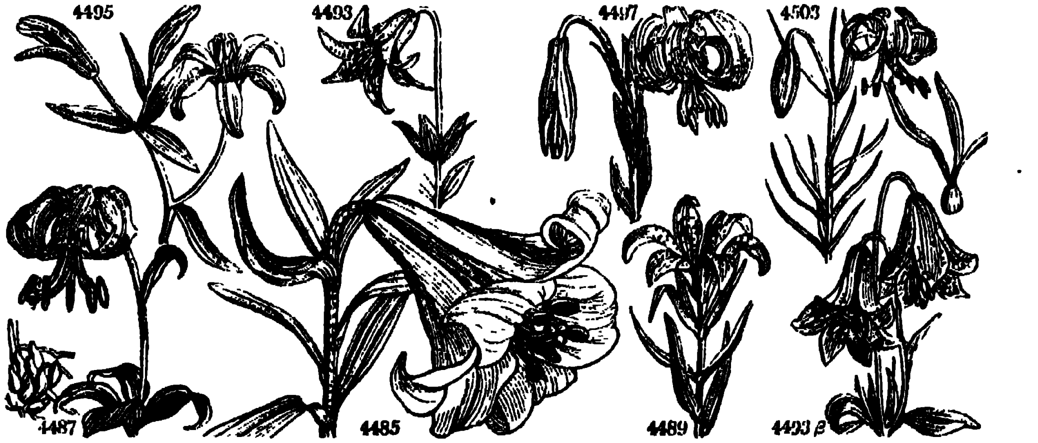
4488 Leaves scattered, Cor. campan. upright rough inside

4489 Leaves scattered lanc. : the upper whorled, Stem 1-flowered winged

4490 Leaves scatt lanc. obl. Cor. erect revol. camp. within papillose without smooth
4491 Leaves scatt. lin. lanc. Stem 1-flowered, Cor. erect, Pet. with long claws wavy at edge reflexed at end
4492 Leaves whorled, Flowers erect, Cor. campan. Petals clawed

4493 Leaves whorled linear, Flowers reflexed, Cor. revolute campanulate

4494 Lower leaves whorled; upper scatt. Flowers racemose reflexed, Cor revolute
4495 Leaves whorled ovate lanceolate, Flowers reflexed, Cor. revolute
4496 Leaves ternate or scattered lin falc. 3-nerved ciliated, Pedunc pubes Cor erect rough inside
4497 Leaves ternate or scattered linear 3-nerved ciliated, Pedunc. tomentose, Flowers erect rough inside
4498 Leaves lin. lanc scattered, Flowers reflexed, Cor. revolute dotted inside
4499 Leaves scattered linear, Pedunc. long, Flowers reflexed, Cor. revolute papillose inside
4500 Leaves scattered lin. subulate, Flowers reflexed, Cor revolute toothed and warted inside
4501 Like a Martagon, but the stamens are united in a tube
4502 Leaves scattered sessile 5-nerved, The upper cord. ovate, Cor revolute papillose inside
4503 Leaves linear subulate scattered smooth, Flowers reflexed, Sepals revolute smooth inside



and Miscellaneous Particulars

brought home in these calabashes, or large gourd-shells, which contain from sixty to seventy pounds weight each. (*Thomson's Mat. Med.* 141.)

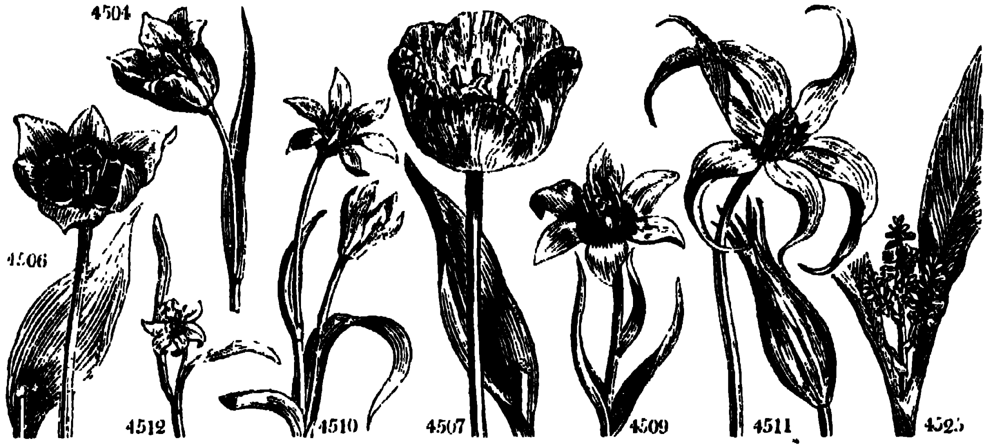
In the West Indies, the Cape, and most countries where the woody prickly species abound naturally, they are planted as hedges, and the fibres of the leaves, after being macerated for juice, manufactured into cordage or coarse cloth

A. picta, latifolia, and saponaria are so named from the spots of the leaves, which are of the color of soft soap.

The curious species of aloes, inhabitants of the greenhouse, require but little water: sandy loam, mixed with a little lime rubbish or gravel, suits them best; and they flower more abundantly by being exposed to the open air in summer. They are increased by suckers; or leaves, stripped off the plants and laid on a pot of mould, or planted shallow in it, will produce young plants. (*Bot. Cult.* 130.)

771 *Lilium* From the Celtic word *Li*, which signifies whiteness. The lily has always been considered the

772. **TU'LIPA.** *W.*		TULIP.						*Liliaceæ.*	*Sp.* 9—11.				
4504	**sylvéstris** *W.*	wild	♉	△	or	1	ap.my	Y	England	ch. pit.	O	s.l	Eng. bot 63
4505	**túrcica** *Roth.*	nar.-waved-lvd.	♉	△	or	2	ap.my	St	......	...	O	s l	Sw. fl. gar. t. 186
4506	**óculus sólis** *R. L.*	Agen	♉	△	or	1	ap	R.B	Italy	1816.	O	s.l	Bot. reg. 204
4507	**Gesneriána** *W.*	common	♉	△	or	2	ap.my	St	Levant	1577.	O	r m	Bot. mag. 1135
4508	**suavéolens** *W.*	Van Thol	♉	△	or	½	mr.ap	R.Y	S. Europe	1603.	O	r.m	Bot. mag. 839
4509	**clusiána** *B. M.*	Clusius's	♉	△	or	1	jn	W.pu	Sicily	1636.	O	r.m	Bot. mag. 1390
4510	**celsiána** *P. S.*	Cels's	♉	△	or	1½	jn jl	Y	Levant	...	O	r.m	Bot. mag. 717
4511	**cornúta** *R. L.*	horned	♉	△	or	2	my	St	Levant	1816.	O	r.m	Bot. reg. 127
4512	**biflóra** *L.*	two-flowered	♉	△	or	½	ap	Y	Russia	1806.	O	r.m	Bot. reg. 535
773. **FRITILLA'RIA.** *W*		FRITILLARY.						*Liliaceæ.*	*Sp* 12—19.				
4513	**Imperiális** *W.*	Crown Imper.	♉	△	or	4	mr.ap		Persia	1596.	O	co	
	α rúbra	*red-flowered*	♉	△	or	4	mr.ap	R	Persia	1596.	O	co	Bot. mag. 194
	β fláva	*yellow-flowered*	♉	△	or	4	mr.ap	Y	Persia	1596.	O	co	Bot. mag. 1215
4514	**pérsica** *W.*	Persian	♉	△	or	1½	ap.my	Br	Persia	1596.	O	co	Bot. mag. 1537
	β mínima Swert.	*dwarf-Persian*	♉	△	or	½	ap.my	Br	Persia	1596.	O	co	Bot. mag. 962
4515	**oblíqua** *B M*	oblique-leaved	♉	△	or	1	ap	Br.P	Caucasus	...	O	co	Bot. mag. 857
4516	**tulipifólia** *Bieb*	tulip-leaved	♉	△	or	1	my	Br.P	Crimea	1822.	O	co	
4517	**verticilláta** *W*	whorled	♉	△	or	1	a	Pu	Crimea	1823.	O	co	
4518	**pyrenáica** *H K*	cluster-flowered	♉	△	or	1½	my.jn	D P	......	1605.	O	co	Bot. mag. 952
4519	**nígra** *B. M.*	Pyrenean	♉	△	or	1	my	Y.Pu	Pyrenees	1596.	O	co	Bot. mag. 664
4520	**nervósa** *W. en*	nerved-leaved	♉	△	or	1½	my	D.P	Caucasus		O	co	
4521	**lútea** *Bieb.*	yellow-flower.	♉	⊔	or	1	ap.my	Y	Caucasus	1812.	O	co	Bot. mag. 1538
4522	**latifólia** *W.*	broad-leaved	♉	△	or	1	ap my	R	Caucasus	1604.	O	co	Bot. mag. 853
4523	**Meleágris** *W.*	chequered	♉	△	or	1	mr my	Pu	Britain	moi p.	O	co	Eng. bot 622
4524	**lanceoláta** *Ph* *Lilium kamchatsense* W.	spear-leaved	♉	△	or	¾	my		Kamschat.	1759.	O	co	Lin. tr. 10. t. 11
774 **DRACÆ'NA.** *W.*		DRAGON-TREE.						*Asphodeleæ.*	*Sp* 7—20.				
4525	**Dráco** *W.*	common	†	☐	or	10	...	W	E. Indies	1640.	C	p.l	Blackw. t. 358
4526	**ensifólia** *W.*	sword-leaved	¥	☐	or	2	...	W	......	1800.	C	p l	



History, Use, Propagation, Culture,

emblem of whiteness. This is a splendid genus, all the species of which are considered border flowers of great beauty. The more common sorts, species, and varieties, will thrive in any soil and situation, even under the shade of trees. The Canadian, Pomponian, and Philadelphian martagons are somewhat tender, and require the protection of ashes or rotten bark in winter. They are generally planted in borders, and need not be taken up oftener than every three or four years in September, and replanted six inches deep in the October following. None of the species can be safely transplanted after they have pushed leaves, without weakening them so as to prevent their flowering for several years. This remark, indeed, will apply to most bulbous rooted plants. Mr. Griffin, of South Lambeth, whose superior skill in the cultivation of bulbous plants is well known (*Hort. Trans.* iv. 544.), has been in the practice of keeping the lilium japonicum in pots, protected by a greenhouse or garden frame: but he thinks they thrive best in the former. He places the bulb in twenty-four sized pots, not lower than an inch from the surface of the mould, which is composed of about two-thirds peat and one-third loam, the bottom of the pot being covered to the depth of two inches, with broken pieces of tile and the rough siftings of peat. The plants are kept entirely from frost, and are watered very little when in a dormant state, for they are then very impatient of wet in excess. The pots kept in the greenhouse are placed at a distance from the flue to prevent the mould drying quickly (*Hort. Trans.* iv. 554.) Mr S. Brooks grows in a brick-pit, which he can cover with mats or glasses at pleasure; but he says, it "appears to be sufficiently hardy to endure our winters, as I have had a bed of them two years in the open ground without protection." (*Hort. Trans.* iv. 552.)

772. *Tulipa.* Linnæus classed this among barbarous names. In Persian it is called *thoulyban* (*De Souza*), whence undoubtedly its origin. In old French it is called *tulipan.* T. Gesneriana (Gesner, a Zurich botanist), may be called the king of florists' flowers, having been a prime object of attention with this class of cultivators for nearly three centuries. It appears to have been brought to Europe from Persia by way of Constantinople in 1559, and in a century afterwards to have become an object of considerable trade in the Netherlands, and a sort of mania among the growers, who bought and sold bulbs at prices amounting to 500*l.* sterling and upwards; in those days an immense sum. The taste for tulips in England was at its greatest height about the end of the seventeenth and the beginning of the eighteenth century. It afterwards declined, and gave way to a taste for rare plants from foreign countries. The tulip, however, is still extensively cultivated in Holland, from which all Europe is supplied with bulbs, and also to a considerable extent in England, both in tradesmen's gardens and in those of the opulent. It is, however, like the auricula, pink, &c. more the poor man's flower than that of the botanists or country gentleman.

The varieties of the tulip are endless, and their names arbitrary, like those of all florists' flowers. One of the latest London catalogues (Mason's) enumerates six sorts of early blowing tulips, four perroquets or middle blowers, twenty-two double sorts; and upwards of 600 single late sorts; the last being the only sorts valued by florists as competition flowers. These late sorts are classed by the Dutch as under: —

Prune baguets (*baguette*, Fr., a rod or wand); very tall; fine cups with white bottoms, well broken with fine brown, and all from the same breeder.

Baguets Rigaut's (supposed from Rigaud, some eminent florist's name, or *rougeaude*, red face); not quite so tall, but with strong stems, and very large well-formed cups, with white bottoms, well broken with fine brown, and all from the same breeder.

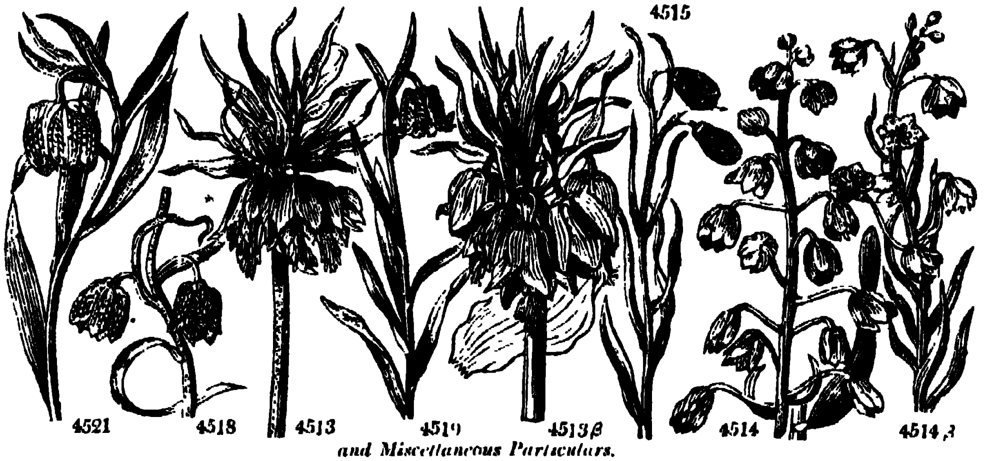
4504 Stem 1-fl. smooth, Flower nodding, Petals acute bearded at end, Leaves lanceolate
4505 Flower erect, Petals lanceol. acuminate, Leaves lanceolate linear
4506 Coat of bulb woolly inside, Leaves ciliated glaucous, Stem and flower smooth
4507 Stem 1-fl. smooth, Flower erect, Petals obtuse smooth, Leaves ovate lanceolate
4508 Stem 1-fl pubescent, Flower erect, Petals obtuse smooth, Leaves ovate lanceolate
4509 Flower erect stellate with a dark eye, Leaves linear lanceolate
4510 Leaves lin. lanc. convolute, Petals lanceolate greenish outside
4511 One-flowered, Flower from fusiform spreading, Sepals very long caudate
4512 Flowers erect flat, Stem 2-leaved 2-3-flowered, Leaves linear subulate

4513 Raceme comose naked below, Leaves entire

4514 Raceme naked, Leaves oblique

4515 Leaves glaucous numerous oblique, Cor. turbinate
4516 Leaves lanc. alternate remote, Stem 1-flowered naked upwards, Angles of caps obtuse
4517 Leaves linear whorled opp. and alternate when old cirrhose, Stem many flowered, Capsule winged
4518 Lower leaves opp. Inner flowers among the leaves
4519 Leaves scattered flat coriaceous glaucous, Cor. campanulate revolute at end
4520 Leaves alternate linear nerved flat, Stem 1-flowered
4521 Leaves lin. lanc. alternate; the upper approximated shorter than the terminal solitary flower
4522 Leaves lanc. approximated, the upper opp. as long as the terminal solitary flower, Capsule obtuse angled
4523 Leaves alternate linear channelled, Stem one-flowered
4524 Leaves whorled, Flower erect, Cor campanulate, Petals sessile

4525 Leaves fleshy spiny at end
4526 Herbaceous caulescent, Leaves ensiform



and Miscellaneous Particulars.

Incomparable Verports; very perfect cups, cherry and rose, and white bottoms, well broken with shining brown.

Byblomens, or mixt flowers, the *flamands* of the French florists, with bottoms white, or nearly so, from different breeders, and broken with variety of colors.

Bizarres (*bizarre*, Fr. odd, irregular); ground yellow, from different breeders, and broken with variety of colors.

What are called breeders are procured from seed, and consist of one plain color on a white or yellow bottom. These being cultivated on a dry and rather poor soil, become broken or variegated, and produce new varieties. The time that elapses before they break, varies from one to twenty years or more, and sometimes this change never takes place, so that whoever thinks of raising new varieties of tulips from seed, must be possessed of an ample fund of patience and perseverance. The early dwarf tulip, known among florists as the Van Tholl, is a distinct species, T. suaveolens.

In raising tulips from seed, the florists pursue a mode in some respects the reverse of that practised with other plants. Instead of saving the seed to be sown from the finest variegated tulips, they prefer unbroken flowers or breeders, selecting such of these as have tall strong stems, with large well-formed cups, clear in the bottom. Plants raised from seed saved from the finer variegated sorts, form poor weak breeders of no value. The seed is sown on fine light soil, thinly covered, and protected and shaded by a frame. At the end of the second year the bulbs are taken up and replanted three inches apart, and again at the end of the fourth year. Some will bloom the fourth year, most the fifth, and all of them the seventh year. Being now furnished with a set of breeders, all that the florist can do is to take up and replant till they break or shew variegation, which, as already observed, some will do in a year or two, and some not for a long period, or never. Some vary the soil to promote breaking, but in doing this there is often danger of weakening the strength of the flower.

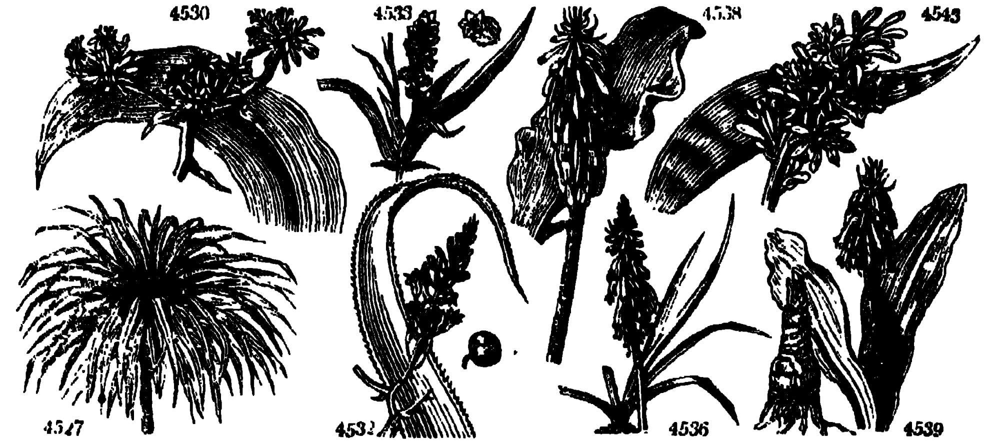
In cultivating choice tulips, an open airy situation, dry at bottom, is made choice of; there excavations are made commonly in the form of beds four feet broad, of any convenient length, and two and a half or three feet deep. In the bottom a layer of well rotten hot-bed dung is laid and well trod in, and on this two or two and a half feet of rich fresh sandy loam On this the roots are planted six inches apart, and covered four inches. The best season is the beginning of November. In very severe winters, protection by mats or by a layer of decayed tanner's bark, may be requisite; but the tulip is very hardy, and almost the only protection it requires is shading and shielding from rain and winds during full bloom. The bulbs should be taken up annually, as soon as the flowers are decayed, and kept in a dry airy situation till wanted for planting. (See *Madocks*, *Hogg*, *Emerton*, &c.)

T. clusiana and T. celsiana are both elegant little border bulbs, inferior indeed to their prototypes in splendour of coloring, but more elegant in their simplicity.

773. *Fritillaria.* *Fritillus* signifies a dice-box, and is said to have been the origin of this name. This is a genus with flowers shewy and singular in appearance. They require a deep loamy soil, and are readily increased by offsets or seeds. They will grow in the shade of trees and shrubs, and do not require to be taken up above once in three years.

774. *Dracæna.* From Δρακαινα, the female of δρακων, a dragon, because the inspissated juice becomes a red powder very like the eastern dragon's blood. D. draco has the habit of a palm. The trunk is nearly

4527 umbraculifera *W.*	umbel-flowered	♀	□	or	10	...	W	Mauritius	1788.	C	p.l	Bot. cab. 289
4528 cérnua *W.*	drooping	♀	□	or	10	my	W	Mauritius	...	C	p l	Jac. sch. 1. t. 96
4529 férrea *H. K.*	purple	♀	□	or	8	mr.ap	W	China	1771.	R	p.l	Bot. mag. 2053
4530 frágrans *H. K.*	sweet-scented	♀	□	or	6	f.my	W	Africa	1768.	R	p.l	Bot. mag. 1081
4531 ováta *B. M.*	oval-like	¥	□	or	2	au.s	Pk	S. Leone	...	R	p.l	Bot. mag. 1180
775. PHYLLO'MA. *B M.*	PHYLLOMA.					*Asphodeleæ.*		*Sp.* 1.				
4532 aloiflórum *B. M.*	aloe-like	♀	□	or	10	ap	Or	Bourbon	1766.	R	p.l	Bot. mag. 1585
776 ALE'TRIS. *W.*	ALETRIS.					*Hemerocallideæ.*		*Sp.* 2—3.				
4533 farinósa *W.*	colic-root	¥	△	or	¼	jn	W	N. Amer.	1768.	R	s.p	Bot. mag. 1418
4534 aúrea *Ph.*	golden-tipped	¥	△	or	½	jl.au	Y	N. Amer.	1811.	R	s.p	Willd. ho. ber. 8
777. TRITO'MA. *B. M.*	TRITOMA.					*Hemerocallideæ.*		*Sp.* 3.				
4535 Uvária *H K.*	great	¥	△|	or	2	au.s	O	C. G. H.	1707.	R	p.l	Bot. mag. 758
4536 média *H K.*	lesser	¥	△|	or	2	jn.d	O	C. G. H.	1789.	R	p.l	Bot. mag. 744
4537 púmila *H. K.*	least	¥	△|	or	1	s.n	O	C. G. H.	1774.	R	p.l	Bot. mag. 764
778. VELTHE'IMIA. *H. K.*	VELTHEIMIA.					*Hemerocallideæ.*		*Sp* 2—4.				
4538 viridifólia *W.*	green-leaved	¥	ι△|	or	2	ap.n	F.w	C. G. H.	1768.	Sk	r.m	Bot. mag. 501
4539 glaúca *W.*	glaucous	¥	ι△|	or	2	ja ap	F.G	C. G. H.	1781.	Sk	r.m	Bot. mag. 1091
779. SANSEVIE'RA. *W.*	SANSEVIERA.					*Hemerocallideæ.*		*Sp.* 12—14.				
4540 glaúca *Haw.*	sprdg.-glaucous	¥	[△]	cu	2	...	W G	......	...	Sk	s.l	
4541 stenophýlla *L. K.*	narrow-leaved	¥	[△]	cu	3	...	...	......	1818.	Sk	s.l	
4542 polyphýlla *Haw.*	upright-glauc.	¥	[△]	cu	2	...	W G	......	...	Sk	s.l	
4543 guineénsis *W.*	Guinea	¥	[△]	cu	2	jn.n	G	Guinea	1690.	Sk	s.p	Bot mag. 1179
4544 læte-virens *Haw.*	light-green	¥	[△]	cu	2	...	W.G	......	...	Sk	s.p	
4545 fulvocin'cta *Haw.*	fulvous-edged	¥	[△]	cu	1	...	...	Brazil	1818.	Sk	s.p	
4546 spicáta *Haw.*	spiked	¥	[△]	cu	2	...	W.G	E. Indies	1790.	Sk	s p	Cav. ic 3. t. 246
4547 zeylánica *W.*	Ceylon	¥	[△]	cu	2	jn.n	W.G	Ceylon	1731.	Sk	s.p	Bot reg. 160
4548 lanuginósa *W.*	woolly	¥	[△]	cu	2	...	...	E. Indies	...	Sk	s.p	Rheed. 11. t. 42
4549 grandicúspis *Haw.*	large-pointed	¥	[△]	cu	3	...	W.G	......	...	Sk	s.p	
4550 púmila *Haw.*	dwarf	¥	[△]	cu	1	...	W.G	C. G. H.	1796.		s p	
4551 cárnea *H. K.* *sessiliflóra* B. M.	flesh-colored	¥	△	or	¼	mr.jn	F	China	1792.		l.p	Bot. rep. 361
780. TULBA'GHIA. *W.*	TULBAGHIA.					*Hemerocallid·*		*Sp.* 2—5				
4552 alliácea *W.*	Narcissus-lvd.	♉	ι△|	or	1	my jl	Br	C. G. H.	1774.		r.m	Bot. mag. 806
4553 cepácea *W.*	onion-scented	♉	ι△|	or	½	ap	Br	C. G. H.	1795.		r m	
781. YUC'CA. *W.*	ADAM'S NEEDLE.					*Liliaceæ.*		*Sp.* 12.				
4554 gloriósa *W.*	superb	■		or	4	jl.au	W.gr	America	1596.	S	r l	Bot. mag. 1260
4555 aloifólia *W.*	Aloe-leaved	■	⊔	or	2	au.s	W gr	S. Amer.	1696.	R	r.l	Bot. mag. 1700
4556 tenuifólia *Haw.*	slender-leaved	■		or	1	...	W.gr	Malta	1817.	R	r.l	
4557 dracónis *W.*	drooping-lvd.	■	⊔	or	8	au.s	W.gr	S. Amer.	1732.	R	r.l	Dl. el. t.324.f.417
4558 concáva *Haw.*	hollow-leaved	■		or	1½	au	W.gr	......	1816.	R	r.l	
4559 oblíqua *Haw.*	oblique-leaved	■	□	or	4	...	W.gr	......	1808.	R	r l	
β májor	*large*	■	□	or	4	...	W gr	......	1808.	R	r.l	
4560 flac'cida *Haw.*	flaccid	■		or	2	...	W gr	......	1816.	R	r.l	
4561 serruláta *Haw.*	rough-edged	■	⊔	or	10	...	W.gr	Carolina	1808.	R	r.l	
4562 recur'va *Haw.*	recurve-lvd.	≡		or	3	au	W gr	Georgia	1794.	R	r l	Par. lond. 31
4563 supérba *Haw.*	superb	■	⊔	or	10	au	W gr	......	...	R	r.l	Bot. rep. 473
4564 glaucéscens *Haw.*	glaucous	≡		or	2	jl.au	W gr	N. Amer.	1819.	R	r.l	Sw. fl. gard.53
4565 filamentósa *W.*	thready	■		or	2	s.o	W gr	Virginia	1675.	S	r.l	Bot mag 900



History, Use, Propagation, Culture,

equal in size, which is rarely more than eight or ten inches the whole length; the inner part very pithy, next to this a circle of strong fibres, and the outside soft; the same diameter the whole length; circular marks or rings are left the whole length where the leaves have fallen off. The top sustains a large head of these, coming out singly all round it.

775. *Phylloma.* From φυλλον, a leaf, and λωμα, an edge, in reference to the broad red edge of the leaves. The plant resembles an aloe in foliage and flowers, and requires the same culture.

776. *Aletris.* From αλιας, meal, in allusion to the powdery dust with which the whole plant appears to be covered. Small North American plants, which may be cultivated with a little attention in rich leaf mould.

777. *Tritoma.* From τρεις, three, and τεμνω, to cut, in allusion to the three sharp edges of the ends of the leaves. (v. *Ker, in Bot. Mag.* fol 744.) The species of this genus thrive best in peat soil, but will do very well in any other light earth. They are hardy enough to endure our mildest winters in the open air, and only require the protection of a frame in severe frosts. There being also a genus of insects called Tritoma, Professor Link calls this genus Tritomanthe.

778. *Veltheimia.* Frederick Augustus de Veltheim was a German botanical amateur, of whom nothing more is known This genus resembles the last, and is of easy culture in any light loamy soil; and readily increased

4527 Leaves lanceolate narrowed each way, Corymb very short terminal many-flowered
4528 Leaves lanc. obliquely bent, Panicle hanging down divaricating
4529 Leaves lanceolate acute discolored
4530 Leaves lanceolate lax, Flowers very fragrant
4531 Head of flowers sessile in the centre of the ovate leaves

4532 Leaves tooth-spiny, Racemes axillary

4533 Flowers stalked oblong tubular, Cor. in fruit smooth mealy, Leaves broad lanceolate mucronate
4534 Flowers sub-sessile campanulate, Cor. in fruit rugose very rough, Leaves lanc. ensiform acute

4535 Leaves with the keel and edge rough, Cor. clavate cylindrical
4536 Leaves with keel and edge smooth, Cor. clavate cylindrical
4537 Leaves with keel and edge rough, Cor. globose at end

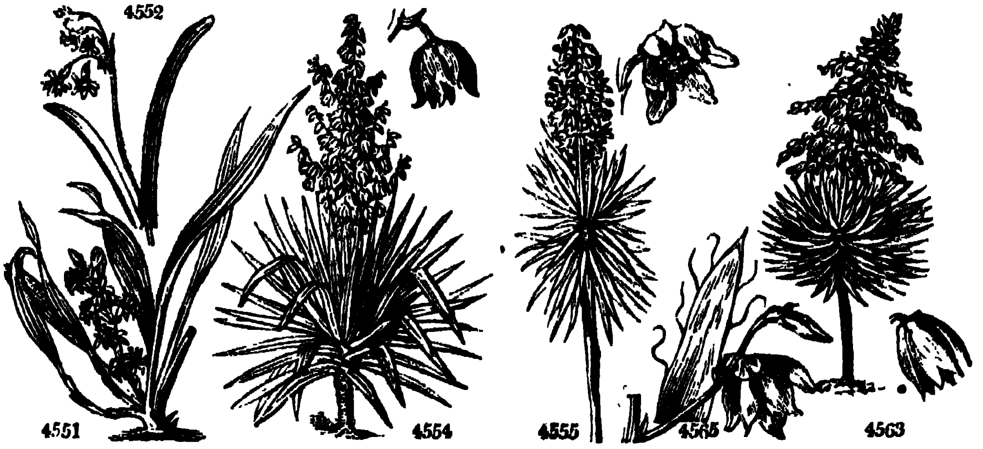
4538 Leaves lanc. plaited wavy obtuse, Teeth of the limb rounded straight
4539 Leaves lanc. glaucous curled at edge mucronate at end, Limb spreading

4540 Leaves about 11 spreading flaccid broadly lanceol. ensiform glaucous obscurely barred
4541 Leaves beneath convex lined channelled not barred
4542 Leaves about 19 sub-erect rigid brittle broad lanceolate ensiform glaucous obscurely barred
4543 Leaves lanc. uniform, Style twice as long as stamens, Bractes thrice as short as tube of cor. Flow. sessile
4544 Leaves about three flaccid lanc. ensiform pale-green with scarcely any bars
4545 Leaves lanc. revolute recurved dull green slightly edged with fulvous
4546 Leaves about eleven nearly erect rigid brittle lanc. ensif. with very obscure bars
4547 Leaves smooth oblong acute flat and lin. lanceolate channelled, Style the length of stamens
4548 Leaves with woolly nerves: lower oblong; rest lin. Pedunc. without bracteæ
4549 Leaves about 12 sub-erect lanc. ensif much barred with a small bristle at end
4550 Leaves about 20 spreading lanc. ensif. much barred, with 4-6 strong lines beneath
4551 Leaves distichous lanceolate ensiform keeled, Flowers solitary sessile

4552 Nectary 1-leaved 6-toothed
4553 Nectary 3-leaved

4554 Leaves quite entire
4555 Leaves crenulate straight
4556 Leaves linear very narrow stiff closely curved back into a semicircle serrulate at edge
4557 Leaves crenate nodding
4558 Leaves erect incurved rough on both sides dull glaucous with strong white marginal threads
4559 Leaves lorate linear lanc. obliquely bent glaucous, Suckers tuberous

4560 Leaves all very flaccid weakly recurved with very strong brownish threads
4561 Leaves in a close head very stiff green rough at edge
4562 Leaves recurved deflexed with a few threads
4563 Leaves a little plaited mucronate, Flowers very close together camp. not opening curved outwards at end
4564 Leaves linear lanc. narrow glaucous with fine white marginal threads
4565 Leaves erect recurved broadly channelled with very strong twisted brown marginal threads



and Miscellaneous Particulars.

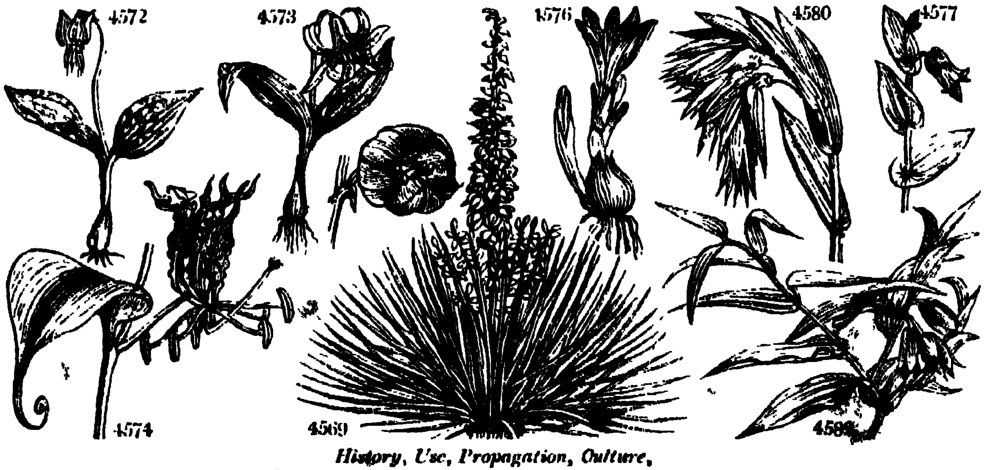
by offsets from the bulbs; or by pulling off the leaves close to the bulb, and then planting them in pots of mould, when, like most other bulbous rooted plants, they will produce bulbs at their base. The species are quite hardy, although usually treated as greenhouse plants.

779. *Sanseviera.* This is a succulent genus, of the easiest culture and propagation in sandy loam with little water. It is probable that nearly all the numerous kinds adopted here from the works of Mr. A. H. Haworth, are varieties of one common stock, which in the woods of Guinea sports into an infinite number of forms.

780. *Tulbaghia.* This was named in honor of —— Tulbagh, a Dutch governor of the Cape of Good Hope, who patronized travelling naturalists. Very pretty plants, less fragrant than beautiful; they are rarely seen in collections, but may be cultivated in very light sandy peat in a good greenhouse.

781. *Yucca.* The inhabitants of St. Domingo call this plant *Yuca.* The species are considered highly desirable from their palm, or oriental pine-apple, or aloe character, and as being evergreens. For this reason they make a striking contrast in gardens and shrubberies, with European shrubs. They grow slowly, and do not flower freely. They are well adapted for a conservatory, as even the reputed hardy species do not thrive generally in the open air.

4566 rufo-cin'cta *Haw.*	rufous-edged	■		or	1½ jl	W.G	......	1816	Sk r m	
4567 stricta *Sims.*	Lyons's	■		or	1 jl	W.G	Carolina	1817.	Sk r.m	Bot. mag. 2222
4568 conspicua *Salm.*	conspicuous	■	⊔	or	3 ...	W.G	......	1816.	Sk r m	
4569 angustifólia *Ph.*	narrow-leaved	■		or	2 jl.au	W.G	Missouri	1811	Sk r.l	Bot. mag. 2236
4570 crenuláta *Haw*	rough-edged	■		or	2 ...	W.G	......	1818.	Sk s.l	
4571 arcuáta *Haw.*	bowed	■		or	1	W.G	......	1817.	Sk s.l	
782. ERYTHRO'NIUM. *W*	DOG'S-TOOTH VIOLET.				*Liliaceæ.* *Sp.* 2.					
4572 Dens cánis *W.*	common	♉	△	or	¼ mr	Pu	Europe	1596.	O p.l	Bot. mag. 5
β albiflórum	*white-flowered*	♉	△	or	¼ mr	W				
4573 americánum *H. K.*	yellow-flowered	♉	△	or	¼ ap.my	Y	N. Amer.	1665.	O p.l	Bot. mag. 1113
783 GLORIO'SA. *W.*	GLORIOSA.				*Liliaceæ.* *Sp.* 2—3.					
4574 supérba *W.*	superb	♉	[△]	or	6 jl.au	Or	E. Indies	1690.	O s.p	Bot. reg. 77
4575 simplex *L.*	blue-flowered	♉	[△]	or	2 jl.au	B	Senegal	1756.	O s.p	
784 BULBOCO'DIUM. *W.*	BULBOCODIUM.				*Melanthaceæ.* *Sp.* 1.					
4576 vérnum *W.*	spring-flower.	♉	△	or	¼ f.mr	D.Pu	Spain	1629.	O s.p	Bot. mag. 153
785. UVULA'RIA. *W.*	UVULARIA.				*Melanthaceæ* *Sp.* 6—9.					
4577 perfoliáta *W.*	perfoliate	♃	△	or	½ my.jn	Pa.Y	N. Amer.	1710.	Sk p.l	Ex. bot. 1. t. 49
4578 fláva *Ph.*	deep-yellow	♃	△	or	½ my.jn	Y	N. Amer.	...	Sk p.l	Ex. bot 1. t. 50
4579 lanceoláta *W.*	spear leaved	♃	△	or	1 jn.au	Y	N. Amer.	1710.	Sk p.l	Corn. can. t 41
4580 grandiflóra *H. K.*	large-yellow	♃	△	or	1 my.jn	Y	N. Amer.	1802.	Sk p.l	Ex. bot. 1. t. 51
4581 sessilifólia *W.*	sessile-leaved	♃	△	or	½ jn	L.Y	N. Amer.	1790.	Sk p.l	Ex. bot. 1. t. 52
4582 chinénsis *B. M.*	brown-flower'd	♃	⊔△	or	1 s.n	Pk	China	1801.	Sk p.l	Bot. mag. 916
786. STREPTOPUS. *M.*	STREPTOPUS.				*Smilaceæ.* *Sp.* 3.					
4583 amplexifólius *R. L.*	heart-leaved	♃	△	or	1 my	W	Hungary	1752.	Sk lt.s	Red. lil. 259
4584 róseus *Ph.*	rose-colored	♃	△	or	1½ jn.jl	Pk	N. Amer.	1806.	Sk lt s	Bot. mag. 1489
4585 lanuginósus *Ph.*	woolly	♃	△	or	1½ jn jl	Y.Gr	N. Amer.	1812.	Sk lt.s	Bot. mag. 1490
787 CONVALLA'RIA. *Desf.*	LILY OF THE VALLEY.				*Smilaceæ.* *Sp.* 1.					
4586 majális *W.*	common	♃	△	or	½ my.jn	W	Britain	woods.	R s.l	Eng bot. 1035
β rúbra	*red-flowered*	♃	△	or	½ my jn	F	Britain	gard.	R s.l	
γ flóre pléno	*double*	♃	△	or	½ my.jn	W	Britain	gard.	R s.l	
788. SMILACI'NA *Desf*	SMILACINA.				*Smilaceæ.* *Sp.* 6.					
4587 umbelláta *Desf.*	umbel-flower'd	♃	△	or	½ my jn		N Amer.	1778.	R s.l	Bot mag 1155
4588 boreális *Desf.*	oval-leaved	♃	△	or	1 my jn	W	N Amer.	1778.	R s l	Bot mag 1403
4589 bifólia *Desf.*	least	♃	△	or	½ my jn	W	Eur.	1596.	R s l	Bot mag. 510
4590 trifólia *Desf*	three-leaved	♃	△	or	½ jn.jl	W	N. Amer.	1812.	R s.l	Gmel. sib 1 t 6
4591 stelláta *Desf*	star-flowered	♃	△	or	½ my.jn	W	N. Amer.	1633	R s.l	Bot mag 1043
4592 racemósa *Desf.*	cluster-flower'd	♃	△	or	1 my.jn	W	N Amer.	1640.	R s l	Bot mag 899
789. POLYGONA'TUM *Desf.*	SOLOMON'S SEAL.				*Smilaceæ.* *Sp.* 7—8.					
4593 verticillátum *Desf*	whorl-leaved	♃	△	or	1 my jn	W	Scotland	woods.	R s.l	Eng. bot 128
4594 canaliculátum *Ph*	channelled	♃	△	or	1 jn	W	N. Amer.	1812	R s l	
4595 pubéscens *Ph.*	pubescent	♃	△	or	1 my.jn	W	N. Amer.	1812.	R s l	Willd. ber. 45
4596 vulgáre *Desf*	angular	♃	△	or	2 my.jn	W.G	England	moun.	R s.l	Eng. bot. 280
4597 multiflórum *Desf.*	common	♃	△	or	2 my jn	W	Britain	woods	R s l	Eng bot 279
4598 latifólium *Desf.*	broad-leaved	♃	△	or	1 my jn	W	Germany	1802.	R s l	Jac aus. 3 t 232
4599 oppositifólium *Lodd*	opposite-leaved	♃	⊔△	or	1 ap	W	Nepal	1822.	R s l	Hook ex fl 125



History, Use, Propagation, Culture,

782. ***Erythronium.*** From ἐρυθρὸς, red, in allusion to the color of the flower and leaves. Beautiful little vernal bulbs, the favorites of gardeners, from the cottager's border to the nobleman's flower garden. The E. americanum runs very much at the root, and will not flower unless confined and prevented wasting its vigour in long subterraneous surculi.

783. *Gloriosa.* So named on account of the glorious colors of its flowers, and the elegance of their form. This is a splendid and curious genus, which requires considerable care in its treatment so as to make it flower freely. The late John Sweet, of Bristol, has given the following directions; "When the stalks and foliage have decayed in the autumn, and left the root, like a well-ripened potatoe, in a dormant state, the pot in which it is, must be removed from the bark-bed (to a dry part of the house) at some distance from the fire: all the warmth at this time necessary being [illegible] what is sufficient to keep the earth in the pot free from damp: and to prevent the waterings of the house, or other moisture, falling on the earth in the pot, it should be covered, by inverting upon it another pot of the same size; or, if larger, it will hang over its edges, and more effectually exclude the wet. If the roots are small, two or three may be placed together in the same pot, whilst in their dormant state; but if they are thus shifted, the mould must be well shaken down in the pot, in order to prevent the access of air to them: the old mould in which they grew must also be used; for fresh earth or sand would stimulate them to move too early. About the second week in March, the roots must be replanted, putting one or two, according to their size, into pots measuring six inches over. The best compost for them is fresh loam, mixed with an equal quantity of peat-mould, of good quality; the loam should be good, not over rich with dung, nor too heavy. The roots are to be covered about two inches deep; and care must be taken not to break them, unless nature has shown where it is practicable to divide them easily. The pots, when filled, must be plunged into the bark-bed, where the heat should be equal to ninety-five degrees of Fahrenheit's scale. Water is to be given very sparingly at first; and though, as they grow,

4566 Leaves erect lin. lanc. flaccid glaucous green quite smooth with a slight red edge
4567 Stemless, Leaves linear very straight, Scape branched at base, Cor. round campanulate
4568 Leaves few loosely headed long lanceolate, their edges rough
4569 Leaves erect rigid narrow ensiform glaucous with a broad white edge and a few threads
4570 Leaves a little recurved glaucous lin. lanc. at the edge and keel rough, beneath glaucous
4571 Leaves lin lanceolate recurved almost into a circle deep green 7-8 lines broad roundish at edge

4572 Style filiform

4573 Style clavate 3-cornered

4574 Leaves cirrhiferous
4575 Leaves acuminate

4576 A small plant like a Crocus

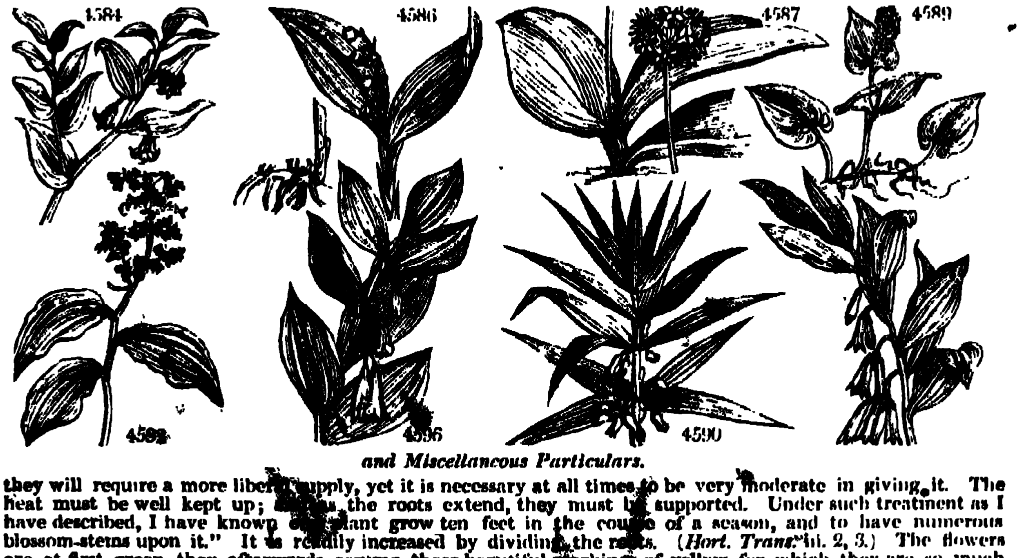
4577 Leaves perfoliate ovate
4578 Leaves perfoliate elliptic oblong obtuse, Cor. narrowed at base scabrous within, Anthers cuspidate
4579 Leaves perfoliate ovate lanceolate acute
4580 Leaves perfoliate oblong acute, Petals smooth on both sides, Nect. roundish
4581 Leaves sessile
4582 Leaves stalked

4583 Leaves stem-clasping and stem smooth
4584 Smooth shining, Leaves stem-clasping serrulate ciliated, Anthers short 2-horned
4585 Downy hoary, Leaves sessile cordate acuminate, Pedicels in pairs on a very short stalk

4586 Scape naked smooth, Leaves ovate

4587 Leaves ovate oblong obtuse ciliated, Scape leafless, Umbel capitate
4588 Leaves radical elliptical, Umbel terminal
4589 Leaves cordate, Flowers tetrandrous
4590 Leaves stem-clasping in threes, Raceme terminal simple
4591 Leaves alternate stem-clasping elliptical acute, Raceme terminal simple
4592 Leaves alternate sessile ovate acuminate, Panicle terminal naked

4593 Leaves whorled
4594 Stem furrowed, Leaves alternate amplexicaul. oblong pubescent at edge, Pedunc axillary 2-fl
4595 Stem rounded furrowed, Leaves amplexicaul ovate downy beneath, Pedunc axill about 2-fl.
4596 Leaves alternate stem-clasping, Pedunc. axillary 1-fl.
4597 Leaves alternate stem-clasping, Stem round, Pedunc axillary many-fl.
4598 Leaves alternate stem-clasping acuminate, Stem angular, Pedunc axillary many-fl
4599 Stem round, Leaves opposite oblong acuminate shining, Pedunc. umbell. 3-5-flowered



and Miscellaneous Particulars.

they will require a more liberal supply, yet it is necessary at all times to be very moderate in giving it. The heat must be well kept up; [illegible] the roots extend, they must be supported. Under such treatment as I have described, I have known one plant grow ten feet in the course of a season, and to have numerous blossom-stems upon it." It is readily increased by dividing the roots. (*Hort. Trans.* iii. 2, 3.) The flowers are at first green, they afterwards assume those beautiful markings of yellow for which they are so much esteemed.

784. ***Bulbocodium.*** From βυλβος, a bulb, and κωδιον, wool; its bulb is enveloped in a rough and velvetty covering. "A beautiful little vernal flower resembling a small species of Colchicum.

785. ***Uvularia.*** A diminutive of uva, a bunch of grapes. A genus of little beauty and of easy culture,

786. ***Streptopus.*** "From στρεφω, to turn, and πους, a foot, or, in botanical language, stalk. Its flower-stalks are constantly twisted. A plant like an Uvularia in habit.

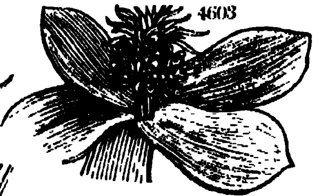
787. ***Convallaria.*** From *convallis*, a valley, in allusion to the places where it grows. (*Muguet*, Fr.) C majalis is an elegant and delicate scented plant, which has long been a favorite of the florist; though, as it is not a native of hot countries, it is not likely to be the Lily of the Valley of Solomon. Notwithstanding the fragrance of the flowers when green, yet when dried they have a narcotic odour, and if reduced to powder excite sneezing. An extract prepared from the flowers or from the roots partakes of the bitterness, as well as of the purgative properties, of aloes. A beautiful and durable green colour may be prepared from the leaves with lime. The plant is very common in the woods about Woburn in Bedfordshire, and from thence the London markets are supplied with the flowers. It forces freely, and few plants are more eligible for that operation.

788. ***Smilacina.*** A diminution of Smilax, another genus of plants, which see in its place. These are very pretty little hardy American flowers, requiring some delicacy in their management.

789. ***Polygonatum.*** From ϖολυς, many, and γονυ, a knee; on account of the numerous articulations of its

790. OPHIOPO'GON. *Ker.*	SNAKE'S BEARD					*Smilaceæ.*	*Sp.* 2—3.					
4600 japónicus *Ker.*	Japan	£	⌊△⌋	cu	1½	jn	L.Y	Japan	1784.	D	s.p.l	Bot. mag 1063
4601 spicátus *Ker.*	spiked	£	⌊△⌋	cu	1	au.s	V	China	1820.	D	s.p.l	Bot. reg. 593
791. EUCO'MIS. *W.*	EUCOMIS.					*Asphodeleæ.*	*Sp.* 7—9.					
4602 nána *W.*	dwarf	£	⌊△⌋	or	¾	my	Br	C. G. H.	1774.	O	r.m	Bot mag. 1495
4603 purpureocaúlis *H.K.*	purple-stalked	£	⌊△⌋	or	2	mr.ap	G.B	C. G. H.	1794.	O	r.m	Bot. rep. 369
4604 bifólia *W.*	two-leaved	£	⌊△⌋	or	½	ap.my	L.G	C. G. H.	1792.	O	r.m	Bot. mag 840
4605 régia *W.*	tongue-leaved	£	⌊△⌋	or	2	mr.ap	G	C. G. H.	1702.	O	r.m	Di. el. t.92. f.109
4606 unduláta *W.*	waved-leaved	£	⌊△⌋	or	2	mr.ap	G	C. G. H.	1760.	O	r.m	Bot. mag. 1083
4607 punctáta *W.*	spotted	£		or	2	jl	G.B	C. G. H.	1783.	O	r.m	Bot. mag. 913
4608 striáta *H. K.*	streaked	£	⌊△⌋	or	2	jn.d	G	C. G. H.	1790.	O	r.m	Bot. mag. 1539
792. BRODIÆ'A. *L. T.*	BRODIÆA.					*Hemerocallideæ?*	*Sp.* 3.					
4609 grandiflóra *L. T.*	large-flowered	♉	⌊△⌋	or	¾	jn	B	Georgia	1806.	O	p.l	Par. lond. t. 98
4610 ixioídes *Sims.*	Ixia-like	♉		or	½	jl	B	Chili	1821.	O	p.l	Bot. mag. 2382
4611 congésta *L. T.*	close-headed	♉	⌊△⌋	or	¾	my	B	Georgia	1806.	O	p.l	Lin. tr. v. 10. t. 1
793. PELIOSAN'THES. *B. R.*	PELIOSANTHES.					*Asparageæ.*	*Sp.* 2.					
4612 húmilis *B. M.*	small	£	[△]	cu	½	my.jn	G	E. Indies	1809.	D	r.l	Bot. mag. 1532
4613 Téta *B. M.*	green-flowered	£	[△]	cu	1½	ap	G.Pu	E. Indies	1807.	Sk	s.p	Bot. mag 1302
794. APHYLLAN'THES. *W.*	LILY PINK.					*Asphodeleæ.*	*Sp.* 1.					
4614 monspeliénsis *W.*	Rush-like	£	△	pr	1	jn.jl	R	France	1791.	R	s.p	Bot. mag. 1132
795. SOWERBÆ'A. *L. T.*	SOWERBÆA.					*Asphodeleæ.*	*Sp.* 1.					
4615 júncea *R. Br.*	Rush-leaved	£	⌊△⌋	pr	1	my.jl	Pk	N. S. W.	1792.	R	s.p	Bot mag. 1104
796. AL'LIUM. *W.*	GARLIC.					*Asphodeleæ.*	*Sp.* 76—107.					
4616 Ampeloprásum *W.*	gt.-round-head.	♉	△	cu	2	jl.au	Pu	England	sun.hi.	O	co	Eng. bot. 1657
4617 Pórrum *W.*	Leek	♉	○	cul	2	ap.my	W	Switzerl.	1562.	S	r.m	Blackw. t. 421
4618 lineáre *W.*	linear-leaved	♉	△	pr	1	jn.jl	W	Siberia	1752.	O	co	Gmel. sib. 1. t.13
4619 suavéolens *W.*	sweet-smelling	♉	△	pr	1	jn.jl	W	Austria	1801.	O	co	Jac. ic. 2. t 364
4620 Victoriális *W.*	long-rooted	♉	△	pr	1½	my		Austria	1739.	O	co	Bot. mag. 1222
4621 subhirsútum *W.*	hairy	♉	△	pr	1	my	W	S. Europe	1596.	O	co	Bot. mag. 774
4622 oblíquum *W.*	oblique-leaved	♉	△	pr	1½	jn.jl	W	Siberia	1759.	O	co	Bot mag. 1408
4623 mágicum *W.*	Homer's Moly	♉	△	pr	1	jn.jl	G.w	Austria	1596.	O	co	Bot. mag 1148
4624 róseum *W.*	Rose-colored	♉	△	pr	1	jn	Pa.pu	France	1752.	O	co	Bot. mag 978
4625 defléxum *W.*	deflexed	♉	△	pr	½	jn.jl	Pa.pu	......	1820.	O	co	
4626 strictum *Schrad.*	upright	♉	△	pr	1	jl	Pk	......	1821.	O	co	
4627 neopolitánum *Cyr.*	Neapolitan	♉	△	pr	1	jl	W	Naples	1823.	O	co	
4628 ciliátum *Cyr.*	ciliated	♉	△	pr	¾	my	W	Naples	1820.	O	co	
4629 tatáricum *L.*	Tartarian	♉	△	pr	½	jn.jl	W	Siberia	1787.	O	co	Bot mag. 1142
4630 descéndens *W.*	purple-headed	♉	△	pr	1	jl	Pu	Switzerl	1766.	O	co	Bot. mag 251
4631 flávum *W.*	sulphur-colored	♉	△	pr	1	jn.jl	Y	Austria	1759.	O	co	Bot mag 1330
4632 pállens *W.*	pale-flowered	♉	△	pr	2	jn.jl	Pa.Y	S. Europe	1779.	O	co	Bot. mag. 1420
4633 paniculátum *L.*	panicled	♉	△	pr	2	jn.jl	Pu	S. Europe	1780.	O	co	Bot. mag. 1432
4634 caucásicum *Bieb.*	Caucasian	♉	△	pr	1	jn.jl	Pk	Caucasus	...	O	co	Bot. mag. 973
4635 rotúndum *L.*	round	♉	△	pr	1½	jl	Pu	S. Europe	1820.	O	co	
4636 globósum *Bieb.*	globose	♉	△	pr	1	au.s	Pu	Caucasus	1821.	O	co	Gmel. sib. 1. t.10
4637 moschátum *L.*	musky	♉	△	pr	½	au.s	W.pu	S. Europe	1823.	O	co	Wald.&K.1. t 68
4638 guttátum *Fisch.*	spotted	♉	△	pr	1½	jl	W	Odessa	1819.	O	co	
4639 rupéstre *Bieb.*	rock	♉	△	pr	1½	jn	Pu	Crimea	1824.	O	co	
4640 pusíllum *W. en.*	diminutive	♉	△	pr	½	jn	Pk	Siberia	1821.	O	co	
4641 sphærocéphalon *W.*	small-headed	♉	△	pr	1½	jl	R	Europe	1759.	O	co	Bot. mag. 1764
4642 parviflórum *W.*	small-flowered	♉	△	pr	1	jn.jl	Pu	S. Europe	1781.	O	co	
4643 cárneum *W. en.*	flesh-colored	♉	△	pr	1	jn.jl	Pa.pu	......	1816.	O	co	
4644 arenárium *W.*	sand	♉	△	pr	¾	jn	Pu	Britain	moi w.	O	co	Eng bot. 1358
4645 carinátum *W.*	mountain	♉	△	pr	¾	my.jn	Pu	England	rocks	O	co	Eng. bot. 1658
4646 controvérsum *W. en*	barren	♉	△	pr	1	jn.jl	Pu	......	1816.	O	co	

4600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History, Use, Propagation, Culture,

stem. The English name arises from the roots, which in P. vulgare are full of knots, and a transverse section of them shews characters which dreamers have discovered to represent the impress of the famous seal of Solomon.

790. *Ophiopogon.* From οφις, a snake, and πωγων, a beard. snake's-beard. This plant is best grown in pots, as it requires the protection of a frame during severe frosts.

791. *Eucomis.* From ευ, well, and κομη, hair; on account of the fine tuft of leaves, in botanical language called *coma*, by which the stem is surmounted. Handsome herbaceous plants which are nearly hardy.

792. *Brodiæa.* Named by Sir James Smith, after James Brodie, Esq of Brodie House, a gentleman to whom the botany of Scotland is indebted. Highly curious little plants with blue flowers.

793. *Peliosanthes.* From πελιος, livid, and ανθος, a flower, in allusion to the color of the flowers. *Teta* is the name of the plant in India; and having been adopted by Dr. Roxburgh, ought not to have been neglected in this country.

4600 Scape naked, Leaves linear thrice as long as scape
4601 Scape naked, Raceme spiked, Flowers aggregate

4602 Scape clavate, Leaves broad lanceolate acute
4603 Scape clavate, Leaves multifarious expanded
4604 Scape clavate, Leaves elliptical acute twin lying on the ground
4605 Scape cylindrical, Leaves tongue-shaped obtuse lying on the ground
4606 Scape cylindrical, Leaves ovate oblong wavy spreading, Crown as long as raceme
4607 Scape cylindrical, Leaves oblong lanceolate channelled spreading, Crown short, Racemes long
4608 Scape cylindrical, Leaves lanceolate spreading striped, Crown short, Raceme long

4609 Flowers large lax, Leaves of corona lanceolate undivided
4610 Leaves of the corona subulate
4611 Flowers clustered, Leaves of corona bifid

4612 Scape shorter than ovate-lanceolate leaves
4613 Scape branched longer than leaves

4614 The only species

4615 The only species

A. *Stem leafy. Leaves not fistular.*
Umbel not bulbiferous. Leaves flat.

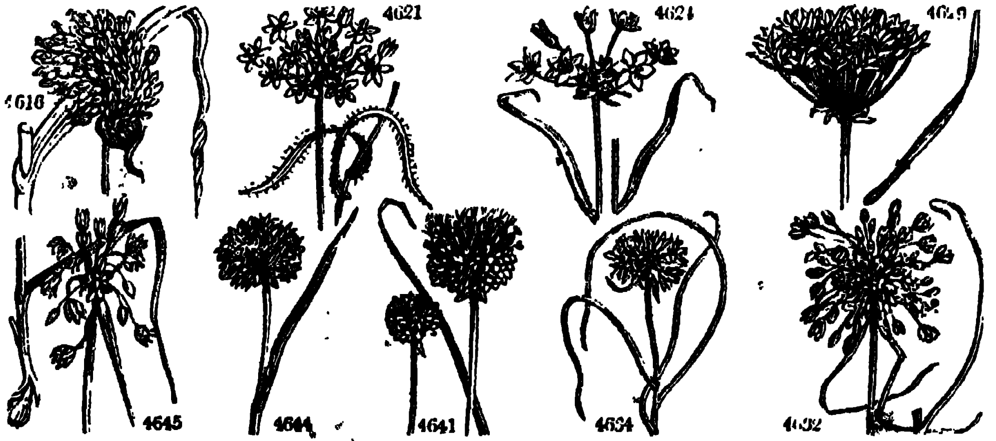
4616 Umb. globose, Stam. 3 cusp. Sepals with a rough keel
4617 Stam. tricuspidate, Root tunicated
4618 Umb. globose, Stam. tricuspidate twice as long as flower
4619 Umb. capitate, Stam. subulate twice as long as flower
4620 Umb. capitate, Stam. lanceolate longer than flower, Leaves elliptical
4621 Umb. fastigiate, Stam. subulate, Leaves linear ciliated
4622 Stam. filiform thrice as long as flower, Leaves oblique
4623 Cauline leaves lanceolate, Umbel dense depressed, Stamens subulate shorter than flower
4624 Umb. fastigiate, Sepals emarginate, Stamens very short simple
4625 Stam. 3-pointed as long as flower, Leaves very narrow, Scape declinate
4626 Very upright, Leaves channelled
4627 Umb. loose few-flowered, Leaves smooth
4628 Very like Allium subhirsutum differing only in the smallness of the flowers, Sepals 3 lines long

Umbel not bulbiferous. Leaves not flat.

4629 Stamens simple, Umbel flat, Leaves half-rounded
4630 Outer peduncles shorter than the rest, Stamens 3-pointed
4631 Flowers pendulous, Sepals ovate, Stam. longer than flower
4632 Flowers pendulous truncated, Stam. simple as long as flower
4633 Pedunc. capillary effuse, Stam. simple, Spathe very long
4634 Stam. simple twice as long as flower, Spathe as long as flower-stalks: one valve shorter
4635 Umbel globose, Stam. 3-pointed, Flowers lateral nodding, Leaves half-round
4636 Stamens simple twice as long as flower, Umbel globose, Spathe subulate very long
4637 Umbel fastigiate about 6-flowered, Sepals acute, Stamens simple, Leaves setaceous
4638 Umbel globose very dense, Spathes lanc. as long as flow.-stalks, Stam. 3-pointed longer than fl. Lvs. ½ round
4639 Flower-stalks nearly equal, Sepals ovate conniving as long as simple stamens, Style longer than stamens
4640 Spathe ovate shorter than umbel, Stamens simple shorter than flower
4641 Leaves half-round, Stamens 3-pointed longer than flower
4642 Umbel globose, Stamens simple longer than flower, Spathe subulate
4643 Umbel sub-globose, Stamens 3-pointed shorter than flower

Umbel bulbiferous. Leaves flat.

4644 Sheaths of leaves rounded, Spathe blunt, Stamens 3-pointed
4645 Umbel spreading, Peduncles nodding, Stamens subulate, Spathes with very long points
4646 Flowers all male, Stamens 3-pointed, Spathe with a very long point



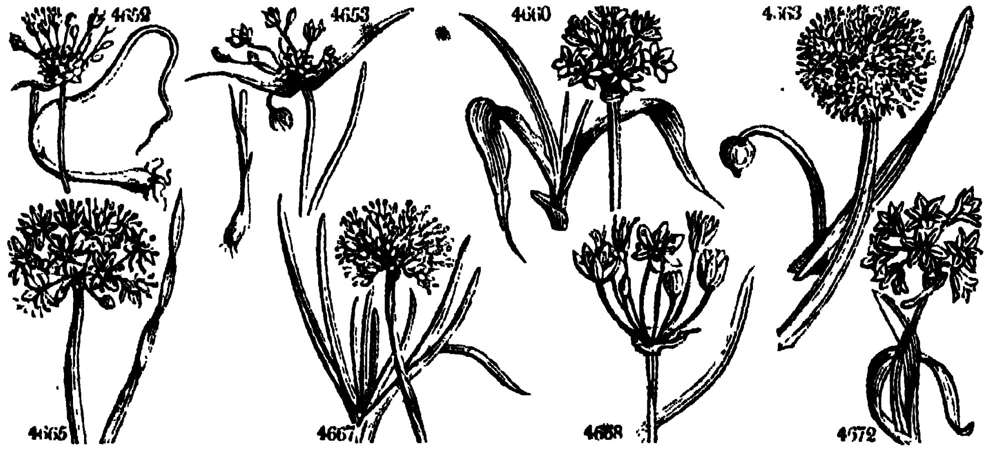
and Miscellaneous Particulars.

794. *Aphyllanthes.* From *α*, privative, *φυλλον*, leaf, and *ανθος*, a flower; leafless flower. Its stems are naked, like a rush, and bear on their summit a little tuft of blue flowers.

795. *Sowerbæa.* So named in honor of the late James Sowerby, an excellent draughtsman and ingenious naturalist. The power he possessed of representing the general features of plants within the compass of a few inches, as in his English Botany, has never been possessed in the same degree by any other individual than the late Sydenham Edwards. His execution as an artist is fully attested by the superb plates of the Flora Londinensis, of his own Fungi, and indeed of almost every botanical work of merit which appeared during his life. His talents and his reputation are inherited by his sons. This plant requires plenty of water, and is easily increased by dividing the roots.

796. *Allium.* From the Celtic *all*, which signifies hot or burning. This is a genus of strongly scented bulbous plants, all of them edible, and some of them of the greatest antiquity as potherbs.

4647 satívum *W.*	cultivated	♉	△	cul	1½	jn.jl	W	Sicily	1548.	O	r.m	Moris.s 4.t.15.f.9
4648 Scorodoprásum *W.*	Rocambole	♉	△	cul	3	jl	L.Pu	Denmark	1596.	O	co	Moris.s.4.t.14.f.1
4649 monspessulán. *W.en.*	Montpellier	♉	△	pr	1	jn	Pa.pu	S. France	1822.	O	co	
4650 violáceum *W. en.*	violet	♉	△	pr	1	jn	V	S. Europe	1823.	O	co	
4651 fœ'tidum *W.*	stinking	♉	△	pr	1	jl	D.Pu	......	...	O	co	
4652 vineále *W.*	crow	♉	△	pr	1	jn	Pu	Britain	mea.	O	[illegible]	Eng. bot. 1974
4653 oleráceum *W.*	purple-striped	♉	△	pr	1	jl	Pa.pu	England	corn fi.	O	co	Eng. bot. 488
4654 odórum *L.*	sweet-scented	♉	△	pr	1	jn	W	S. Europe	1820.	O	co	Bot. mag. 1142
4655 atropurpúreum *w.&k.*	dark-purple	♉	△	pr	1	jl	D.Pu	Hungary	1821.	O	co	Wald.&K.1.t.17
4656 nigrum *L.*	black	♉	△	pr	¾	jl.au	W	Barbary	1818.	O	co	Fl. græc. 323
4657 cáspium *Bieb.*	Caspian	♉	△	pr	1	ap	W	Crimea	1822.	O	co	
Amaryllis caspia L.												
4658 álbidum *Fisch.*	whitish	♉	△	pr	¾	jn.jl	W	Crimea	1820.	O	co	
4659 saxátile *Bieb.*	strong	♉	△	pr	1	jl.au	W	Crimea	1823.	O	co	
4660 Cowáni *Lindl.*	Cowan's	♉	△	pr	¾	jn	W	Chili	1823.	O	co	Bot. reg. 758
4661 acutángulum *W.en.*	acute-angled	♉	△	pr	1	jn.jl	W	......	1816.	O	co	
4662 spirále *W. en.*	spiral	♉	△	pr	¾	jn.jl	W	Germany	1802.	O	co	
4663 nútans *W.*	nodding	♉	△	pr	1	jl.au	R	Siberia	1785.	O	co	Bot. mag. 1143
4664 ascalónicum *W.*	Shallot	♉	△	cul	¾	jn.jl	Pu	Palestine	1548.	O	r.m	M.his.s 4.t.14.f.3
4665 senéscens *W.*	Narcissus-leav.	♉	△	pr	½	jn.jl	W	Germany	1596.	O	co	Bot. mag. 1150
4666 grácile *H. K.*	Carolina	♉	△	pr	3	mr.ap	W	Carolina	1776.	O	r.m	Bot. mag. 1129
4667 angulósum *W.*	angular-stalked	♉	△	pr	1	jn.jl	L.Pu	Germany	1739.	O	co	Bot. mag. 1149
4668 striátum *W.*	streaked-leaved	♉	△	pr	1	my.jn	W	C. G. H.	1800.	O	co	Bot. m. 1035. 1524
4669 narcissiflórum *W.*	Narcissus-flwd.	♉	△	pr	1	jl.au	W	France	...	O	r.m	Vill. delph. 2. t.6
4670 canadénse *W.*	Canadian	♉	△	pr	½	jn jl	W	N. Amer.	1739.	O	co	
4671 ursínum *W.*	Ramson	♉	△	pr	1	ap.my	W	Britain	woods.	O	co	Eng. bot. 122
4672 triquetrum *W.*	triangular-stkd.	♉	△	pr	¾	my.jn	W	Spain	1759.	O	co	Bot. mag. 869
4673 Clusiánum *W.*	Clusius's	♉	△	pr	¾	jn au	W	S. Europe	1803.	O	co	Clus.hist.1.p.192
4674 Móly *W.*	great-yellow	♉	△	pr	2	jn	Y	S. Europe	1604.	O	co	Bot. mag. 499
4675 tricóccum *W.*	three-seeded	♉	△	pr	½	jl	W	N. Amer.	1770.	O	co	
4676 cérnuum *Roth.*	drooping	♉	△	pr	1	jn	W.pu	N. Amer.	1806.	O	co	Bot. mag. 1324
4677 stellátum *B. M.*	Missouri	♉	△	pr	¾	jn	Li	N. Amer.	1811.	O	co	Bot. mag. 1576
4678 bisúlcum *B M.*	furrowed	♉	△	pr	¾	jl	Pu	Siberia	...	O	co	Bot. mag. 1381
4679 baicalénse *W. en.*	Baical	♉	△	pr	¾	jn.jl	Pu	Siberia	1816.	O	co	
4680 rúbens *W. en.*	red	♉	△	pr	1	jn.jl	Pa.pu	Germany	1805.	O	co	
4681 frágrans *Vent.*	fragrant	♉	△	pr	1½	s.o	W	W. Indies	1822.	O	co	Vent. cels. t. 26
4682 acútum *Spr.*	acute	♉	△	pr	1	jl	Pa.pu	......	1819.	O	co	
4683 foliósum *Fisch.*	leafy	♉	△	pr	1	jl	Pu	......	1817.	O	co	
4684 prolíferum *Schr.*	Tree-Onion	♉	△	cu	3	jl.o	W	......	1820.	O	co	Bot. mag. 1469
4685 ochroleúcum *W.en.*	pale-yellow	♉	△	pr	1	jn jl	Pa.Y	Hungary	1816.	O	co	Pl.rar.hu.2.t.186
4686 Cépa *W.*	common-onion	♉	☉	cul	3	jn.jl	W	......	...	S	r.m	Fl. græc. t. 326
4687 fistulósum *W.*	Welsh-Onion	♉	△	cul	1½	ap.my	Gr	Siberia	1629.	O	co	Bot. mag. 1230
4688 Schœnoprásum *W.*	Chives	♉	△	cul	½	my jn	F	Britain	m.pas.	S	r.m	Eng. bot. 2438
4689 sibíricum *W.*	Siberian	♉	△	pr	1	jl au	W	Siberia	1777.	O	co	Bot. mag. 1141
4690 setáceum *W. en.*	bristly	♉	△	pr	½	jl.au	G.w	Hungary	1805.	O	co	Wald.&Kit. t.68
4691 Chamæ-Móly *W.*	dwarf-Moly	♉	△	pr	¼	ja.f	G.w	S. Europe	1774.	O	co	Bot. mag. 1203
797. ALBU'CA. *W.*	Albuca.					*Asphodeleæ.*		*Sp.* 17—19.				
4692 altíssima *W.*	tall	♉	⌊△⌋	or	4	ap.my	W	C. G. H.	1780.	O	r.m	Jac. ic. 1. t. 36
4693 májor *W.*	great	♉	⌊△⌋	or	3	ap my	G.y	C. G. H.	1759.	O	r.m	Bot. mag. 804



History, Use, Propagation, Culture,

A. Porrum. (From *pori*, in Celtic, to eat.) *Leek*, Engl., *Poireau*, Fr., *Lauch*, Ger., and *Poro*, Ital., has a cylindrical scaly imperfect bulb, which is blanched in gardens, and much used in soups and stews. It is sown in March, transplanted in May in shallow drills, and being slightly earthed up as it advances, is fit for use in October, and remains in that state till April or May following.

A. sativum, *Ail*, Fr., *Knoblauch*, Ger., and *Aglio*, Ital., has soboliferous bulbs, which are used in seasoning, and sometimes in medicine. It is cultivated by dividing the bulb, and planting the soboles in February or March. They are fit to take up in the September following, and laid up in a dry situation till wanted for use.

A. scorodoprasum. (From *σκοροδον*, onion, and *πρασον*, leek, as if both leek and onion.) *Ail d'Espagne*, Fr., *Rockenbolben*, Ger., and *Scorodoprasso*, Ital., has bulbs like garlic, but the soboles or cloves are smaller. It is cultivated for the same purposes as that species, and is considered as having a more delicate flavor.

A. ascalonicum (growing near Ascalon). *Eschalôte*, Fr., *Schalotte*, Ger., and *Scalogni*, Ital., is the mildest of cultivated Alliums. It has a soboliferous bulb, small fistular leaves, and seldom flowers. It is propagated by the clove, planted in autumn or spring, and taken up for use in August or September. It is very subject to insects, which autumn and shallow planting are found to counteract. (*Caled. Mem* i. 109. and *Hort. Trans.* ii. 98. *Encyc. of Gard.* 3847.)

4647 Bulbs compound, Stamens 3-pointed
4648 Leaves crenulate, Sheaths 2-edged, Stamens 3-pointed
4649 Like Allium carinatum, but the stamens are three-pointed
4650 Stamens subulate twice as long as flower, Spathe longer than umbel

Umbel bulbiferous. Leaves not flat.

4651 Leaves half round, Spathes much longer than umbel, Sepals obtuse, Stamens simple exserted
4652 Stamens 3-pointed
4653 Leaves rough half-round furrowed beneath, Stamens simple

B. *Leaves radical, not fistular.*

4654 Scape rounded, Umb. many-fl. fastigiate, Leaves linear channelled angular beneath, Stam. subulate
4655 Scape rounded, Leaves lin. lanceol. Umb. fastigiate, Sepals very narrow, Stamens simple
4656 Scape rounded, Leaves lanceolate, Umb hemispherical, Sepals spreading, Stamens simple
4657 Scape rounded, Lvs. lin. lanc. wavy, Umb. hemispherical, Roots very long, Stam. simple twice as long as fl.

4658 Scape oblique 4 cornered, Leaves linear, Umb. fastigiate, Stamens simple as long as fl.
4659 Scape rounded, Leaves half-round, Spathe acum longer than umbel, Stam. simple longer than flower
4660 Scape ½ rounded, Leaves lanceolate acuminate flaccid ciliated sheathing, Umbel fastigiate, Sepals obtuse
4661 Scape 2-edged angular, Umbel clustered, Stamens simple as long as flower, Leaves linear oblique
4662 Scape nearly 2-edged, Umbel capitate, Stamens longer than flower, Leaves linear spiral
4663 Scape 2-edged, Umb. drooping before flowering, afterw. erect, Lvs. lin. flat, Stam. 3-pointed longer than fl.
4664 Scape rounded, Leaves subulate, Umbel globose, Stamens 3-pointed
4665 Scape 2-edged, Leaves linear convex and smooth beneath, Umbel roundish, Stamens subulate
4666 Scape rounded very long, Leaves linear channelled, Stamens subulate connate at base
4667 Scape 2-edged, Leaves linear channelled angular beneath, Umbel fastigiate
4668 Scape 3-cornered shorter than the lin. furrowed leaves, Umb. fastigiate, Stamens simple, Sepals obtuse
4669 Scape rounded longer than the linear subulate leaves, Umb. fastig. Stamens simple, Sepals mucronate
4670 Scape rounded, Leaves linear
4671 Scape 3-cornered, Leaves lanceolate stalked, Umbels fastigiate
4672 Scape and leaves 3-cornered, Stamens simple
4673 Scape rounded, Leaves linear flat ciliated, Umb few-flowered, Sepals obovate concave
4674 Scape nearly cylindrical, Leaves lanceolate sessile, Umbel fastigiate
4675 Scape half-round, Leaves lanceolate oblong flat smooth, Umbel globose, Seeds solitary
4676 Scape 4-cornered, Umb. fastigiate cernuous, Leaves linear flat, Stamens subulate longer than flower
4677 Leaves twisted linear, Umbel loose, Filam. subulate as long as flower
4678 Scape rounded longer than leaves, Umb compact, Stam. subul. as long as flower
4679 Scape rounded at end, Umbel half globose, Leaves linear flat chann. at base, Stam subul. longer than fl.
4680 Scape rounded, Umb. fastigiate, Leaves half-round compressed, Stam. lanceolate shorter than fl.
4681 Scape rounded, Umb. few-flowered fastigiate, Leaves lin. channelled, Stam. lanceolate shorter than fl.

C. *Leaves fistular.*

4682 Scape leafy, Umb. fastigiate, Spathes nearly equal, Sepals mucronate
4683 Scape leafy at base
4684 Scape fistular twisted, Umb bulbiferous proliferous, Stamens 3-pointed
4685 Scape rounded with an angle, Leaves linear obtuse, Umb. rounded, Stamens setaceous twice as long as fl.
4686 Scape ventricose beneath longer than the round leaves
4687 Scape as long as the round ventricose leaves
4688 Scape as long as the round subulate leaves
4689 Scape not quite naked round, Leaves half-round, Stamens subulate, Sepals lanceolate acute
4690 Scape round, Leaves setaceous subulate ciliated, Sepals ovate lanceolate emarginate at ends
4691 Scape scarcely any, Capsules cernuous, Leaves flat ciliated

§ 1. *Three stamens fertile.*

4692 Inner sepals glandular at end inflexed, Leaves subulate channelled recurved
4693 Inner sepals glandular at end inflexed, Peduncles spreading, Leaves linear lanc. flat reflexed

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and Miscellaneous Particulars.

A. cepa. (*Cep* signifies head in Celtic.) *Oignon*, Fr., *Zwichel*, Ger. and *Cipolla*, Ital., is universally cultivated for the kitchen, and is used as a pot-herb, salad, and pickle. It is commonly raised from seed, which is sown on rich, loamy, and rather moist soil, in March; and being thinned, weeded, and the soil stirred, the bulbs will be fit to take up in September, when they may be kept through the winter like potatoes or apples. It is also grown from small bulbs, which are planted on the surface of the soil in March, and swell to a large size (if not earthed up) in the course of the season. Sometimes onion-seeds are sown in autumn in a very dry situation, and the young plants are taken up and transplanted in spring: or a sowing is made very early in spring on a warm border or on a hot-bed, and the crop transplanted from that.

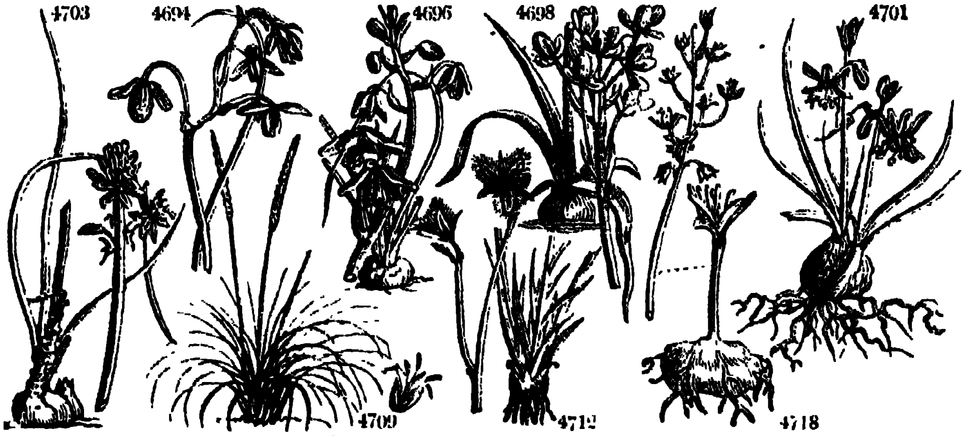
There is a variety called the underground-onion, which multiplies its bulbs by offsets below the surface.

The species called the tree onion, like several others, produces its bulbs instead of or among the umbel of flowers. It is occasionally cultivated, but chiefly as matter of curiosity.

A. fistulosum is grown chiefly as a scallion, or spring salad onion. It has almost no bulb, but large succulent fistular leaves, strong in flavor. It is sown in autumn, and fit to be used in spring.

797. *Albuca.* Derived from *albus*, white, in allusion to the color of the flowers of this genus. Not a very happy allusion though, because the flowers are mostly green. The stem of the Asphodel was called *albuca* by

4694 minor *W.*	small	♉	⌊△⌋	or	1	my.jn	Y	C. G. H	1768.	O	s.l	Bot. mag. 720
4695 fláccida *Jac.*	flaccid	♉	⌊△⌋	or	2	my.jn	Y.w	C. G. H.	1791.	O	r.m	Jac. ic. 2. t. 144
4696 viridiflóra *W.*	green-flowered	♉	⌊△⌋	or	1	jn jl	G	C. G. H.	1794.	O	r.m	Bot. mag. 1656
4697 coarctáta *W.*	channel-leaved	♉	⌊△⌋	or	2	my.jn	Y	C. G. H.	1774.	O	r.m	
4698 fastigiáta *W.*	level-topped	♉	⌊△⌋	or	1½	my.jn	W	C. G. H.	1774.	O	r.m	Bot. rep. 450
4699 caudáta *W.*	upright-flower.	♉	⌊△⌋	or	2	my jl	W	C. G. H.	1791.	O	r.m	Jac. ic. 2. t. 442
4700 setósa *W.*	bristly	♉	⌊△⌋	or	1	my.jl	G	C. G. H.	1795.	O	r.m	Bot. mag. 1481
4701 vittáta *B. M.*	ribbon	♉	⌊△⌋	or	½	jl au	Y.G	C. G. H.	1802.	O	s.p	Bot. mag. 1329
4702 physódes *B. M.*	dingy-flowered	♉	⌊△⌋	or	¾	jn jl	W	C. G. H.	1804.	O	r.m	Bot. mag. 1046
4703 exuviáta *B. M.*	Adder's-skin	♉	⌊△⌋	or	1	my.jl	W	C. G. H.	1795.	O	r.m	Bot. mag. 871
4704 aúrea *Jacq*	golden	♉	⌊△⌋	or	1½	my jl	G.y	C. G. H.	1818.	O	r m	
4705 abyssínica *Jacq.*	Abyssinian	♉	⌊△⌋	or	2	au	W	Abyssinia	1818.	O	r.m	
4706 frágrans *W*	sweet-scented	♉	⌊△⌋	or	1	jn.jl	Y.G	C. G. H.	1791.	O	s.p	Jac.schœn.1.t.81
4707 viscósa *W.*	clammy-leaved	♉	⌊△⌋	or	1	my.jn	W.G	C. G. H.	1779.	O	r.m	Jac. ic. 2. t 445
4708 spirális *W.*	spiral-leaved	♉	⌊△⌋	or	¾	jn	W	C. G. H.	1795.	O	s.p	Jac. ic. 2. t. 439
798. XANTHORRHŒ'A. *R Br.*	Xanthorrhœa.					*Asphodeleæ.*		*Sp.* 3—7.				
4709 hástilis *R Br.*	yellow-gum	¥	⌊△⌋	cu	4	ap.my	W	N. S. W.	1803.	Sk	s.p	
4710 minor *R Br*	small	¥	⌊△⌋	cu	2	...	W	N. S. W.	1804.	Sk	s.p	
4711 bracteáta *R. Br.*	long-bracted	¥	⌊△⌋	cu	2	...	W	N. S. W.	1810.	Sk	s.p	
799. THYSANO'TUS. *R. Br.*	Thysanotus.					*Asphodeleæ.*		*Sp.* 2—21.				
4712 júnceus *R. Br.*	Rush-like	⅄	⌊△⌋	pr	½	au.s	Pu	N. S. W.	1804.	O	s p	Bot. reg. 656
4713 isanthérus *R. Br.*	even-anthered	♉	⌊△⌋	pr	½	au.s	Pu	N. S. W.	1822.	O	s.p	Bot. reg. 655
800. ERIOSPER'MUM. *W.*	Eriospermum.					*Asphodeleæ.*		*Sp.* 5—9.				
4714 latifólium *W.*	broad-leaved	♉	⌊△⌋	cu	1	jn.au	L.B	C. G. H.	1800.	Sk	s p	Bot. mag. 1382
4715 pubéscens *Jacq.*	downy	♉		cu	1	jn	W.G	C. G. H	1820.	Sk	s p	Bot. reg. 578
4716 lanceæfólium *W.*	spear-leaved	♉	⌊△⌋	cu	1	jn.au	L.B	C. G. H.	1795.	Sk	s.p	Jac. ic. 2. t. 421
4717 parvifólium *W.*	small-leaved	♉	⌊△⌋	cu	¾	jn au	D.B	C. G. H.	1795.	Sk	s.p	Jac. ic 2. t. 422
4718 foliolíferum *B. R.*	leaflet-bearing	♉	⌊△⌋	cu	¾	jn au	Y.G	C. G. H.	1806.	Sk	s.p	Bot. reg. 795
801. GA'GEA. *Sal*	Gagea					*Asphodeleæ*		*Sp.* 6—7				
4719 lútea *B. M.*	bundle-flower'd	♉	△	pr	¼	mr.ap	Y	Britain	woods.	O	s p	Bot. mag. 1200
4720 sylvática *W. en.*	wood	♉	△	pr	¼	mr.ap	Y	Europe	...	O	s p	Fl. Dan. 5. t1. f1
4721 spathácea *W.*	sheathed	♉	△	pr	½	my	Y	Germany	1759.	O	s.p	H in us.an.15. t1
4722 mínima *P. S*	starry	♉	△	pr	¼	my	Y	Sweden	1759.	O	s p	
4723 circináta *L.*	netted	♉	△	pr	½	my jn	Y	Siberia	1789	O	s p	Pall. it. t. D. f. 2
4724 serotína *B. M.*	mountain	♉	△	pr	¼	jn	Y	Wales	...	O	s.p	Eng. bot. 793
802 ORNITHO'GALUM. *W.*	Star of Bethlehem.					*Asphodeleæ*		*Sp.* 29—47.				
4725 uniflórum *W.*	one-flowered	♉	△	or	¼	my.jn	Y	Siberia	1781.	O	s.p	N. c. p.18. t.6. f.3
4726 ixioídes *H. K.*	Ixia-like	♉	⌊△⌋	or	½	my jn	W	California	1796.	O	s p	
4727 níveum *W.*	snowy	♉	⌊△⌋	or	½	my jn	W	C. G. H.	1774.	O	r m	Bot. reg. 235
4728 umbellátum *W*	common	♉	△	or	1	ap jn	W	England	me.pa.	O	co	Eng. bot 130
4729 vírens *Lindl.*	greenish	♉	⌊△⌋	or	1½	jn jl	G	Del Bay	1823.	O	co	Bot. reg. 814
4730 narbonénse *W.*	Narbonne	♉	△	or	1½	jl	W	S Europe	1810.	O	co	Bot mag. 2510
4731 fimbriátum *Bieb.*	fringed	♉	△	or	½	f mr	W	Crimea	1820.	O	co	Lindl coll. 28
4732 pyrenáicum *W.*	spiked	♉	△	or	2	jn jl	G	England	past.	O	co	Eng bot. 499
4733 stachyódes *W*	close-spiked	♉	△	or	2½	ap jl	L.Y	S. Europe	1771.	O	co	Ren. spec. t 90
4734 lácteum *W.*	milk-white	♉	⌊△⌋	or	1	jn jl	W	C. G. H.	1796	O	r m	Bot mag. 1134
4735 revolútum *W*	revolute-flower.	♉	⌊△⌋	or	1	mr jn	W	C. G. H.	1795.	O	r.m	Bot. mag. 653
4736 elátum *B Rep*	tall	♉	⌊△⌋	or	3	mr	W	Egypt	1804.	O	r.m	Bot. rep 528
4737 latifólium *W.*	broad-leaved	♉	⌊△⌋	or	1½	jn.jl	W	Egypt	1629.	O	r m	Bot mag. 876
4738 scilloídes *W.*	squill-like	♉	⌊△⌋	or	1½	jn jl	W	C. G. H	1795.	O	r.m	Jac. sch. 1. t. 888
4739 prásinum *B Reg*	green-flowered	♉	⌊△⌋	or	1½	jn jl	G	C. G. H.	1816.	O	r.m	Bot. reg. 158
4740 comósum *W*	short-spiked	♉	△	or	½	jn.au	W	Austria	1596	O	p l	Jac. ic. 2. t 426
4741 pyramidale *W.*	pyramidal	♉	△	or	2	jn.jl	W	Spain	1752.	O	r m	Jac. ic 2. t. 425



History, Use, Propagation, Culture,

the Latins. A genus of little beauty, but of easy management in sandy loam and decayed vegetable soil, and propagation is effected by suckers from the old bulbs; or by taking off leaves with a scale, and planting them round the edge of a pot of sandy loam.

798. *Xanthorrhœa.* From ξανθος, yellow, and ρεω, to flow. The plant produces a yellow gum.

799. *Thysanotus* From θυσανος, a fringe, on account of the fringe of the sepals. Elegant little New Holland plants, with bright purple blossoms and slender grassy leaves.

800 *Eriospermum.* From εριον, wool, and σπερμα, seed, on account of the envelope of the seed. Very curious little Cape plants, with deformed or unusually shapen leaves.

801. *Gagea.* Named by R. A. Salisbury, Esq., after his friend Sir Thomas Gage, a great amateur of botany. A genus of curious little bulbous plants, none of which exceed the height of more than three or four inches, and principally distinguished from Ornithogalum by the yellow color of their flowers.

4694 Inner sepals glandular at end inflexed, Scape erect, Fl. nodding, Lvs. linear subulate channelled smooth
4695 Inner sepals glandular at end inflexed, Peduncles spreading at right angles, Lvs. lanc. lin. obliquely bent
4696 Inner sepals glandular at end infl. Scape erect wavy, Fl. cernuous, Lvs. lin. subul chann. outside hairy
4697 Inner sepals vaulted at end, Leaves smooth, Peduncles the length of bractes

§ 2. *Six stamens fertile.*

4698 Inner sepals vaulted at end, Leaves lin. flattish, Scape shorter than leaves, Pedunc. very long spreading
4699 Inner sepals glandular at end inflexed, Leaves lin. lanc. convol. upright shorter than scape
4700 Inner sepals glandular at end reflexed, Leaves lin. lanc. flattish, Pedunc. at right angles, Flowers erect
4701 Scape shorter than leaves few-flowered, Flowers nodding, Filam. 2-toothed
4702 Leaves lanceolate, Raceme pyramidal before the leaves, Filam. glandular at base
4703 Leaves lin. subulate channelled, Scape simple shorter than leaves, Scales of root wrinkled across
4704 Inner sepals glandular at end inflexed, Lvs. lin. lanc. flat, Pedunc. very long erect spreading, Fl. upright
4705 Inner sepals vaulted at end, Leaves lin. lanceol. channelled upright, Pedunc. shorter than nodding flow.
4706 Inner sepals vaulted at end, Leaves lin. lanc. channelled, Pedunc. spreading the length of nodding flow.
4707 Inner sepals vaulted at end, Lvs. lin. subul. chann. hairy clammy, Ped. spread. twice as long as nodd. fl.
4708 Inner sepals vaulted at end, Leaves lin. subulate convolute at the end spirally twisted villous

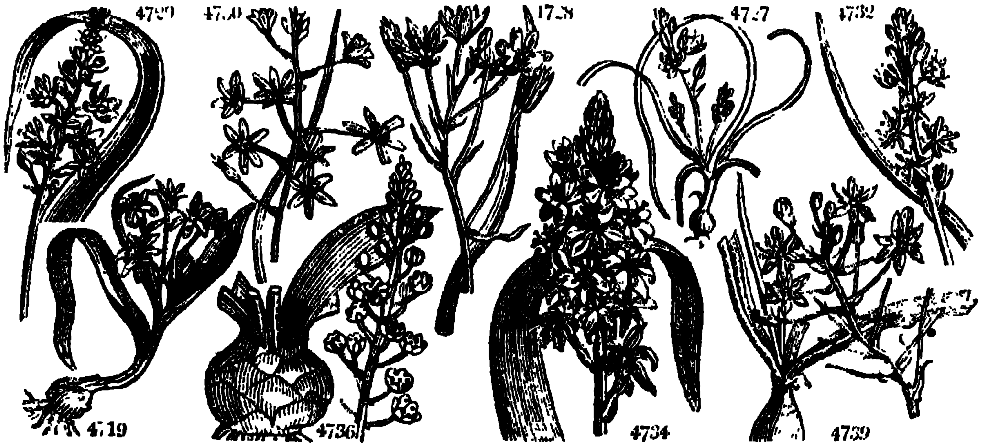
4709 Stem very short, Leaves 2-edged lengthwise, Scape very long higher than the spike
4710 Stemless, Leaves 3cornered flat in front beyond the middle hollowed, Scape very long higher than spike
4711 Stemless, Leaves 3 cornered below the middle in front little raised above middle concave, Bracts very long

4712 Roots fibrous, Stems branched diffuse rounded striated, Branches somewhat angular, Anthers unequal
4713 Bulbs fascicled, Leaves radical channelled nearly as long as the rounded simple stem

4714 Leaves roundish acuminate cucullate at base
4715 Leaf sub-cordate acute cucullate pubescent
4716 Leaves ovate lanceolate at the edge wavy involute
4717 Leaves elliptical obtuse flat
4718 Leaf proliferous, Leaflets filiform undivided sessile

4719 Radical leaf linear flat, Peduncles simple umbellate, Sepals obtuse smooth, Bulbs clustered
4720 Radical leaf linear lanc. flat, Pedunc. simple somewhat umbellate, Sepals obtuse smooth, Bulb solitary
4721 Leaves linear filiform upright, Pedunc about 3 with a three-leaved involucrum
4722 Scape angular naked, Pedunc umbellate branched pubescent, Sepals lanc. acute
4723 Scape naked, Pedunc. 3 umbell. pubescent, Leaves filiform, Three outer sepals longer than the others
4724 Leaves half cylindrical, Cauline dilated at base

4725 Scape 2-leaved, Leaves opp. Pedunc 1-fl. Outer sepals lanc. retuse: inner ellipt. twice as broad
4726 Scape naked, Flowers umbelled, Filam. all 2-forked bearing the anther in the middle
4727 Raceme few-flowered, Sepals lanceolate, Leaves filiform channelled, Filam subulate
4728 Corymb few-flowered, Pedunc. longer than bractes, Filam. subulate
4729 Raceme spiked many-fl Lvs. lin lanc. weak, Every other stamen with two teeth, Bractes longer than fl.
4730 Raceme oblong, Filam. lanceolate membranous, Pedunc and fl. spreading
4731 Corymb few-flowered shorter than lanceolate strongly fringed leaves
4732 Raceme very long, Sepals linear obtuse, Filam. lanceol. equal, Style the length of stamens
4733 Raceme very long, Sepals lanc. oblong, Filam. broad lanceol. alternately shorter
4734 Raceme long, Filam. subulate alternate lanceolate, Bractes membranous ovate twice as long as pedunc.
4735 Raceme few-flowered, Sepals linear oblong obliquely bent emarginate, Filam. lanc. subul. Leaves linear
4736 Leaves short oblong erect, Scape very long, Flowers campanulate the length of stamens
4737 Raceme very long, Filam subulate, Pedunc much longer than flower, Leaves lanceolate
4738 Raceme very long, Filam subul. Pedunc length of fl Bractes the length of pedunc. Lvs. lin. lanc loose
4739 Lvs. glaucous twisted upwards, Raceme divaricating on a long scape, Filaments with an ovate base
4740 Raceme very short, Bractes lanc. the length of flowers, Sepals obtuse, Filam subulate
4741 Raceme conical, Fl. numerous ascending, Sepals oblong flat, Stam. lanc. equal, Style very short



and Miscellaneous Particulars.

802. *Ornithogalum.* From ὄρνιθος, a bird, and γάλα, milk. No good explanation has been offered of the application of this word; that of Tournefort is not worth quoting. *O. squilla* is the officinal squill It has a bulb almost as big as the human head, pear-shaped, and tunicate like the onion. From the middle of the root arise several shining leaves a foot long, and two inches broad at their base, lessening all the way to the top, where they end in points. They continue green all the winter, and decay in the spring; then the flower-stalk comes out, rising two feet high, naked about half way, and terminated by a pyramidal thyrse of white flowers.

The squill is one of the few medicines known in the early ages of Greece, which is still held in great estimation. It is very nauseous, intensely bitter and acrimonious, without any perceptible smell. It is poisonous to several animals: if much handled it exulcerates the skin; and in large doses frequently repeated, it not only excites nausea, but strangury, bloody urine, and hæmorrhoids, with fatal inflammation and gangrene of the stomach and bowels. Under proper management, however, it is a medicine of great practical utility. In

4742 odorátum *W.*	sweet-scented	♉	⌊△⌋	or	1½	my.jn	P.Y	C. G. H.	1795.	O	r.m	Bot. rep. 260
4743 barbátum *W.*	bearded	♉	⌊△⌋	or	1	my.jl	W	C. G. H.	1795.	O	r.m	Jac. sch. 1. t. 91
4744 junciólium *W.*	Rush-leaved	♉	⌊△⌋	or	¾	jl.au	W	C. G. H.	1794.	O	r.m	Bot. mag. 972
4745 rupéstre *W.*	rock	♉	⌊△⌋	or	½	my.au	W	C. G. H.	1795.	O	r.m	
4746 arábicum *W.*	great-flowered	♉	⌊△⌋	or	1½	mr.ap	W	Egypt	1629.	O	r.m	Bot. mag. 728
4747 thyrsoides *W.*	thyrse-flower.	♉	⌊△⌋	or	1½	jn.jl	W	C. G. H.	1757.	O	r.m	Bot. mag. 1164
4748 aúreum *W.*	golden	♉	⌊△⌋	or	¾	jn.jl	Y	C. G. H.	1790.	O	r.m	Bot. mag. 190
4749 flavíssimum *Jac.*	great-yellow	♉	⌊△⌋	or	1	jn.jl	Y	C. G. H.	1804.	O	r.m	Jac. ic. t. 436
4750 coarctátum *W.*	close-flowered	♉	⌊△⌋	or	1½	jn.jl	W o	C. G. H.	1804.	O	r.m	Jac. ic. t 435
4751 caudátum *W.*	long-spiked	♉	⌊△⌋	or	3	f.au	W.o	C. G. H.	1774.	O	r.m	Bot. mag 805
4752 unifólium *B. M.*	one-leaved	♉	⌊△⌋	or	½	jn.jl	W	Gibraltar	1805.	O	r.m	B. mag. 935. 953
4753 Squilla *B. M.*	officinal Squill	♉	⌊△⌋	or	3	ap.my	W	S. Europe	1629.	O	r.m	Bot. mag. 918
803. SCIL'LA. *W.*	SQUILL.					*Asphodeleæ.*		*Sp.* 21—35.				
4754 itálica *W.*	Italian	♉	△	or	¾	ap.jl	B	Switzerl.	1605.	O	p.l	Bot. mag. 663
4755 peruviána *W*	corymbose	♉	△	or	1	my	D B	Spain	1607.	O	r.m	Bot. mag. 749
4756 lusitánica *W.*	Portugal	♉	△	or	½	my	L.B	Portugal	1777.	O	p l	Bot. mag. 1999
4757 Lilio-Hyacinthus *W*	Lily-rooted	♉	△	or	1	my jl	B	S. Europe	1597.	O	co	Red. lil. 205
4758 amœ'na *W.*	nodding	♉	△	or	½	mr.ap	L.B	Levant	1596.	O	p.l	Bot. mag. 341
4759 sibírica *H. K.*	Siberian	♉	△	or	¼	f.mr	B	Siberia	1796.	O	p.l	Bot. mag. 1025
4760 præ'cox *W.*	early-flowering	♉	△	or	¼	mr.ap	D.B	......	1790.	O	p l	
4761 vérna *W.*	vernal	♉	△	or	¼	ap.my	B	Britain	rocks.	O	s.l	Eng. bot 23
4762 unifólia *L.*	one-leaved	♉	△	or	¼	my.jn	W	Portugal	...	O	s.l	
4763 hyacinthoides *W.*	Hyacinth	♉	△	or	½	au	B	Madeira	1585.	O	r.m	Bot. mag. 1140
4764 autumnális *W.*	autumnal	♉	∧	or	¼	au.s	Pk	England	dr. pa.	O	p.l	Eng. bot. 78
4765 bifólia *W.*	two-leaved	♉	△	or	¼	f.ap	B	England	woods.	O	p.l	Eng. bot. 24
4766 umbellάta *W. en.*	umbelled	♉	△	or	¼	ap	B	Pyrenees	1822.	O	p.l	B. ph.n.41. t.8.f.6
4767 cérnua *Lk.*	cernuous	♉	△	or	½	ap.my	Pk	Spain	1815.	O	p.l	
4768 índica *Roxb*	Indian	♉	[△]	or	1	...	...	E. Indies	1816.	O	p.l	
4769 campanulάta *W.*	Spanish	♉	△	or	1	my jn	D.P	Spain	1683.	O	p.l	B.mag. 127. 1102
4770 non scripta *Sm*	Harebell's	♉	△	or	¾	mr jn	B	Britain	woods.	O	co	Eng. bot. 377
β cárnea	*flesh colored*	♉	△	or	¾	mr.jn	Pk	Britain	woods.	O	s.l	Bot. mag 1161
γ alba	*white*	♉	△	or	¾	mr jn	W	Britain	woods.	O	s.l	
4771 brevifólia *B M*	short-leaved	♉	△	or	½	ja	Pk	C. G H.	1811.	O	s l	Bot mag 1468
4772 corymbósa *B. M.*	Cape	♉	△	or	¼	au.d	Pk	C. G. H.	1793	O	s.l	Bot. rep. 345
4773 esculénta *B M.*	Quamash	♉	△	ce	1	my.jl	P.B	N. Amer.	1811.	O	s.l	Bot. mag 1574
4774 románа *B M.*	Roman	♉	△	or	1	my	W	Italy	1596.	O	s.l	Bot. mag. 939
804. PUSCHKI'NIA. *Bieb.*	PUSCHKINIA.					*Asphodeleæ.*		*Sp.* 1.				
4775 scilloides *Bieb*	little	♉	△	or	¼	my jn	P.B	Siberia	1819	O	s.l	Lindl. coll. 24
805. MASSO'NIA. *W.*	MASSONIA					*Asphodeleæ.*		*Sp.* 9—10.				
4776 latifólia *W.*	broad-leaved	♉	⌊△⌋	cu	½	mr ap	W	C. G. H.	1775.	O	s.l	Bot. mag. 848
4777 longifólia *Jacq*	long leaved	♉	⌊△⌋	cu	½	mr.ap	W	C. G. H.	...	O	s l	Jac. sch 4. t. 457
β candida Burchell	*white*	♉	⌊△⌋	cu	½	mr ap	W	C. G. H.	...	O	s.l	Bot. reg. 694
4778 muricάta *H. K.*	prickly-leaved	♉	⌊△⌋	cu	½	ap.my	W	C. G H.	1790.	O	s.l	Bot. mag. 559
4779 scabra *H K.* *pustulata* B M	shagreen-leaved	♉	⌊△⌋	cu	¼	ja. p	W	C. G. H.	1790.	O	s.l	Bot. rep. 220
4780 echinάta *W.*	rough-leaved	♉	⌊△⌋	cu	¼	my	W	C. G. H.	1790.	O	s.l	
4781 pauciflóra *H K*	few-flowered	♉	⌊△⌋	cu	¼	my	W	C. G H.	1790.	O	s l	
4782 angustifólia *W.*	narrow-leaved	♉	⌊△⌋	cu	½	mr.ap	W	C. G. H.	1775.	O	s.l	Bot. mag. 736
4783 undulάta *W*	waved-leaved	♉	⌊△⌋	cu	½	ap	W	C. G. H.	1791.	O	s l	
4784 ensifólia *B. M.*	trumpet-flower	♉	⌊△⌋	cu	½	f.s	L	C. G. H.	1790.	O	s.l	Bot. mag. 554
806. EREMU'RUS *Bieb.*	EREMURUS.					*Asphodeleæ.*		*Sp.* 1				
4785 spectábilis *Bieb.*	channelled-lvd.	♃	△	or	1	my.jn	Y	Siberia	1800.	O	s.l	Bieb. cent. t. 61

History, Use, Propagation, Culture,

dropsy it has long been esteemed the most certain and effectual diuretic with which we are acquainted, and it is usually employed in asthma.

803. *Scilla.* From σκυλλω, to injure, according to Miller, because its root is a violent poison as well as an article of medicine. In Arabic it is called *asqyl ;* has not the name *scilla* been obtained rather from this root? The genus is so ill defined that botanists are more guided by their blue colour than by any precise mark, in referring plants to this rather than Ornithogalum.

S. peruviana or hyacinth of Peru is erroneously named, being a native of Spain. It is valuable as an evergreen, or rather wintergreen, its fine lucid green leaves appearing before winter and continuing through that season, till it sends up its thick succulent scapes about the end of April There are two varieties, one with a deep blue, and the other with a white flower. Like other Spanish bulbs it is liable to be destroyed by an extraordinary severe winter.

S verna is a maritime plant found on the coast of Cornwall, Wales, the Isle of Man, and the Hebrides.

S non scripta is the Hyacinthus of that name of Linnæus, the *Jacinte des bois*, of the French, and *Niederlandische* or *Englische Hyacinthe*, of the Germans The fanciful specific name of non-scriptus was

4742 Raceme long, Filam. subul. Sepals lanc. at the end callous inflexed, Leaves linear depressed flat
4743 Raceme few-fl. Filam. subulate, Sepals lin. *obtuse*: 3 outer bearded at end; inn. mucron. Leaves filiform
4744 Raceme long many-fl. Filam. subulate, Sepals lanc. acute, Leaves filiform subulate
4745 Leaves filiform fleshy, Scape few-flowered
4746 Corymb many-flowered, Filam. subulate, Cor. broadly campan. Outer sepals obsoletely 3-toothed
4747 Corymbs many-fl. racemose, Filam. alternately forked, Leaves lanceolate
4748 Raceme contracted corymbose, Filam. alternately emarg. Leaves lanc. with cartilaginous teeth
4749 Like the last, but the flowers very yellow, and the bractes very narrow the length of the flower-stalk
4750 Raceme many-fl. contracted, Altern. filam. emarginate, Leaves linear channelled .
4751 Raceme very long, Leaves lanc. linear, Flowers spreading, Stam. dilated alternately wedge-shaped
4752 Leaf solitary longer than scape, Flowers few spiked sessile
4753 Flowers without the leaves, Bractes reflexed

4754 Raceme conical oblong
4755 Corymb clustered conical
4756 Raceme oblong conical, Sepals lined
4757 Raceme few-flowered, Peduncles without bracteæ, Leaves lanceol. lying on the ground
4758 Scape angular, Peduncles alternate shorter than flower, Bractes obtuse very short
4759 Four-leaved, Scapes many half-rounded striated 2-flowered decumbent after flowering
4760 Scape angular, Raceme corymbose, Peduncles twice as long as fl. Bractes obsolete
4761 Raceme few-flowered with bractes, Flowers campanulate, Leaves linear channelled ; radical many
4762 Leaf roundish somewhat spiked on one side
4763 Raceme cylindrical many-flowered, Sepals half as long again as the ovaries, Peduncles colored
4764 Leaves filiform linear, Flowers corymbose, Peduncles naked ascending the length of the flower
4765 Flowers racemose, Leaves lanceolate linear about two elevated on a scape
4766 Scape rounded, Corymb few-flowered umbelled, Bractes filiform the length of peduncles
4767 Flowers campanulate 6-parted, Raceme cernuous
4768 A species which has not yet been seen in flower, nor described
4769 Raceme many-fl obl. conical, Flowers campan. erect, Bractes 2-parted longer than pedunc. Lvs. lanceol
4770 Flowers campanulate 6-parted revolute at end

4771 Flowers 6-parted, Raceme cernuous, Leaves shorter than scape
4772 Flowers funnel-shaped corymbose erect, Scape shorter than the leaves
4773 Scape longer than keeled linear leaves, Spike racemose, Five sepals ascending ; the lower deflexed
4774 Flowers campanulate half six-cleft racemose, Stamens membranous

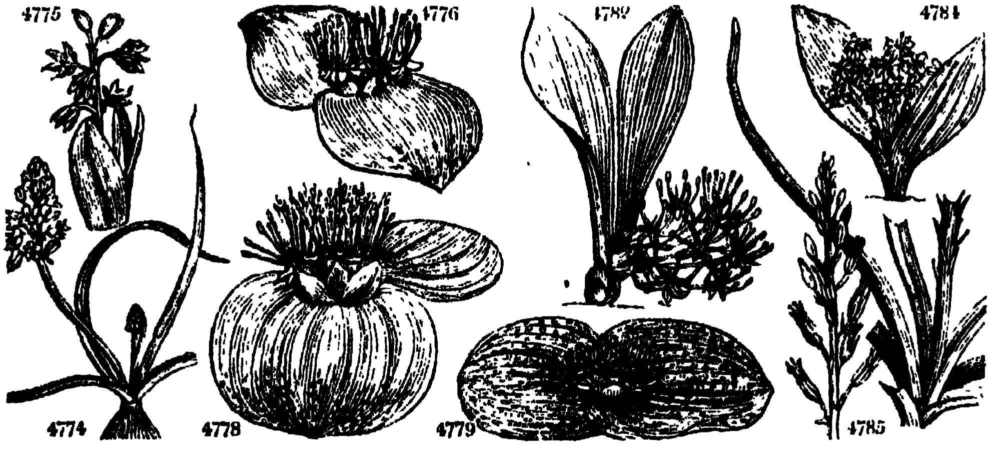
4775 The only species, like a pale-flowered variety of *Scilla sibirica*

4776 Leaves roundish smooth
4777 Leaves lanceolate oblong acuminated

4778 Leaves roundish smooth towards the end muricated
4779 Leaves roundish veiny warted rough

4780 Leaves ovate and lanceolate with hairy tubercles, Sepals filiform
4781 Leaves lanceolate and elliptical veinless warted, Warts naked, Sepals ovate
4782 Leaves oblong lanceolate flat smooth
4783 Leaves lanceolate wavy smooth
4784 Leaves lanceolate, Sepals much shorter than the tube, Filam. capillary alternately longer

4785 Scape naked simple, Stamens twice as long as flower, Leaves linear channelled



applied to this plant by Dodonæus, because it has not the marks of Ai, Ai, on the petals, as other hyacinths are supposed to have, and therefore is not the Hyacinthus poeticus. This idea has its origin in the Roman mythology, in which Apollo, being much grieved for the death of the youth Hyacinthus, changed his blood into a flower which bore his name, &c. It is a native of almost every part of Europe and of Persia.

804. *Puschkinia.* Named after Count Mussin Pouschkin, a Russian botanist and patron of botany. A very remarkable little plant, resembling a Scilla in appearance, but well defined by the very curious union of its stamens into a cup.

805. *Massonia.* So named by Thunberg, after Mr. Francis Masson, author of Stapeliæ Novæ; a successful botanical collector at the Cape of Good Hope, Madeira, the West Indies, and finally North America, into whose wildernesses he went to die. Very singular plants, with broad leaves lying flat on the ground, and compact umbels of flowers.

806. *Eremurus.* From ἐρημος, desert, and ὐρα, a tail: tail of the desert. Its long spikes of yellow flowers may be easily imagined to merit such an appellation in their native abodes.

807. BULBI'NE. *W en.*	Bulbine.					*Asphodeleæ.*		*Sp.* 7—19.				
4786 frutéscens *W. en.*	shrubby	ħ	⊔	or	2	mr.au	Y	C. G. H.	1702.	C	s.l	Bot. mag. 816
4787 rostráta *W. en.*	beaked	ħ	⊔	or	2	mr.au	Y	C. G. H.	1812.	C	s.l	Jac. ic. 2. t. 403
4788 aloídes *W. en.*	Aloe-leaved	£	⌊△⌋	or	1	ap.au	Y	C. G. H.	1732.	O	s.l	Bot. mag. 1317
4789 pugionifórme *Lk.*	dagger-leaved	£	⌊△⌋	or	1	ap.jn	Y	C. G. H.	1793.	Sk	s.l	Bot. mag. 1454
4790 longiscápa *W. en.*	glaucous-leaved	£	⌊△⌋	or	1	ap.au	Y	C. G. H.	1759.	Sk	r.m	Bot. mag. 1339
4791 ánnua *W. en.*	annual		○	or	⅔	my.jn	Y	C. G. H	1731.	S	s.p	Bot. mag. 1451
4792 ciliáta *Lk.*	ciliated	£	⌊△⌋	or	2	my	Y	C. G. H.	1823.	S	s.p	
808. ASPHO'DELUS. *W.*	Asphodel.					*Asphodeleæ.*		*Sp.* 8—10.				
4793 lúteus *W.*	yellow	£	△	or	3	my.jn	Y	Sicily	1596.	R	co	Bot. mag. 773
4794 tauricus *W. en.*	Taurian	£	△	or	3	my.jn	W	Tauria	1812.	R	co	Bot. cab. 1102
4795 ramósus *W.*	branched	£	△	or	2	my	W	S. Europe	1551.	R	co	Bot. mag. 799
4796 álbus *W.*	upright	£	△	or	2	my	W	S. Europe	...	R	co	Blackw. t. 238
4797 fistulósus *W.*	onion-leaved	£	△	or	1½	jn.s	W	S. Europe	1596.	R	co	Bot. mag. 984
4798 clavátus *Roxb.*	club-seeded		[○]	or	1	jl.au	W	E. Indies	1808.	S	co	
4799 créticus *Lam.*	Candian	£		or	2	jn	Y	Candia	1821.	R	co	Bot. cab. 915
4800 intermédius *Horn.*	intermediate		⌊△⌋	or	1½	jl	W	Canaries	1822.	R	co	
809. ANTHE'RICUM. *W.*	Anthericum.					*Asphodeleæ.*		*Sp.* 25—50.				
4801 nútans *W.*	nodding	£	⌊△⌋	or	1	ap.au	W	C. G. H.	1812.	Sk	s.l	Jac. ic. 2. t. 407
4802 latifólium *W.*	broad-leaved	£	⌊△⌋	or	2	ap.au	W	C. G. H.	1812.	Sk	s.l	Jac. ic. 2. t. 408
4803 serotinum *L.*	late-flowering	♃	△	or	½	au.s	W	England	moun.	Sk	s.l	Eng. bot. 793
4804 ramósum *L.*	branched	♃	△	or	2	my.jn	W	Europe	1570.	Sk	s.l	Bot. mag. 1055
4805 péndulum *Horn.*	pendulous	♃	⌊△⌋	or	1½	jl	W	N. Holl.	1822.	Sk	s.l	
4806 albucoídes *Ait.*	Albuca-like	♃	⌊△⌋	or	1	jl	W	C. G. H.	1788.	Sk	s.l	
4807 sulphúreum *W.&K.*	sulphur-colored	♃	△	or	1	ap.au	P.Y	Hungary	1823.	Sk	s.l	Bot. mag. 2623
4808 glaúcum *Fl. per.*	glaucous	♃	⌊△⌋	or	1½	...	W	Peru	1823.	Sk	s.l	Bot. cab. 1580
4809 semibarbatum *R. Br.*	half-bearded	♃	⌊△⌋	or	1	jl	Y	N. Holl.	1820.	Sk	s.l	Bot. cab. 330
4810 filifólium *Jacq.*	thread-leaved	♃	⌊△⌋	or	¾	my	W	C. G. H.	1820.	Sk	s.l	Bot. reg. 557
4811 pomeridiánum *Ker.* *Scilla pomeridiana*	afternoon	♃	⌊△⌋	or	2	jn	W	C. G. H.	1819.	Sk	s.l	Bot. reg. 564
4812 physódes *B. M.*	dingy-flowered	♃	⌊△⌋	or	1	jn.jl	W	C. G. H.	1795.	O	r.m	Bot. mag. 1046
4813 asphodeloides *P. S.*	upright-leaved	♃	[○]	or	2	jn au	W	C. G. H.	1759.	O	r.m	Jac. vind. t. 181
4814 híspidum *P. S.*	hairy-leaved	♃	⌊△⌋	or	1½	my jn	G w	C. G. H.	1774.	O	s.p	Jac. ic. 2. t. 409
4815 frágrans *W.*	sweet-scented	♃	⌊△⌋	or	1	ap.my	W	C. G. H.	1795.	Sk	s.p	Bot. reg. 311
4816 flexifólium *W.*	flexuose-leaved	♃	⌊△⌋	or	¾	my.jn	W	C. G. H.	1795.	Sk	s.p	Jac. ic. 2. t. 412
4817 filifórme *W.*	thread-leaved	♃	⌊△⌋	or	1	ap	W	C. G H.	1774.	Sk	s.p	
4818 floribúndum *W.*	thick-spiked	♃	⌊△⌋	or	1	mr.ap	W	C. G. H.	1774.	Sk	s.p	
4819 revolútum *W.*	curled-flowered	♃	⌊△⌋	or	2	s.d	W	C. G. H.	1731.	Sk	s.l	Bot. mag. 1044
4820 vespertinum *W.*	afternoon-flow	♃	⌊△⌋	or	2	my.s	W	G. H.	1803.	Sk	s.l	Bot. mag. 1040
4821 graminifólium *W*	waved-leaved	♃	⌊△⌋	or	1½	jn	W	G. H.	1794.	Sk	s.l	Jac. ic. 2. t. 411
4822 triflórum *W.*	three-flowered	♃	⌊△⌋	or	1	au o	W	C. G. H.	1782.	Sk	s.l	Jac. ic. 2. t. 410
4823 canaliculátum *W*	channelled-lvd.	♃	⌊△⌋	or	1	ap my	W o	C. G. H.	1774	Sk	r m	Bot. mag. 1124
4824 Liliágo *W.*	grass-leaved	♃	△	or	1	my.jn	W	S. Europe	1596.	Sk	s l	Bot. mag. 914
4825 Liliás'trum *W.*	Savoy	♃	△	or	1½	my.jn	W	S. Europe	1629.	Sk	co	Bot. mag. 318
810. ARTHROPO'DIUM. *R. Br.*	Arthropodium.					*Asphodeleæ.*		*Sp.* 2—6.				
4826 paniculátum *R. Br.*	panicled	£	⌊△⌋	or	3	my.s	W	N. S. W.	1800.	C	s.p	Bot. mag. 1421
4827 cirrátum *R. Br.*	New Zealand	£	⌊△⌋	or	3	my.jn	W	N. Zeal.	1821.	Sk	s.p	Bot. reg. 709
811 CHLORO'PHYTUM. *Ker.*	Chlorophytum.					*Asphodeleæ.*		*Sp.* 3—5.				
4828 inornátum *Ker.*	dwarf	£	[△]	cu	1	jn.au	W	S. Leone	...	D	co	Bot. mag. 1071
4829 elátum *R. Br.* *Anthericum elatum*	tall H. K.	✲	⌊△⌋	cu	2	au.s	W	C. G. H.	1751.	S	l.p	Red lil. 191
4830 orchidástrum *Lindl.*	Orchis-like	✲	⌊△⌋	cu	2	ja d	W	S. Leone	1822.	S	l.p	Bot. reg. 813
812 CÆ'SIA. *R. Br.*	Cæsia.					*Asphodeleæ.*		*Sp* 1—5.				
4831 vittáta *R. Br.*	nodding-flower	✲	⌊△⌋	or	1	jl.au	Pa B	N. S. W.	1816.	S	l.p	
813 NARTHE'CIUM. *B. M.*	Narthecium.					*Asphodeleæ.*		*Sp* 2—3.				
4832 ossifragum *Ph.*	Lancash.-Asphodel	✲	△	cu	½	jl.au	Y	Britain	tur bo	D	m.s	Eng. bot. 535
4833 americánum *B. M.*	American	✲	△	cu	½	jl au	Y	N. Amer	1811.	D	p	Bot. mag. 1505

History, Use, Propagation, Culture,

807 *Bulbine.* From βολβος, a bulb. The species are deservedly common in flower gardens, being at once showy, fragrant, of easy culture, and rapid increase by suckers.

808 *Asphodelus.* From α, privative, and σφαλλω, to supplant: that is to say, a flower which cannot be supplanted or surpassed. *Linn.* The yellow and white species are old inhabitants of our gardens, of easy culture and rapid increase. Immense tracts of land in Apulia are covered with the latter species, which affords very good nourishment to the sheep. It was sacred to Proserpine, and used in funeral ceremonies.

809 *Anthericum.* A name applied by the Greeks to the stem of the asphodel, and not misapplied to this set of plants, which in some sort resemble the asphodel. Plants with fleshy leaves, and spikes of bright yellow flowers; easily cultivated if kept dry.

4786 Leaves fleshy rounded, Stem shrubby erect branched
4787 Leaves fleshy rounded glaucous, Stem shrubby short rooting
4788 Leaves fleshy tongue-shaped lanceolate flat on both sides
4789 Leaves fleshy linear acuminate channelled, Scape twice as long as leaves
4790 Leaves fleshy subulate half rounded flexuose glaucous 3 times as short as scape
4791 Leaves fleshy subulate rounded, Scape racemose
4792 Leaves ensiform fleshy 3 cornered fringed, Scape simple, Raceme very long

4793 Stem leafy, Leaves 3 cornered striated
4794 Stem leafy, Lvs. subul. 3 cornered striated, Bractes membranous lanceol.: the upper longer than flowers
4795 Stem naked branched, Pedunc. altern. longer than bract, Leaves ensiform carinate smooth
4796 Stem naked simple, Pedunc. clustered the length of bractes, Leaves linear keeled smooth
4797 Stem naked, Leaves upright striated subulate fistular
4798 Leaves linear weak, Scape erect branched, Flowers small
4799 Stem leafy naked above branched, Leaves filiform striated toothed ciliated
4800 Stem nearly naked, Leaves upright cylindrical fistular

4801 Leaves fleshy lanceolate flat concave at base reflexed at end, Raceme nodding at end
4802 Leaves fleshy oblong lanceolate acuminate nerved straight 4 times as short as scape
4803 Leaves flattish, Scape 1-flowered
4804 Leaves flat, Scape branched, Flowers flat, Pistils straight
4805 Leaves linear keeled shorter than the branched scape, Flowers clustered in threes pendulous
4806 Leaves linear channelled smooth cartilaginous at edge, Scape simple
4807 Leaves lanc. linear channelled with an obtuse concave end, Scape and raceme simple, Flowers spreading
4808 Raceme simple long many-flowered, Pedunc. spreading in flower, appressed in fruit
4809 Roots fibrous, Filaments declinate: the outer not bearded
4810 Leaves filiform flexuose reflexed longer than scape, Scape simple filiform, Raceme few-flowered
4811 Leaves flaccid glaucous with the edge and nerves rough, Stem panicled branched, Filam. not bearded

4812 Leaves oblong, Raceme corymbose, Stamens dilated in middle papillose
4813 Leaves fleshy linear-subulate half-rounded upright
4814 Leaves fleshy compressed hispid
4815 Leaves rounded filiform upright shorter than scape, Scape simple
4816 Leaves linear filiform flexuose reflexed at base ciliated the length of the branched scape
4817 Leaves filiform rounded roughish, Filaments smooth, Sepals lanceolate
4818 Leaves flat smooth linear lanceolate acute, Scape simple, Raceme many-flowered cylindrical compact
4819 Leaves 3-cornered rough, Scape branched, Flowers revolute
4820 Leaves linear ensiform keeled 3-cornered shorter than the branched scape
4821 Leaves linear flat depressed shorter than the branched scape, Alternate sepals wavy
4822 Leaves channelled sword-shaped, Scape simple, Bractes remote 3-flowered
4823 Leaves fleshy hairy sword-shaped 3-cornered channelled on the narrow side, Scape simple
4824 Leaves flat, Scape simple, Flowers flat, Pistil declinate
4825 Leaves flat, Scape simple, Flowers campanulate, Stamens declinate

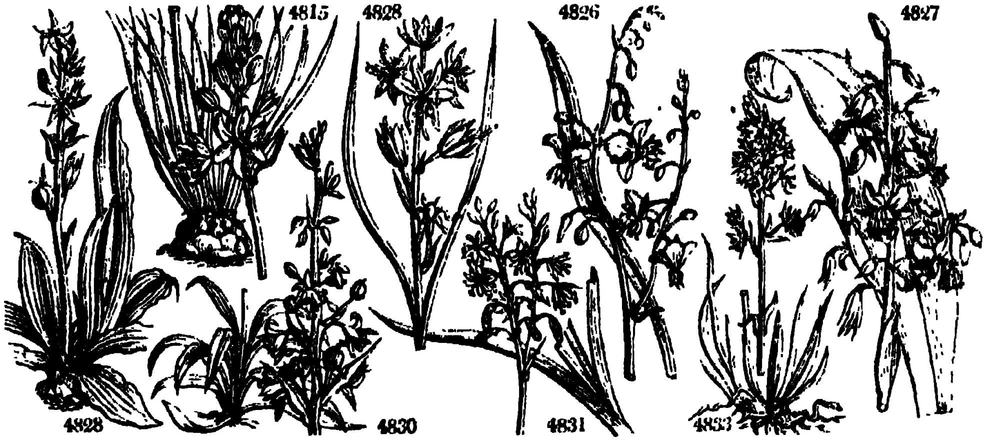
4826 Racemes divided, Pedicels clustered, Inner sepals crenulate, Capsules pendulous
4827 Raceme divided, Bractes leafy, The bearded half of filam. with 2 appendages at base, Lvs. lanc. ensiform

4828 Stemless, Leaves lanceolate radical little longer than simple scapes
4829 Leaves flat, Scape branched, Peduncles clustered, Flower flat

4830 Lvs. lanceol. acuminate upright spreading, Panicle branched upright many-flowered, Branches smooth

4831 Flowers nodding, Stamens propendent, Filaments striped, Leaves flat, Bulbs clustered

4832 Leaves ensiform, Filaments woolly
4833 Bractes unequal: the lower embracing the stalk; the upper setaceous



and Miscellaneous Particulars.

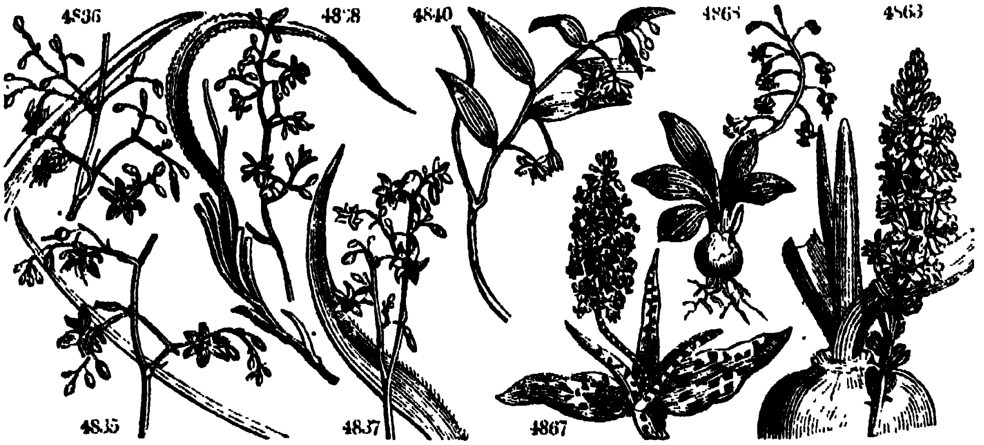
810. *Arthropodium.* From ἀρθρον, a joint, and πους, a foot, on account of the jointed footstalks of the flowers. Distinguished by its bearded filaments.

811. *Chlorophytum.* From χλωρος, green, and φυτον, a plant. Very inconspicuous flowers requiring a bark-bed, but easily cultivated under such circumstances.

812. *Cæsia.* Named after Frederick Cæsius, who lived in 1703.

813. *Narthecium.* From ναρθηξ, a rod or wand, in allusion to the slender spike of flowers. This genus resembles a small Anthericum, from which genus it has been separated.

814.	**DIANEL'LA.** *Lam.*	DIANELLA.					*Asphodeleæ.*		*Sp.* 6—15.				
4834	**læ'vis** *R. Br.*	smooth	✱	⌊△⌋	or	2	au	B	N. Holl.	1822.	Sk	s.p	
4835	**longifólia** *R. Br.*	long-leaved	✱	⌊△⌋	or	2½	au	B	N. Holl.	1822.	Sk	s.p	Bot. reg. 734
4836	**strumósa** *Ker.*	strumous	✱	⌊△⌋	or	1½	mr	B	N. Holl.	1822.	Sk	s.p	Bot. reg. 751
4837	**nemorósa** *Lam.* *D. ensifolia* W.	wood	✱	⌊△⌋	or	2	au	B	E. Indies	1731.	Sk	s.p	Bot. mag. 1404
4838	**cærúlea** *R. Br.*	blue	✱	⌊△⌋	or	2	my.au	B	N. S. W.	1783.	R	s.p	Bot. mag. 505
4839	**divaricáta** *R. Br.*	divaricated	✱	⌊△⌋	or	3	jl.au	B	N. S. W.	1805.	R	s.p	
815.	**EUS'TREPHUS.** *R. Br.*	EUSTREPHUS.					*Asphodeleæ.*		*Sp.* 2.				
4840	**latifólius** *R. Br.*	broad-leaved	$	▭	or	3	jn.jl	P.Pu	N. S. W.	1800.	C	s.p	Bot. mag. 1245
4841	**angustifólius** *R. Br.*	narrow-leaved	$	▭	or	3	jl	P.Pu	N. S. W.	1820.	C	s.p	
816.	**ASPAR'AGUS.** *L.*	ASPARAGUS.					*Asphodeleæ.*		*Sp.* 21—32.				
4842	**officinális** *L.*	common	⚘	△	cul	4	jn.au	G	England	sea co.	S	r.m	Eng. bot. 339
4843	**sylváticus** *W. & K.*	wood	⚘	△	cu	2	jn.au	G	Hungary	...	R	r.m	Pl.rar.hu.3.t.201
4844	**verticilláris** *Bieb.*	whorl-leaved	⚘	△	cu	2	jn.au	W	Caucasus	1752.	R	r.m	Buxb. cen.5.t.37
4845	**declinátus** *W.*	long-leaved	£	⌊△⌋	cu	5	...	W.o	C. G. H.	1759.	R	s.p	
4846	**marítimus** *Bieb.*	maritime	⚘	△	cu	2	jn	G	Caspian	1823.	R	s.p	
4847	**decúmbens** *W.*	decumbent	£	⌴	cu	2	my	W.o	C. G. H.	1792.	R	s.p	Jac.schœn.1.t.97
4848	**scándens** *W.*	climbing	$	⌊△⌋	cu	6	...	G	C. G. H.	1795.	R	s.p	
4849	**dahúricus** *Fisch.*	Dahurian	⚘	△	cu	3	my	G	Dauria	1823.	R	s.p	
4850	**falcátus** *W.*	sickle-leaved	£	▭	cu	3	...	W.o	E. Indies	1792.	R	s.p	Bur. zeyl.t.13.f.2
4851	**racemósus** *W.*	branching	£	▭	cu	3	...	W.o	E. Indies	1808.	R	s.p	
4852	**Broussonéti** *Jacq.*	Broussonet's	£	▭	cu	2	...	...	Canaries	1822.	R	s.p	
4853	**retrofráctus** *W.*	Larch-leaved	$	⌴	cu	4	au.s	W	Africa	1759.	R	s.p	Pluk. al.t.375.f 3
4854	**asiáticus** *W.*	Asiatic	£	⌴	cu	3	...	W	Asia	1759.	R	s.p	Pluk. al. t.15. f.4
4855	**æthiópicus** *W.*	angular-stalked	£	⌴	cu	3	...	W	C. G. H.	1816.	R	s.p	
4856	**álbus** *W.*	white	✱	⌴	cu	2	...	W	Spain	1540.	R	s.p	Moris. s.1 t 1.f.3
4857	**acutifólius** *W.*	needle-leaved	ɱ	⌴	cu	2	...	W.o	Spain	1640.	R	s.p	Fl. græc. 337
4858	**flexuósus** *W.*	flexuous	£	⌊△⌋	cu	3	jl.au	G	C. G. H.	...	R	s.p	
4859	**aphýllus** *W.*	prickly	ɱ	⌴	cu	3	...	W.o	S. Europe	1640.	R	s.p	Moris.s.1. t.1. f 2
4860	**subulátus** *W.*	awl-leaved	ɱ	⌴	cu	3	...	...	C. G. H.	1811.	R	s.p	
4861	**capénsis** *W.*	Cape	ɱ	⌴	cu	4	ap.my	G	C. G. H.	1691.	R	s.p	Jac schœ 3. t.266
4862	**sarmentósus** *W.*	linear-leaved	$	▭	cu	6	au	W.o	Ceylon	1710.	R	r.m	Rhe.mal.10. t.10
817.	**DRI'MIA.** *Jacq.*	DRIMIA.					*Asphodeleæ.*		*Sp.* 7—11.				
4863	**altíssima** *Jacq.*	tallest	♉	⌊△⌋	or	1½	au.s	W.o	C. G. H.	1791.	O	s.p	Bot. mag. 1074
4864	**eláta** *B. M.*	tall	♉	⌊△⌋	or	2	o.n	R.o	C. G. H.	1799.	O	s.p	Bot. mag. 822
4865	**ciliáris** *B. M.*	ciliated	♉	⌊△⌋	or	1½	s	Pu.w	C. G. H.	...	O	s.p	Bot. mag 1444
4866	**pusílla** *W.*	dwarf	♉	⌊△⌋	or	¼	my.jn	G	C. G. H.	1793.	O	s.p	Jac. ic. 2. t. 374
4867	**lanceæfólia** *B. M.*	Copperas-leav'd	♉	⌊△⌋	or	¼	s.o	Pu	C. G. H.	1800.	O	s.p	Bot. mag. 643
4868	**revolúta** *B. M.*	reflex-flowered	♉	⌊△⌋	or	¼	au	G	C. G. H.	1774.	O	s.p	Bot. mag. 1380
4869	**média** *Jacq.*	intermediate		⌊△⌋	or	1½	au	W	C. G. H.	1820	O	s.p	
818.	**UROPE'TALON.** *Ker.*	UROPETALON.					*Asphodeleæ.*		*Sp.* 4.				
4870	**glaúcum** *Burchell*	glaucous-leaved	♉	⌊△⌋	or	1	jl.au	G	C. G. H.	1816.	O	l.p	Bot. reg 156
4871	**críspum** *Burch.*	curled-leaved	♉	⌊△⌋	or	...	...	G	C. G. H.	1816.	O	l.p	
4872	**serótinum** *Ker.*	late-flowering	♉	△	or	¾	jn.au	G.s	Spain	1629.	O	l.p	Bot. mag. 859
4873	**fúlvum** *Hort.*	tile-red	♉	△	or	¾	jn.au	G.s	Mogadore	1808.	O	l.p	Bot. mag. 1185



History, Use, Propagation, Culture,

814. *Dianella.* A diminution of *Diana*, the name which the genus originally received from Commerson. The species are found in the recesses of forests, where the goddess of hunting may be supposed to inhabit.

815. *Eustrephus.* From ευ, well, and ϛρεφω, to turn, in allusion to the twining habit of the species.

816. *Asparagus.* From σπαρασσω, to tear, on account of the strong prickles with which some of the species are armed. Some are diœcious, and others are prickly evergreen climbers. A. officinalis, *Asperge*, Fr., *Spargel*, Ger., and *Asparago*, Ital., is one of the oldest and most delicate of culinary vegetables. It is found on the sea-shores in different parts of Britain and in many parts of Europe, and is abundant in the inland sandy plains in Russia, Turkey, and Greece. Asparagus was in much esteem both among the Greeks and Romans. It is much praised by Cato and Columella, and Pliny mentions a sort which grew near Ravenna, a deep sandy country, three shoots of which would weigh a pound. It is equally admired by the moderns, and assiduously cultivated in private gardens everywhere, and to a great extent round London, Paris, and Vienna. In no part of the world is it grown to such perfection as in the market gardens round London. That of the parish of Mortlake is particularly strong and succulent: the soil is a sandy loam, deeply trenched, and well manured; the seed is sown in drills and thinned out till the plants stand six inches apart in the row, and the rows are a foot asunder. Round Paris and Vienna more pains are taken in preparing the soil, by forming excavations and filling them with layers of turf, durable manure, as bones, wood-chips, &c., sand, manure, loam, &c.; but though plantations on such beds last longer than on our's, they do not yield better shoots, and it may justly be questioned whether they are equally profitable to the cultivator

The culinary preparations of asparagus are few, its very delicate flavor rather being deteriorated than improved by powerful tastes It is best boiled and served alone, to be eaten with butter and salt; or with the points of the shoots cut in small pieces, and served up as green pease. It is esteemed diuretic, and in Paris

4834 Radical leaves sword-shaped flat shorter than the stem with the keel and edges smooth, Panicle simple
4835 Radical leaves ensiform long smooth at the edge and keel, Panicle upright
4836 Leaves bright-green smooth, Panicle lax decomp. Sepals of pendulous flower reflexed, Filam. strumous
4837 Leaves linear-lanceolate at the edge prickly, Keel smooth

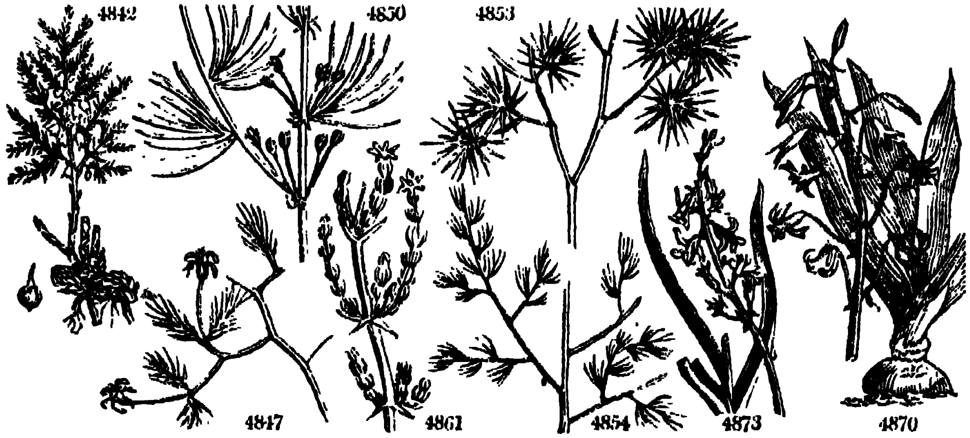
4838 Stem leaves numerous long ensiform rough at the edge and keel, Branches of panicle short
4839 Leaves radical lin -lanceolate at the keel and edges smooth, Panicle decompound straggling

4840 Leaves ovate or elliptical-lanceolate, Anthers after flowering twisted
4841 Leaves linear or linear-lanceolate, Anthers after flowering straight

4842 Stem herbaceous round erect, Leaves setaceous
4843 Stem herbaceous erect rounded, Leaves setaceous ½-whorled and whorled, Stipules solitary unarmed
4844 Stem half-climbing, Branches straggling, Leaves setaceous curved, Flowers globose
4845 Stem unarmed rounded, Branches declinate, Leaves setaceous
4846 Stem much branched wavy, Leaves setaceous pungent, Flowers campanulate
4847 Stem herbaceous unarmed decumbent much branched, Branches wavy, Leaves setaceous
4848 Herbaceous unarmed twining, Leaves lanceolate falcate
4849 Stem herbaceous erect, Branches straight, Leaves bundled setaceous long, Pedunc. sol. nodding
4850 Prickly solitary recurved, Branches round, Leaves fascicled linear falcate, Pedunc. 1-fl. clustered
4851 Prickles solitary, Branches striated, Leaves bundled linear-subulate falcate, Racemes many-fl. axillary
4852 Branches striated, Leaves linear falcate unequal, Flowers few
4853 Prickles solitary, Branches round reflexed bent back, Leaves setaceous bundled
4854 Prickles solitary, Stem erect, Branches filiform, Leaves bundled setaceous
4855 Prickles solitary reversed, Branches angular, Leaves lanceolate linear
4856 Prickles solitary, Branches angular wavy, Leaves bundled 3-cornered blunt deciduous
4857 Stem unarmed angular shrubby, Leaves needle-like rigid perennial mucronate equal
4858 Herbaceous unarmed, Branches wavy, Leaves lanceolate
4859 Stem unarmed angular shrubby, Leaves subulate striated unequal diverging
4860 Unarmed, Branches bent back, Leaves rounded subulate
4861 Spines 4, Branches clustered rounded, Leaves setaceous
4862 Leaves solitary linear lanceolate, Stem wavy, Prickles recurved

4863 Leaves oval sub-erect plain, Raceme long cylindrical, Bractes hooked back upon themselves
4864 Leaves linear lanc. obliquely bent smooth, Flowers nodding
4865 Leaves linear keeled ciliated
4866 Leaves lanceolate smooth channelled at base, Flowers erect
4867 Leaves wedge-shaped smooth, Scape few-flowered
4868 Leaves lanceolate smooth wavy, Peduncles horizontal
4869 Leaves linear lanceolate half-round

4870 Leaves broad lanceolate erect much shorter than scape, Peduncles very long
4871 An undescribed species, said to be in the gardens about London
4872 Leaves bright green channelled striated, Sepals oval the length of stamens
4873 Leaves glaucous, Raceme lax, Sepals linear much spreading longer than stam.



and Miscellaneous Particulars.

is much resorted to by the sedentary operative classes, as taylors, weavers, &c. when they are troubled with symptoms of gravel or stone.

There are some varieties and subvarieties of asparagus, but excepting the red-topped and green-topped, the others are merely local varieties, and can hardly be said to be obtainable by seed.

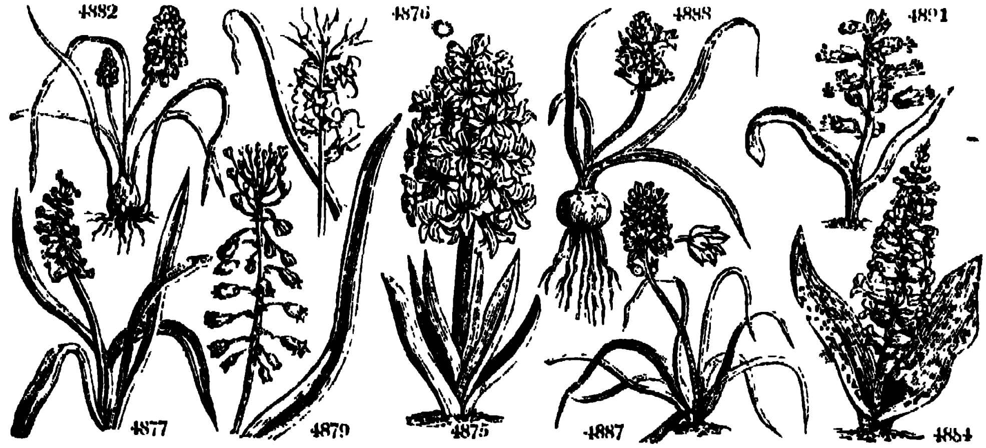
In the kitchen garden asparagus is generally grown in beds four feet broad, and in rows a foot or eighteen inches apart by nine inches in the row. The plants are either raised from seed where they are to remain, or raised on a seed bed the preceding year and transplanted. The value of the crop depends on the soil being dry, sandy, trenched two and a half or three feet deep, and powerfully manured. During winter the beds are covered with dung or litter to protect them from the frost. In spring this is raked off into the alleys and dug in, while the beds are stirred with a fork, to admit the air, heat, rain, &c. to stimulate the rising shoots. Asparagus from seed will be fit to cut the third year, in perfection the fifth, and will continue good for ten or twelve years. The season for cutting is from the middle of April to the middle of June.

Asparagus is extensively forced, generally by taking up the roots and placing them on dung or tan beds; but sometimes a more gentle forcing is given by covering the beds with dung in the manner of forcing sea-cale. By the former mode earlier crops are obtained, but the roots are lost; by the latter, the crop is only forwarded a week or two, but the roots remain to produce the following year.

817. *Drimia.* So called from the Greek word δριμυς, caustic, because the juice of the roots is so very acrid, as, when applied to the skin, to cause inflammation and even blisters.

818. *Uropetalon.* From οὐρα, a tail, and πεταλον, a petal, in allusion to the manner in which the divisions of the flower are lengthened out. Curious and rare bulbous plants, very nearly related to Zuccagnia; perhaps not generically distinct.

819. **HYACIN'THUS** *B. M.*	Hyacinth.					*Asphodeleæ.*		*Sp.* 2—3.				
4874 amethÿstinus *W.*	Amethyst-col.	♉	△	or	¾	ap.my	B	S. Europe	1759.	O	l.p	Red. lil. 14
4875 orientàlis *W.*	garden	♉	△	or	¾	mr.ap	B	Levant	1596.	O	r.m	Bot. mag. 937
820. **ZUCCAG'NIA.** *Thunb.*	Zuccagnia.					*Asphodeleæ.*		*Sp.* 1—2.				
4876 viridis *Thunb.*	green	♉	⌊△⌋	or	¾	au	G	C. G. H.	1774.	O	l.p	Red. lil. 203
821. **MUSCA'RI.** *B. M.*	Grape-hyacinth.					*Asphodeleæ.*		*Sp.* 6—8.				
4877 moschàtum *B. M.*	musk	♉	△	or	½	ap.my	B	Levant	1596.	O	s.l	Bot. mag. 734
β flàvum B. M.	*yellow*	♉	△	or	½	ap.my	G.y	Levant	1596.	O	s.l	Bot. mag. 1565
4878 ciliàtum *Cyr.*	ciliated	♉	△	or	1	my	Br.pu	Crimea	1822.	O	s.l	Bot. reg. 394
4879 comòsum *R. L.*	purple	♉	△	or	½	ap.my	B	S. Europe	1596.	O	s.l	Bot. mag. 133
β monstròsum	*feathered*	♉	△	or	½	ap.my	B	S. Europe	1596.	O	s.l	Moris.s.4.t.11.f.2
4880 pàllens *Fisch.*	pallid	♉	△	or	½	my	Pa.B	Crimea	1822.	O	s.l	
4881 botryoìdes *B. M.*	blue	♉	△	or	½	ap.my	B	Italy	1596.	O	s.l	Bot. mag. 157
4882 racemòsum *B. M.*	starch	♉	△	or	½	ap	B	Europe	...	O	s.l	Bot. mag. 122
822. **LACHENA'LIA.** *W.*	Lachenalia.					*Asphodeleæ.*		*Sp.* 26—29.				
4883 glaucìna *W.*	sea-green	♉	⌊△⌋	pr	1	mr.ap	G.w	C. G. H.	1795.	O	s.l	Jac. ic. 2 t. 391
4884 orchioìdes *W.*	Orchis-like	♉	⌊△⌋	pr	1	f.ap	G.y	C. G. H.	1752.	O	s.l	Bot. mag. 1269
4885 pàllida *W.*	pale-flowered	♉	⌊△⌋	pr	½	mr.ap	Pa.B	C. G. H.	1782.	O	s.l	Bot. reg. 287
4886 hyacinthoìdes *W.*	Hyacinth-flow.	♉	⌊△⌋	pr	½	mr.ap	W.R	C. G. H.	1812.	O	s.l	Jac. ic. 2. t 382
4887 angustifòlia *W.*	narrow-leaved	♉	⌊△⌋	pr	1	ap.my	W	C. G. H.	1793.	O	s.l	Bot. mag. 735
4888 contaminàta *W.*	contaminated	♉	⌊△⌋	pr	½	f.mr	Pk	C. G. H.	1774.	O	s.l	Bot. mag. 1401
4889 pàtula *W.*	spreading-flow.	♉	⌊△⌋	pr	¾	ap.my	W.pk	C. G. H.	1795.	O	s.l	Jac. ic. 2. t. 384
4890 fràgrans *W.*	sweet-scented	♉	⌊△⌋	pr	1	mr.my	W.R	C. G. H.	1798.	O	s.l	Bot. reg. 302
4891 unicolor *B. M*	self-colored	♉	⌊△⌋	pr	½	my.jn	Pk	C. G. H.	1806.	O	s.l	Bot. mag. 1373
4892 lùcida *B. M.*	glossy-leaved	♉	⌊△⌋	pr	½	mr.my	Pk	C. G. H.	1798.	O	s.l	Bot. mag. 1372
4893 racemòsa *B. M.*	starch	♉	⌊△⌋	pr	1½	my	W.g	C. G. H.	1811.	O	s.l	Bot. mag. 1517
4894 pustulàta *W.*	blistered	♉	⌊△⌋	pr	1	ja.ap	W.o	C. G. H.	1790.	O	s.l	Bot. mag 817
4895 purpùreo-cærùl.*b.m.*	purple-blue	♉	⌊△⌋	pr	1	ap.my	B.P	C. G. H.	1798.	O	s.l	Bot. mag. 745
4896 nervòsa *B. M.*	nerved-leaved	♉	⌊△⌋	pr	¾	jn	Pk	C. G. H.	1810.	O	s.l	Bot. mag 1497
4897 violàcea *W.*	violet	♉	⌊△⌋	pr	1	mr.ap	L.B	C. G. H.	1795.	O	s.l	Jac. ic. 2. t. 394
4898 bifòlia *B. M.*	cowled-leaved	♉	⌊△⌋	pr	½	mr.ap	Pk	C. G. H.	1813	O	s.l	Bot. mag. 1611
4899 ròsea *B. Rep.*	rose-colored	♉	⌊△⌋	pr	½	ap.my	Pk	C. G. H.	1800.	O	s.l	Bot. rep. t 296
4900 unifòlia *W.*	one-leaved	♉	⌊△⌋	pr	½	mr.ap	W.D	C. G. H.	1795.	O	s.l	Bot. mag. 766
4901 sessiliflòra *B. Rep.*	sessile-flowered	♉	⌊△⌋	pr	½	my.jn	R	C. G. H.	1804.	O	s.l	Bot. rep 460
4902 isopètala *W.*	equal-flowered	♉	⌊△⌋	pr	¾	my.jn	W.pu	C. G. H.	1804.	O	s.l	Jac. ic. 2. t. 401
4903 tricolor *W.*	three-colored	♉	⌊△⌋	pr	1	ap.my	R.y	C. G. H.	1774.	O	s.l	Jac. ic rar. 1. t 61
4904 lutèola *Jacq.*	yellow	♉	⌊△⌋	pr	1	ap.my	Y.R	C. G. H.	1774.	O	s.l	Bot. mag 1704
4905 pendula *Jacq*	pendulous	♉	⌊△⌋	pr	¾	mr.my	R.y	C. G. H.	1789	O	s.l	Bot. cab. 267
4906 rubida *W.*	dotted-flower'd	♉	⌊△⌋	pr	¾	s.o	R	C. G. H.	1803.	O	s.l	Bot. mag. 993
4907 quadricolor *Jacq.*	four-colored	♉	⌊△⌋	pr	1	mr.ap	Sc.y	C. G. H.	1774	O	s.l	Bot. rep 148
4908 seròtina *Jacq*	late	♉	⌊ ⌋	pr	¾	au	Pk	Spain	1820	O	s.l	



History, Use, Propagation, Culture,

819. *Hyacinthus.* Every one knows the fable of Hyacinthus, who was killed by Apollo and changed to this flower. Bochart, however, remarking that the ancients applied the name to a red flower, concludes that the Arabic *yaigout*, which signifies red, has something to do with the name. A conjecture certainly sufficiently learned, but less plausible.

H. orientalis is the origin of one of our finest florist's flowers, and, like the tulip and narcissus, of a considerable commerce to the Dutch. It is a native of the East, and abundant about Aleppo and Bagdat, where it flowers in February. It seems to have been first cultivated as a flower by the Dutch, but when is unknown. Most probably in the beginning of the sixteenth century, soon after the revival of commerce in the west of Europe, when the merchants of Holland traded to the eastern shores of the Mediterranean and the Archipelago. About the end of the sixteenth century there were seven or eight varieties known in England. In 1620, Swertius, in his Florilegium, figured forty varieties; Miller says the Haarlem florists in his time (say 1720) had above 2000 varieties, and though the passion for this flower has greatly declined, they have still upwards of half that number. In England three or four hundred sorts are annually imported from the Dutch florists by the seedsmen.

A fine double hyacinth is characterized by strength and enlargement of all the parts, and by bright distinct colors. The fundamental varieties are double, semidouble, single, red, white, purple, blue, and yellow, in many different shades and variegations. A variety degenerates in a few years; but some have existed undeteriorated upwards of a century. Varieties are raised from seed, and flower the fourth or fifth year: their names are after the growers or their patrons, favorite friends, public characters, or the celebrated names of history and antiquity.

The seeds of the hyacinth are sown in October, after they have ripened, or in the following March. They remain three years with no other culture than covering with a little earth in autumn, but the fourth season they are transplanted into beds, where they remain two or three years longer till all the bulbs have flowered.

The soil is essentially a very sandy loam and vegetable mould; and if in forming the beds this soil can be made to the depth of two feet, and at the bottom of the bed a layer of six or nine inches of cow-dung

4874 Flowers campanulate half 6-cleft cylindrical at base
4875 Flowers funnel-shaped half 6-cleft ventricose at base

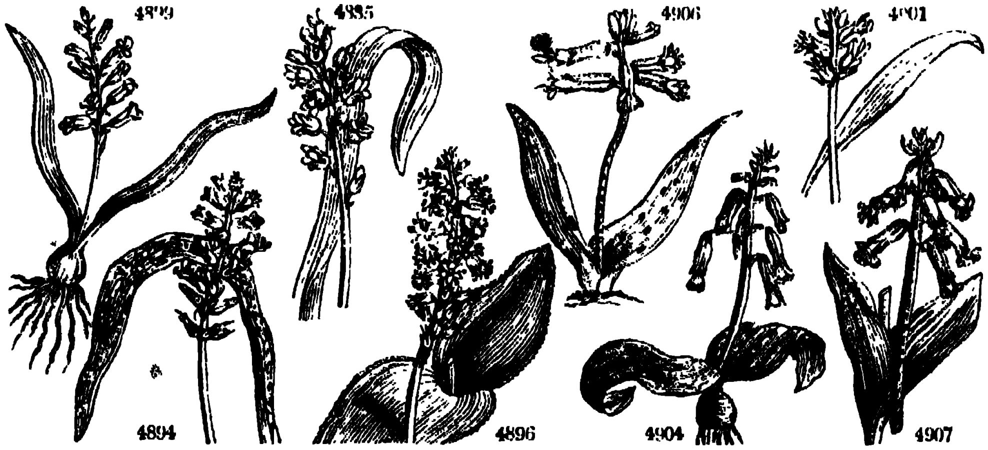
4876 Leaves linear channelled longer than scape

4877 Flowers cylindrical ovate uniform horizontal subsessile

4878 Flowers camp. cylindrical half 6-cleft, Pedunc. in fruit very long and horizontal
4879 Flowers cylindrical angular on long stalks, the upper sterile on very long stalks

4880 Flowers campan. cylindrical, Limb erect shorter than tube, Leaves lin. lanc. erect
4881 Flowers globose uniform: the lower remote, Leaves linear upright channelled
4882 Flowers ovate uniform clustered: the upper sessile, Leaves lax dependent linear

4883 Flowers campanulate sessile, Inner sepals longer spreading obtuse, Leaves lin. lanc. smooth
4884 Flowers campanulate sessile, Inner sepals longer spreading obtuse, Lvs. obl. lanc. with cartila. cren. edge
4885 Flowers campanulate sessile, Inner sepals longer spreading obt. Scape ang. at end short. than lin.-obl. lvs.
4886 Fl. campanulate sessile, Inner sepals longer spreading emarg. Lvs. lin. chann. lax twice as long as scape
4887 Fl. campan. sessile, Inner sepals longer spreading obov. obt. Lvs. lin. channelled lax longer than scape
4888 Fl. camp. cylind. on short stalks erect, Inner sep. long lanc. obt. erect, Lvs. lin chann. lax long. than scape
4889 Flowers camp. stalked, Inner sepals longer obovate spreading, Lvs. lanc. channelled shorter than scape
4890 Fl. camp. stalked horizontal, Inner sep. longer obt. Stam. longer than fl. Lvs. lanc. twice as short as scape
4891 Leaves two, Scape not longer than leaves, Fl short horizontal, Stamens long declinate
4892 Leaves two oblong, Raceme compact, Flowers short campanulate nearly as long as stamens
4893 Leaves three lanceolate blistered shorter than scape, Flowers campanulate erect
4894 Flowers camp on short stalks, Inner sep. long. obtuse, Scape 3 cornered reclinate, Leaves blistered
4895 Fl. camp. stalked, Inner sep long obt. revol. Stam. longer than fl. Scape angular at end, Leaves blistered
4896 Leaves two oval-edged, Flower erect conical shorter than spreading stamens
4897 Fl. camp. flat at base length of stalk, Inner sep. long. obt. Stam. longer than fl. Scape ang. at end, Lvs obl.
4898 Leaves lanceolate erect unequal: the larger cucullate at base, Scape few-flowered shorter than leaves
4899 Lvs. lin. lanc. two-spreading, Flowers whole-colored with the outer sepals nearly as long as the inner
4900 Flowers cylindrical length of stalks, Inner sepals longer obtuse unequal, Leaf one lin lanceol.
4901 Lvs. two lin lanc. spreading, Fl. erect sessile clust. ovate with inner sep. much the narrowest and longest
4902 Flowers cylind. stalked, Sepals linear obtuse equal, Scape angular at end, Leaves lanc. deflexed
4903 Flowers cylind. stalked pendulous, Inner sepals longer emarginate, Leaves lanceolate
4904 Flowers cylind. stalked pendulous, Inner sepals longer emarginate spreading, Leaves obl. spreading
4905 Leaves twin obl not spotted, Scape erect not spotted, Flowers cylindrical pendulous
4906 Flowers cylind. on short stalks pendulous, Inner sepals longest, Leaves oblong
4907 Leaves twin lin lanc. spotted, Scape erect, Flowers pendulous with the inner limb of sepals spreading
4908 Flowers camp. stalked, Outer sepals long spreading: inner connate, Leaves long channelled



and Miscellaneous Particulars.

deposited, the plants will thrive the better. The season of planting is from the middle of October to the middle of November. The bed should be protected from heavy rains and severe frosts by the usual means, and about the beginning of April, when the flowers begin to open, an awning of canvass should be fixed over them, to exclude all extremes of weather, and the more brilliant moments of sunshine. In three weeks or a month after blooming the bulbs should be taken up, unless they are intended to remain for seed. They should be dried in the shade, or under a few inches of dry earth, kept dry, and afterwards cleaned and wrapped up in separate papers, or laid on open airy shelves till wanted for replanting.

The hyacinth forces well, especially some of the blue sorts; it also does better than most bulbs when planted on water.

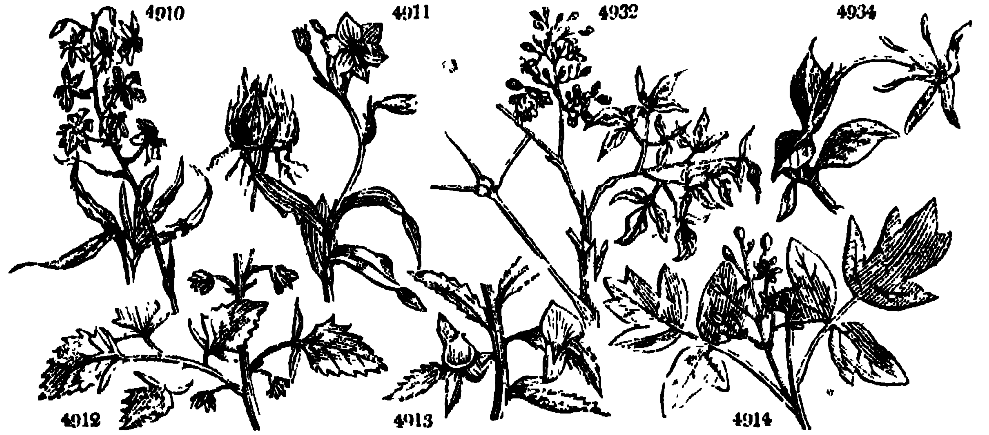
820. ***Zuccagnia.*** This plant was named in honor of Attili Zuccagni, superintendant of the garden at Florence. It is scarcely a different genus from Uropetalon.

821. ***Muscari.*** Something which smells of musk, called *μοσχος* in Greek, *muscus* in Latin, *misk* in Arabic. (***Forskahl.***) M. comosum, β monstrosum, is a most ornamental border flower. The bulb is large, ovate, and solid: the leaves narrow, a foot long, with obtuse points: the flower-stalks rise near a foot and a half high; they are naked at the bottom for about seven or eight inches, above which the panicles of flowers begin, and terminate the stalks. The flowers stand upon peduncles which are more than an inch long, each sustaining three, four, or five flowers, whose petals are cut into slender filaments like hairs; they are of a purplish blue color, and, having neither stamina nor germ, never produce seeds. The other species are very pretty hardy flowers.

M. racemosum was named starch hyacinth by William Curtis, from the smell of the flower.

822. ***Lachenalia.*** So named in honor of Wernerus de la Chenal, of Switzerland, author of some medical and botanical tracts printed at Basle. The numerous species of this genus were chiefly introduced from the Cape by Masson: they bear a strong general resemblance, and are yet individually different; they may be styled diminutive, but pretty; they grow readily in sand and peat, and may be forced or retarded so as to flower at almost any season. They must be very sparingly watered when not in a growing state.

823. PHOR'MIUM. *W.*	FLAX-LILY.					*Asphodeleæ.*		*Sp.* 1.				
4909 tenax *W.*	Iris-leaved	£	⌊△⌋	ec	6	au	G.w	N. Zeal.	1788.	R	l.s.p	Cook. it. v.2. t.98
824 CYANEL'LA. *W.*	CYANELLA.					*Asphodeleæ.*		*Sp.* 2—4.				
4910 capénsis *W.*	purple-flower.	♉	⌊△⌋	pr	1	jl.au	B	C. G. H.	1768.	O	s.p	Bot. mag. 568
4911 lútea *W.*	yellow-flowered	♉	⌊△⌋	pr	1	jl.au	Y	C. G. H.	1788.	O	s.p	Bot. mag. 1252
825 LEON'TICE. *W*	LEONTICE.					*Berberideæ.*		*Sp.* 2—3.				
4912 chrysógonum *W.*	oak-leaved	♃	△	cu	1	mr.jn	Y	Levant	1740.	D	s l.p	M. his. 3. t.15. f.7
4913 Leontopétalon *W.*	Lion's-leaf	♃	⌊△⌋	cu	1	ap.my	Y	Levant	1597.	D	s.l.p	M. his. 3. t.15. f.6
826. CAULOPHYL'LUM. *Mich.*	CAULOPHYLLUM.					*Berberideæ.*		*Sp.* 1—2.				
4914 thalictroides *Ph.*	Columbine-lvd	♃	△	cu	½	my	Y.G	N. Amer.	1755.	D	s.p	Mic. Am. 1. t. 21
827. DIPHYLLE'IA. *Mich.*	DIPHYLLEIA.					*Berberideæ.*		*Sp.* 1.				
4915 cymósa *Mich*	blue-berried	♃	△	pr	½	my.jn	W	N. Amer.	1812.	D	l.p	Bot. mag. 1666
828. PRI'NOS *W.*	WINTER-BERRY.					*Rhamneæ.*		*Sp.* 6—11.				
4916 verticillátus *W*	deciduous	♣		or	6	jl.au	W	N. Amer.	1736.	L	s.p	Dend. brit. 30
4917 ambíguus *Ph.*	Carolina	♣		or	4	...	W	Carolina	1812.	L	lt.s	Dend. brit. 29
4918 lævigátus *Ph.*	smooth	♣		or	4	jl.au	W	N. Amer.	...	L	lt.s	Dend. brit. 28
4919 lanceolátus *Ph.*	scarlet-berried	♣		or	4	jn.jl	W	Carolina	1811.	L	lt.s	
4920 glàber *W.*	evergreen	♣		or	1½	jl.au	W	Canada	1759.	L	lt.s	Bot. cab. 450
4921 lùcidus *W.*	shining	♣	⌴	or	2	jn.jl	W	......	1778.	L	lt.s	
829. BER'BERIS. *W.*	BERBERRY.					*Berberideæ.*		*Sp.* 10—38.				
4922 vulgáris *W.*	common	♣		fr	8	ap.my	Y	England	bu pl.	L	co	Eng. bot. 49
β *violácea*	*purple-fruited*	♣		fr	8	ap.my	Y	......	...	L	co	
γ *alba*	*white-fruited*	♣		fr	8	ap.my	Y	......	...	L	co	
4923 canadénsis *Ph.*	Canada	♣		fr	8	ap my	Y	Canada	1759.	L	co	
4924 ilicifólia *W.*	Holly-leaved	♣		or	4	jl.au	Y	T.del Fue.	1791.	L	r.m	
4925 crética *W.*	Cretan	♣		or	6	ap.my	Y	Candia	1759.	L	co	Fl. græc 342
4926 sibírica *W.*	Siberian	♣		or	1	jn.jl	Y	Siberia	1790.	L	co	Bot reg. 487
4927 emarginàta *W. en.*	emarginate	♣		or	3	ap.my	Y	Siberia	1790	G	co	
4928 sinénsis *Desf.*	Chinese	♣		or	4	ap.my	Y	China	1815.	G	co	Dend. brit. 26
4929 fasciculáris *Dec.*	clustered	♣		or	10	ap.my	Y	California	1819.	C	co	Bot mag 2396
4930 aristáta *Dec.*	Nepal	♣		or	6	ap.my	Y	Nepal	1820.	C	co	Hook. ex fl. 98
4931 heterophýlla *Juss.*	various-leaved	♣		or	4	ap my	Y	Magellan	1805.	L	co	Hook. ex fl. 14
830. NANDI'NA. *W*	NANDINA.					*Berberideæ.*		*Sp.* 1.				
4932 doméstica *W*	garden	♣	⌴	or	6	jn.jl	G.Br	China	1804.	C	p.l	Bot. mag. 1109
831. COSSIG'NIA. *Juss.*	COSSIGNIA.					*Sapindaceæ.*		*Sp.* 1				
4933 pinnáta *Lam.*	pinnated	♣	□	or	10	...	..	Mau ·is	1824.	C	p.l	
832 HIL'LIA. *W.*	HILLIA.					*Rubiaceæ.*		*Sp.* 2.				
4934 longiflóra *W.*	long-flowered	♧	□	or	1½	f.mr	W	W. Indies	1789.	C	s.p	Bot. mag. 721
4935 tetrándra *W.*	mountain	♧	□	or	1	jn.jl	W	Jamaica	1793.	C	s.p	Swz. fl. oc. t.11



History, Use, Propagation, Culture,

823. *Phormium* From φορμος, a basket. This plant sends up numerous leaves, which in New Zealand and Norfolk Island are manufactured into matting; or a coarse thread is separated from them and made into cordage and coarse linen, as is done from different species of Aloe, Agave, and Liliaceæ in the Levant and south of Europe. The plant thrives in any rich light soil, increases readily by offsets, and is said to stand the open air about Cork, where thoughts are entertained of using it as a substitute for flax. The experiments, however, which have been made in New Holland by some spirited individuals respecting its cultivation, have all failed.

824. *Cyanella.* Derived from κυανος, blue, in allusion to the color of the flowers of some species; all are very pretty and easily cultivated.

825. *Leontice.* An abridgment of *Leontopetalum*, its ancient name; from λεων, a lion, and πεταλον, a leaf, because the shape of the leaves was thought to resemble the print of a lion's foot.

826. *Caulophyllum.* From καυλον, a stem, and φυλλον, a leaf. Its leaves are so terminated by the stalk, as to appear a mere continuation of a stem.

827. *Diphylleia.* From δις, two, and φυλλον, a leaf. The plant has never more than two leaves.

828. *Prinos.* This was the Greek name of the evergreen oak; from πριω, to saw, on account of the strongly toothed leaves of that plant. The species are low shrubs of little beauty; but of the easiest culture in any light soil.

829. *Berberis.* *Berbērys*, according to Golius, (p. 246), is the Arabic name of this plant. B. vulgaris is at once an ornamental shrub, a fruit tree, a hedge plant, a dye, a drug, and a reputed enemy to the corn farmer. When covered with flowers in spring, or with fruit in autumn, it is a fine object. The leaves are of a yellowish or bluish green, and gratefully acid to the taste. The smell of the flowers is offensive when near, but pleasant at a certain distance. The berries are so very acid, that birds seldom touch them. The berberry, however, is cultivated for the sake of these, which are pickled and used for garnishing dishes; and being boiled with sugar, form a most agreeable rob or jelly; they are used likewise as a sweetmeat, and are put into sugar-plums or comfits. As a medicine the fruit is considered a mild restringent acid, agreeable to the stomach, and of efficacy (like other vegetable acids) in hot bilious disorders, and in a putrid disposition of the humours. The roots boiled in a lye yield a yellow colour: and in Poland they dye leather of a fine yellow

4909. The only species, resembling an *Agave*

4910 Stem leafy panicled, Racemes divaricating, Leaves lanceolate wavy
4911 Scape naked branched, Racemes erect, Leaves linear lanceolate flat

4912 Leaves pinnated, Leaflets whorled lanceolate acute 3-pointed
4913 Radical leaves biternate; cauline ternate, Fruit ovate

4914 Cauline leaf triternate; floral biternate

4915 Quite smooth, Leaves palmate angular lobed serrated with taper-pointed lobes

4916 Leaves obovate lanceolate acuminate doubly serrated, Veins beneath hairy
4917 Leaves oval pointed at each end mucronate serrulate pubescent beneath, Female flowers solitary
4918 Leaves lanceol. serrated acuminate smooth on each side, Flowers all 6-cleft
4919 Leaves lanceol. very finely and distantly serrated acute at each end quite smooth, Male flow. 3-androus
4920 Leaves lanceol. obt. smooth serrated at end
4921 Leaves elliptical acuminate smooth somewhat serrated at end

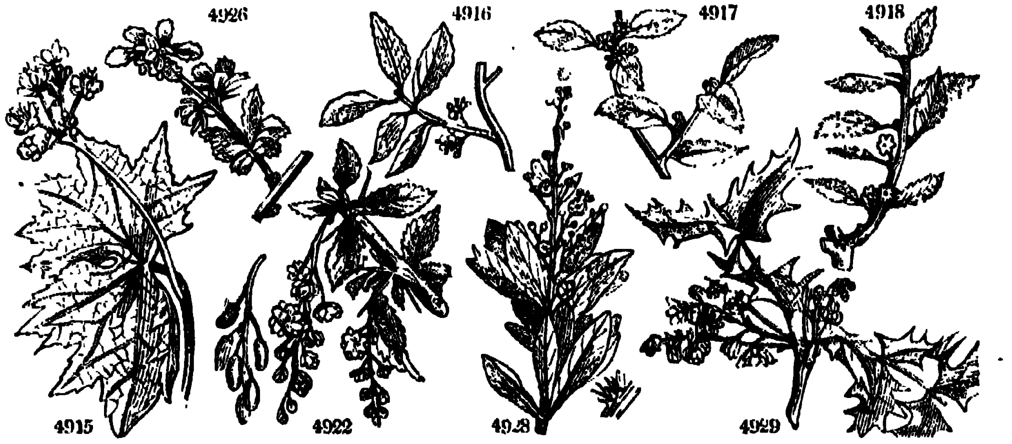
4922 Racemes simple pendulous, Leaves obovate ciliate-toothed

4923 Branches dotted, Prickles in 3s, Lvs. simple obovate remotely toothed, Racemes short, Fruit globular
4924 Spines 3-parted, Leaves oval with a few large spiny teeth, Ped. short 4-fl. Pedicels elongate corymbose
4925 Spines 3-5-parted, Leaves oval-oblong entire or serrated, Racemes 3-8-flow. almost shorter than leaves
4926 Spines 3-7-parted, Leaves lanceolate obovate ciliate-toothed, Peduncles 1-flowered shorter than leaf
4927 Spines 3-parted, Leaves lanceolate obovate ciliate serrate, Racemes pendulous, Petals emarginate
4928 Spines 3-parted very few, Leaves obl. obtuse entire or a lit[illegible]toothed, Racemes many-fl. nodding
4929 Lvs. pinnated in 4 or 5 pairs, Leaflets ovate lanceolate spreading toothed, Racemes erect much clustered
4930 Spines simple scarcely two-toothed at base, Lvs. obl. with 4 or 5 spiny teeth, Racemes spreading many-fl.
4931 Spines 3-parted, Lvs. ovate lanceolate smooth some entire some three-toothed, Pedicels solitary one-flow.

4932 Leaves supra-decompound with lanc. entire leaflets

4933 Leaves pinnate lanceolate emarginate

4934 Cor. 6-cleft, Segments lanceolate revolute, Leaves ovate acute
4935 Cor. 4-cleft, Segments ovate, Leaves obovate



and Miscellaneous Particulars.

with the bark of the root. The inner bark of the stems also will dye linen of a fine yellow, with the assistance of alum. Kine, sheep, and goats are said to eat it; horses and swine to refuse it. This species varies with red, purple, pale yellow, and stoneless fruit.

Insects of various kinds are remarkably fond of the flowers of the barberry; and the Æcidium Berberidis, its particular inhabitant, is supposed to generate the dust which, carried from the bush by winds, and lighting on wheat and other growing corns, gives rise to the Puccinia, a minute fungus, which closes up the pores of the leaves, and appears like rust or mildew. (*Sir J. Banks on Blight, &c.*) Many highly respectable authorities in Britain, on the continent, and in America, are in favor of and against this opinion. Willdenow, Withering, and Dwight have stated various remarkable cases on good authority. Sir J. Banks and his draughtsman Bauer proved the fact of the mildew being a fungus.

Linnæus observed, that when bees in search of honey touch the filaments, the anthers approximate to the stigma and explode the pollen. Sir J. Smith ascertained that the same effect is produced by touching the inside of the filaments with a small bit of stick. (*Phil. Trans.* vol. lxxviii. l. 158.)

All the other species are much esteemed as ornamental plants. B. aristata is a fine hardy evergreen shrub. B. ilicifolia and emarginata are also hardy, but less ornamental. B. fascicularis is a beautiful ornamental nearly hardy shrub, remarkable for its pinnated leaves.

830. *Nandina.* *Nandin* is the name of this shrub in Japan, where it is a garden shrub: the flowers are in panicles, and succeeded by berries of the size of a pea. In the greenhouse it grows freely in loam and peat, and ripened cuttings, with their leaves on, root in sand under a hand-glass.

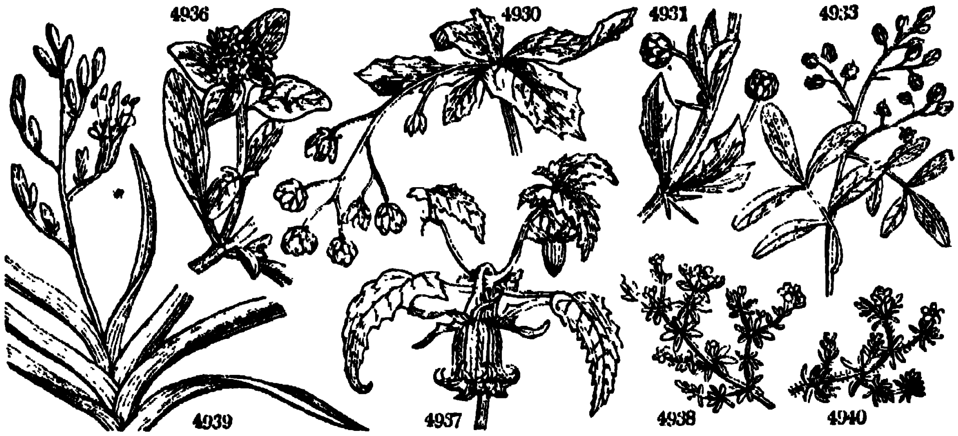
831. *Cossignia.* Named by Commerson, after M. de Cossigny, a French naturalist, then living at Pondicherry. Fine plants with handsome pinnated leaves.

832. *Hillia.* So named by Jacquin, in honor of Sir John Hill, author of many large works on botany and other parts of natural history, as well as general literature. Owing to some differences with his contemporaries, and writing against the Royal Society, after being rejected as a fellow, his memory in England has not met with much respect; in truth it was but little that it deserved. The species are of easy culture, and cuttings root readily in sand.

833. RICHAR'DIA. *L.*	Richardia.			*Rubiaceæ.*	*Sp.* 1.					
4936 scábra *L.*	rough	ħ. □ w	2	s	W	Vera Cruz	...	C	l.p	Lam. ill. t. 254
834. CANARI'NA. *W.*	Canarina.			*Campanulaceæ.*	*Sp.* 1.					
4937 Campánula *W.*	Canary	♃. [△] or	3	ja.mr	O	Canaries	1696.	R	r.m	Bot. mag 444
835. FRANKE'NIA. *W.*	Sea-Heath.			*Frankeniaceæ.*	*Sp.* 4—16.					
4938 læ'vis *W.*	smooth	£ △ cu	¼	jl.au	F	England	sal. m.	D	s.l	Eng. bot. 205
4939 Nóthria *W.*	Cape	£ [△] cu	¼	jn.au	F	C. G. H.	1816.	D	s.l	Bc. c. 171. t. 1 f. 2
4940 hirsúta *W.*	hairy	£ △ cu	¼	jn jl	L.B	Siberia	1789.	D	s.l	Fl. græc. 343
4941 pulverulénta *W.*	powdery	£ △ cu	¼	jl	R	England	sea co.	D	s.l	Eng. bot. 2222
836. PEP'LIS. *W.*	Water Purslane.			*Salicariæ.*	*Sp.* 1—2.					
4942 Pórtula *W.*	common	⊙ ○ cu	¼	jl.s	Pu	Britain	wat. pl.	S	aq	Eng. bot. 121

DIGYNIA.

837. ORY'ZA. *W.*	Rice.			*Gramineæ.*	*Sp.* 1.					
4943 sativa *W.*	common	⊙ [⊡] ag	2	jl	Ap	E. Indies	1596.	S	aq	Cat. car. 1. t. 14
838. ATRAPHAX'IS. *W.*	Atraphaxis.			*Polygoneæ.*	*Sp.* 2—3.					
4944 spinósa *W.*	prickly	ħ. [△] cu	2	au	Ap	Levant	1732.	C	l.p	Dend. brit. 119
4945 unduláta *W.*	waved-leaved	ħ. ⊔ cu	2	jn.jl	Ap	C. G. H.	1732.	C	l.p	Dil. el. t. 32. f. 36



History, Use, Propagation, Culture,

833. *Richardia.* So named by Houston, after Richard Richardson, an English botanist. Cuttings root in sand under a glass.

834. *Canarina.* That is to say, a plant native of the Canaries. This plant, Sweet observes, " is very desirable, as it flowers in autumn and winter, when few other plants are in bloom. After flowering, the stem lies down, and the roots continue dormant all the summer, when they need but little water. When they begin to grow they had better be placed in the stove, as they will not flower so abundantly in the greenhouse. A light loamy soil suits them best, or a mixture of loam and peat; and they are readily increased by dividing the roots, or from cuttings planted in the same kind of soil under a hand-glass " (*Bot. Cult.* p. 162.)

835. *Frankenia.* In honor of John Frankenius, professor of botany at Upsal, who first enumerated the plants of Sweden in Speculum Botanicum, 1638, and Speculum Botanicum Renovatum in 1659.

836. *Peplis.* One of the Greek names of the Purslane. The plant now so called resembles the Purslane in some points.

837. *Oryza.* From the Arabic word *áruz*, the Greeks coined their word *ὄρυζα*, and the various modern nations of Europe their *rice*, *riz*, *reis*, &c. O. sativa, the common rice, has the culm from one to six feet in length, annual, erect, simple, round, jointed. Leaves subulate-linear, reflex, embracing, not fleshy. Flowers in a terminating panicle. Calycine leaflets lanceolate. Valves of the corolla equal in length; the inner valve even, awnless; the outer twice as wide, four-grooved, hispid, awned. Style single, two-parted.

O. mutica, the dry or mountain rice, cultivated in Ceylon, Java, and of late in Hungary, has the culm three feet high, and more slender. Fruit longish, with awns the longest of all. It is sown on mountains and in dry soils; rots with a long inundation, and perishes with sea water.

The varieties of rice, as of other cultivated grain, are as numerous as the different soils, climates, and other physical circumstances, in which it is cultivated: besides the dry rice, the chief sorts, by some considered species, are the O. præcox, or early rice, and the O. glutinosa, or clammy rice, both cultivated in irrigated lands.

The native place of rice, like that of the other sorts of grain in common use, is unknown; it is cultivated in great abundance all over India, where the country will admit of being flooded; in the southern provinces of China, in Cochinchina, Cambodia, Siam, Japan, &c. In Japan it is very white, and of the best quality. It has also been introduced into cultivation in the southern kingdoms of Europe, Italy, Spain, the south of France, and within a few years into Hungary and Westphalia. In Carolina it has long been a staple commodity. Houghton's account of its introduction there is, that Ashby was encouraged to send a hundred pound bagfull of rice to that province, from which, in 1698, sixty tons were imported into England. Dalrymple says, that rice in Carolina is the result of a small bag of *paddy*, given as a present from Dubois, treasurer of the East India Company, to a Carolina trader. A Dutch vessel also, from Madagascar, brought rice into the same province; and to this is attributed their having two kinds. (*Oriental Repertory*, 1.)

In the hilly parts of Java, and in many of the Eastern islands, the mountain rice is planted upon the sides of hills, where no water but rain can come; it is, however, planted in the beginning of the rainy season, and reaped in the beginning of the dry season. The natives call it *Paddy Gunung*, which signifies mountain rice. It is entirely unknown in the western parts of India, but it is well known in Cochinchina, where it thrives in dry light soils, mostly on the sides of hills, not requiring more moisture than the usual rains and dews supply, neither of which are frequent at the season of its vegetation.

There is a kind of hill rice which is hardy enough to grow on the edge of the Himalayan snows. It is almost to be expected, that this will, at some future time, prove an acquisition of value to the European cultivator.

Rice is extensively cultivated in the East Indies and China, and chiefly on low grounds near large rivers, 4936 The only species, Leaves lanceolate ovate rough

4937 The only species, Leaves stalked hastate toothed

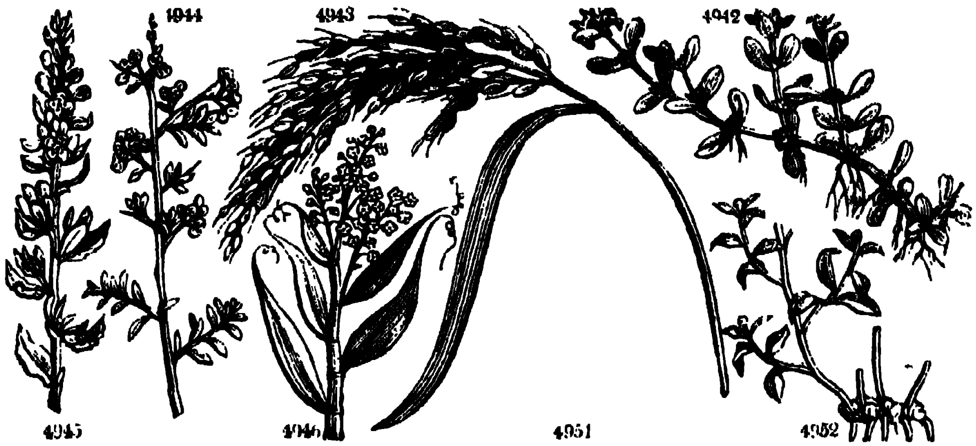
4938 Flowers solitary, Petals repand obtuse, Leaves linear ciliated at base
4939 Flowers fascicled, Petals acute, Leaves linear ciliated at base
4940 Flowers fascicled, Petals repand obtuse, Leaves linear oblong hairy at base
4941 Flowers solitary, Petals subrepand, Leaves roundish ovate powdery beneath

4942 Flowers hexandrous axillary solitary, Flowers stalked rounded ovate

DIGYNIA.

4943 The only species

4944 Prickly
4945 Unarmed, Leaves wavy



and Miscellaneous Particulars.

which are liable to be annually inundated, and enriched by the deposition of mud. According to Sir George Staunton's account, the Chinese obtain two crops of rice in a year from the same ground, and cultivate it in this way from generation to generation on the same soil, and without any other manure than the mud deposited by the water of the river used in overflowing it. After the waters of the inundation have withdrawn, a few days are allowed for the mud to get partially dry; then a small spot is enclosed by a bank of clay slightly ploughed and harrowed, and the grain, previously steeped in dung, diluted with animal water, is then sown very thickly on it. A thin sheet of water is immediately brought over it, either by a led stream, or the chain-pump. Thus a seed-bed or nursery is prepared, and, in the meantime, the remainder of the tract is preparing for being planted. When the plants are six or seven inches high, they are transplanted in furrows made by the plough, so as to stand about a foot apart every way; water is then brought over them, and kept on till the crop begins to ripen, when it is withheld; so that when harvest arrives the field is quite dry. It is reaped with a sickle, threshed with a flail or the treading of cattle, and the husk taken off by beating it in a stone mortar, or passing it between two flat stones, as in a common meal mill. The first crop being cut in May, a second is immediately prepared for by burning the stubble, and this second crop ripens in October or November. After removal, the stubble is ploughed in, which is the only vegetable manure such lands can be said to receive from man. In Japan, Ceylon, and Java, according to Thunberg, Davis, and Raffles, aquatic rice is cultivated nearly in the same manner. Mountain-rice is grown much in the same way as our barley.

In Lombardy and Savoy rice is sown on rich lands, the sower often wading to the knees in water: one crop a year only is obtained; but four crops are often taken in succession. In America a similar practice obtains

In Westphalia, and some other parts of the south of Germany, rice has long been cultivated; there it is sown on lands that admit of irrigation; but the water is not admitted till the seed has germinated, and it is withdrawn, as in Italy, when the crop comes into flower. From long culture in a comparatively cold country, the German rice has acquired a remarkable degree of hardiness and adaptation to the climate; a circumstance which has frequently been alluded to as an encouragement to the acclimating of exotics. It is found, Dr. Walker remarks (*Essays on Nat. Hist.*), that rice seeds direct from India will not ripen in Germany at all, and even that Italian or Spanish seeds are much less early and hardy than those ripened on the spot.

In Hungary rice has not been long cultivated: the mountain sort has chiefly been tried, and that in the manner of our barley or summer-wheat.

In England a crop of rice has been obtained near Windsor, on the banks of the Thames.

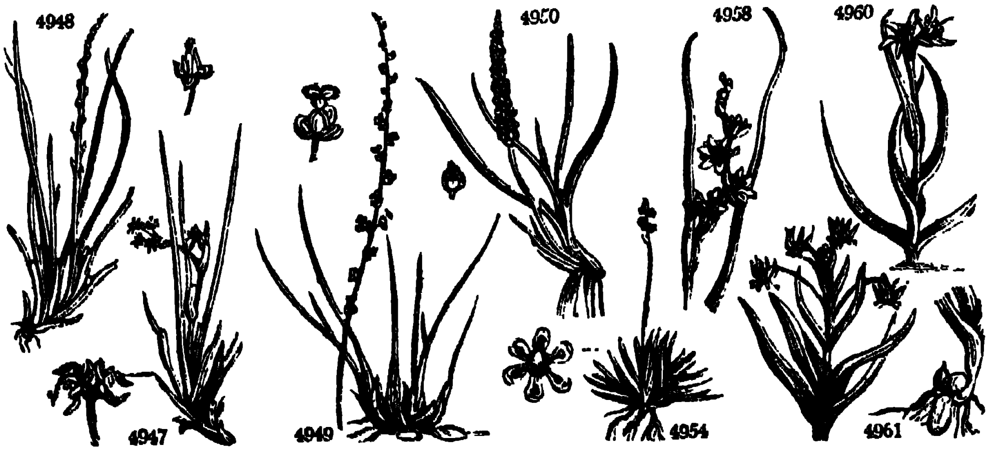
In the stove, or in a hot-bed, rice may be grown in pots of rich soil placed in pans of water, and in August they may be set in the greenhouse, or under any glass roof open at the sides, and they will produce perfect grains.

By far the best imported rice is that from Carolina: it is larger and better tasted than that of India, which is small, meagre, and the grains frequently broken. As an article of diet, rice has been extolled as superior almost to any other vegetable: but, whatever it may be in warmer climates, where it is a common, and to many persons almost their only food, it does not appear so well calculated for European constitutions as the potatoe; for we find that the poor constantly reject the use of rice when potatoes are to be had; and whilst these can be obtained, we may venture to predict, that rice will always be considered in this country, rather as a dainty, to be eaten with sweet condiments, spices, fruit, &c. than as ordinary food. (*Willich's Family Cyclopædia.*)

838. *Atraphaxis.* A name given by the Greeks to the Atriplex of the Latins; derived from α, privative, and τραφειν, to nourish; that is to say, a plant yielding no nourishment. Cuttings root freely in sand under a glass; but the plants are of neither beauty nor curiosity.

TRIGYNIA.

839. **FLAGELLA'RIA.** *W.* FLAGELLARIA.						*Junceæ ?*	*Sp.* 1.					
4946 indica *W.*	Indian	♣	☐	cu	7	jn.jl	W	India	1782.	Sk	p.l	Red. lil. 257
840. **SCHEUCHZE'RIA.** *W.* SCHEUCHZERIA.						*Alismaceæ.*	*Sp.* 1.					
4947 palústris *W.*	marsh	£	△	cu	½	my.jn	Br	England	sp. bo.	S	m.s	Eng. bot. 1801
841. **TRIGLO'CHIN.** *W.* ARROW GRASS.						*Alismaceæ.*	*Sp.* 3—.					
4948 palústre *W.*	marsh	£	△	ec	1	jl.au	G	Britain	wa.me.	S	m.s	Eng. bot. 366
4949 bulbósum *B. M.*	bulbous-rooted	♉	⌊△⌋	cu	1	o	Pu	C. G. H.	1806.	S	s.p	Bot. mag. 1445
4950 marítimum *W.*	sea	£	△	ec	1	my.au	G	Britain	sal. m.	S	m.s	Eng. bot. 255
842. **LICHTENSTEI'NIA.** *W.* LICHTENSTEINIA.						*Melanthaceæ.*	*Sp.* 1.					
4951 lævigáta *W.*	smooth	£	⌊△⌋	pr	1	...	B	C. G. H.	1824.	S	s.l	Bot. mag. 994
843. **MYRSIPHYL'LUM.** *W. en.* MYRSIPHYLLUM.						*Smilaceæ.*	*Sp.* 2.					
4952 asparagoídes *W. en.*	broad-leaved	≸	⌊△⌋	cu	6	mr.o	G.w	C. G. H.	1702.	R	s.p	Her. lugd. t. 681
4953 angustifólium *W.*	narrow-leaved	≸	⌊△⌋	cu	6	mr.d	G w	C. G. H.	1752.	R	s.p	Til. p. 17. t. 12. f. 2
844. **TOFIEL'DIA.** *Hud.* TOFIELDIA.						*Melanthaceæ.*	*Sp.* 2—7.					
4954 alpina *Smith*	Scotch	£	△	cu	½	jl.au	G	Britain	bgs. m.	S	m.s	Eng. bot 536
4955 pubéscens *Mich.*	downy	£	△	cu	¼	ap.my	W	N. Amer.	1790.	S	m.s	Pl. ma. t. 342. f. 3
845. **MELANTHIUM.** *L.* MELANTHIUM.						*Melanthaceæ.*	*Sp.* 6—12.					
4956 púmilum *W.*	dwarf	£	⌊△⌋	cu	½	my.jn	W	C. G. H.	1800.	O	s.l	
4957 gramíneum *Cav.*	grassy	£	⌊△⌋	cu	1	my.jn	W	Mogador	1823.	O	s.l	Cav. ic. t. 587. f. 1
4958 júnceum *W.*	Rush-leaved	£	⌊△⌋	cu	½	jn.n	Pk	C. G. H.	1788.	O	s.p	Bot. mag. 558
4959 secúndum *W.*	side-flowering	£	⌊△⌋	cu	1	jn.n	W	C. G. H.	1812.	O	s.p	La. ill. t. 259. f. 2
4960 uniflórum *W.*	yellow	£	⌊△⌋	cu	¾	jn.jl	L.Y	C. G. H.	1787.	O	s.p	Bot. mag. 767
4961 viride *W.*	branching	£	⌊△⌋	cu	½	o n	G	C. G. H.	1788.	O	s p	Bot. mag. 994
846. **MEDE'OLA.** *W. en.* MEDEOLA.						*Smilaceæ.*	*Sp.* 1.					
4962 virgínica *W.*	Indian Cucum	£	△	cu	¾	jn	Y.G	Virginia	1759.	R	s.p	Bot. mag. 1316
847. **XEROPHYL'LUM.** *Mich.* XEROPHYLLUM.						*Melanthaceæ.*	*Sp.* 1.					
4963 setifólium *W.*	bristle-leaved	♉		cu	2	my.jn	W	N. Amer.	1823.	R	s.p	Bot. mag. 748
848. **WURMBE'A.** *L.* WURMBEA.						*Melanthaceæ.*	*Sp.* 3.					
4964 longiflóra *W.*	bell-flowered	£	⌊△⌋	cu	¾	my jn	W	C. G. H.	1788.	O	s.l	Bot. mag 1291
4965 spicáta *B. M.*	spiked	£	⌊△⌋	cu		my jn	Pu	C. G. H.	1788	O	s l	Bot. mag 694
4966 capénsis *W.*	spotted-flower.	£	⌊△⌋	cu	¾	my jn	Br.Y	C. G. H.	1768.	O	s p	
849. **ANDROCYM'BIUM.** *W.* ANDROCYMBIUM.						*Melanthaceæ.*	*Sp.* 1.					
4967 eucomóides *W.*	dwarf	£	⌊△⌋	cu	¾	mr my	G	C. G. H.	1794.	O	s p	Bot. mag. 641
850. **TRIL'LIUM.** *W.* TRILLIUM.						*Melanthaceæ.*	*Sp.* 9—10.					
4968 séssile *W.*	sessile-leaved	⁂	△	or	½	ap.my	Br	N. Amer.	1759.	R	s.p	Bot. mag. 40
4969 petiolátum *Ph.*	Plantain-leaved	⁂	△	or	½	ap.my	Br	N. Amer.	1811.	R	s p	
4970 erythrocárpum *Mi.*	painted-flower	⁂	△	or	½	my.ju	W	N. Amer.	1811.	R	s.p	Bot. mag. 3002
4971 ovátum *Ph.*	purple-flower.	⁂	△	or	½	my jn	P.Pu	N. Amer.	1812.	R	s.p	
4972 púmilum *Ph.*	dwarf	⁂	△	or	½	my.jn	R	Carolina	1812.	R	s.p	
4973 cérnuum *W.*	drooping-flow.	⁂	△	or	1½	ap my	W	N. Amer.	1758.	R	s.p	Bot. mag. 954
4974 eréctum *W.*	stinking	⁂	△	or	½	ap my	Br	N. Amer.	1759.	R	s.p	Bot. mag. 470
β *album*	*white-flowered*	⁂	△	or	½	ap my	W	N. Amer.	...	R	s.p	Bot. mag. 1027
4975 péndulum *Ph.*	pendulous	⁂	△	or	½	ap.my	W	N. Amer.	1805.	R	s p	W. ho. b. 1. t. 35
4976 grandiflórum *Ph.*	large-flowered	⁂	△	or	½	ap.jn	W	N. Amer.	1799.	R	s.p	Par. lond. 1



History, Use, Propagation, Culture.

839. *Flagellaria.* From *flagellum*, a thong, in allusion to the length, toughness, and slenderness of its shoots.

840. *Scheuchzeria.* So named by Linnæus, in memory of the two brothers, John James Scheuchzer, professor of mathematics at Zurich, author of Itinera Alpina; and John, professor of physic at Zurich, author of a famous Treatise on Grasses. A curious little marsh plant.

841. *Triglochin.* From τρεις, three, and γλωχις, a point, in allusion to the three angles of the capsule. All domestic cattle are fond of the hardy species, which afford an early bite on the sides of Highland mountains, and are greedily eaten where they occur in salt marshes.

842. *Lichtensteinia.* Named after M. Von Lichtenstein, a Prussian traveller at the Cape of Good Hope.

843. *Myrsiphyllum.* From μυρσίνη, a myrtle, and φυλλον, a leaf, in allusion to the resemblance between the leaves of the species and those of myrtle.

844. *Tofieldia.* Named by Hudson, after a Mr. Tofield, a country gentleman living near Doncaster.

TRIGYNIA.

4946 A shrub with distichous branches, Leaves cirrhous at end

4947 A rushy aquatic plant

4948 Capsules 3-celled linear
4949 Capsules 3-celled smooth linear narrowed at end
4950 Capsules 6-celled ovate

4951 The only species, Sepals very narrow

4952 Leaves ovate cordate at base oblique
4953 Leaves alternate ovate-lanceolate

4954 Smooth, Flowers clustered in spikes, Sepals obtuse, Capsules oblong
4955 Scape rachis and leaf-stalks downy all over

4956 Leaves lanceolate bearded at base, Stem 3-flowered, Sepals sessile
4957 Stemless, Leaves imbricated grassy, Flowers sessile
4958 Leaves linear subulate, the upper dilated at base, Spike wavy, Sepals with claws
4959 Leaves linear, Spike one-sided, Sepals with claws
4960 Leaves lin. lanc. longer than one-flowered stem, Sepals lanc with claws
4961 Peduncles one-flowered cernuous

4962 Leaves whorled in the middle of stem, in threes at the summit

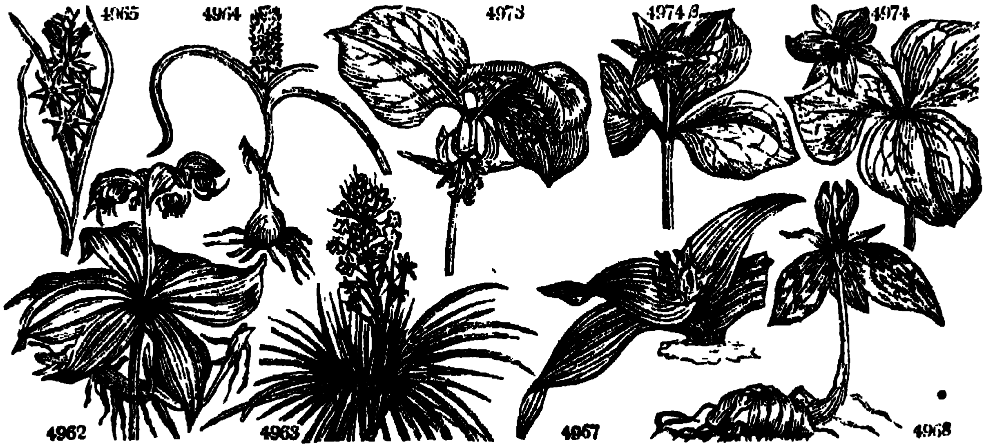
4963 Leaves of the stem setaceous

4964 Spike many-flowered longer than leaves, Tube twice as long as limb
4965 Leaves lanceolate channelled upright, Tube shorter than stellate limb
4966 Leaves lanceolate hooded

4967 Leaves oblong lanceolate cucullate

4968 Flower sessile erect, Petals lanceolate erect twice as long as calyx
4969 Flower sessile erect, Petals linear lanceolate erect a little longer than calyx
4970 Stalk of flower nearly erect, Petals oval-lanceolate acute recurved about twice as long as narrow calyx
4971 Stalk of flower erect, Petals oblong acute spreading a little longer than calyx
4972 Stalk of flower erect, Petals scarcely longer than calyx, Leaves oval oblong obtuse sessile
4973 Stalk of flower recurved, Petals lanceolate acuminate flat reflexed the length and breadth of calyx
4974 Stalk of flower inclining, Flower nodding, Petals scarcely longer but much broader than calyx

4975 Flower pendulous, Petals ovate with a short point, Leaves rounded rhomboid acuminate subsessile
4976 Flower cernuous, Petals spatulate-lanceolate erect at base much longer than calyx



and Miscellaneous Particulars.

845. *Melanthium.* A name applied by the Greeks to the Nigella of the Latins. What resemblance the modern plant bears to the ancient has not been stated.

846. *Medeola.* A name in remembrance of Medea, the famous sorceress, given to this plant on account of supposed powerful effects in medicine, but which it is now thought not to possess.

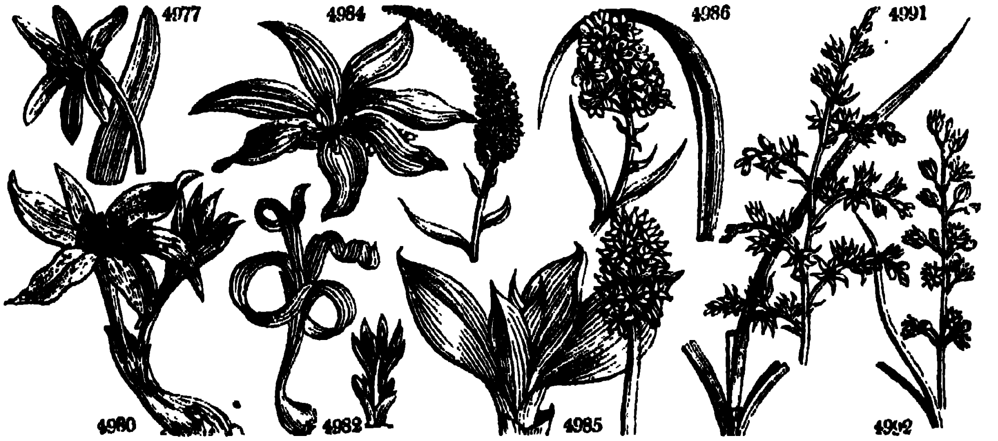
847. *Xerophyllum.* From ξηρος, dry, and φυλλον, a leaf: its leaves appear as if withered. An American plant with a long spike of white flowers, resembling Helonias.

848. *Wurmbea.* So called by Thunberg, in gratitude for services rendered him at Batavia by one Wurmb, a Dutch agent there. Jussieu considers this not generically distinct from Melanthium.

849. *Androcymbium.* From ανηρ ανδρος, a man, or, in botanical language, a stamen, and κυμβῖον, a little boat, in allusion to the peculiar conformation of the stamens and their appendages.

850. *Trillium.* From *trilix*, triple; the calyx has three sepals, the corolla 3 petals, the pistil 3 styles, and the stem 3 leaves. These are curious little plants, somewhat difficult to keep. Sweet says they do best on a bed of peat, and may be increased, though slowly, by the division of the root or by seeds

851. COL'CHICUM. *W.*	Meadow-Saffron.					*Melanthaceæ.*	*Sp.* 7.					
4977 autumnále *W.*	common	♉	△	m	¼	s.o	Pu	Britain	mead.	O	s.p	Eng. bot. 133
β album	*white-flowered*	♉	△	m	¼	s.o	W	Britain	mead.	O	s.p	
4978 arenárium *W. en.*	sand	♉	△	or	¼	s.o	Pu	Hungary	1816.	O	s.p	Pl. rar. h. 2.t.179
4979 byzántinum *B. M.*	broad-leaved	♉	△	or	¼	s.o	Pu	Levant	1629.	O	s.p	Bot. mag. 1122
4980 variegátum *L.*	chequer-flower.	♉	△	or	¼	au.o	Pu	Greece	1629.	O	p.l	Bot. mag. 1028
4981 umbrósum *Fisch.*	Crim	♉	△	or	¼	au.o	Pk	Crimea	1819.	O	p.l	Bot. reg. 541
4982 versicolor *Ker.*	changeable	♉	△	or	¼	au	Pu	Crimea	1820.	O	p.l	Bot reg. 571
4983 montánum *L.*	mountain	♉	△	or	¼	au	Pu	S. Europe	...	O	p.l	All. p. 1. t. 74. f.2
852. HELO'NIAS. *L.*	Helonias.					*Melanthaceæ.*	*Sp.* 8.					
4984 lútea *B. M.*	spiked-flower.	♃	△	or	2	jl.au	Y	N. Amer.	1759.	R	s.p	Bot. mag. 1062
4985 bulláta *W.*	spear-leaved	♃	△	or	1	ap.my	Pu	N. Amer.	1758.	R	s.p	Bot. mag. 747
4986 læ'ta *B. M.*	channel-leaved	♃	△	or	¾	jn	W	N. Amer.	1770.	R	s.p	Bot. mag. 803
4987 glabérrima *B. M.*	smooth	♃	△	or	1	my.jn	Y	N. Amer.	1811.	R	s.p	Bot. mag. 1680
4988 bracteáta *B. M.*	large-bracted	♃	△	or	1½	my.jn	G	N. Amer.	1811.	R	s.p	Bot. mag. 1703
4989 ténax *Ph.*	tough-leaved	♃	△	or	1½	...	W	N. Amer.	1811.	R	s.p	Ph. amer. 1. t. 9
4990 angustifólia *Mich.*	narrow-leaved	♃	△	or	1	my.jn	W	N. Amer.	1823.	R	s.p	
4991 graminea *B. M.*	panicled	♃	△	or	2	my.jn	W	N. Amer.	1812.	R	s.p	Bot. mag. 1599
853. NOLI'NA. *Mich.*	Nolina.					*Melanthaceæ.*	*Sp.* 1.					
4992 georgiána *M.*	Georgian	♉	△	or	2½	jl.au	W	Georgia	1812.	R	s.p	Pl. ma. t. 342. f.1
854. APONOGE'TON. *W.*	Aponogeton.					*Fluviales.*	*Sp.* 3.					
4993 monostáchyon *W.*	simple-spiked	♒	[△]	cu	½	au.o	Pk	E. Indies	1803.	O	p.l	Bot. rep. 406
4994 distáchyon *W.*	broad-leaved	♒	⌊△⌋	cu	½	my.jl	W	C. G. H.	1788.	O	p.l	Bot. mag. 1293
4995 angustifólium *W.*	narrow-leaved	♒	⌊△⌋	cu	½	ap.s	W	C. G. H.	1788.	O	p.l	Bot. mag 1268
855. SABAL. *P. S.*	Sabal.					*Palmæ.*	*Sp.* 1.					
4996 Adansóni *B. M.*	Adanson's	⚲	[△]	or	6	jn.au	G	Florida	1810.	S	s.l	Bot. mag 1434
856. RU'MEX. *W.*	Dock.					*Polygoneæ.*	*Sp.* 37—79.					
4997 Patiéntia *W.*	Patience	✱	△	cul	4	jn.jl	G	Italy	1573.	R	co	Blackw. h. t. 489
4998 sanguineus *W.*	bloody-veined	✱	△	cul	3	jn.jl	G	England	sha pl.		co	Eng. bot. 1533
4999 crispus *W.*	curled	✱	△	m	2	jn.jl	G	Britain	rubble.		co	Eng bot. 1998
5000 Británnica *W.*	Virginian	✱	△	m	2	jn jl	G	N Amer.	...		co	Plu.alm.t.354.f.1
5001 persicarioides *W.*	Persicaria-like		○	cu	2	jn.jl	G	N. Amer.	1773.	S	co	
5002 ægyptiacus *W.*	Egyptian		○	cu	1½	jn.jl	G	Egypt	1734.	S	co	Till. pis. t.37. f.1
5003 dentátus *W.*	dentated		○	cu	¾	jl.au	G	Egypt	1732.	S	co	Di.el. t.158. f.191
5004 marítimus *W.*	golden	✱	△	w	1	jl.au	G	Britain	salt ma.	R	co	Eng bot. 725
5005 palústris *Sm.*	yellow-marsh	✱	△	w	2	jl.au	G	England	mar.	R	co	Eng. bot 1932
5006 divaricátus *W.*	spreading		○	w	2	jl.au	G	Italy	1793.	S	co	Til. pis. t. 37. f. 2
5007 acútus *W.*	sharp	✱	△	dy	2	jn.jl	G	Britain	wat.pl.	R	co	Eng bot. 724
5008 obtusifólius *W.*	broad-leaved	✱	△	w	3	jn.au	G	Britain	rubble.	R	co	Eng bot. 1999
5009 púlcher *W.*	Fiddle	✱	△	w	2	jn.au	G	Britain	gra.pa.	R	co	Eng. bot. 1576
5010 confértus *W.*	close-headed	✱	△	cu	4	jn.jl	G	......	1796	R	co	
5011 nemorósus *Schr.*	wood	✱	△	cu	2	jl	G	Germany	...	R	co	
5012 condylódes *Bieb.*	whole-colored		○	cu	3	jl	G	Caucasus		S	co	
5013 brasiliénsis *Lk.*	Brazilian	⚵	△	cu	1½	my	G	Brazil	1822.	R	co	



History, Use, Propagation, Culture,

851. ***Colchicum.*** From Colchis, saith Dioscorides, where this plant grows in abundance; but it is probable that the term Colchicum was applied to all poisonous plants, among which this certainly held no inconsiderable place. The economy of this plant in regard to its bulbs, flowers, and seeds, is singular, and may be classed with other anomalies found in Crocus, &c. The bulb, which in C. autumnale is about the shape and size of that of a tulip, is formed in the following manner: —

From the permanent, striated, dilated tuber of the old root, sinuated on one side, and clothed with the coats of the preceding root-leaves, a new plant springs, which is tuberous at the base, throws out fibres at bottom like other bulbs, and is received into the bosom of the former tuber, which embraces it half round. This has an outer radical spathe, which is cylindric and tubular, cloven at top on one side, and half under ground. From two to six flowers half emerge from this spathe without leaves. In the mean time the fruits, much later than the flowers, sit on the stem rising out of the spathe. As the plant advances the new tuber increases, the old one, deprived of its nutriment, perishes, and at the same time the former pushes forth from its base the germ of a succeeding plant. There are commonly two lateral germs from the same tuber; one lower, just described, bearing the flower and seed; the other superior, caulescent like the former, but more slender, and scarcely floriferous.

The flowers, which arise with long slender tubes from the root, die off in the end of October, without leaving any external appearance of seeds. These lie buried all the winter within the bulb; in spring they grow up on a fruit-stalk, and are ripe about the time of hay-harvest. May not the very great length of the styles account in some measure for the delay in the ripening of the seeds? As this plant blossoms late in the year, and probably would not have time to ripen its seeds before winter, Providence has contrived its structure such, that it may be performed at a depth within the earth, out of the reach of the usual effects of frost; and as seeds buried at such a depth are known not to vegetate, a no less admirable provision is made to raise them above the surface when they are perfected, and to sow them at a proper season.

4977 Leaves flat lanceolate erect

4978 Leaves linear channelled erect, Styles shorter than flower
4979 Leaves 5 ovate-oblong very broad, Flowers very numerous
4980 Leaves wavy spreading
4981 Two or many-flowered, Sepals linear oblong obtuse, Leaves small oval grassy-green
4982 Leaves 4 glaucous spiral, Flowers small very dwarf, Style one
4983 Leaves appearing with flower linear much spreading

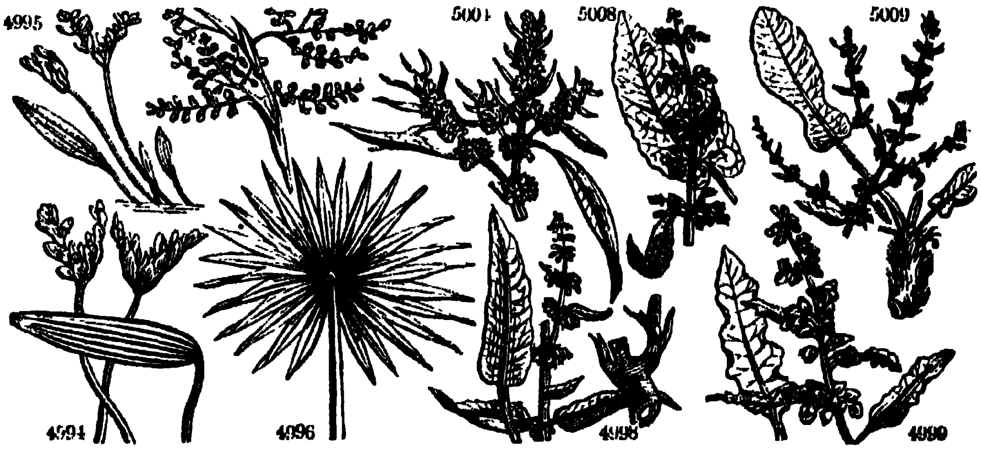
4984 Scape leafy, Leaves oblong lanceolate, Flowers diœcious
4985 Leaves lanceolate ensiform nerved, Bractes linear-lanceolate
4986 Scape leafy, Raceme oblong, Bractes short oblong, Leaves smooth lanceolate linear
4987 Leaves channelled nerved, Segments of flower broad ovate with a transverse nectary at base
4988 Root horizontal, Leaves lanc. erect, Bractes longer than flower, Nectaries distinct
4989 Scape leafy, Raceme showy lax, Bractes membranous, Leaves subulate setaceous very long
4990 Raceme oblong lax, Leaves very long and narrow, Caps. oblong
4991 Leaves grassy, Panicle loose, Segments of flower ovate acute

4992 Leaves very long narrow dry, Flowers racemose

4993 Leaves oval, Spike one cylindrical
4994 Spike bifid, Leaves linear oblong floating, Bractes entire
4995 Spike bifid, Leaves linear lanc. erect, Bractes bipartite

4096 The only species

§ 1. *Hermaphrodite. Valves marked with a grain.*
4997 Valves cordate entire: one grained, Leaves ovate lanceolate
4998 Valves entire: one grained, Leaves cordate lanceolate
4999 Valves entire all grained, Leaves lanceolate wavy acute
5000 Valves ovate entire veinless all grained, Fruit-stalks pendulous, Leaves lanceolate
5001 Valves toothed all grained, Leaves lanceolate
5002 Valves trifid setaceous: one grained
5003 Valves toothed all grained, Leaves lanceolate
5004 Valves toothed grained, Leaves linear
5005 Valves lanceolate grained toothed at base, Leaves linear lanc. Whorls distant
5006 Valves toothed all grained, Leaves cordate-oblong obtuse pubescent
5007 Valves toothed all grained, Leaves cordate-oblong acuminate
5008 Valves toothed all grained, Leaves cordate oblong obtuse crenate
5009 Valves toothed: one grained, Radical leaves panduriform
5010 Valves rounded cordate repand: one grained, Leaves cordate oblong wavy at edge
5011 Valves oblong obtuse entire: one grained, Leaves lanceolate
5012 Valves entire lanceol. one grained, Leaves cordate lanceolate
5013 Valves entire lanceolate acute grained, Upper leaves linear-lanceolate



and Miscellaneous Particulars.

There are a few varieties of common Colchicum cultivated by florists; *viz.* the white, striped-flowered, striped-leaved, broad-leaved, many-flowered, and double-flowered. No cattle are said to eat it; though it is remarkably abundant in the meadows of the Italian Alps, and the leaves must certainly be frequently made into hay.

C. autumnale, as a medicine, has been known since the days of Hippocrates. It possesses diuretic, purgative, and narcotic properties: and on the continent, where it was recommended to notice by Baron Stoerck, it is a favorite remedy in dropsy, particularly hydrothorax, and in humoral asthma. But as it does not differ in its mode of action from squill, and is more uncertain in its operation, it has not been much used in that complaint in this country. In gout and rheumatism, however, its efficacy has been fully ascertained: and in allaying the pain it may be almost said to possess a specific property. It operates on the bowels chiefly, and the nerves, diminishing the action of the arterial system. (*Thomson's Mat Med.* 257.)

All the species are ornamental as border-flowers, and may be blown in water-glasses.

852. *Helonias.* Derived from ἑλος, a marsh. Some of the species grow in bogs in N. America. These plants delight in a moist situation and peat soil: they increase slowly by dividing at the root or by seeds.

853. *Nolina.* Named after an American botanist of French extraction, called P. C. Nolin. This plant is best grown in pots, as it requires protection during winter.

854. *Aponogeton.* A name of the same meaning as Potamogeton (see that genus), of which it is probably an incomplete anagram. These plants are bulbous aquatics, and grow freely in loam and peat plunged in a cistern of water. They are very pretty ornaments of the aquarium.

855. *Sabal.* A name employed by Adanson. It is supposed to have no meaning.

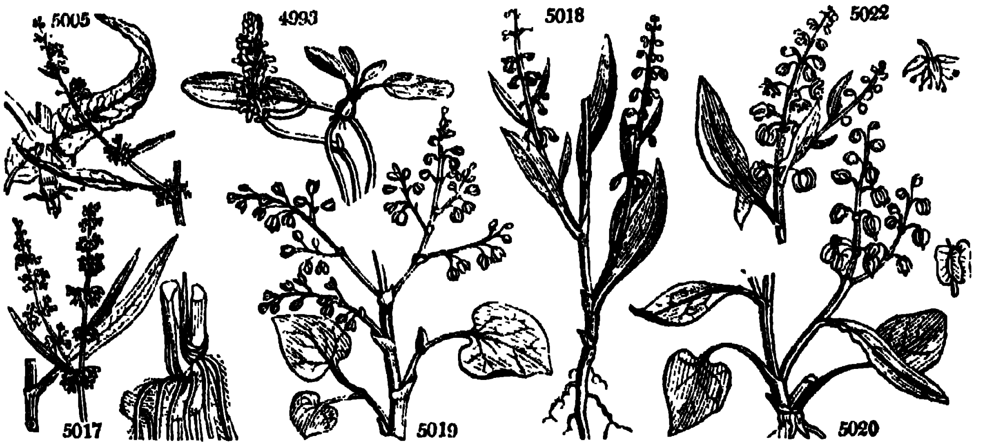
856. *Rumex.* A name given by the Latins to a root of thorn.

R. patientia (so called from the slowness of its operation as a medicine) and sanguineus, were formerly

5014 purpúreus *Lk.*	purple	✱	△	w	4	jl	G	......	...	R	co	
5015 stríctus *Lk.*	upright	✱	△	w	2	jn.jl	G	......	1823.	R	co	
5016 ucránicus *Horn.*	Ukraine		○	cu	2	jn	G	Ukraine	1822.	S	co	
5017 aquáticus *H. K.*	great-water	✱	△	w	5	jl.au	G	Britain	riv.ba.	R	co	Eng. bot. 2104
5018 bucephalóphorus *W.*	Basil-leaved	.	○	cu	1	jn	G	Italy	1683.	S	co	Cav. ic.1. t.41. f 1
5019 Lunária *W.*	tree	✱	⊔	cu	2	jn.jl	G	Canaries	1698.	C	s.l	Plu.alm t.252.f.3
5020 vesicárius *L.*	bladder		○	cu	2	jl.au	G	Africa	1656.	S	co	Moris.s.5.t.28 f.7
5021 róseus *W.*	rose		○	cu	1	jl.au	G	Egypt	1737.	S	co	Fl. græc. 346
5022 tingitánus *W.*	Tangier	✱	△	cu	1½	jn au	G	Barbary	1680.	R	co	Zanon.hist.9. t.6
5023 scutátus *W.*	French-sorrel	¥	△	cul	1½	jn jl	G	France	1596.	R	co	Mor.ox.5.t.28.f 9
5024 sarcorhízus *Lk.*	fleshy-rooted	✱	⊔△	cu	1	jl	G	C. G. H.	1824.	C	co	
5025 hastifólius *Bieb.*	spear-leaved	¥	△	cu	1½	au	G	Crimea	1823.	R	co	
5026 alpínus *W*	Alpine	✱	△	m	1	jn.jl	G	France	1597.	R	l.p	Zorn. ic. 261
5027 aculeátus *W*	small-prickly	¥	△	cu	1	jl	G	Candia	...	R	co	Bauh.prodr. t.55
5028 spinósus *W.*	large-prickly		○	cu	2	jn.jl	G	Candia	1656.	S	co	Fl. græc. 347
5029 gigantéus *H K*	tall	¥	⊔△	cu	6	jn au	G	Sandw. Is.	1796.	R	co	
5030 tuberósus *W.*	tuberous-root.	✱	△	cu	1½	jn au	G	Italy	1752.	R	co	Fl. græc. 348
5031 acetósa *W.*	common-sorrel	✱	△	cul	2	jn jl	G	Britain	me.pa.	R	co	Eng. bot. 127
5032 acetosélla *W.*	Sheep's-sorrel	✱	△	w	1	my.jl	G	Britain	gra pa.	R	co	Eng. bot. 1674
5033 arifólius *W.*	halberd-leaved	✱	⊔	cu	1½	ap.d	G	Africa	1775.	C	s.l	Jac. vind. 3. t. 93
857. OXY'RIA *Dec.*	MOUNTAIN SORREL.					*Polygoneæ.*		*Sp.* 1.				
5034 ácida *R. Br.*	common	✱	△	cu	½	jn.jl	G	Britain	alp.pa.	R	p.l	Eng. bot. 910

POLYGYNIA.

858. WENDLAN'DIA. *W.*	WENDLANDIA.					*Menispermeæ.*		*Sp.* 1				
5035 populifólia *W.*	Poplar-leaved	✱	⊔	or	6	jn.jl	W	Florida	1759.	C	co	Dil.el.t.178 f.219
859. DAMASO'NIUM. *W.*	DAMASONIUM.					*Hydrocharideæ.*		*Sp.* 1—2				
5036 índicum *W.*	Indian	✱	[△]	or	1	jl.s	W	E. Indies	1800.	S	aq	Bot. mag. 1201
860. ACTINOCAR'PUS. *R. Br.*	ACTINOCARPUS.					*Alismaceæ.*		*Sp.* 2—4.				
5037 mínor *R Br.*	small	✱	⊔△	or	½	my au	W	N. S. W.	...	S	s.l	
5038 Damasónium *R. Br.*	common	✱	△	or	½	jn.au	W	England	dit.	S	m.s	Eng. bot 1615
861. ALIS'MA. *W.*	WATER PLANTAIN.					*Alismaceæ.*		*Sp.* 5—9.				
5039 Plantágo *W.*	greater	✱	△	or	1½	jn.jl	Pu	Britain	pools.	aq	r.m	Eng. bot. 837
5040 lanceoláta *With.*	spear-leaved	✱	△	or	1½	jn jl	Pu	Britain	pools.	aq	c.l	Pet.en.pl t.43.f 7
5041 triviális *Ph.*	blunt-leaved	✱	△	or	1½	jn jl	W	N. Amer.	1816.	aq	c.l	
5042 nátans *W.*	floating	✱	△	or	½	jl.au	W	Wales	al.lak.	aq	r.m	Eng. bot. 775
5043 ranunculoídes *W.*	lesser	✱	△	or	½	au	Pu	Britain	tur.bo.	aq	p	Eng. bot. 326



History, Use, Propagation, Culture,

used as spinage plants. The former is still used on the continent, and mashed with a small proportion of R. acetosa or scutata, makes a very good spinage.

R crispus has a fusiform yellow root, which, taken in a recent state, and bruised and made into an ointment or decoction, is said to cure the itch.

R. obtusifolius is a domestic weed of the worst description: it is found in every country of Europe, but almost confined to cultivated grounds or rubbish, rick-yards, neglected gardens, and places used as retiring grounds by men or cattle. It is never found on poor or wet-bottomed land. It is refused by cattle; but the leaves were formerly used for wrapping round butter and cream-cheese; and the roots, along with those of R. acutus, by the dyers. In powder, the roots of most docks are said to be one of the best articles for cleaning the teeth. The leaves of all of them are considered laxative rather than otherwise.

R. acetosa has been long cultivated in gardens for its leaves as spinage and salad; but R. scutatus is much more delicate. The Laplanders use the leaves of the R. acetosa to turn their milk sour: in Ireland they are eaten with fish and other alkalescent food. The root is powerfully astringent, and considered antiscorbutic: dried and boiled it gives out a beautiful red color. All domestic cattle eat this and most other species of the genus.

R. acetosella, where it abounds naturally, is a certain indication of dry, poor, gravelly, irony soil.

R. alpinus, monk's or bastard rhubarb, was formerly used as true rhubarb, but in larger doses.

The different species of Rumex attract the cultivator's attention as weeds more powerfully than as culinary, medicinal, or dying plants. The sorts vulgarly known as docks produce a large quantity of seeds, and ripen them rapidly and perfectly. Fortunately they are heavy, and are not carried to a great distance from the parent; but almost every one grows, and once a year old they are tedious and expensive to eradicate. The first season they may be destroyed by hoeing; but when the tap-root is established, unless it be wholly eradicated by the weeding, or dock-hook, or spade, the ground cannot be considered as cleared. Any part of the

5014 Valves veiny toothed grained, Lower leaves cordate oblong, upper oval, all with colored veins
5015 Valves toothed one grained, Leaves ovate lanceolate repand entire
5016 Like *R. persicarioides* but differing in having auricled leaves and longer teeth to the valves

§ 2. *Hermaphrodite. Valves naked.*

5017 Valves entire, Leaves cordate smooth acute
5018 Valves toothed, Flower-stalks flat reflexed thickened
5019 Valves smooth, Stem shrubby, Leaves cordate
5020 Flowers in pairs, All the valves very large membranous reflexed, Leaves undivided
5021 Flowers distinct, Wing of one valve very large membranous veiny, Leaves eroded
5022 Flowers distinct, Valves cordate obtuse entire, Leaves hastate-ovate
5023 Leaves cordate hastate
5024 Stem shrubby, Root tuberous, Leaves roundish running down into the stalk
5025 Valves entire reniform, Leaves hastate, Middle lobe cordate, Stem much branched diffuse

§ 3. *Flowers diœcious.*

5026 Valves entire naked, Leaves cordate obtuse rugose
5027 Leaves lanceolate stalked, Fruit reflexed, Valves fringed
5028 Female calyx 1-leaved, Outer valves reflexed hooked
5029 Flowers monœcious, Valves naked, Leaves oblong ovate
5030 Leaves lanceolate sagittate, Lobes spreading
5031 Leaves oblong sagittate
5032 Leaves lanceolate hastate
5033 Leaves stalked hastate serrated acute with simple spreading auricles, Valves naked entire

5034 Leaves sagittate reniform

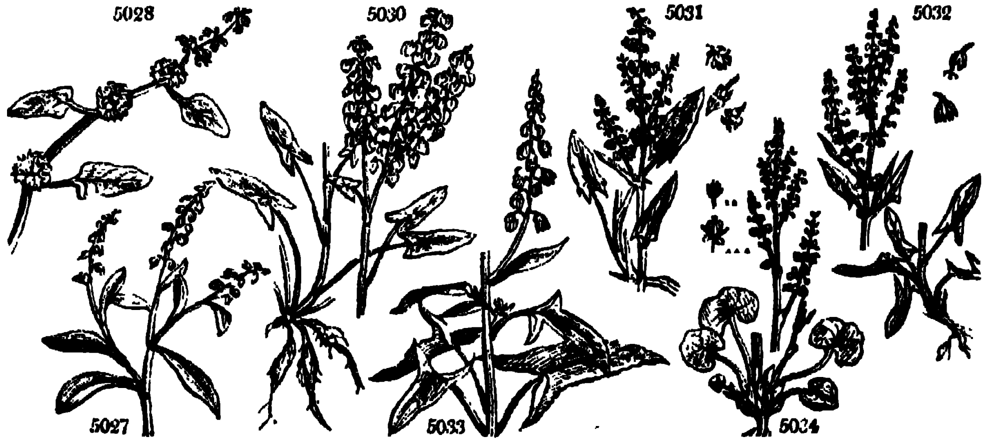
POLYGYNIA.

5035 Leaves alternate stalked cordate ovate with a glandular point

5036 Leaves cordate

5037 Fruit 8-cleft, Leaves 3-nerved
5038 Leaves cordate oblong, Fruit 6-cleft

5039 Leaves ovate acute, Capsules bluntly 3-cornered
5040 Leaves lanceolate
5041 Leaves oval cordate 9-nerved
5042 Leaves elliptical obtuse, Capsules striated
5043 Leaves linear-lanceolate, Capsules 5-cornered incurved



and Miscellaneous Particulars.

root left will generate buds and send them to the surface, and if the plough or spade cut a root into pieces an inch long, each piece will grow, whether near the surface or buried to some depth. The less careful agriculturist often receives dock-seeds with his grass-seeds, brought from the stable-keepers and not properly cleaned: these come up the first year, and establish themselves along with the clover unobserved. The second year they flower, and if the crop is not early cut the seed ripens, and in using the hay is either mixed with the litter of the stable or with the hay-seeds, to be again carried to the field. Such as purchase town-manure cannot avoid receiving dock-seeds; but they may destroy them by fermenting the manure well before using it: others, who desire to get rid and keep clear of this weed, should be most particular in their choice of seeds of every kind, especially of grass-seeds; should weed them out as soon as they can be discovered; and, for such as remain till the second year, they may be pulled by hand when in the flower-stalk, and during or after a day's rain. (See *Encyc. Agr.* art. *Peren. Weeds.*)

857. *Oxyria.* From *οξυς*, acid, in allusion to the qualities of its leaves. The plant is one of those singular individuals which has the character of two distinct genera, and yet is referable to neither. Wahlenberg made it a Rheum, Linnæus a Rumex, Mr. Brown what it now is. It was formerly used as a salad.

858. *Wendlandia.* Named in honor of J. C. Wendland, a German botanist. He has published various works upon plants, many of them illustrated with numerous colored figures. This is a climbing plant, referred by Decandolle to Cocculus.

859. *Damasonium.* From *δαμαω*, to take away or diminish. This plant had the reputation of removing the effects of the venom of the sea-dog. Handsome floating aquatics.

860. *Actinocarpus.* From *ακτιν*, a ray, and *καρπος*, fruit, in allusion to the radiate disposition of the little carpella round a common axis. Pretty floating aquatics.

861. *Alisma.* Derived from *alis*, water, in Celtic. Alisma Plantago grows in watery places, and is called water-plantain, from the resemblance between its leaf and that of the common plantain.

Class VII.—HEPTANDRIA. 7 Stamens.

A small class, of which the Parinarium, which is a good tropical fruit, and the valuable Horse-chesnut, Æsculus, are the only remarkable genera. The Astranthus is a curious genus of the natural order of Homalineæ.

Order 1. MONOGYNIA. 7 Stamens. 1 Style.

862. *Trientalis.* Cal. 7-leaved. Cor. 7-parted, equal, flat. Berry without juice.
863. *Disandra.* Cal. about 7-parted. Cor. rotate, 7-parted. Caps. 2-celled, many-seeded.
864. *Pisonia.* Cal. campanulate, 5-cleft. Cor. O. Berry 1-celled, 1-seeded.
865 *Petiveria.* Cal. 4-leaved. Cor. O. Style lateral. Stigma pencil-shaped. Seed 1, with four reflexed awns at the end
866 *Æsculus* Cal. 1-leaved, inflated. Cor. 4–5-petaled, unequal, pubescent, inserted in the calyx. Caps. 3-celled. Seeds large, chesnut-like.
867 *Jonesia.* Cal. 2-leaved. Cor. funnel-shaped, with a closed fleshy tube and 4-cleft limb. Nectary, a ring inserted in the throat of the tube. A Legumen

MONOGYNIA.

862. TRIENTA'LIS. *W.*	Winter-Green					*Primulaceæ.*		*Sp* 2.				
5044 europæ'a *W.*	oval-leaved	⚘	△	cu	¦	my.jn	W	Britain	m. wo.	R	s p	Eng. bot. 15
5045 americána *Ph.*	spear-leaved	⚘	△	cu	¦	jl au	W	N. Amer.	1816.	R	s.p	
863. DISANDRA. *W.*	Disandra.					*Scrophularineæ.*		*Sp.* 1.				
5046 prostráta *W.*	trailing	⚘	△	or	¦	my.au	Y	Madeira	1771.	R	p.l	Bot. mag. 218
864. PISO'NIA *W.*	Pisonia.					*Nyctagineæ*		*Sp.* 8. — 12.				
5047 aculeáta *W*	prickly	♠	▢	cu	10	mr.ap	G	Jamaica	1739.	C	p l	Lam. ill. t. 861
5048 frágrans *Lk.*	fragrant	♣	▢	cu	3	...	.	......	1823.	C	p.l	
5049 macrophylla *Lk.*	long-leaved	♣	▢	cu	3	...	...	......	1823.	C	p.l	
5050 nigricans *W.*	black	♣	▢	cu	3	...	G.w	W. Indies	1806.	C	p.l	
5051 obováta *Lk.*	obovate	♣	▢	cu	3	...	...	......	1823.	C	p.l	
5052 mexicána *W.*	Mexican	♣	▢	cu	4	...	...	Mexico	1824.	C	p.l	
5053 nitida *W*	shining	♣	▢	cu	3	...	...	Madagas.	1824.	C	p.l	
5054 grándis *R. Br.*	large	♣	▢	or	12	...	...	N. Holl.	1805.	C	p.l	
865 PETIVE'RIA. *W.*	Petiveria.					*Chenopodeæ.*		*Sp.* 2.				
5055 alliácea *W.*	Garlic-scented	♣	▢	cu	2	jn jl	W	Jamaica	1759.	C	p.l	Tr. ehr. 33. t. 67
5056 octándra *W.*	dwarf	♣	▢	cu	2	jn jl	W	W. Indies	1737.	C	p.l	Pl. ic. 213. t. 219
866. ÆS'CULUS. *W.*	Horse-Chesnut.					*Hippocastaneæ.*		*Sp.* 8.—10.				
5057 Hippocástanum *W.*	common	♠		tn	40	ap my	W	Asia	1629.	S	co	Sch. arb. 1. t. 58
5058 Pávia *W.*	red-flowered	♠		or	20	my.jn	Sc	N. Amer.	1711.	G	s.l	Dend. brit. 120
5059 discolor *Ph.*	dwarf	♣		or	8	my	R	Georgia	1812.	G	s.l	
5060 fláva *W.*	yellow-flowered	♠		or	20	my jn	Y	N. Amer	1764.	G	s.l	Dend. brit. 163
5061 glábra *W. en.*	smooth-leaved	♠		or	12	my jn	G.y	N. Amer.	1812.	G	co	

History, Use, Propagation, Culture,

862. *Trientalis.* From *triens*, the third of a thing; why so named we do not understand. Sir J. E. Smith says, "Few persons have seen the fruit of this plant, and it was most unaccountably mistaken, even by Linnæus and Gærtner. The valves of the ripe capsule become concave externally, convex and polished within, and have been taken for a permanent corolla. But they are opposite to the calyx leaves, which the segments of the corolla are not. The beautiful tunics of the seeds were supposed to be the skin of a dried berry, and are not faithfully represented by Gærtner. (*English Flora*, vol. ii. 208.)

863. *Disandra.* From δυς, difficult, and ανηρ ανδρος, a male, or, in botanical composition, a stamen; that is to say, a plant of which the stamens are subject to vary, and therefore difficult for botanists. A trailing plant with bright yellow flowers.

864. *Pisonia.* So named by Plumier, in honor of William Piso, a physician at Amsterdam, author of the Natural History of Brazil, 1648, fol. P. aculeata is an inelegant tree with round reclining spiny branches, wanting support. It is common in the savannahs and other low places in the island of Jamaica, and in

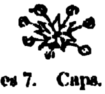
868. *Draconitum* Spathe cymbiform. Spadix covered. Cal. O. Petals 5. A berry.
869. *Calla.* Spathe ovate. Spadix covered. Cal. O. Cor. O. A berry.
870. *Parinarium.* Cal. 5-cleft. Petals 5. Stamens 14, of which 7 are barren. Drupe fleshy cribrose. Nut 2-celled, with 1-seeded cells.

Order 2. DIGYNIA. 7 Stamens. 2 Styles.

871. *Limeum.* Cal. 5-leaved. Petals 5, equal. Caps. globose, 2-celled.

Order 3. TETRAGYNIA. 7 Stamens. 4 Styles.

872. *Saururus.* Cal. a spike of 1-flowered scales. Cor. O. Ovaries 4. Berries 4, 1-seeded.
873. *Astranthus.* Cal. O. Cor. hypocrateriform, with a 14-cleft limb. Seed 1, small, superior.



Order 4. HEPTAGYNIA. 7 Stamens. 7 Styles.

874. *Septas.* Cal. 7-parted. Petals 7. Ovaries 7. Caps. 7, many seeded.

MONOGYNIA

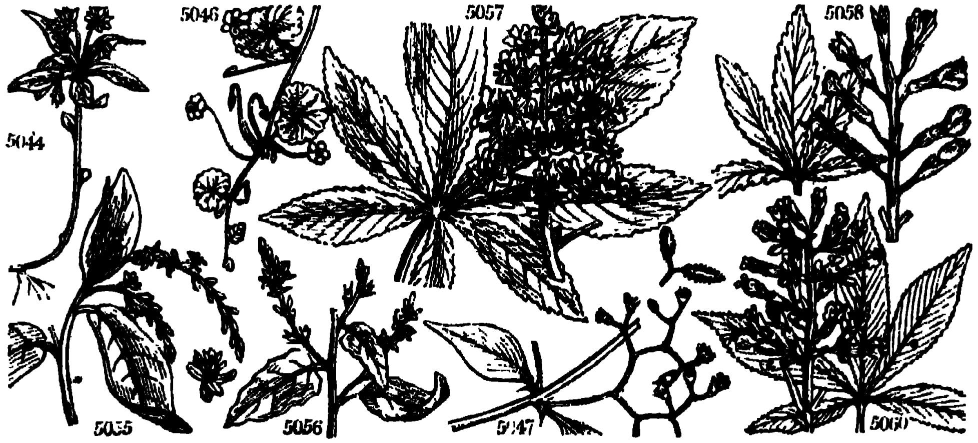
5044 Leaves lanceolate entire
5045 Leaves narrow lanceolate acuminate oblique

5046 Leaves reniform crenate, Flower-stalks in pairs

5047 Spines axillary horizontal, Leaves ovate narrowed at each end, Corymbs axillary
5048 Unarmed, Leaves opposite acuminate narrowed into a short stalk very smooth fleshy
5049 Unarmed, Leaves opposite a little narrowed towards the base entire smooth, Lateral nerves parallel
5050 Unarmed, Leaves ovate acuminate, Flowers cymose erect, Fruit berried
5051 Unarmed, Leaves opposite acute scarcely narrowed at the base entire smooth with parallel nerves
5052 Leaves ovate entire villous, Flowers in umbels
5053 Leaves shining pointed (*Lilac de Madagascar.*)
5054 Leaves oblong acuminate smooth, Cymes compound, Flowers polygamous, Fruit spiny

5055 Flowers hexandrous
5056 Flowers octandrous

5057 Leaves digitate 7, Petals 5 spreading
5058 Leaves quinate smooth unequally toothed, Petals 4 with connivent claws the length of the calyx
5059 Leaves quinate pointed at each end downy beneath unequally toothed, Petals 4
5060 Leaves quinate beneath at the rib pubescent, Petals 4 with connivent claws longer than the calyx
5061 Leaves quinate quite smooth, Petals 4 spreading with claws the length of the calyx, Fruit spiny



and Miscellaneous Particulars.

several other islands in the West Indies, where it is very troublesome to whoever passes, fastening itself by its strong crooked thorns to the clothes; and the seeds being glutinous and burry, also fasten themselves to whatever touches them: so that the wings of the ground-doves and other birds, are often so loaded with the seeds, as to prevent their flying, by which means they become an easy prey.

865. *Petiveria.* So named by Plumier, in honor of James Petiver, apothecary of London, and fellow of the Royal Society, author of Museum, 1695; Gazophylacium, 1702, collected into one volume folio, with many plates. P. alliacea, is common in savannahs and woods in the West Indies, where it is a troublesome weed, and tastes the milk of cows that feed on it. It is so acrid, that on chewing a little, it burns the mouth and leaves the tongue black, dry, and rough, as it appears in a malignant fever. It is thought, however, to be coveted by Guinea-hens, and hence its vulgar name of Guinea-hen weed.

866. *Æsculus,* or *Esculus,* as Pliny writes it. A name which the Latins gave to a tree which furnished them with an esculent nut: that plant was the Quercus Esculus of Linnæus. *Marronier,* Fr., *Marronien-*

5062 *cárnea* *Hort.*	flesh-colored	‡		or	7	jn	Pu	N. Amer.	1823.	G	co	Dend. brit. 121
5063 *pállida* *W. en.*	pale-flowered	‡		or	12	jn	G.y	N. Amer.	1812.	G	co	
5064 *parviflóra* *H. K.*	small-flowered	♣		or	6	jl.au	W	N. Amer.	1786.	L	a.l	
867. JONE'SIA. *W.*	Jonesia.					*Leguminosæ.*		*Sp.* 1.				
5065 pinnáta *W.*	winged-leaved	♀	□	ft	20	...	O	E. Indies	1796.	C	p.l	Rh. mal. 5. t. 59
868 DRACON'TIUM. *W.*	Dragon.					*Aroideæ.*		*Sp.* 3—9.				
5066 polyphýllum *W.*	purple-stalked	£	[Δ]	cu	2	mr.jn	Ap	India	1759.	R	lt.l	Bot. reg. 700
5067 spinósum *W.*	prickly	£	[Δ]	cu	2	ap.my	Ap	Ceylon	1759.	R	lt.l	
5068 pertúsum *W.*	perforated	L	[Δ]	cu	6	ap.jn	Ap	W. Indies	1752.	R	p.l	J. sch. 2. t. 184. 5
869. CAL'LA. *W.*	Calla.					*Aroideæ.*		*Sp.* 3—5.				
5069 æthiópica *W.*	Ethiopian	£	⌊Δ⌋	or	3	ja.my	Ap	C. G. H.	1731.	Sk	r.m	Bot. mag. 832
5070 palústris *W.*	marsh	≛	Δ	cu	½	jl.au	Ap	N. Europe	1768.	D	p	Bot. mag. 1831
5071 aromática *Roxb.*	aromatic	£	⌊Δ⌋	or	2	jl	Ap	China	1813.	D	r.m	Bot. mag. 2279
870 PARINA'RIUM. *Juss*	Parinarium.					*Chrysobalaneæ.*		*Sp.* 2—5.				
5072 excélsum *Sab.*	Guinea Plum	♀	□	fr	60	...	W	S. Leone	1822.	C	l	
5073 macrophýllum *Sab.*	Gingerbr. Tree	♣	□	fr	6	...	W	S. Leone	1822.	C	r.l	

DIGYNIA.

871. LI'MEUM. *W.*	Limeum.					*Portulaceæ.*		*Sp.* 1—4.			
5074 africánum *W.*	African	£	⌊Δ⌋	w	½	jn.jl	W	C. G. H.	1774.	R	s.p

TETRAGYNIA.

872. SAURU'RUS. *W.*	Lizard's-tail.					*Aroideæ.*		*Sp.* 3.				
5075 cérnuus *W.*	drooping	≛	Δ	cu	2	s	Ap	Virginia	1759.	D	s.p	
5076 lúcidus *Jacq.*	shining	≛	Δ	cu	1½	s	Ap	N. Amer.	1791.	D	l	Jacq. ecl. t. 18
5077 chinénsis *Hort.*	Chinese	≛	⊔	cu	1½	...	Ap	China	1819.	D	l	
873 ASTRAN'THUS. *L.*	Astranthus.					*Homalineæ.*		*Sp.* 1—2.				
5078 cochinchinénsis *Lour.*	Cochinchinese	♣	⊔	cu	4	jn jl	W	China	1823.	C	r.m	Bot. mag. 894

HEPTAGYNIA.

874. SEP'TAS.' *W.*	Septas.					*Semperviveæ*		*Sp.* 3.				
5079 capénsis *W.*	Cape	£	⌊Δ⌋	cu	¾	au.s	W	C. G. H.	1774.	R	s.p	Bot. rep. 90
5080 globiflóra *B. M.*	globe-flowered	£	⌊Δ⌋	cu	¾	mr.ap	W	C. G. H.	1809.	R	s.p	Bot. mag. 1472
5081 umbélla *H. S.*	skreen	£	⌊Δ⌋	cu	½	jl	W o	C. G. H.	1800.	R	s.p	

History, Use, Propagation, Culture,

baum, Ger., and *Marrone*, Ital. Æ. hippocastanum (ἵππος, horse, horse-chesnut; because it was formerly a veterinary medicine) is a magnificent tree, at once grand from its magnitude and massy form, and beautiful when in blossom, from being covered with spikes of delicate white and pink flowers, protruding from among elegant digitate leaves. It is a rapid growing tree, and speedily produces a considerable bulk of timber, which, however, is of little value as such. The plant is best adapted for an ornamental tree in the outskirts of plantations, in avenues, or singly on lawns. It is much prized by the French as an ornamental avenue tree, and when the geometric style of gardening was in vogue in this country was a good deal planted, as at Bushy park, Canons, Castle Howard, &c. During the rage for the picturesque, it fell into disrepute from its "compact lumpish parabolic form;" but the public are now convinced that there are other beauties besides those peculiarly adapted for representation by painters, and the taste for trees beautiful or interesting from their flowers, foliage, or other details, is now reviving. The nuts or capsules are large and mahogany colored, and have often occasioned regret that they are not edible, like those of the Spanish chesnut. Deer eat them greedily, and may be seen watching about the trees for their fall during windy weather. In Turkey they are ground and mixed with horse provender. According to some, swine and sheep may be fattened on them, and poultry when they are boiled. They are of a saponaceous nature, and broken and steeped in hot water might save soap, where that article is excessively dear. This tree migrated from the northern parts of Asia into England by Constantinople, Vienna, Italy, and France. Parkinson in 1629 places it in his orchard as a fruit tree, and describes the nuts as superior to the ordinary sort.

E. Pavia was so named by Boerhaave, in honor of Peter Paw, a Dutchman, and professor of botany at Leyden, in 1601.

The other species have beautiful flowers, but are not free growing trees.

5062 Leaves 5-7-nate obov. acuminate 2-serrate, Petals 4 connivent with claws shorter than cal. Anth. smooth
5063 Leaves quinate, Petals spreading with claws shorter than calyx, Stam. twice as long as cor. Fruit spiny
5064 Leaves quinate, Petals 4, Stamens twice as long as corolla

5065 The only species

5066 Leaves supradecompound, pedate, Segments pinnatifid, Scape much shorter than leaf-stalks
5067 Leaves sagittate, Peduncles and petioles prickly
5068 Stem climbing, Leaves cordate ovate bored through

5069 Leaves sagittate cordate, Spathe cucullate, Spadix male upwards
5070 Leaves cordate, Spathe flat, Spadix hermaphrodite all over
5071 Leaves cordate acuminate, Spathe boat-shaped hiding the spadix

5072 Leaves ovate-oblong green above white beneath
5073 Leaves long oblong-lanceolate very white all over

DIGYNIA.

5074 Leaves oblong stalked

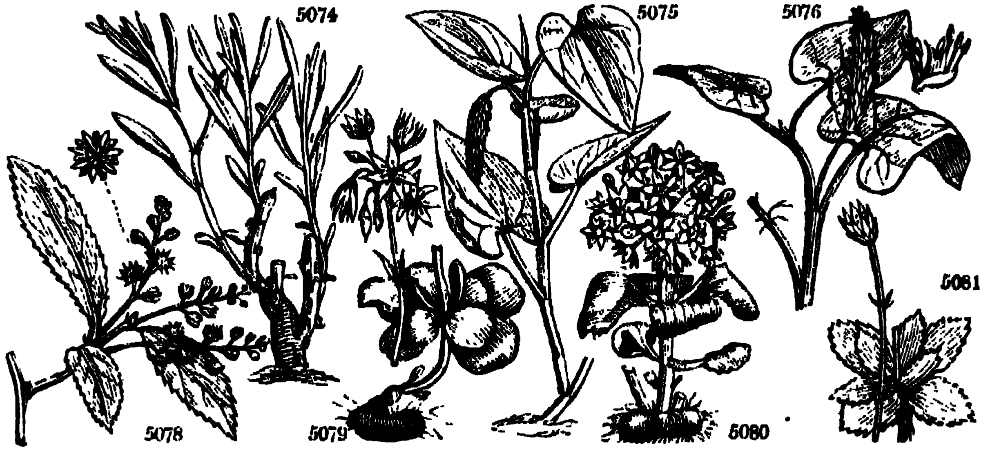
TETRAGYNIA.

5075 Leaves cordate stalked
5076 Leaves deeply cordate ovate-lanceolate shining
5077 Leaves cordate ovate acuminate shining nerved

5078 Leaves ovate lanceolate serrated

HEPTAGYNIA.

5079 Leaves connate crenate roundish, Stem nearly leafless
5080 Floral-leaves 4 spatulate doubly crenate, Umbel compound
5081 Stem-leaves about two hooded and connate into a skreen, Flowers many minute



and Miscellaneous Particulars.

867. *Jonesia.* Named in honor of the famous Sir W. Jones, who to his other accomplishments added the knowledge of botany. The most fragrant tree of India. Large cuttings root well in sand under a hand-glass.

868. *Dracontium.* From δρακων, a dragon. The stems of some species are mottled like the skin of a snake.

869. *Calla* A name of one of Pliny's plants, which probably was applied to something of the same natural order as that now called Calla.

870. *Parinarium.* The Guiana name of the genus is Parinari. Very fine trees with fine bunches of terminal flowers, which are succeeded by plum-like fruits, that in hot climates are esteemed and served up at table. It has been called Petrocarya by Schreber and other Linnæan botanists, who fancy science to depend upon names.

871. *Limeum.* An ancient name of a poisonous plant. It is derived from λοιμος, pest, poison. It was used, says Pliny, to poison arrows with. The plant to which modern botany has applied this name is a dangerous poison.

872. *Saururus.* From σαυρα, a lizard, and ουρα, a tail; on account of its long and pyramidal tail, which may be compared to the tail of a lizard. Aquatic plants with neat foliage, but with no beauty in their flowers.

873. *Astranthus.* From αστρον, a star, and ανθος, a flower, on account of the star-like disposition of the segments of the flower. A small Chinese bush with serrated leaves, and spikes of pale whitish green flowers.

874. *Septas.* From *septem*, seven. All the parts of the flower are in seven. Very neat little Cape plants, with umbels of white flowers.

CLASS VIII. — OCTANDRIA. 8 STAMENS.

THIS is a class, which, with reference to the plants which compose it, is of much consequence to the botanist and gardener. To the former it is recommended by the singular Melastomaceous plants which it contains, the curious Michauxia, and the Jeffersonia, remarkable for its capsule, which opens like a snuff-box. To the gardener it possesses irresistible attraction, not only in the delightful Tetrathecas, Boronias, and Correas of New Holland, in the Dimocarpus of China, celebrated for its truly excellent fruit, and in the Fuchsias, Œnotheras, Combretums, and Vacciniums, some of which form the pride of our hardy gardens; but also in the magnificent tribe of Heaths, which are certainly the most beautiful of plants under cultivation. This is abundantly attested by the splendid collections of Lee of Hammersmith, Rollison of Tooting, and last, but not least, of Loddiges of Hackney, where the precision of science is combined with the allurements of form and coloring.

Order 1. MONOGYNIA. 8 Stamens. 1 Style.

§ 1. *Ovary superior*

875. *Tropæolum.* Cal. 1-leaved, 5-cleft, spurred. Petals 5, unequal. Nuts coriaceous, furrowed. Seed 1, roundish.

876. *Roxburghia.* Cal. 4-leaved. Petals 4. Nectary 4 lanceolate leaves inserted in the middle of the petals. Anthers 2, hanging down from the base of each nectarial leaf. Caps. 1-celled, 2-valved, many seeded. Seeds on a spongy placenta.

877. *Grislea.* Cal. 4-cleft. Pet. 4, from the recesses of the calyx. Filaments very long, ascending. Capsule globose, 1-celled, many-seeded.

878 *Boronia.* Cal. 4-cleft, persistent. Petals 4, ovate. Nect. coronate. Filam. ciliated, incurved. Stigma capitate. Caps. 4, 2-valved. Seeds solitary, with an arillus.

879. *Tetratheca.* Cal. 4-cleft. Petals 4. Anthers 4-celled. Caps. 2-celled, 5-valved: with valves bearing the septa in their middle Seeds about 2.

880. *Corræa.* Cal. campanulate. Petals 4. Caps. 4-celled, opening with 4 valves. Cells 1-2-seeded.

881. *Mimusops.* Cal. 4-leaved. Petals 4. Nectary 16-leaved. Drupe pointed.

882. *Ornitrophe.* Cal. 4-parted. Petals 4, bearded in the middle. Ovary double. Berries 2, 1-seeded.

883. *Dimocarpus.* Sepals 5. Petals 5, reflexed, villous inside. Berries 2, one of which is often abortive, barked, tubercled, 1-celled, 1-seeded.

884. *Melicocca.* Cal. 3-parted. Petals 4, reflexed below the calyx. Stigma peltate. Drupe with a bark.

885. *Blighia.* Cal. 5-parted. Petals 5. Style very short. Stigmas 3. Seed solitary with a very large arillus.

886 *Melaiba.* Cal. 5-parted. Petals 5, with two scales at their base. Caps. oblong, 1-celled, 2-seeded.

887. *Kolreuteria.* Sepals 5. Petals 4, irregular. Nect. 4 bifid scales. Caps. inflated, 3-celled, with 2-seeded cells

888. *Guarea.* Cal. 4-toothed. Petals 4. Nectary cylindrical, bearing the anthers on the orifice. Caps. 4-celled, 4-valved. Seeds solitary.

889. *Amyris.* Cal. 4-toothed. Petals 4, oblong, spreading. Stigma capitate. Berry drupaceous, by abortion 1-seeded.

890. *Ximenia.* Cal. 4-cleft. Petals 4, hairy, revolute. Drupe 1-seeded.

891. *Bæckia.* Cal. 5-cleft. Petals 5. Caps 3-4-celled, many-seeded, covered with the calyx. Seeds few.

892. *Erica.* Sepals 4, persistent. Cor. 4-cleft, persistent. Filaments inserted in the receptacle. Anthers bifid. Caps. membranous, 4-8-celled.

893. *Menziesia.* Cal. 1-leaved. Cor. 1-petalous, ovate. Filam. inserted in the receptacle. Caps. 4-celled, with the septa from the inflexed edges of the valves. Seeds many, numerous.

894. *Chlora.* Sepals 8 or 10. Cor. 1-petalous, 8-cleft. Caps 1-celled, 2-valved, many-seeded.

895. *Michauxia.* Cal. many-cleft. Cor. rotate, 8-10-parted, revolute. Nect. 8-valved, staminiferous. Caps. 8-10-celled, many-seeded.

896. *Jeffersonia.* Sepals 5, colored, deciduous. Petals 8, incurved spreading. Stamens surrounding the ovary. Caps. obovate, stipitate, 1-celled, opening below the end.

897. *Dodonæa.* Sepals 4. Cor. O. Filaments very short. Anth. oblong. Caps. 3-celled, 3-winged. Seeds 2.

898. *Lawsonia.* Cal. 4-cleft. Petals 4. Stamens in 4 pairs. Caps. 4-celled, many-seeded. Seeds angular.

§ 2. *Ovary inferior.*

A. *Seeds many.*

899. *Osbeckia.* Cal. 4-cleft: its lobes separated by a fringed scale. Cor. of 4 or 5-petals. Anthers rostrate. Caps. 4-5 celled, surrounded by the truncated tube of the calyx. Recept. compressed, half ovate.

900. *Rhexia.* Cal. urceolate, 4-5-cleft. Petals 4, inserted in the calyx, oblique. Anthers declinate. Caps. setose, 4 celled, inside the calyx. Recept. lunate. Seeds numerous cochleate.

901. *Œnothera.* Cal. tubular, 4-cleft, with deciduous deflexed segments. Petals 4, inserted in calyx. Stigma 4-cleft. Caps. 4-celled, 4-valved, inferior. Seeds naked, affixed to a 4-cornered central receptacle.

902. *Gaura.* Cal. 4-cleft, tubular. Petals 4, ascending towards the upper side. Nect. inferior, 1-seeded.

903. *Epilobium.* Cal. 4-cleft, tubular. Petals 4. Caps. oblong, inferior. Seeds comose.

904. *Fuchsia* Cal. funnel-shaped, colored, deciduous. Petals 4, in the throat of calyx, alternate with its segments Nectary an 8-furrowed gland. Stigma capitate. Berry oblong, obtuse, 4-cornered, 4-celled.

905 *Jambolifera.* Cal. 4-toothed. Petals 4, funnel-shaped. Filaments flattish. Stigma simple. Fruit a 4-celled drupa.

906. *Oxycoccus.* Cal. 4-cleft. Cor. 4-parted, with linear revolute segments. Filaments conniving. Anthers tubular, 2-parted. Berry many-seeded.

907. *Vaccinium.* Cor. urceolate or campanulate, 4-5-cleft, with reflexed segments. Filaments inserted on the ovary. Berry 4-5-celled, many-seeded.

B. *Seed one.*

908. *Memecylon.* Cal. with a striated bottom, and an entire edge. Cor. 1-petalous. Anthers inserted on the side of the end of the filament. Berry crowned with the cylindrical calyx.

909. *Lagetta.* Cor. caducous, tubular, 4-toothed, with 4 petal-like glands. Drupe hairy, pisiform, 1-seeded.

910. *Daphne.* Cor. 4-cleft, like a corolla, withering, including the stamens. Drupe 1-seeded.

911. *Dirca.* Cor. tubular, with an obsolete limb. Stamens longer than tube. Berry 1-seeded.

912. *Gnidia.* Cor. funnel-shaped, 4-cleft; with 4-8-petaloid scales at the orifice. Nut somewhat drupaceous.
913. *Stellera.* Cor 4-cleft, inflated in middle. Stam. inserted in throat, very short. Nut 1, beaked.
914. *Passerina.* Cor. 4-cleft, naked. Style filiform, lateral, long. Stamens inserted on the tube. Nut 1, coated.
915. *Lachnæa.* Flowers in heads. Cor. 4-cleft, with an unequal limb Filaments long, with an unequal insertion. Nut somewhat drupaceous.
916. *Combretum.* Cal. 4-toothed, campanulate, superior. Petals 4, inserted in the calyx. Stamens very long. Caps. 4-angular, with membranous angles, 1-celled. Seed 1, oblong.

Order 2. DIGYNIA. 8 Stamens. 2 Styles.

917. *Galenia.* Cal. 4-cleft. Cor. O. Capsule roundish, 2-seeded.
918. *Aphananthe.* Sepals 5. Two stamens opposite 2 sepals, 6 opposite and alternate with three other sepals.
919. *Weinmannia.* Sepals 4. Petals 4. Caps. 2-celled, 2-beaked.
920. *Möhringia.* Sepals 4. Petals 4. Caps. 1-celled, 4-valved.

Order 3. TRIGYNIA. 8 Stamens. 3 Styles.

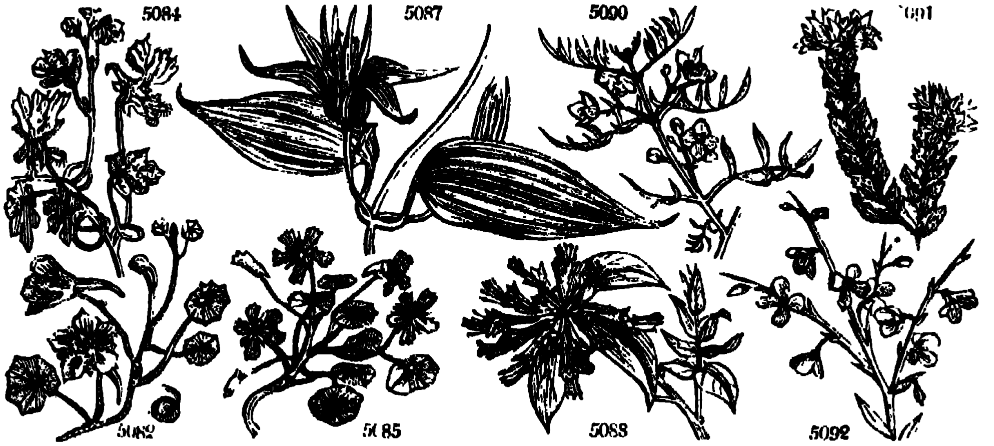
921 *Polygonum.* Cal. O. Cor. 5-parted, like a calyx. Seed 1, angular, covered. (Stamens and styles uncertain in number.)
922. *Coccoloba.* Cal. 5-parted, colored, finally becoming berried. Cor. O. Berry formed of the calyx, 1-seeded.
923. *Paullinia.* Sepals 5. Petals 4. Nect. 4-leaved, unequal. Caps. turbinate, 3-cornered, 3-celled, with 1-seeded cells. Seeds with an arillus.
924. *Seriana.* Sepals 5. Petals 4. Nect. 4-leaved. Samaræ 3, longitudinally united, globose, connected downwards in a membranous wing.
925. *Cardiospermum.* Sepals 4. Petals 4. Nect. 4-leaved, unequal. Caps. 3, connate, inflated.
926. *Sapindus.* Sepals 4. Petals 4. Caps. fleshy, connate, ventricose.

Order 4. TETRAGYNIA. 8 Stamens. 4 Styles.

927. *Verea.* Sepals 4. Cor. hypocrateriform, 4-cleft, with acute segments, and a ventricose tube. Scales 4, at the base of the ovaries, linear. Capsules 4, 1-celled, many-seeded.
928. *Bryophyllum.* Sepals 4. Petals 4, connate into a cylinder. Seeds many.
929. *Paris.* Sepals 4. Petals 4, narrower. Anth. attached to the middle of filament. Berry 4-celled.
930. *Adoxa.* Cal. 2-3-cleft, inferior. Cor. 4-5-cleft, superior. Berry 1-celled, 4-5-seeded, united with the calyx.
931. *Elatine.* Sepals 4. Petals 4. Caps. 4-celled, 4-valved, depressed, many seeded; the dissepiments opposite the sutures.
932. *Haloragis.* Sepals 4, superior. Petals 4, caducous. Drupe dry. Nut 4-celled.
933. *Forsköhlea.* Cal. 4-leaved. Petals 8 spatulate. Seeds 4 enveloped in wool.

MONOGYNIA.

875. TROPÆ'OLUM. *W.*	INDIAN CRESS.				*Tropæoleæ.*	*Sp.* 5—13.					
5082 minus *W.*	small	★ ○	or	½	ju.o	O.y	Peru	1596.	S	s.l	Bot. mag. 98
β flore pleno	*double-flowered*	⊡	or	1	jn.o	O.y	Peru	1596.	C	s.l	
5083 május *W.*	great	★ ○	cul	6	jn.o	O.y	Peru	1686.	S	s.l	Bot. mag. 23
β flore pleno	*double-flowered*	△	or	6	jn.o	O	Peru	1686.	C	r.m	
5084 adúncum *Sm.*	fringe-flowered	★ ⊡	or	3	jn.o	O	Peru	1775.	S	r.m	Bot. mag. 1351
T. peregrinum B.M.											
5085 pinnátum *B. R.*	pinnate-flower.	△	or	2	jn.o	P	......	...	C	r.m	Bot. rep. 535
5086 hýbridum *W.* *	hybrid	⊡	or	4	jn.au	O	......	...	C	r.m	Ber. ac. h. 32. t 1
876. ROXBURG'HIA. *W.*	ROXBURGHIA.				*Aroideæ.*	*Sp.* 1.					
5087 glorióaoides *Roxb.*	Gloriosa-leaved	⊠	or	6	ap	Pk.o	E. Indies	1803.	Sk	p.l	Bot. mag. 1500
877. GRIS'LEA. *W.*	GRISLEA.				*Salicariæ.*	*Sp.* 1—3.					
5088 tomentósa *W.*	downy	♣ □	pr	3	my.jn	R	E. Indies	1804.	C	s.p	Bot. reg. 30
878. BORO'NIA *Sm.*	BORONIA.				*Rutaceæ.*	*Sp.* 3—13.					
5089 ledifólia *Gay.*	Ledum-leaved	♣ ⊔	or	1½	mr.ap	W	N. S. W.	1814.	L	s.p	Vent. malm. 59
5090 pinnáta *Sm.*	Hawth.-scent.	♣ ⊔	or	2	f.my	Pu	N. S. W.	1794.	L	s.p	Bot. rep. 58
5091 serruláta *Sm.*	Rose-scented	♣ ⊔	or	3	jn.jl	R	N. S. W.	1816.	L	s.p	Bot. reg. 842
879. TETRATHE'CA. *W.*	TETRATHECA.				*Tremandreæ.*	*Sp.* 1—5.					
5092 júncea *W.*	rushy	♣ ⊔	pr	2	jl.au	Pu	N. S. W.	1803.	C	s.p	Sm. nov. h. 1. t 2
880. CORRÆ'A. *W.*	CORRÆA.				*Rutaceæ.*	*Sp.* 3—4.					
5093 álba *B. Rep.*	white-flowered	♣ ⊔	or	3	ap.jl	W	N. S. W.	1793.	C	s.p	Bot. rep. 18
5094 speciósa *B. Rep.*	red-flowered	♣ ⊔	or	3	ap.jl	R	N. S. W.	1806.	L	s.p	Bot. reg. 26
5095 virens *H. K.*	green-flowered	♣ ⊔	or	2	my.n	G	N. S. W.	1800.	C	s.p	Bot. reg. 3
881. MI'MUSOPS. *W.*	MIMUSOPS.				*Sapoteæ.*	*Sp.* 3—6.					
5096 Eléngi *W.*	pointed-leaved	♀ □	or	15	...	W	E. Indies	1796.	C	p.l	Rox. cor. 1. t. 14
5097 Kaúki *W.*	obtuse-leaved	♀ □	or	10	...	W	E. Indies	1796.	C	p.l	Rum. am. 3. t 8
5098 hexan'dra *Roxb.*	hexandrous	♀ □	or	10	...	W	India	1804.	C	p.l	Rox. cor. 1. t. 15
882. ORNI'TROPHE. *W.*	ORNITROPHE.				*Sapindaceæ.*	*Sp.* 2—9.					
5099 serráta *W.*	saw-leaved	♣ □	or	12	...	W	E. Indies	1804.	C	p.l	Rox. cor 1 t. 61
5100 cominia *W.*	yellow-berried	♀ □	or	20	...	W	Jamaica	1759.	C	p.l	Sl. ja. 2. t. 208 f 1
883. DIMOCAR'PUS. *W.*	DIMOCARPUS.				*Sapindaceæ.*	*Sp.* 2—6.					
5101 Litchi *W.*	Lee-Chee	♀ □	fr	15	my.jn	W	China	1786.	L	r.m	Lam. ill. t. 306
5102 Longán *H. K.*	Longan	♀ □	fr	15	my.jn	W	China	1786.	L	r.m	Buchoz. ic. t. 99
884. MELICOC'CA. *W.*	HONEY-BERRY.				*Sapindaceæ.*	*Sp.* 1.					
5103 bíjuga *W.*	winged-leaved	♀ □	fr	16	...	Y	Jamaica	1778.	C	lt.l	Ja. am. 106. t. 72
885. BLIG'HIA. *H. K.*	AKEE-TREE.				*Sapindaceæ.*	*Sp.* 1.					
5104 sápida *H. K.*	Ash-leaved	♀ □	fr	20	...	W	Africa	1793.	S	r.m	An bo.2 t.16,17



History, Use, Propagation, Culture.

875. *Tropæolum.* From *tropæum*, a trophy. The leaf resembles a buckler, and the flower an empty helmet, of which trophies were formed. T. majus is an ornamental annual, and also a culinary plant. The flowers are eaten in salads, and are very grateful: they are also used as a garnish. The seeds, which consist of three conjoined berries or nuts, with grooved wrinkled gibbous husks that become fungous when dry, are pickled in salt and vinegar, and used as a substitute for capers, to which some prefer them. In the evening the flowers emit spontaneously at certain intervals visible sparks like those of an electric machine. This was first observed by the daughter of Linnæus.

876. *Roxburghia.* In honor of William Roxburgh, M. D. born in Scotland, and settled in the East Indies; author of a splendid work on the plants of the coast of Coromandel. A singular plant, the natural affinities of which are yet obscure; it grows in loam and peat, and may be increased, though but slowly, by dividing at the root.

877. *Grislea.* So named after G. Grisley, a Portuguese surgeon, author of Viridarium Lusitanicum, 1661. A free flowering shrub of considerable beauty; it grows in loam and peat, and cuttings root in sand under a hand-glass in heat.

878. *Boronia.* So named after Francis Borone, an Italian servant of Dr. Sibthorp, who perished from an accident at Athens. Pretty little New Holland plants, generally with red flowers. These are valuable plants, as flowering nearly all the year. "They thrive best in sandy peat, with the pots well drained with broken potsherds. They may be propagated by layers or ripened cuttings, taken off at a joint and planted in sandy peat, and placed under a bell-glass, will strike root, if properly managed: the glass must be taken off occasionally to dry them, as they are very liable to damp off."

879. *Tetratheca.* From τετρα, four, and θηκη, a cell, in allusion to the four cells of the anthers, for which the plants are remarkable. Cuttings root in sand under a bell-glass.

880. *Corræa.* So named after Joseph Correa de Serra, a learned Portuguese, who, without publishing much, was one of the most profound theoretical botanists of this age. He died at Lisbon in 1823. "Ripened cuttings

MONOGYNIA.

5082 Leaves peltate repand mucronate, Petals acute

5083 Leaves peltate repand, Petals obtuse

5084 Leaves peltate 5-lobed palmate toothed, Petals jagged

5085 Leaves peltate, Lobes obtuse unequal, Flowers pinnate
5086 Leaves peltate 5-lobed, Lobes obtuse repand, Petals cuneate toothed at end

5087 Leaves cordate many-nerved

5088 Leaves minute tomentose beneath, Corymbs axillary spreading

5089 Leaves linear lanceolate entire tomentose beneath
5090 Leaves pinnated with an odd one in 2-4-pairs very smooth, Leaflets linear acute, Pedunc. dichotomous
5091 Leaves simple trapeziform acute serrulate at end smooth

5092 Leaves alternate few lanceolate and branches smooth

5093 Leaves ovate downy beneath, Teeth of calyx small acute distant
5094 Leaves ovate obtuse beneath rusty with down, Flowers erect, Calyx truncate
5095 Leaves ovate-oblong cordate, Flowers pendulous, Calyx with 4 acute teeth

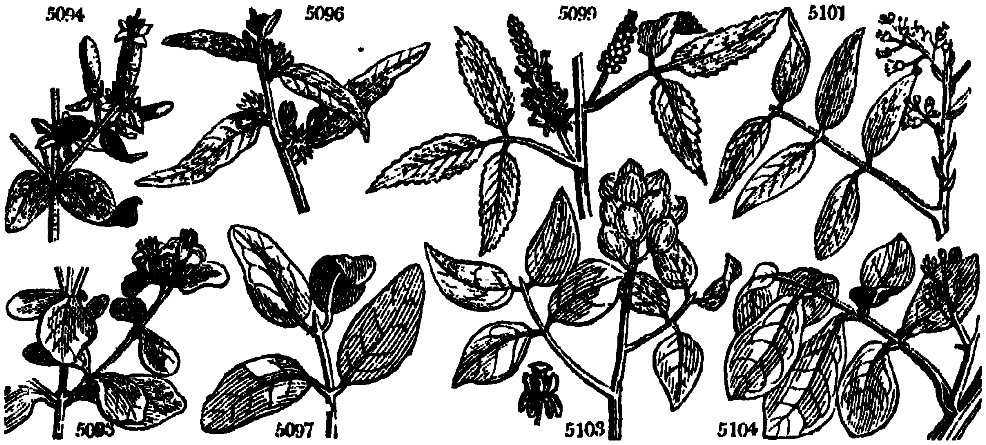
5096 Leaves alternate ovate acuminate
5097 Leaves alternate clustered at the ends of the branches oblong very obtuse
5098 Leaves alternate obovate emarginate, Flowers hexandrous

5099 Leaves ternate rough, Leaflets stalked ovate acuminate serrate, Racemes simple
5100 Leaves ternate, Leaflets stalked oblong narrowed at each end pubescent beneath, Racemes compound

5101 Leaves pinnated, Leaflets flat acute, Fruit scaly, Flowers apetalous
5102 Leaves pinnated, Leaflets rugose blunt, Fruit hispid, Flowers pentapetalous

5103 The only species

5104 The only species



and Miscellaneous Particulars.

will root freely in sand under a bell or hand-glass. The cuttings must not be planted too thick, or they will be liable to damp. C. speciosa has generally been reckoned difficult to strike from cuttings, but it roots as freely as the others if properly managed, and requires the same treatment."

881. *Mimusops.* From μιμος, an ape, and οψις, figure. The flowers are thought to resemble the countenance of a monkey. Ripened cuttings root readily in sand under a hand-glass.

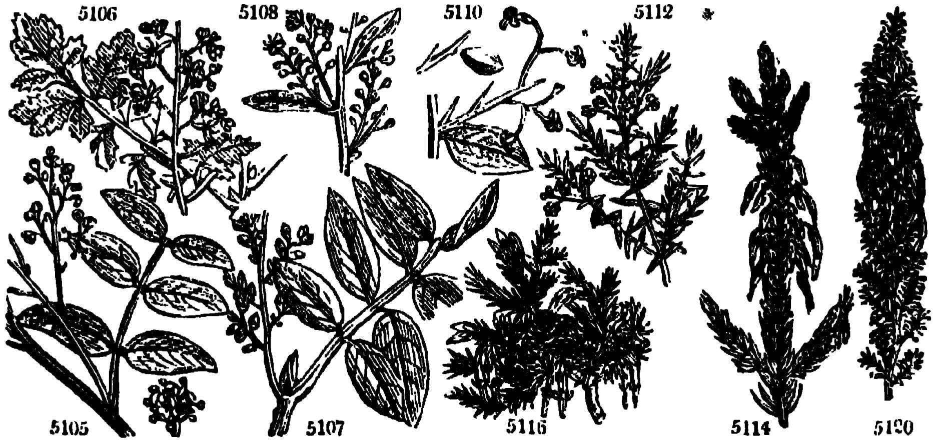
882. *Ornitrophe.* From ορνις, a bird, and τροφη, nourishment. Its fruit is much eaten by small birds. In the Isle de France it is called *bois de merle*, or *thrush-wood.* Cuttings root in sand under a hand-glass.

883. *Dimocarpus.* From διδυμος, double, and καρπος, fruit; its fruit grows in pairs. These are fruit-bearing trees, cultivated in China. The fruit is a berry in bunches of a red color, and rather larger than the grape. The bunches are small; the skin of the berry is tough and leathery; the pulp is colorless, semitransparent, and of a slightly sweet subacid taste. The fruit of D. Litchi is frequently brought to England dried like raisins; that of D. Longan has been ripened by John Knight, Esq. of Lee Castle, in a lofty stove, erected for the purpose of growing tropical fruits. A bunch was presented to the Horticultural Society, in September 1816, "supposed to be the only one ever produced in Europe, and which persons well acquainted with the long-yen in its native places of growth, pronounced to be quite as good as those grown within or near the tropics." (*Hort. Trans.* ii. 408.)

884. *Melicocca.* From μελι, honey, and κοκκος, fruit; its fruit, which resembles the yolk of an egg, has a very sweet flavour mixed with a little acid. This tree is cultivated in some parts of South America and in Jamaica for its fruit, which grows to the size of a large plum, and is very mellow. The natives suck it for the sake of the salivation which it produces. In our stoves it thrives well in light loamy soil, and cuttings root in sand under a hand-glass in heat.

885. *Blighia.* Named in honor of the famous Captain Bligh, who first carried the bread-fruit to the West Indies. This is an esteemed African fruit tree with a reddish or yellow pome, about the size of a goose's egg,

886. METAI'BA. *Aubl.*	METAIBA.					*Sapindaceæ.*		*Sp.* 1.				
5105 guianen'sis *Aubl.*	Ash-leaved	🌳	□	tm	60	...	W	Guiana	1803.	C	p.l	Au. gui. 1. t. 128
Ephielis fraxinea W.												
887. KÖLREUTE'RIA. *W.*	KÖLREUTERIA.					*Sapindaceæ.*		*Sp.* 1.				
5106 paniculáta *W.*	panicled	■		or	10	jl.au	W	China	1763.	R	co	Bot. reg. 320
888. GUA'REA. *W.*	GUAREA.					*Meliaceæ.*		*Sp* 1—5.				
5107 trichilioides *W.*	Ash-leaved	🌳	□	tm	15	my.jn	W	S. Amer.	1752.	L	r.m	Cav. di. 7. t. 210
889. AMY'RIS. *W.*	AMYRIS.					*Terebintaceæ.*		*Sp.* 2—28.				
5108 polýgama *W.*	simple-leaved	🌳	□	or	12	jn.jl	W	Chili	1790.	C	p.l	Cav. ic. 3. t. 239
5109 sylvática *W.*	wood	🌳	□	or	16	jn.jl	W	Carthag.	1793.	C	l.p	J. a. ed. pi. t. 188
890. XIME'NIA. *W.*	XIMENIA.					*Olacineæ.*		*Sp.* 1—3.				
5110 americána *W.*	American	🌳	□	or	15	...	W	W. Indies	1759.	C	s.p	J. am. pic. t. 107
891. BÆC'KIA. *Sm.*	BÆCKIA.					*Myrtaceæ.*		*Sp.* 3—7.				
5111 frutéscens *Sm.*	Chinese	■	⊔	pr	3	s.d	W	China	1806.	L	s.l	Osb. iter. t. 1
5112 virgáta *Sm.*	twiggy	■	⊔	pr	3	au.o	W	N. Caled.	1806.	C	s.p	Bot. rep. 598
5113 densifólia *Sm.*	close-leaved	■	⊔	pr	3	au.o	W	N. S. W.	...	C	s.l.p	
892. ERI'CA. *W.*	HEATH.					*Ericeæ.*		*Sp.* 294—300.				
5114 Plukenétii *L.*	Plukenet's	■	⊔	spl	½	ap.jl	R	C. G. H.	1774.	C	s.p	And. hea. vol. 1
5115 Petivérii *W.*	Petiver's	■	⊔	spl	2	mr.jl	Y	C. G. H.	1774.	C	s.p	L. ill. t. 288. f. 3
5116 Bánksia *W.*	Banks's	■	⊔	el	½	f.jl	W.pu	C. G. H.	1787.	C	s.p	And. hea. vol. 1
5117 penicilliflóra *Sal.*	white-pencilled	■	⊔	or	2	ap.jl	W	C. G. H.	1774.	C	s.p	And. hea. vol. 2
calyculata Wendl.												
5118 folliculáris *Salisb.*	yellow-pencill.	■	⊔	or	2	f.jl	Y	C. G. H.	1794.	C	s.p	And. hea. vol. 1
melástoma Andr.												
5119 verticilláta *Andr.*	verticillate	■	⊔	el	1	jl.o	Sc	C. G. H.	1774.	C	s.p	And. hea. vol. 1
5120 Sebána *Donn.*	Seba's	■	⊔	el	2	mr.jn	O	C. G. H.	1774.	C	s.p	And. hea. vol. 1
5121 Ewerána *H. K.*	Ewer's	■	⊔	spl	2½	jl.n	Pk.G	C. G. H.	1793.	C	s.p	And. hea. vol. 2
5122 socciflóra *Salisb.*	green-pencilled	■	⊔	cu	2	ap.my	G	C. G. H.	1799.	C	s.p	And. hea. vol. 1
5123 densifólia *W.*	dense-leaved	■	⊔	or	2	mr.au		C. G. H.	1811.	C	s.p	
5124 grandiflóra *L.*	great-flowered	■	⊔	spl	3	my.s	Y	C. G. H.	1775.	C	s.p	Bot. mag. 189
5125 cephalótes *Thunb.*	purple-headed	■	⊔	or	1	mr.jl	Pu	C. G. H.	1812.	C	s.p	
5126 cruénta *H. K.*	bloody-flowered	■	⊔	el	2	my.s	D.R	C. G. H.	1774.	C	s.p	And. hea. vol. 1
5127 perspícua *W.*	clear-flowered	■	⊔	el	1½	mr.jn	W.pu	C. G. H.	1790.	C	s.p	W. er. 1. p 7 c. ic.
5128 speciósa *Andr.*	specious	■	⊔	or	2	jn.s	R.G	C. G. H.	1800.	C	s.p	Bot. cab. 575
5129 ignéscens *Andr.*	fiery	■	⊔	or	1½	mr.jn	R	C. G. H.	1792.	C	s.p	And. hea. vol. 2
5130 discolor *Andr.*	different-color.	■	⊔	or	2	mr.n	R.G	C. G. H.	1788.	C	s.p	And. hea. vol. 1
5131 versicolor *W.*	various-colored	■	⊔	or	2	my.n	O.R	C. G. H.	1790.	C	s.p	And. hea. vol. 1
5132 fasciculáris *H. K.*	cluster-flower.	■	⊔	spl	1½	f.jn	Pu	C. G. H.	1787.	C	s.p	And. hea. vol. 1
octophýlla L.												
coronáta Andr.												
5133 spléndens *P. S.*	splendid	■	⊔	spl	2	ap.s	S	C. G. H.	1792.	C	s.p	W. er. 8 p 5. c. ic.
5134 mammósa *L.*	nipple	■	⊔	el	2	jl.o	Pu	C. G. H.	1762.	C	s.p	And. hea. vol. 1
5135 prócera *W.*	lofty	■	⊔	or	6	ap.jn	W	C. G. H.	1791.	C	s.p	
5136 gélida *Andr.*	green verticill.	■	⊔	spl	3	ap.jl	G.w	C. G. H.	1790.	C	s.p	Bot. cab. 699
5137 serratifólia *Andr.*	saw-leaved	■	⊔	or	1½	au.d	O	C. G. H.	1790.	C	s.p	And. hea. vol. 1



History, Use, Propagation, Culture,

with the arillus of the seed of a grateful subacid flavor. In the West Indies it is esteemed very wholesome and nourishing. Here it grows well in loam and peat, and ripened cuttings with all their leaves on root best in sand under a hand-glass.

886. *Metaiba.* The vernacular name of the plant in French Guiana. Large cuttings root best under a hand-glass in sand.

887. *Kölreuteria.* So named by Laxmann, in honor of Joseph Gottlieb Kölreuter, who published *De plantis quibusdam Rarioribus, Tubing*, 1755, with a dissertation *De Insectis Coleopteris.* He also made many experiments on the pollen of flowers, hybrid plants, &c. published in the Petersburgh Transactions.

This shrub should be planted in as sheltered a situation as possible, as it will not flower if too much exposed; and if the wood is not well ripened, the tops of the shoots will be injured by the frost.

888. *Guarea.* The natives of Cuba call the plant *Guara.* This tree, though it has an inconspicuous flower, yet has fine large leaves. All parts of the plant, especially the bark, smell strong of musk, and may be used instead of that perfume for many purposes. The wood is full of a bitter resinous substance, which renders it unfit for rum-hogsheads, being observed to communicate both its smell and taste to all spirituous liquors: but it is often cut for staves and heading, when there is a scarcity of other timber. The powder of the bark is said to be a good emetic; and is sometimes used among the negroes for that purpose. Ripened cuttings root in sand under a hand-glass.

889. *Amyris.* Derived from *μυῤῥα*, myrrh. Its resinous gum has an excellent perfume. Almost every species of this genus produces some valuable gum or resin. A. gileadensis produces the celebrated balm of Gilead. It is a shrub with purplish branches, striated a little, with crowded ternate leaves, and protuberant buds loaded with balsamic resin.

5105 Leaves alternate abruptly pinnated in 2-3 or 4 pairs

5106 The only species. Leaves pinnated toothed torn

5107 Stalks of the leaves short tumid inflated

5108 Leaves simple lanceolate entire, Racemes simple axillary numerous
5109 Leaves ternate crenate acute

5110 Peduncles many-flowered, The lower usually changed into spines

5111 Leaves opposite beardless, Teeth of calyx membranous colored
5112 Leaves linear lanceolate, Peduncles axillary umbelled
5113 Leaves imbricated four ways obtuse with a little reflexed point, Teeth of calyx leafy

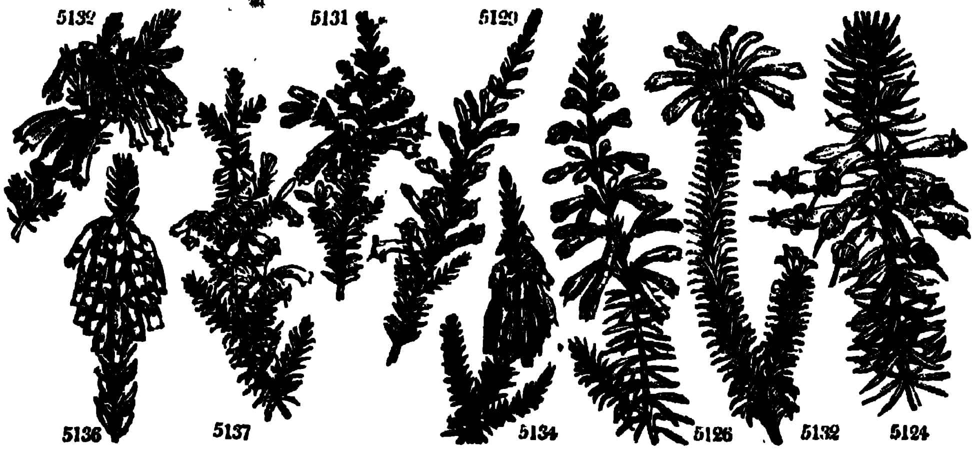
A. Tubiflorae. *Corollas long and cylindrical.*

5114 Stamens long connivent colored, Leaves in threes, Calyx imbricated, Bractes distant from calyx
5115 Stamens long connivent colored, Leaves in threes, Calyx imbricated, Flowers solitary, Cor. cylindrical
5116 Stamens long connivent colored, Leaves in threes, Calyx imbricated, Segments of cor. reflexed
5117 Stamens long connivent colored, Lvs. in 3s, Cal. imbricated, Fl. 3, Cor. globose scarcely longer than cal.

5118 Stamens long connivent colored, Leaves in threes, Calyx imbricated, Flowers solitary, Cor. conical

5119 Anth. bearded, Style incl. Cor. cylind. contracted above the base, Fl. pend. Leaves 4 whorled
5120 Stamens long connivent colored, Leaves in threes, Cal. imbricated, Flowers 3, Cor, cylindrical incurved
5121 Anthers bearded, Leaves in threes, Flowers terminal solitary
5122 Stamens exserted colored, Leaves in 3s, Cal. imbricated, Flowers 3, Cor. conical, Leaves recurved
5123 Anth. bearded incl. Style exsert. Cor. tubular clavate pubes. Fl. axill. Leaves 3 imbricated
5124 Anthers beardless exserted, Cor. incurved smooth, Style long, Flowers axillary stalked, Lvs. 6 smooth
5125 Anth. beardless included, Style exserted, Cor. tubular clavate, Cal. pubescent, Fl. capitate, Leaves 6
5126 Ant. beard. includ. Style exsert. Cor. tub. incurv. Cal. simple gland. tooth. Fl. axill. whorl. Lvs. 3 rough
5127 Anthers beardless, Lvs. 3, Flowers solitary or 3 term. Cal. imbric. Cor. villous [at edge
5128 Cor. cylind. Anthers bearded, Lvs. 3, Fl. term. 3, Cal. imbric. Style exserted rounded at end
5129 Anthers beardless, Lvs. 4, Fl. term. Bractes ovate distant from cal. Sepals ovate acumin.
5130 Anthers bearded included, Style exserted, Cor. tubul. clav. Cal. double, Fl. term. 3, Lvs. 3 smooth
5131 Anthers beardless, Leaves 3 smooth, Fl. 3 term. Cal. imbric. Corolla smooth
5132 Anth. bearded, Style incl. Cor. cylind. ventric. Flowers umbelled capitate, Lvs. 8 linear truncate

5133 Anth. beardless exserted, Cor. tub. clavate pubescent, Fl. term. racemose, Leaves 5 or more smooth
5134 Anth. bearded, Style includ. Cor. clav. cylind. Flow. umbell. Lvs. 6 linear reflexed
5135 Anth. beardless included, Style exserted, Cor. ventricose at base, Fl. term. Lvs. 4 pubescent erect
5136 Anth. bearded, Lvs. 4-6, Fl. axill. Cal. imbr. Bract lanc. Sepals broad lanceol.
5137 Anth. beardless, Lvs. 4 ciliated, Fl. term. Two bractes next cal. one distant, Cor. smooth



and Miscellaneous Particulars.

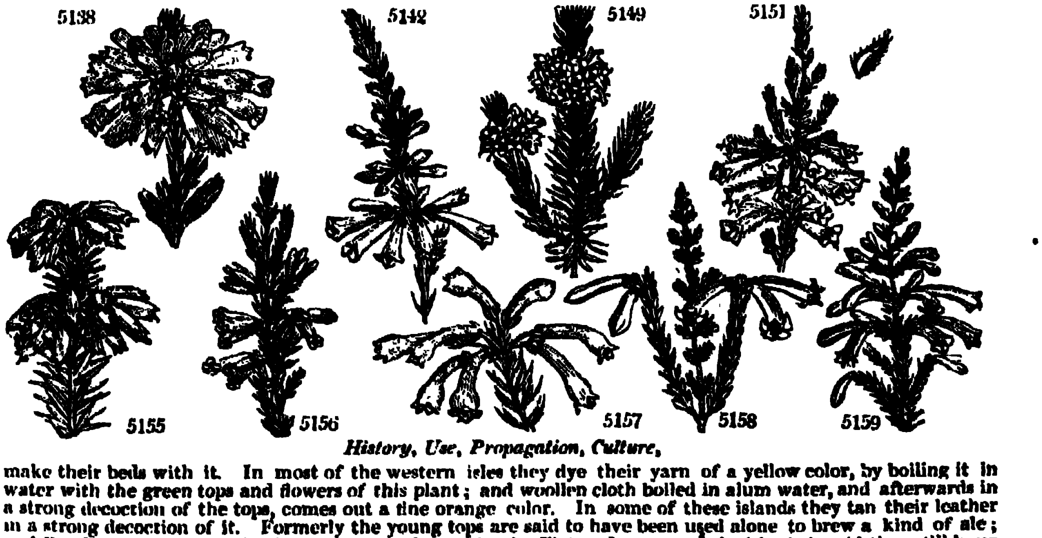
A. Opobalsamum produces the balsam of Mecca. It has pinnate leaves, with sessile leaflets. It grows near Bederhunin, a village between Mecca and Medina, in a sandy rocky soil, confined to a small tract about a mile in length, and attains the height of fifteen feet. The balsam is obtained by incision. Neither of these species are yet introduced to Britain: those we possess grow in loam and peat, and cuttings root freely in a pot of sand under a hand-glass.

890. *Ximenia.* Francis Ximenes was a Spanish naturalist from whom we have, published in 1615, four works upon the plants and animals useful in medicine in New Spain. The flowers of this tree have an odor like frankincense: the fruit is yellow, shiny, the size of a pigeon's egg, with a thin rind and sweet subacid pulp: it is eaten by negroes and children in the West Indies. Cuttings root in sand under a hand-glass.

891. *Beckia.* From Abraham Beck, who was physician in ordinary to the king of Sweden, and who communicated plants to Linnæus, by whom the genus was dedicated. These plants are of free growth in sandy loam and peat, and so hardy as to require little more than protection from frost during winter. Young cuttings root in sand under a bell-glass.

892. *Erica.* From *ἐρείκω*, to break, in allusion to the brittle branches of the plant. It was also reputed a specific for breaking the stone in the bladder. *La bruyère*, Fr., *Heide*, Ger., *Erica*, Ital., and *Brezo*, Span. Ling or common heath abounds in barren wastes in every part of Europe, and especially in the northern countries. Though little regarded in warm climates, the different species of native Erica are made subservient to a great variety of purposes in the bleak and barren highlands of Scotland, and other northern countries. The poorer inhabitants cover their cabins with them instead of thatch, or else twist them into ropes, and bind down the thatch with them in a kind of lattice work. They also make the walls with alternate layers of heath, and a sort of cement made of black earth and straw. The hardy Highlanders frequently

5138 **clavæflóra** *Salisb.*	club-flowered	■ ⊔	el	½	au.o	G	C. G. H.	1799.	C	s.p	And. hea. vol. 2
sessiliflóra Andr.											
5139 **spicáta** *Thunb.*	spiked	■ ⊔	pr	2½	ja.d	L.Y	C. G. H.	1789.	C	s.p	And. hea. vol. 1
5140 **transpárens** *W.*	transparent	■ ⊔	de	1½	my	W	C. G. H.	1800.	C	s.p	Bot. cab. 177
5141 **viréscens** *Lodd.*	greenish	■ ⊔	or	1	my	Y.o	C. G. H.	1820.	C	s.p	Bot. cab. 233
5142 **flam'mea** *Andr.*	flame-flowered	■ ⊔	or	1½	my.o	L.Y	C. G. H.	1798.	C	s.p	And. hea. vol. 2
5143 **Patersónia** *Andr.*	Paterson's	■ ⊔	or	2½	mr.au	Y	C. G. H.	1791.	C	s.p	And. hea. vol. 1
5144 **glandulósa** *W.*	glandul.-haired	■ ⊔	or	1	my jn	R.o	C. G. H.	1801.	C	s.p	
5145 **gílva** *Wendl.*	dull-yellow	■ ⊔	or	1	my.jn	Y	C. G. H.	1820.	C	s.p	
5146 **Sparman'ni** *W.*	Sparrmann's	■ ⊔	spl	1	mr.s	D.O	C. G. H.	1794.	C	s.p	And. hea. vol. 3
5147 **perspícua** *Wendl.*	glassy	■ ⊔	or	1½	my.jn	Pk	C. G. H.	1819.	C	s.p	
5148 **costáta** *Andr.*	ribbed-flowered	■ ⊔	or	2	f.jn	Pk	C. G. H.	1795.	C	s.p	And. hea. vol. 1
5149 **purpúrea** *W.*	purple-flower.	■ ⊔	el	2	ja.d	L.Pu	C. G. H.	1789.	C	s.p	Bot. cab. 703
5150 **eláta** *Andr.*	tall	■ ⊔	or	3	jl.s	O	C. G. H.	1790.	C	s.p	And. hea. vol. 2
5151 **sulphúrea** *Lodd.*	sulphur	■ ⊔	el	2	jn.jl	Y	C. G. H.	1805.	C	s.p	Bot. mag. 1984
5152 **laniflóra** *Wendl.*	sordid	■ ⊔	or	1	mr.au	L.S	C. G. H.	1790.	C	s.p	And. hea. vol. 1
sórdida Andr.											
5153 **tubiflóra** *L.*	tube-flowered	■ ⊔	de	2	ap.jl	Pk	C. G. H.	1775.	C	s.p	And. hea vol. 1
5154 **simpliciflóra** *Donn.*	single-flowered	■ ⊔	or	2	mr jl	O	C. G. H.	1774.	C	s.p	W. er. 17. p. 69
5155 **Archéria** *Andr.*	Lady Archer's	■ ⊔	or	1½	au.n	D.S	C. G. H.	1796.	C	s.p	And. hea. vol. 2
5156 **spúria** *Andr.*	spurious	■ ⊔	or	2	ap.au	Pu	C. G. H.	1796.	C	s.p	And. hea. vol. 1
5157 **Hibber'tia** *Andr.*	Hibbert's	■ ⊔	spl	2	jn.s	O.y	C. G. H.	1800.	L	s.p	And. hea. vol. 3
5158 **conspícua** *H. K.*	conspicuous	■ ⊔	or	2	my.au	D.Y	C. G. H.	1774.	C	s.p	And. hea. vol. 2
5159 **curviflóra** *L.*	curve-flowered	■ ⊔	or	2	jl.o	Y	C. G. H.	1774.	C	s.p	And. hea. vol. 1
5160 **triphyl'la** *Lk.*	three leaved	■ ⊔	spl	2	jl.n	R.y	C. G. H.	1822.	C	s.p	
5161 **monadélpha** *B. M.*	monadelphous	■ ⊔	or	1½	my.jn	Pk	C. G. H.	1789.	C	s.p	Bot. mag. 1570
5162 **concínna** *H. K.*	blush	■ ⊔	de	2½	s.o	F	C. G. H.	1773.	C	s.p	And. hea. vol. 2
5163 **pellúcida** *Andr.*	pellucid	■ ⊔	or	2	jn.n	W	C. G. H.	1800.	C	s.p	And. hea. vol. 3
5164 **Linneána** *H. K.*	Linnæus's	■ ⊔	de	1½	ja.my	W	C. G. H.	1790.	C	s.p	And. hea. vol. 2
5165 **hirsúta** *Lodd.*	hairy	■ ⊔	el	1	mr.ap	W.pu	C. G. H.	1800.	C	s.p	Bot. cab. 754
5166 **erubéscens** *Andr.*	reddish	■ ⊔	or	1½	mr jl	F	C. G. H.	1800.	C	s.p	And hea. vol. 3
5167 **Leeána** *H. K.*	Lee's	■ ⊔	or	2½	ja.au	O.y	C. G. H.	1788.	C	s.p	And. hea. vol. 1
5168 **colórans** *Lodd.*	coloring	■ ⊔	or	2	ap jn	W.a	C. G. H.	1817.	C	s p	Bot. cab. 224
5169 **onosmæflóra** *Sal.*	onosma-flower.	■ ⊔	el	1½	mr.s	Y	C. G. H.	1789.	C	s.p	And. hea. vol. 1
5170 **víridis** *Andr.*	green-flowered	■ ⊔	cu	2½	my.s	D.G	C. G. H	1800.	C	s p	And. hea. vol 2
5171 **sanguínea** *Lodd.*	bloody	■ ⊔	el	1	ja.d	Cr	C. G. H.	1815.	C	s.p	Bot. cab. 86
5172 **longifólia** *Donn.*	long-leaved	■ ⊔	or	2	f.jl	R	C. G. H.	1787.	C	s p	Ic. hor. kew. 4
5173 **pínea** *W.*	Pine-tree-leav.	■ ⊔	or	2	au.d	R	C. G. H.	1790.	C	s.p	Bot. cab. 1259
5174 **aúrea** *Andr.*	gold-colored	■ ⊔	el	2	jl s	O	C. G. H	1799.	C	s.p	And. hea. vol. 2
5175 **elongáta** *Lodd.*	turbinate	■ ⊔	de	1½	f.n	W	C. G. H.	1810.	C	s p	Bot. cab. 738
5176 **lanáta** *Wendl.*	woolly	■ ⊔	or	1	f my	O	C. G. H.	1775.	C	s.p	W. erle. 5. p. 5 c. ic
5177 **Bowieána** *Lodd.*	Bowie's	■ ⊔	el	1	au.d	W	C. G. H.	1822	C	s.p	Bot. cab 842
5178 **coccínea** *L.*	scarlet-flower'd	■ ⊔	or	1½	ja.d	D.R	C. G. H.	1783.	C	s p	And. heaths, v. 1
5179 **exúdans** *Lodd.*	dewy	■ ⊔	cu	1½	o.n	R	C. G. H.	1810.	C	s.p	Bot. cab. 287
5180 **Massóni** *Thunb*	Masson's	■ ⊔	gr	3	jl.o	R.o	C. G. H.	1787.	L	s.p	Bot. mag. 356
5181 **gemmífera** *Lodd.*	gem-bearing	■ ⊔	spl	1	my jl	S	C. G. H.	1802.	C	s.p	Bot cab. 457
5182 **bícolor** *Andr.*	two-colored	■ ⊔	or	2	mr.o	G.a	C. G. H.	1790.	C	s.p	Bot. cab. 1001
5183 **exsúrgens** *Andr.*	quiver-formed	■ ⊔	spl	1½	ja.d	D.O	C. G. H.	1792.	C	s p	Bot. cab. 835
5184 **vestita** *Thunb*	tremulous	■ ⊔	spl	3	ja.d		C. G. H.	1789.	C	s.p	
α álba	*white*	■ ⊔	el	2	ja.d	W	C. G. H.	1789.	C	s.p	And. heaths, v 1
β incarnáta	*flesh-colored*	■ ⊔	spl	2	ja d	Pk	C. G. H.	1789.	C	s.p	And. heaths, v. 2
γ purpúrea	*purple*	■ ⊔	spl	2	ja.d	Pu	C. G. H.	1789.	C	s.p	And. heaths, v 1
δ rósea	*rosy*	■ ⊔	de	3	ja.d	L.R	C. G. H.	1789.	C	s.p	And. heaths, v 2
ε fulgida	*bright-red*	■ ⊔	spl	3	ja.d	O	C. G. H.	1789.	C	s.p	And. heaths, v 2
ζ coccínea	*scarlet*	■ ⊔	spl	3	ja.d	D.R	C. G. H.	1789.	C	s.p	And. heaths, v 1
η lútea	*yellow*	■ ⊔	spl	3	ja.d	Y	C. G. H.	1789.	C	s.p	And heaths, v. 3
5185 **rósea** *Andr.*	rose-colored	■ ⊔	el	2½	jn.o	L.R	C. G. H.	1798.	C	s p	Bot. cab. 782
5186 **Nivénia** *Andr.*	Niven's	■ ⊔	spl	½	f.jl	Pu	C. G. H.	1799.	C	s.p	And heaths, v. 2
5187 **áspera** *Andr.*	rough	■ ⊔	or	1	my.jn	Y	C. G. H.	1802.	C	s.p	And. heaths, v. 3
5188 **cylíndrica** *Andr.*	cylindric	■ ⊔	or	2	my.jn	W	C. G. H.	1798.	C	s p	And. heaths, c ic



History, Use, Propagation, Culture,

make their beds with it. In most of the western isles they dye their yarn of a yellow color, by boiling it in water with the green tops and flowers of this plant; and woollen cloth boiled in alum water, and afterwards in a strong decoction of the tops, comes out a fine orange color. In some of these islands they tan their leather in a strong decoction of it. Formerly the young tops are said to have been used alone to brew a kind of ale; and Boethius relates that this liquor was much used by the Picts. In some of the isles it is said they still brew ale with one part malt, and two parts of the young tops of heath, sometimes adding hops. In many parts of Great Britain besoms are made of it. The turf, with the heath growing on it, is cut up and dried for the fuel of the cottager, for heating ovens, covering under-ground drains, &c. Sheep and goats will sometimes eat the tender shoots, but they are not fond of them. Cattle not accustomed to browse on heath give bloody

5138 Anth. bearded, Lvs. 4-6, Fl. axill. Cal. imbr. Sepals orbicular obovate

5139 Anthers bearded, Lvs. 4-6, Flow. axillary, Cal. imbric. Sepals rhomboid with long claws
5140 Anth. beardless, Leaves 4 3-cornered ciliated, Flowers terminal subsolitary
5141 Anthers included bearded, Cal. leafy, Leaves 4 hairy, Flowers terminal, Style exserted
5142 Anthers beardless included, Lvs. 3-4, Flowers terminal few, Cal. imbr. Cor. pubescent
5143 Anthers bearded, Lvs. 4-6, Fl. axillary, Cal. imbric. Sepals subulate from a broad base
5144 Anth. beardless, Lvs. 4 linear glandular hairy, Cor. clavate, Cal. hispid
5145 Anthers bearded, Style incl. Cor. cylind. Sepals membran. Fl. axill. whorl. Lvs. 4 lin. smooth
5146 Anth. beardless, Lvs. 4, Fl. term. 4 closely packed in a 4-cornered head, Sep. lin.-subul Ped. very short
5147 Anthers beardless, Flowers solitary or 3, Cal. imbric. Cor. villous
5148 Anthers beardless, Flowers 3, Cal. imbricated, Cor. smooth, Leaves pubescent
5149 Anth. beardless exserted, Ovary turbinate, Lvs. 4-6, Fl. axillary, Two bractes close to cal. one remote
5150 Anthers beardless exserted, Lvs. 4-6, Flowers axill. Bractes remote, Ovary with 8 furrows smooth
5151 Anthers beardless included, Bractes next calyx, Cor. hairy solitary, Leaves 4 hairy
5152 Anthers exserted gibbous at base, Bractes remote, Cal. leafy, Lvs. 4, Branches hairy, Fl. terminal

5153 Anthers beardless, Lvs. 4, Bractes a little distant from cal. Sepals oblong revolute at edge
5154 Anthers beardless exserted, Lvs. 4, Bractes linear distant from cal. Sepals ovate acuminate
5155 Anth. beardless, Lvs. 4-6, Fl. axill Two bractes next cal. one remote, Ovary cylind. Cor. pubescent viscid
5156 Anthers beardless included, Lvs. 4, Fl. term few, Bractes lin. remote, Sepals ovate acuminate
5157 Anthers beardless, Lvs. 4-6, Fl. axill. Two bractes next cal. one remote, Ovary cylind. Cor. smooth viscid
5158 Anthers beardless included, Lvs. 4, Fl. term. few, Bractes remote, Sepals ovate obtuse
5159 Anth. beardless, Cor. curved clavate smooth, Fl solitary term. Leaves 4 linear smooth
5160 Anth. beardless included, Cal. leafy imbricated, Leaves 3 smooth spreading, Style exserted
5161 Anth. beardless exserted, Cor. cylind ovate, Sepal col. obl. obt. Leaves 3 appressed erect, Fl. 3 terminal
5162 Anth. beardless included, Cor. cylindrical narrowed at base, Fl. term. umbell. Leaves 6 smooth
5163 Anth. beardless, Lvs. 4, Fl. term. 4 closely packed in 4-cornered head, Sepals lin. subul. Ped. length of fl
5164 Anth. beardless, Leaves 4, Fl. term. 4 closely packed in a 4-cornered head, Sepals lanceolate
5165 A handsome species with tufted hairy leaves. It resembles E. linnæana
5166 Anth. beardless, Leaves 4, Fl. term 4 closely packed in a 4-cornered head, Sepals ovate roundish
5167 Anth beardless, Leaves 4, Fl. axillary, Cor. ribbed, Bractes nearly as long as calyx
5168 Anth. beardless included, Leaves 6 ciliated, Flowers terminal, Cor clavate at first white afterwards red
5169 Anth. beardless, Lvs. 4-6, Fl. axillary, Cor. ribbed cylind. with a spreading limb, Bractes ½ length of cal.
5170 Anth. beardless, Lvs 4-6, Fl. axill. Cor. ribbed widest in middle with a revol. limb, Bractes length of cal
5171 Leaves spreading smooth, Flowers clavate incurved smooth
5172 Anth beardless, Leaves 4-6, Fl axillary, Cor. not ribbed, Sepals linear
5173 Anth. beardless, Leaves 4-6, Fl. axillary, Cor. not ribbed, Sepals from a broad base linear subulate
5174 Anth. beardless, Leaves 4-6, Fl. axillary, Cor. not ribbed, Sepals ovate acuminate
5175 Leaves upright smooth, Fl. term 4 turbinate hairy
5176 Anth. includ. beardless, Bractes remote from flower, Leaves very short imbricated
5177 Leaves 3 smooth spreading distant, Fl. axillary pendulous cylindrical smooth
5178 Anth. beardless included, Leaves 4-6, Fl. axill. Two bractes next cal.: one remote, Ovary turbinate
5179 Leaves 4 hairy clammy, Fl. cylindrical terminal curved smooth, Style exserted
5180 Anth. beardless, Leaves 4-6 hairy, Fl. axill Two bractes next cal.: one remote, Ovary clavate
5181 Leaves short with long hairs, Fl large axillary pendulous cylindrical with a green mouth
5182 Anth bearded, Leaves 3 ovate rough, Fl 3 cernuous smooth, Cal. villous colored
5183 Anth. beardless exserted, Leaves 4-6, Fl. axill. Bractes remote, Ovary with 4 furrows smooth
5184 Anth. beardless included, Lvs 4-6, Fl axill Bractes remote, Limb of cor. revolute, Ovary with 8 furrows [silky upwards

5185 Anth beardless included, Leaves 4-6, Fl axill Bractes remote, Limb of cor. erect spreading
5186 Anth beardless exserted, Leaves 3, Fl. terminal numerous, Bractes remote
5187 Anth. beardless included, Leaves 3 hairy, Fl capitate, Cal imbr Cor. very hairy
5188 Anth. beardless, Leaves 4 triangular smooth, Fl term. cylindr. smooth

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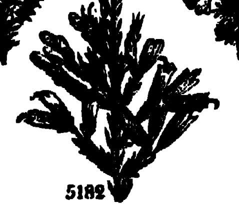
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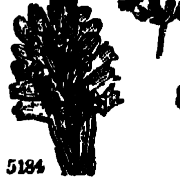
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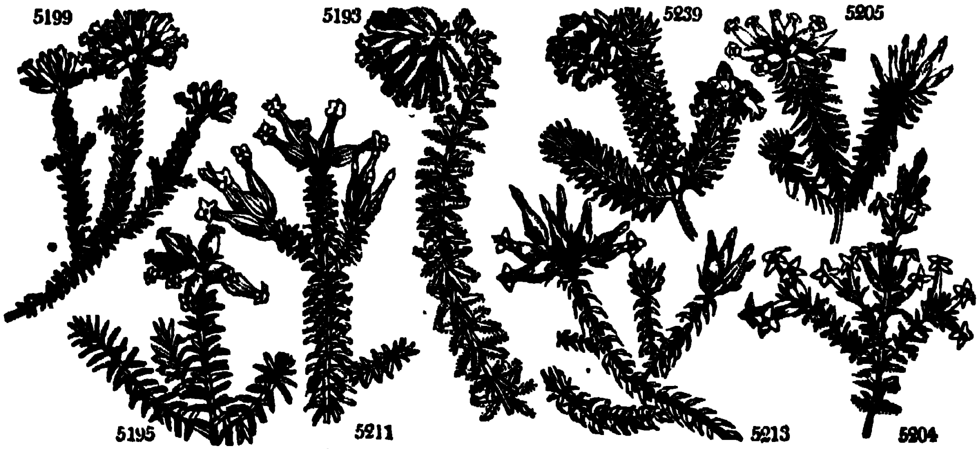
and Miscellaneous Particulars.

milk, but are soon cured by drinking plentifully of water. The branches of heath afford shelter, and the seeds a principal part of their food to many birds, especially those of the grouse kind: and for this purpose the seed-vessel is formed and protected in such a manner, that the seeds are preserved a whole year, or even longer. Bees collect largely from the flowers, and honey made from them was anciently supposed to be of a bad quality, but in fact it is only of a darker color. The foliage affords nourishment to the Phalæna quercus or great egger moth. Dodder frequently entwines itself about this plant, and gives it a singular appearance.

Till the latter end of the last century, this genus consisted of three or four humble British shrubs, and the heath of Spain (E. mediterranea), a slow growing tree. But when the Cape of Good Hope fell into the hands of the British, collectors were sent out, and soon brought to light some hundreds of species. It may serve as

5189 Monsónia *Thunb.*	Lady Monson's	■ ⊔	el	4	ap.s	W	C. G. H.	1787.	C	s.p	Bot. mag. 1915
5190 Halicácaba *L.*	bladder-flower.	■ ⊔	or	1	my.au	Y	C. G. H.	1780.	C	s.p	And. heaths,v.2
5191 lanuginósa *Andr.*	large brown-fl.	■ ⊔	or	1½	ja.s	P.y	C. G. H.	1803.	C	s.p	And. heaths,v.3
5192 glábra *Lk.*	smooth	■ ⊔	de	1	my.au	W	C. G. H.	1820.	C	s.p.	
5193 cerinthoídes *L.*	Honey-wort-fl.	■ ⊔	spl	4	my.n	D.S	C. G. H.	1774.	C	s.p	Bot. mag. 220
5194 pectinifólia *Sal.*	pectinated	■ ⊔	or	2	jn.n	R	C. G. H.	1800.	C	s.p	
5195 príncep*s* *Andr.*	fine-red	■ ⊔	or	1½	my.jl	S	C. G. H.	1800.	C	s.p	Bot. cab. 647
5196 blánda *Andr.*	charming	■ ⊔	or	¾	ap.s	L.P	C. G. H.	1800.	C	s.p	And. heaths,v.3
5197 infláta *W.*	inflated	■ ⊔	or	1½	my.s	W.s	C. G. H.	1800.	C	s.p	Th.eric.67.t.2 f.2
5198 ferruginea *Andr.*	rusty	■ ⊔	or	1	my.jl	R	C. G. H.	1798.	C	s.p	And. heaths,v.3
5199 metulæflóra *B. M.*	nine-pin	■ ⊔	el	1	jn.au	O	C. G. H.	1798.	C	s.p	Bot. mag. 612
5200 túmida *Ker.*	tumid	■ ⊔	or	1½	my.s	Sc	C. G. H.	1812.	C	s.p	Bot. reg. 65
5201 fistulæflóra *Sal.*	white slender-fl.	■ ⊔	de	2	s	W	C. G. H.	1800.	C	s.p	And. heaths, v.3
5202 obbáta *Andr.*	bottle	■ ⊔	or	1¾	ap.jl	W.s	C. G. H.	1796.	C	s.p	And. heaths,v.2
5203 acumináta *Andr.*	pointed-leaved	■ ⊔	el	1½	jl.o	R	C. G. H.	1800.	C	s.p	Bot. cab. 216
5204 Lawsóni *B. M.*	red slender-fl.	■ ⊔	el	3	ap.jn	F	C. G. H.	1802.	C	s.p	Bot. mag. 1720
5205 ventricósa *Thunb.*	Porcelain	■ ⊔	cu	1	ap.s	F	C. G. H.	1787.	C	s.p	Bot. mag. 350
5206 præ'gnans *Andr.*	swelled	■ ⊔	or	2	my.jl	R	C. G. H	1796	C	s.p	And.heaths,c.ic
5207 glutinósa *W.*	glutinous	■ ⊔	or	2	jn.o	Pu	C. G. H.	1787.	C	s.p	Ico. hor. Kew 17
β droseroídes Lam.	*sundew-like*	■ ⊔	or	2	jl o	Pu	C. G. H.	1787.	C	s.p	Pet. mus. t. 161
5208 tetragóna *Thunb.*	square-flower'd	■ ⊔	or	1½	jl.s	L.Y	C. G. H.	1789.	C	s.p	And. heaths,v.3
5209 Irbyána *Andr.*	Irby's	■ ⊔	or	1½	jn.o	W.o	C. G. H.	1800.	C	s.p	And. heaths,v.3
5210 jasminiflóra *Andr.*	Jasmine-flower.	■ ⊔	de	2	jn.n	W.pk	C. G. H.	1794.	C	s.p	And. heaths,v.1
5211 ampullácea *Curt.*	flask	■ ⊔	or	2	jn.au	W.s	C. G. H.	1790.	C	s.p	Bot. mag. 303
5212 Shannoniána *Lodd.*	Lady Shannon's	■ ⊔	el	1½	jn	W pu	C. G. H.	1806.	C	s.p	Bot. cab. 168
5213 retórta *Thunb.*	recurved-leav'd	■ ⊔	or	1	my.au	Pk.w	C. G. H.	1787.	C	s.p	Bot. mag. 362
5214 tenuiflóra *Andr.*	yellow-slend-fl.	■ ⊔	or	1½	ap.jn	L.Y	C. G. H.	1800.	C	s.p	And. heaths,v.3
5215 Cliffórdia *Lodd.*	Lady Clifford's	■ ⊔	de	1	ap.my	W	C. G. H.	1812.	C	s.p	Bot. cab. 34
5216 hyacinthoídes *Andr.*	Hyacinth-flow.	■ ⊔	or	1	jn.au	Pk	C. G. H.	1798.	C	s.p	And. heaths,v.3
5217 fastigiáta *L.* *Walkéria* Andr.	clustered	■ ⊔	or	1½	my.s	Pu	C. G. H.	1797.	C	s.p	Bot. cab. 256
5218 infundibuláris *Lk.*	funnel-shaped	■ ⊔	or	1	ap my	Pu	C. G. H.	1821.	C	s.p	Bot. cab. 589
5219 Aitónia *Andr.*	Aiton's	■ ⊔	or	2	jn.s	W.pu	C. G. H.	1790.	C	s.p	Bot. mag. 429
5220 lútea *L.*	yellow	■ ⊔	or	¾	f.my	P.Y	C. G. H.	1774.	C	s.p	And. heaths,v.1
5221 comósa *L.*	tufted	■ ⊔	or	¾	ap.au		C. G. H.	1787.	C	s.p	Ico. hor. Kew. 18
α rúbra	*red-flowered*	■ ⊔	de	½	ap.au	Pk	C. G. H.	1787.	C	s p	W.eri 12 p.7.c.ic
β álba	*white-flowered*	■ ⊔	el	¾	ap.au	W	C. G. H.	1787.	C	s.p	And. heaths,v.2
5222 muscári *W.*	musk	■ ⊔	fr	1½	mr.jl	W	C. G. H.	1790.	C	s.p	And. heaths,v.1
5223 daphnæflóra *Sal.*	Daphne-flower.	■ ⊔	de	1½	ap.my	Pa pu	C. G. H.	1791.	C	s p	Bot. cab. 154
5224 Parmentiéri *Lodd.*	Parmentine's	■ ⊔	de	1	jl.au	Pa pu	C. G. H.	1810.	C	s p	Bot. cab 197
5225 Bonplándia *Lodd.*	Bonpland's	■ ⊔	pr	1	mr.s	Pa.Y	C. G. H.	1812.	C	s p	Bot. cab. 345
5226 Humeána *Lodd.*	Sir A. Hume's	■ ⊔	el	1½	mr.ap	Pk	C. G. H.	1808.	C	s.p	Bot. cab. 389
5227 denticuláta *L.*	toothletted	■ ⊔	or	1¼	ap.my	Pu	C. G. H.	1821.	C	s p	Bot. cab. 1090
5228 radiáta *Andr.*	radiated	■ ⊔	or	1	au.n	C	C. G. H.	1798.	C	s.p	And. heaths,v.1
5229 aristáta *Andr.*	awned	■ ⊔	or	1½	mr.au	D P.w	C. G. H.	1801.	C	s.p	And. heaths,v.3
5230 primuloídes *Andr.*	Cowslip-flower.	■ ⊔	or	½	ap jl	P.w	C. G. H.	1802.	C	s.p	Bot. mag. 1548
β múndula Lodd.	*neat*	■ ⊔	pr	¾	my.jl	R.w	C. G H.	...	C	s.p	Bot. cab 114
5231 moscháta *Lodd.*	musk-scented	■ ⊔	ft	1½	my.jl	G	C. G. H.	1805.	C	s.p	Bot. cab. 614
5232 concáva *Lodd.*	concave	■ ⊔	el	¾	mr.ap	Pa.pu	C. G. H.	1808.	C	s.p	Bot. cab. 134
5233 Coventryána *Lodd.*	Lord Coventry's	■ ⊔	pr	1	jn jl	Pk	C. G. H.	1808.	C	s.p	Bot. cab. 423
5234 erósa *Lodd.*	bitten	■ ⊔	de	¾	ap.my	Pa.pk	C G. H.	1817.	C	s p	Bot. cab. 133
5235 juliána *Lodd.*	July	■ ⊔	el	¾	jl	R	C. G. H.	1800.	C	s.p	Bot. cab. 799
5236 tróssula *Lodd.*	neat	■ ⊔	pr	1½	ap.my	W.pk	C. G. H.	1800.	C	s.p	Bot. cab. 668
5237 corifólia *L.* *calycína* W.	Coris-leaved	■ ⊔	pr	1½	au.d	Pa.pu	C. G. H.	1774.	C	s.p	Bot. mag. 423
5238 andromedæflóra *An.*	Andromeda-fl.	■ ⊔	pr	2	mr.jn	Pk	C. G. H.	1803.	C	s.p	Bot. mag. 1250
5239 élegans *Andr.*	elegant	■ ⊔	el	½	mr.n	G	C. G. H.	1799.	C	s.p	Bot. mag. 966
5240 triflóra *L.*	three-flowered	■ ⊔	or	1½	my.jn	W	C. G. H.	1774.	C	s.p	Wen.eri.12. p.13



History, Use, Propagation, Culture,

an easily recollected date, to say that all of them were sent home during the reign of George III., and as a tribute to merit, that most of them were gathered by Mr. Francis Masson. Their beauty needs no encomium; many are pretty, some are graceful or elegant, a few splendid, and there are curious, grotesque, and odoriferous species. Their culture and propagation is one of the most delicate branches of the art of gardening: it may be said to have been invented in England, and in the Hammersmith nursery, and places Britain far before all countries in this art as in so many others.

The only soil in which heaths will grow is earth of peat: if any substitute can be found, it is in leaf-mould

B. Ventricosæ. *Corolla inflated.*

5189 Anthers bearded, Bractes oblong next cal. Cor. twice as long as calyx
5190 Anthers bearded, Bractes ovate next cal. Cor. 4-cleft thrice as lóng as calyx
5191 Anthers bearded, Bractes ovate next cal. Cor. 4-parted scarcely twice as long as calyx
5192 Anthers bearded included, Cal. leafy, Bractes remote from fl. Leaves 4 spreading smooth
5193 Anthers beardless, Flowers terminal, Two bractes next fl.: one remote, Cor. viscid-hairy
5194 Cal. rhomboid-spatulate, Cor. woolly inside, Leaves narrow-ovate cuneate pectinate
5195 Anth. beardless, Fl. term. Two bractes next fl.: one remote, Cor. smooth, Sepals lin. lanceolate
5196 Anth. bearded, Two bractes next fl.; one remote, Leaves 6, Beards of anth. very short
5197 Anth. bearded, Bractes remote, Leaves 4 smooth, Beards of anth. very long
5198 Anth. beardless, Fl. term. 8, Bractes remote, Leaves 4, Sepals terminated by 3 or more bristles
5199 Anth. beardless, Fl. term. Two bractes next cal.; one remote, Cor. smooth, Sepals ovate acuminate
5200 Pubescent, Two subul. bractes next cal. Leaves decussate 4, Cor. villous many times longer than calyx
5201 Cal. minutely ciliated, Tube narrow-cylindrical urceolate, Anthers beardless
5202 Anth. beardless, Fl. term. 4, Cal. imbric. Sepals ovate oblong acute, Leaves recurved ciliated
5203 Anth. beardless, Fl. term. many, Cal. imbric. Leaves recurved terminated by a bristle

C. Limbatæ. *Corolla elongated, narrowed upwards, with a flat limb.*

5204 Anth. beardless, Leaves ciliated and flowers 4, Sepals subulate, Stigma exserted
5205 Anth. bearded, Bractes remote, Leaves 4 ciliated, Beards of anth. very short
5206 Anth. bearded included, Leaves 4 ciliated, Fl. capitate, Bractes remote
5207 Anth. bearded included, Cor. globose ovate, Leaves opposite and scattered fringed with glands linear

5208 Anth. beardless, Fl. terminal 3, Leaves 3, Bractes remote, Sepals subulate, Cor. 4-cornered
5209 Anth. included beardless, Fl. umbelled, Bractes remote
5210 Anth. beardless, Fl. term. 3, Leaves 3, Bractes remote, Sepals ovate oblong
5211 Anth. beardless, Fl. term. 4, Leaves 4, Bractes remote
5212 Flowers long conical striped, with a flat limb, The whole surface of corolla shining
5213 Anth. beardless, Fl. term 8, Leaves 4, Bractes remote, Sepals terminated by a long bristle
5214 Anth. beardless, Fl. term. 4, Cal. imbricated, Sepals from a broad base, subulate, entire
5215 Anth. beardless, Fl. term. Leaves 4 smooth, Cor. slender, Style included
5216 Anth. beardless, Fl. term. 4, Cal. imbricated, Sepals ovate acuminate serrulate
5217 Anth. beardless included, Flowers fascicled, Style included, Leaves 4

5218 Anth. included beardless, Leaves 4 smooth erect, Fl. term. Cal. imbricated leafy
5219 Anth. beardless, Leaves 3, Fl. term. Fl. 3, Bractes remote, Cor. viscid
5220 Anth. bearded, Style included, Flowers terminal, Leaves lin. 2 smooth, Branches deflexed
5221 Anth. beardless included, Style included, Leaves 4, Flowers clustered

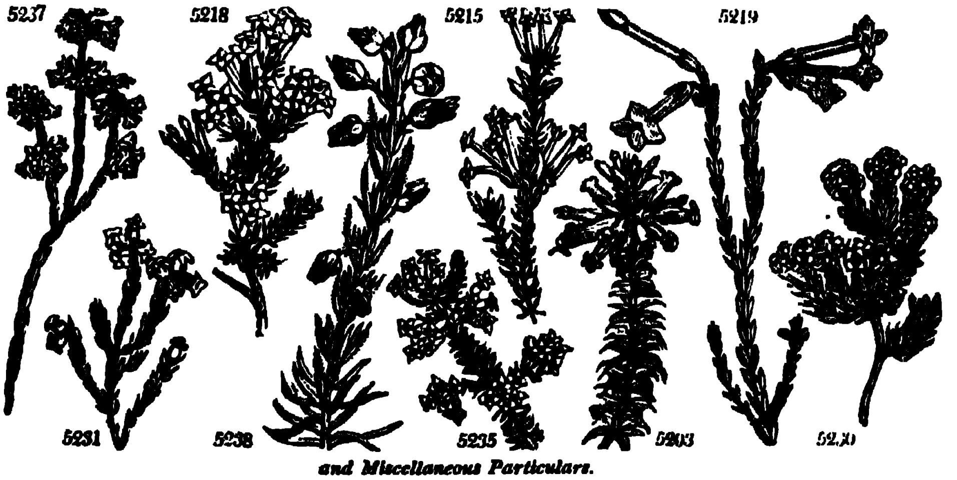
5222 Anth. beardless, Cor. somewhat 4-cornered, Sepals lanceolate entire, Fl. term. sessile, Leaves 4 smooth
5223 Cal. ovate cuspidate scarcely serrated, Cor. three lines long, Limb twice as short as tube recurved
5224 Leaves 4 spreading, Fl. 4 terminal
5225 Leaves 4 erect, Fl. simple on little axillary branches, Cor. ovate
5226 Leaves 3 smooth erect imbricated, Fl. 3 terminal, Cor. hypocrateriform, Tube slender
5227 Anth. beardless included, Sepals membranous ciliate toothed, Fl. term. sessile, Leaves 4 smooth
5228 Anth. beardless included, Leaves 4-6, Fl. axill. Bractes remote, Limb of cor. revolute, Ovary smooth
5229 Anth. beardless, Fl. terminal, Cal. imbricated, Fl. 4. Sepals oblong obtuse, Leaves recurved setose
5230 Anth. beardless, Flowers terminal subsessile 5, Bractes next calyx, Leaves spreading 5

5231 Leaves short erect, imbricated, Flowers terminal solitary, Tube ovate, Limb recurved
5232 Leaves 3 filiform spreading, Fl. 3 term. rotate, Stamens and styles exserted
5233 Leaves dense acerose smooth erect, Fl. axillary, Tube cylindrical
5234 Leaves densely imbricated erect, Flowers large axillary, Petals sawed
5235 Leaves dense spreading, Fl. 4 terminal, Tube ovate longer than limb
5236 Leaves 4 narrow erect smooth, Flowers terminal 4 very numerous, Tube ventricose

D. Calycinæ. *Corolla inclosed in the inflated calyx.*

5237 Anthers crested, Cor. ovate, Style included, Cal. turbinate, Leaves 3, Flowers umbelled

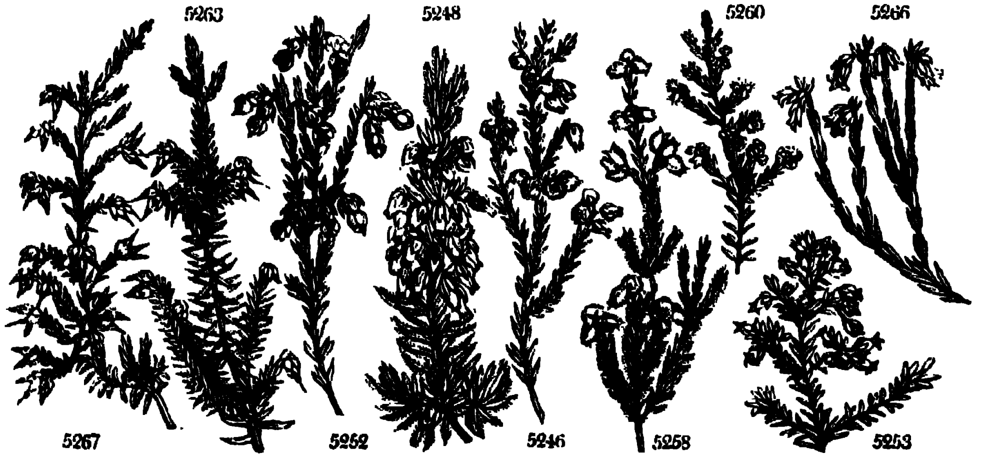
5238 Anthers crested, Bracteas remote, Leaves 3 much longer than the joints green
5239 Anth. crested, Leaves 3, Cal. imbricated, Style included, Flowers terminal, numerous
5240 Anth. crested, Leaves 3, Cal. imbricated, Style included, Flowers terminal three



and Miscellaneous Particulars.

sifted very fine and mixed with fine sand. Earth of peat is obtained by collecting peats from bogs or turf from the surface of peaty wastes and moist places, and laying the peats or turves in a heap to rot and moulder into earth. This they will require several years to do; but in the meanwhile a portion of mould may be obtained whenever it is wanted, by turning the turves and sifting the fragments. Sometimes this peat is found without any mixture of sand; at other times, where streams have run into the bog or lake while the peat was forming, it is mixed with fine sand that had been held suspended in the water. This last is the best sort of peat for the Erica family; and therefore where peat is not sandy naturally, fine white sand

5241	flagelláris *Lk*	wiry	■	⊔	pr	1½	my	P.r	C. G. H.	1820.	C	s.p	
5242	bracteáta *Thunb*	red-bracted	■	⊔	or	¾	my.jn	R	C. G. H.	1800.	C	s.p	
5243	túrgida *Lk.*	turgid	■	⊔	el	1	ap.jl	Pu	C. G. H.	1821.	C	s.p	
5244	lachneæfólia *Andr*	Lachnea-leav'd	■	⊔	de	1½	my.jl	W	C. G. H.	1793.	C	s.p	And. heaths, v.3
5245	nigrita *L.*	black-tipped	■	⊔	cu	¾	mr.jn	W	C. G. H.	1790.	C	s.p	And. heaths, v.1
5246	báccans *L.*	Arbutus-flower.	■	⊔	or	1½	ap.jn	Pu	C. G. H.	1774.	C	s.p	Bot. mag. 358
5247	fúgax *Salisb.*	fugacious	■	⊔	or	1½	mr.ap	Pu	C. G. H.	1800.	C	s.p	
5248	triúmphans *Lodd.*	conquering	■	⊔	el	2	my.jn	W	C. G. H.	1802.	C	s.p	Bot. cab. 257
5249	phylicoídes *W.*	phylica-like	■	⊔	or	1½	ap jn	W	C. G. H.	1800.	C	s.p	
5250	incúrva *Wendl.*	incurved	■	⊔	de	1½	my.jl	W	C. G. H.	1821.	C	s.p	
5251	tenuifólia *L.*	slender-leaved	■	⊔	or	1	ap.my	Pk	C. G. H.	1794.	C	s.p	Seb.mu.1.t.73.f.6
5252	Thunbérgia *W.*	Thunberg's	■	⊔	pr	1½	my.au	O	C. G. H.	1794.	C	s.p	Bot. mag. 1214
5253	taxifólia *H. K.*	Yew-leaved	■	⊔	or	1	jl.n	Pu	C. G. H.	1788.	C	s.p	And. heaths, v.1
5254	petioláta *Thunb*	Rosemary-leav.	■	⊔	cu	½	mr.jl	Pa pu	C. G. H.	1774.	C	s.p	And. heaths, v.3
5255	imbricáta *L.*	imbricated	■	⊔	or	1	my.au	Pk	C. G. H.	1786.	C	s.p	Bot. cab. 1243
5256	velleriflóra *Salisb.*	woolly-flower'd	■	⊔	cu	1½	f jn	W	C. G. H.	1774.	C	s.p	And. heaths, v.1
5257	Bruniádes *L.*	Brunia-like	■	⊔	cu	1½	ap.jn	W	C. G. H.	1790.	C	s.p	W.er.16 p.53.c.ic
5258	capitáta *L.*	downy-headed	■	⊔	or	1½	mr.jl	Y	C. G. H.	1774	C	s.p	And. heaths, v.1
5259	pátens *Andr.*	spreading	■	⊔	or	1½	mr.jn	Pu	C. G. H.	1800.	C	s.p	And. heaths, v.3
5260	fimbriáta *Andr.*	fringed	■	⊔	or	½	mr.jn	Pa.pu	C. G. H.	1800.	C	s.p	And. heaths, c.ic
5261	melanthéra *Thunb.*	dark-anthered	■	⊔	el	1½	jn	Pa.pu	C. G. H.	1803.	C	s.p	Bot. cab. 867
5262	flácida *Lk.*	flaccid	■	⊔	de	1	my	W	C. G. H.	1822.	C	s.p	
5263	sextária *H. K.*	six-angled	■	⊔	or	¾	my.au	W	C. G. H.	1774.	C	s.p	And. heaths, v.2
5264	frágrans *Andr.*	fragrant	■	⊔	lt	¾	mr.jn	Pu	C. G. H.	1803.	C	s.p	And. heaths, v.2
5265	oppositifólia *Andr.*	opposite-leaved	■	⊔	or	½	mr.my	W	C. G. H.	1804.	C	s.p	And. heaths, v.3
5266	biflóra *Lk.*	two-flowered	■	⊔	de	¾	ap jn	W	C. G. H.	1819.	C	s.p	Bot. cab. 683
5267	spumósa *L.*	frothy	■	⊔	cu	1½	my.au	W	C. G. H.	1786.	C	s.p	Bot. cab. 566
5268	vulgáris *L.*	common	■		ec	2	f.jl	Pu	Britain	heaths.	C	s.p	Eng. bot. 1013
	Calluna vulgaris Sal												
	β *álba*	*white-flowered*	■		or	2	f.jl	W	......	...	C	s.p	
	γ *flore pléno*	*double-flowered*	■		or	2	f.jl	Pu	......	...	C	s.p	
5269	glaúca *Sal.*	glaucous	■	⊔	or	2	my.jl	D.Pu	C. G. H.	1792.	C	s.p	Bot. mag. 580
5270	pyrolæflóra *Sal.*	Pyrola-flower'd	■	⊔	or	1½	my.jl	W	C. G. H.	1790.	C	s.p	
5271	láxa *Andr.*	loose-flowered	■	⊔	or	1½	f.s	B	C. G. H.	1800.	C	s.p	And. heaths, v.3
5272	lúcida *Andr.*	lucid	■	⊔	or	1½	ap.jn	D.Pu	C. G. H.	1800.	C	s.p	And. heaths, v.2
5273	squamósa *Andr.*	scaly-cupped	■	⊔	or	¾	ap.jn	F	C. G. H.	1794.	C	s.p	And. heaths, v.3
5274	togáta *B. M.*	large-cupped	■	⊔	or	¾	jn jl	R	C. G. H.	1812.	C	s.p	Bot. mag. 1626
5275	canaliculáta *Andr*	channelled	■	⊔	or	¾	f au	R	G. H.	1799.	C	s.p	And. hea vol 3
5276	horizontális *Andr*	horizontal-lvd.	■	⊔	de	1½	jl s	Pk	G. H.	1800.	C	s.p	And. hea. vol. 3
5277	globósa *W*	globular-flower.	■	⊔	or	1½	jl.s	Pk	G. H.	1789.	C	s.p	
5278	gnaphalódes *W.*	Gnaphal.-like	■	⊔	cu	1	f.au	W	C. G. H.	1812.	C	s.p	P m.68.t.346 f 11
5279	rubella *Lodd*	thrift-flowered		⊔	pr	2	jn	Pk	C. G. H.	1814.	C	s.p	Bot. mag. 2165
5280	árdens *Andr.*	glowing	■	⊔	or	2	ap jn	S	C. G. H.	1800.	C	s.p	Bot. reg. 115
5281	nitida *Andr.*	nitid	■	⊔	de	2	jl o	W	C. G. H.	1800.	C	s.p	And. hea. vol. 3
5282	physódes *L.*	sticky	■	⊔	de	1¾	mr jl	W	C. G. H.	1788.	C	s.p	Bot mag. 443
5283	viridipurpúrea *W.*	green and purp	■	⊔	or	3	my au	G.Pu	Portugal	...	C	s.p	Li. er. n.9.c. fig fl
5284	arbórea *L.*	tree	■	⊔	or	5	f jn	W	S. Europe	1658	C	s.p	
	β *stylósa* P. S.	*long-styled*	■	⊔	pr	5	f jn	W	S. Europe	1658.	C	s.p	
5285	resinósa *B. M.*	varnished	■	⊔	or	1½	my.au	O	C. G. H.	1803.	C	s.p	Bot. cab. 679
5286	Lambertia *Andr.*	Lambert's	■	⊔	de	1	my.au	W	C. G. H.	1800.	C	s.p	And. hea. vol 2
5287	incarnáta *Thunb*	flesh-colored	■	⊔	or	1½	my.au	R	C. G. H.	1791.	C	s.p	And. hea. c. ic.
5288	rúbens *Thunb.*	red-flowered	■	⊔	or	1	jn.s	D.R	C. G. H.	1798.	C	s.p	Bot. cab. 557
5289	fíbula *Lk.*	button	■	⊔	or	1½	jl	Pu	C. G. H.	1823.	C	s.p	
5290	axilláris *Thunb.*	axil-flowered	■	⊔	or	1	my jl	Pk	C. G. H.	1798.	C	s.p	
5291	margaritácea *Thunb*	pearl-flowered	■	⊔	el	1½	my.s	W	C. G. H.	1775.	C	s.p	And. hea. vol 1
5292	péndula *Wendl.*	pendulous	■	⊔	or	1½	jl.au	Pu	C. G. H.	1791.	C	s.p	W e 10.p 13.c.ic
5293	laterális *W.*	side-flowered	■	⊔	cu	1½	mr.jl	R	C. G. H.	1791.	C	s.p	And hea. vol 1
5294	empetrifólia *L.*	Crowberry-lvd.	■	⊔	or	1½	ap jn	Pu	C. G. H.	1774.	C	s.p	Bot. mag. 447
5295	incúrva *Andr.*	incurved	■	⊔	de	1	mr.my	W	C. G. H.	1802.	C	s.p	And. hea. c. ic



History, Use, Propagation, Culture,

or sand of any color, provided it be free from irony impregnation, should be procured and mixed with it. This sand admits the water to penetrate into the soil and reach the roots of the plant, and also to drain away from the roots so as not to rot them. Pots filled with pure peat-earth are apt to be either hard, dry, and impenetrable to water, or otherwise as wet as a saturated sponge. The free growing kinds (according to Sweet) thrive best in good black peat, and like largish pots to grow in. The dwarf and hard-wooded kinds like a very sandy peat, and smaller pot, well drained with broken potsherds and rough bits of turfy peat; they also require less water than the free growing kinds, as they grow chiefly at the Cape on the tops and sides of mountains, and in the crevices of rocks, &c. chiefly in very sandy soil, and but little of it.

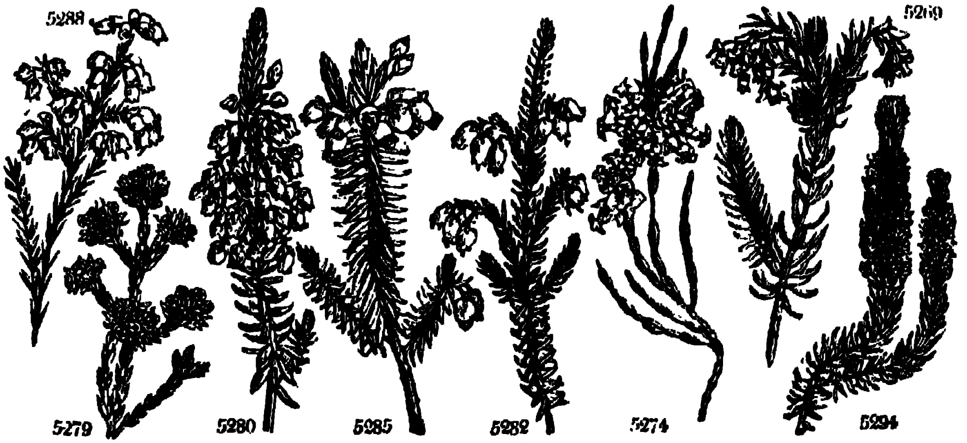
5241 Anth. crested, Leaves 3, Cal. imbricated, Sepals carinate, Flowers terminal three, Style included
5242 Anth. beardless, Leaves 3 lanceolate smooth, Fl. umbelled surrounded by colored bractes
5243 Anthers crested, Leaves 3 mucronate smooth with a white edge, Sepals lanceolate, Flowers terminal
5244 Anthers bearded, Leaves 3 oval imbricated, Flowers capitate
5245 Anthers bearded, Leaves 3 smooth, Cor. campanulate, Style included, Flowers 3 sessile
5246 Anthers bearded, Leaves 4, Appendages subulate pectinate longer than the anther
5247 Anthers bearded, Style included, Cor. ovate 4-cornered, Fl. terminal 3, Leaves 3 or 4, Stem pubescent
5248 Leaves long ciliated spreading, Fl. axill. Cor. cylindrical, Cal. with keeled sepals
5249 Anth. bearded included, Style included, Cor. campan. Fl. axill. nodding, Leaves 3 imbricated 6 ways
5250 Anth. beardless exserted, Style exserted, Cor. campan. Fl. terminal capitate, Leaves 4-incurved ciliated
5251 Anth. beardless included, Cor. and calyx scarlet, Leaves opposite
5252 Anth. beardless, Cor. flat, Tube globose, Style exserted, Leaves 3
5253 Anth. beardless included, Cor. ovate, Flowers in umbelled corymbs, Lvs. 3 triangular cartilagin. at edge
5254 Anthers beardless exserted, Style exserted, Cor. campanulate, Flowers 3 terminal, Lvs 3 lanc. smooth
5255 Anthers beardless exserted, Cor. campanulate, Cal. imbricated, Style exserted, Leaves 3
5256 Anthers much exserted beardless, Cor. campanulate length of the very hairy calyx, Leaves spreading
5257 Anthers much exserted beardless, Cor. campanulate longer than the very hairy calyx, Leaves erect
5258 Anthers beardless included, Cor. globose campan. Cal. woolly, Flowers sessile, Lvs. 3 lin. obtuse villous
5259 Anthers beardless included, Leaves broadish, Fl terminal, Cal imbricated
5260 Anthers beardless included, Leaves 3 lines long, Fl. capitate, Cal. ciliated
5261 Anthers beardless of middle length, Cor campan. longer than cal. Style exserted, Leaves 3
5262 Leaves 4 hairy, Fl. capitate, Sepals and bractes very hairy, Cor. globose, Anthers beardless exserted
5263 Anthers beardless exserted, Style exserted, Cor. campan. Leaves 3 imbricated in 6 rows
5264 Anthers beardless, Leaves linear 3 smooth, Limb of cor. revolute
5265 Anthers beardless, Leaves appressed, Fl capitate, Cor limbate
5266 Leaves 2 channelled, Fl. term. on short stalks, Sepals ovate acute, Anth. included crested
5267 Anth. beardless included, Cor 3, Style exserted, Leaves 3
5268 Anthers bearded, Leaves opposite sagittate

5269 Anth. crested, Leaves 3 erect spreading much longer than joints glaucous, Bractes remote from calyx
5270 Leaves wedge-shaped, Cal. ovate cuneate, Cor. 4-cornered spherical, Anthers bearded
5271 Anth. crested, Leaves 3 ciliated, Cal. imbricated, Style exserted
5272 Anth. crested, Leaves 3 smooth, Cal. imbricated, Style exserted
5273 Anth. crested, Leaves 4
5274 Anth. crested, Leaves opp. appressed, Cal. large cup-shaped, Sepals rounded mucronate
5275 Anth. beardless, Leaves 3, Bractes remote, Cor. campan.
5276 Anth. beardless, Leaves and flowers 4
5277 Anth. beardless, Leaves 4, Flowers 8
5278 Anth. crested, Cor. ovate covered, Style included, Leaves 3, Stigma 4-parted
5279 Anth. beardless, Leaves opposite imbricated appressed, Umbels terminal many-flowered

E. Globosæ. *Corolla small, globose*

5280 Cor. globose, Anth. crested, Two bractes next the calyx, the third remote
5281 Cor. globose, Anth. crested, All bractes close to calyx
5282 Cor. globose, Anth crested, Bractes remote from cal. Leaves glandular at edge, Sepals ovate
5283 Anthers bearded, Cor. campanulate, Style included, Leaves 3, Flowers scattered
5284 Anth. bearded, Style exserted, Cor. camp. globose, Leaves 3 or 4 roughish, Branches pubescent

5285 Cor. globose glutinous, Anth. crested, Bractes remote, Leaves roughish
5286 Cor. globose, Leaves quite smooth, Anth. crested
5287 Anth. crested, Leaves 3 ovate smooth, Flowers umbelled ovate, Cal entire, Branches villous
5288 Anth. crested, Leaves 3 linear smooth, Fl. umbelled globose, Cal. lanceolate short, Branches smooth
5289 Leaves 3 or 4 spreading finely ciliated, Fl. terminal, Bractes remote, Sepals ovate, Anth. included crested
5290 Anth beardless, Leaves 3 triangular smooth, Fl. racemose globose, Branches downy
5291 Anth. crested, Style exserted, Cor. globose campanulate, Fl. terminal umbelled, Leaves 4 smooth erect
5292 Anth. crested, Style included, Cor. ovate, Umb. many-fl. terminal, Leaves 4 or 5, Branches pendulous
5293 Anth. bearded, Cor. globose camp. Cal. appressed ciliated, Fl term. and axill. 1-sided, Lvs. 4 horizontal
5294 Anth. bearded, Style exserted, Cor. campanulate, Fl. whorled, Leaves 6 linear hairy
5295 Anth. beardless exserted, Cor. campanulate, Fl. term. capitate, Leaves 4 incurved ciliated



and Miscellaneous Particulars.

The climate for the heaths is not required to be warm during winter; if the frost is excluded, that will be enough. Some species, as the E. persoluta for example, will even bear to have the ground about their roots frozen without injury, provided it is not thawed in the sun, or too suddenly, or in a very warm temperature. In general the heaths may be kept in the coldest part of the greenhouse, and those not in flower in pits, well covered at night with mats or prepared coverings of reeds or straw. Too much fire-heat in winter will hurt them as much as any thing, as they only require to be kept from frost. most of the kinds might be preserved through the winter in frames: the only difficulty is to keep the damp from them.

Heaths require a great deal of air and light, and therefore should be placed near the glass and near such

5296 planifólia *L.*	flat-leaved	■	⊔	or	2	jl.s	Pu	C. G. H.	1795.	C	s.p	W. er. 8.p.7.c.ic.
5297 serpyllifólia *Lodd.*	thyme-leaved	■	⊔	pr	½	jn.jl	W	C. G. H.	1810.	C	s.p	Bot. cab. 744
5298 marifólia *Thunb.*	Marum-leaved	■	⊔	or	2	my.jn	W	C. G. H.	1773.	C	s.p	And. hea. vol. 1
5299 hispídula *Thunb.*	bristly-stemmed	■	⊔	el	1	jn.au	Pu	C. G. H.	1791.	C	s.p	
5300 Scholliána *Lodd.*	Scholl's	■	⊔	cu	1½	my.jn	Pu	C. G. H.	1810.	C	s.p	Bot. cab. 538
5301 Blandfórdia *Andr.*	Ld Blandford's	■	⊔	or	1½	mr.jn	Y	C. G. H.	1803.	C	s.p	And. hea. vol. 3
5302 sanguinolénta *Lodd.*	blood-colored	■	⊔	pr	¾	my.jl	Cr	C. G. H.	1818.	C	s.p	Bot. cab. 468
5303 Savilléia *Andr.*	Savile's	■	⊔	or	¾	jn.jl	R	C. G. H.	1800.	C	s.p	And. hea. c. ic.
5304 aggregáta *Wendl.*	clustered	■	⊔	el	¾	jl	Pu	C. G. H.	1820.	C	s.p	Bot. cab. 1678
β *alba*	*white flowered*	■	⊔	el	¾	jl	W	C. G. H.	1822.	C	s.p	
5305 congésta *Wendl.*	close-headed	■	⊔	de	1	jn.jl	W	C. G. H.	1820.	C	s.p	Bot. cab. 1743
5306 paniculáta *L.*	panicled	■	⊔	or	1	f.ap	R	C. G. H.	1774.	C	s.p	Bot. cab. 1194
β *alba*	*white-flowered*	■	⊔	or	1	f.ap	W	C. G. H.	1774.			
5307 suavéolens *Lodd.*	sweet-scented	■	⊔	el	1	au	Pk	C. G. H.	1800.	C	s.p	Bot. cab. 24
5308 amœ'na *Wendl.*	feathery	■	⊔	or	1	mr.jl	Pu	C. G. H.	1795.	C	s.p	W.e.17.p.73.c.ic.
plumbósa Andr.												
5309 lævis *Andr.*	smooth	■	⊔	de	1	my.jn	W	C. G. H.	1821.	C	s.p	Bot. cab. 1393
5310 Pezíza *Lodd.*	mushroom	■	⊔	de	1	mr.s	W	C. G. H.	1812.	C	s.p	Bot. cab. 265
5311 grácilis *Wendl.*	gracile	■	⊔	or	¾	f.jn	W	C. G. H.	1794.	C	s.p	W.er.8. p.9.c.ic.
5312 nidulária *Lodd.*	nestling	■	⊔	pr	2	mr.ap	Pk	C. G. H.	1809.	C	s.p	Bot. cab. 764
5313 persolúta *L.*	garland	■	⊔	or	1½	f.my	Pu	C. G. H.	1774.	C	s.p	Bot. cab. 342
5314 grandinósa *Lodd.*	hailstone	■	⊔	pr	½	mr.ap	W	C. G. H.	1810.	C	s.p	Bot. cab. 627
5315 pubéscens *L.*	pale-downy	■	⊔	or	1½	f.d	Pu	C. G. H.	1790.	C	s.p	Bot. cab. 167
5316 hirtiflóra *H. K.*	hairy-flowered	■	⊔	cu	1½	ap.jn	Pu	C. G. H.	1790.	C	s.p	Bot. mag. 481
mitræformis W.												
5317 cistifólia *Lk.*	cistus-leaved	■	⊔	cu	1	my.jn	W	C. G. H.	1823.	C	s.p	
5318 mucósa *L.*	mucous	■	⊔	el	1½	f.au	R	C. G. H.	1787.	C	s.p	And. hea. vol. 1
5319 ramentácea *L.*	slender-branch.	■	⊔	el	1½	jl.d	D.R	C. G. H.	1786.	C	s.p	And. hea. vol. 1
5320 mellífera *Lk.*	honey-bearing	■	⊔	or	1	ap.my	Pu	C. G. H.	1820.	C	s.p	
5321 odoráta *Andr.*	perfumed	■	⊔	de	1	ap.jl	W	C. G. H.	1804.	C	s.p	Bot. cab. 633
5322 canéscens *Andr.*	hoary	■	⊔	el	1½	my.au	Pk	C. G. H.	1790.	C	s.p	And. hea. vol. 2
criocéphala A. H.												
5323 pura *Lodd.*	pure	■	⊔	pr	¾	au.s	W	C. G. H.	1807.	C	s.p	Bot. cab. 72
5324 racemósa *Thunb.*	racemed	■	⊔	el	1½	ap.my	Pk	C. G. H.	1795.	C	s.p	W.er.10.p.3.c.ic.
5325 absinthoídes *L.*	wormwood-like	■	⊔	or	1½	mr.jn	Pu	C. G. H.	1792.	C	s.p	
5326 scariósa *Thunb.*	many-flowered	■	⊔	or	1	jn.jl	Pu	C. G. H.	1800.	C	s.p	Bot. cab. 477
5327 campanuláta *Wendl.*	bell-flowered	■	⊔	el	1	ap.au	Y	C. G. H.	1791.	C	s.p	And. hea. vol 1
5328 scopária *L.*	small-green-fl.	■	⊔	pr	6	ap.my	G	C. G. H.	1770.	C	s.p	L.e.n.14.c.fig.fl.
5329 triceps *Lk.*	three-headed	■	⊔	de	1	my.jn	W	C. G. H.	1820.	C	s.p	Bot. cab. 962
5330 coarctáta *Wendl.*	crowded	■	⊔	cu	1	my.s	Pu	C. G. H.	1801.	C	s.p	
5331 actæa *Lk.*	Actæon	■	⊔	pr	1	my.jn	Pa.pu	C. G. H.	1822.	C	s.p	
5332 conférta *Andr.*	crowded-flower.	■	⊔	de	1½	f.o	W	C. G. H.	1800.	C	s.p	And. hea. vol. 2
5333 penicilliflóra *Sal.*	white-pencilled	■	⊔	cu	2	my.au	W.Br	C. G. H.	1792.	C	s.p	W.er.4. p.5.c.ic.
calyculáta Wendl.												
5334 villósa *Andr.*	villous	■	⊔	cu		f.jn	W	C. G. H.	1800.	C	s.p	And. hea. vol. 3
5335 tiaræflóra *Andr.*	turban-flowered	■	⊔	pr		my.au	R	C. G. H.	1800.	C	s.p	And. hea. vol. 3
5336 mutábilis *Andr.*	mutable	■	⊔	pr	½	f.o	Cr	C. G. H.	1798.	C	s.p	Bot. cab. 46
5337 obliqua *W.*	oblique-leaved	■	⊔	or	1½	au.o	Pu	C. G. H.	1789.	C	s.p	And. hea. vol. 1
5338 fláva *Andr.*	three-lvd.-yell.	■	⊔	el	1½	s.ap	Y	C. G. H.	1795.	C	s.p	Bot. cab. 882
5339 decóra *Andr.*	graceful	■	⊔	el	2	ja.n	Pu	C. G. H.	1790.	C	s.p	And. hea. vol. 3
5340 cordáta *Andr.*	heart-leaved	■	⊔	de	¾	ap.jn	W	C. G. H.	1799.	C	s.p	And. hea. vol 3
5341 Passerína *W.*	Sparrow-wort	■	⊔	cu		my.n	W	C. G. H.	1800.	C	s.p	Pet. gaz. t. 3. f. 7
5342 setácea *Andr.*	bristly-leaved	■	⊔	pr	1½	f.ap	W	C. G. H.	1796.	C	s.p	And. hea. vol. 1
5343 tenuíssima *P. S.*	slender	■	⊔	pr		f.au	R	C. G. H.	1803.	C	s.p	W. er. 6.p.9.c.ic
5344 floribúnda *Lodd.*	many-flowered	■	⊔	cu	1	my.jn	Pa.pu	C. G. H.	1800.	C	s.p	Bot. cab. 176

History, Use, Propagation, Culture,

glass as may be opened to admit air every mild day in the year. They require also very regular supplies of water; not much at a time, but so frequently that the earth may never get dry or the plant droop. Many kinds of plants, if they have suffered for want of water, may be recovered by an abundant supply, and placing them under a bell-glass on a little heat; but if once the roots of a heath are thoroughly dried, no art of the gardener will recover the plant. This is the true reason why so many heaths are destroyed when introduced as chamber plants, and also by gardeners who are ignorant of their nature.

Heaths are propagated by cuttings, seeds, and a few by layers. In propagating by cuttings, the tender tops are taken at whatever season of the year they begin to grow, which with most sorts is about the month of June. The strong growing kinds require the cuttings to be rather larger than the others, and some of the stunted growing kinds should be kept in the hot-house a little while when they begin to grow, to draw them to a sufficient length of young wood, or cuttings cannot be procured. Then take the extreme points of the shoots, and with a sharp penknife cut off their lower ends at right angles, placing the cutting on the nail of the thumb, as in cutting the nib of a pen. The cutting will be from three quarters to an inch long: strip off the leaves from the lower end to nearly half the length of the cutting; and, in order that this may be done

5296 Anth. bearded exserted, Cor. campanulate, Leaves 3 or 4 ovate acute fringed with glands
5297 Leaves 3 ovate, Fl. very minute 3-6 term. Style long exserted
5298 Anth. bearded, Cor. ovate conical, Style middling, Leaves 3 ovate pubescent white beneath
5299 Anth. beardless included, Cor. roundish, Leaves 3 ovate acute ciliated, Stem hispid
5300 Shoots long, Leaves smooth erect imbricated, Fl. axillary, Cor. globose shorter than stalk nodding
5301 Tube of cor. cup-shaped, Fl. axillary, Cal. imbric. Leaves 4
5302 Leaves 3 spreading acerose, Cor. campanulate rough with short hairs
5303 Bractes remote, Cor. with a short open limb, Anth. included bearded
5304 Flowers capitate, Bractes remote, Cor. hairy, Anth. included bearded

5305 Leaves hairy, Flowers capitate, Anth. included bearded
5306 Bractes remote, Flowers very abundant, Anth. included bearded, Style exserted

5307 Leaves 3 ovate ciliated spreading, Fl. term. 3, Bractes remote, Cor. ovate shorter than its stalk
5308 Anth. bearded, Style included, Cor. camp. Cal. villous, Fl. axill. whorled, Leaves 4 imbric. villous

5309 Anth included bearded, Fl. capitate, Bractes remote
5310 Leaves 3 narrow spreading, Cor. 4 globose campanulate [quite smooth
5311 Anth. bearded, Style exserted, Cor. camp. Sepals linear smooth, Fl. terminal umbelled, Leaves 4, Stem
5312 Branches slender upright, Leaves 3 short smooth, Fl. clustered terminal, Cor. globose campanulate
5313 Anth. bearded, Style included, Cor. camp. Sepals ciliated, Leaves 3-4 smooth, Branches pubescent
5314 Leaves 2 spreading very narrow, Leaves 3 terminal, Cor. globose smooth
5315 Anth. bearded, Style included, Cor. ovate pubescent, Leaves 3 hairy, Stem hairy
5316 Anth. bearded, Leaves 4 or more hairy, Fl. terminal, Cor. pubescent

5317 Leaves 4 covered with glandular hairs, Fl. capitate, Bractes none, Cal. hairy, Anth. included bearded
5318 Anth. bearded, Cor. globose mucous, Ped. 3 term. longer than fl. Leaves 4 linear with a cartil. serrul. edge
5319 Anth. crested, Style included, Cor. globose, Fl. umb Leaves 4 linear 3-cornered smooth
5320 Leaves 4 and branches hairy, Fl. capitate 4 or more, Cal. leafy, Anth. exserted bearded, Style long exserted
5321 Anth. beardless, Bractes remote
5322 Anth. beardless, Leaves linear 3 smooth, Limb of cor. revolute

5323 Leaves 3 short smooth, Fl. solitary term. Cor. ovate smooth, Anth. a little exserted
5324 Anth. beardless, Leaves 4 lanceolate villous, Fl. racemose, Cal. downy
5325 Anth. beardless included, Cor. ovate campanulate, Style exserted, Stigma funnel-form, Leaves 3
5326 Anth. beardless, Leaves 3 linear smooth, Fl. camp. racemose, Bractes remote
5327 Anth. beardless, Leaves linear 3 smooth, Limb of cor. spreading recurved
5328 Anth. beardless, Leaves linear 3 smooth, Limb of cor. erect
5329 Anth. beardless exserted, Leaves 3 ciliated at base, Fl. term. 3, Sepals scarious
5330 Anth. beardless included, Stigma calyptrate, Cor. dilated upwards, Bractes remote
5331 Anth. beardless exserted, Leaves 3 smooth, Fl. term. Style exsert. Stigma peltate
5332 Anth beardless, Leaves linear 4 smooth, Flowers terminal nearly 12
5333 Anth. beardl. exsert. Cor. urceol. smooth, Fl. term. umb. Leaves 3 pointed ciliated imbricated

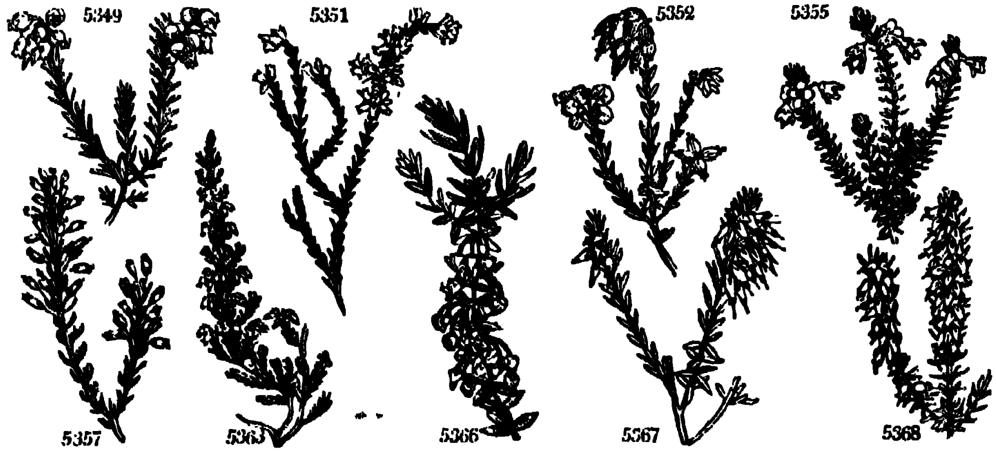
5334 Anth. beardless exserted, Fl. urceolate villous, Leaves 3 revolute villous
5335 Anth. beardless exserted, Fl. cernuous turban-shaped covered by calyx, Leaves 3
5336 Leaves 3 or 4, Fl. terminal 2, Cor. downy changing from green to crimson
5337 Anth. crested, Cor. ovate viscid, Fl. term umb. Leaves scattered arcuate truncate
5338 Leaves 3 erect imbricated smooth, Fl. axill. Cor. urceolate, Style exserted
5339 Anth. beardless included, Fl. axillary spiked, Cor. campan. ribbed, Leaves 6 obtuse
5340 Anth. beardless, Leaves 3 ovate villous
5341 Anth. beardless, Leaves 3, Cal. 4-cleft very densely downy
5342 Anth. beardless, Leaves 3 hispid, Sepals hairy upwards, Cor smooth
5343 Anth. bearded included, Cor. very small obov. obt. smooth, Fl. umb. erect and cernuous, Lvs. 3-4 smooth
5344 Leaves two distant, Fl. numerous very minute globose campanulate, Style exserted

and Miscellaneous Particulars.

without injuring the shoot, use a sharp penknife or a pair of small scissors, for the least bruise or wound spoils the cutting. This done, dibble the cuttings into pots filled with moistened white sand from pits, or with any small sand from pits or rivers, or, in default of that, with powdered sandstone. When they are all planted, water the whole to fix them still better, and when the moisture has subsided, cover them with a small crystal or greenish crystal bell-glass fitted within the rim of the pot, and place them in the shade on a spent hot-bed, keeping them quite close till rooted. The free-striking sorts will have roots in two months, and the others at different periods from three to twelve months, most of them will be ready for transplanting into pots of the smallest size in the following March. Their rooting is easily known by their beginning to shoot, and then the bell should be taken off an hour or two daily.

Many Ericas ripen their seeds in this country, and of other sorts seeds are regularly obtained by the nurserymen from the collectors at the Cape of Good Hope. Imported seeds generally arrive in the winter, and should be sown early in the spring following, in pots filled with equal parts of peat and sand well incorporated; the seeds should be thinly covered with earth gently pressed down, and bell-glasses placed over them as over the cuttings. The soil must be kept moderately moist by gentle waterings, and in about six or seven weeks

5345 austrális *L.*	Spanish	■	or	¾	mr.jl	Pu	Spain	1769.	C	s.p	And. hea. vol. 3
5346 cinérea *H. K.*	fine-leaved	■	ec	1	jn.s	Pu	Britain	hea.	L	s.p	Eng. bot. 1015
β álba	*white-flowered*	■	or	1	jn.s	W	Britain	hea.	L	s.p	
5347 stricta *Donn.*	straight-branc.	■	or	2	au.n	Pu	S. Europe	1765.	C	s.p	And. hea. vol. 2
5348 refléxa *Lk.*	reflexed	■ ⊔	cu	1½	my.jn	W	C. G. H.	1820.	C	s.p	Bot. cab. 1787
5349 cérnua *L.*	drooping-flow.	■ ⊔	or	1	au.d	Pu	C. G. H.	1791.	C	s.p	Bot. cab. 822
5350 lanceoláta *Pers.*	spear-leaved	■ ⊔	or	1	jn.d	W	C. G. H	1791.	C	s.p	W.er.8.p.13.c.ic.
5351 leucanthéra *Andr.*	white-tipped	■ ⊔	or	¾	ja.my	W	C. G. H.	1803.	C	s.p	
5352 tétralix *L.*	cross-leaved	■	ec	1	jn.au	F	Britain	moi. h.	C	s.p	Eng. bot. 1014
β álba	*white-flowered*	■	or	1	jn.au	W	......	...	L	s.p	
5353 cineráscens *W. en.*	ash-colored	■ ⊔	or	1	ap.my	Pu	C. G. H.	1810.	C	s.p	
5354 urceoláris *Thunb.*	pitcher-flower.	■ ⊔	or	1½	my.jl	W	C. G. H.	1778.	C	s.p	Ic. hor.kew. 16
5355 cúbica *L.*	cube-flowered	■ ⊔	or	1	ap.jl	Pu	C. G. H.	1790.	C	s.p	And. hea. vol. 1
5356 assúrgens *Lk.*	rising	■ ⊔	de	1	my.jn	W	C. G. H.	1821.	C	s.p	
5357 nudiflóra *W.*	small-bracted	■ ⊔	or	2	jl.au	D.Y	C. G. H.	1783.	C	s.p	Sm. ined. 3. t. 57
5358 incána *Wendl.*	hoary	■ ⊔	cu	1½	jn.au	W	C. G. H.	1810.	C	s.p	
β rubra	*red-flowered*	■ ⊔	cu	1½	jn.au	R	C. G. H.	1810.	C	s.p	
5359 reger'minans *W.*	cluster-flower.	■ ⊔	or	1½	my.au	R	C. G. H.	1791.	C	s.p	Bot. cab. 1728
5360 scabriuscula *Lk.*	roughish	■ ⊔	el	1	my.jn	W	C. G. H.	1805.	C	s.p	Bot. cab. 517
5361 bracteoláris *Lam.*	many-bracted	■ ⊔	or	1	mr.jl	R	C. G. H.	1800.	C	s.p	
5362 protrúdens *Lk.*	protruding	■ ⊔	de	1	ap.my	W	C. G. H.	1805.	C	s.p	
5363 flexuósa *Andr.*	zigzag	■ ⊔	or	1¾	ap.jl	W	C. G. H.	1792.	C	s.p	And. hea. vol. 1
divaricàta Wendl.											
5364 umbelláta *L.*	umbelled	■ ⊔	or	3	my.jl	Pu	Portugal	1782.	C	s.p	And. hea. vol. 2
5365 staminea *Andr.*	reflexed-stam.	■ ⊔	or	2	jn.s	R	C. G. H.	1799.	C	s.p	And. hea. vol. 3
5366 latifólia *Andr.*	broad-leaved	■ ⊔	or	2	my.au	R	C. G. H.	1800.	C	s.p	And. hea. vol. 2
5367 cárnea *L.*	early-fl.-dwarf	■	pr	½	ja.ap	Pa.pu	Germany	1763.	L	s.p	Bot. mag. 11
β herbácea Wendl.	*herbaceous*	■	pr	½	jn.ap	Pk	......	...	L	s.p	
5368 mediterránea *L.*	Mediterranean	■	or	4	mr.my	Pu	Portugal	1648.	C	s.p	Bot. mag. 471
5369 arbúscula *Lodd.*	little tree	■ ⊔	pr	1	f.au	R	C. G. H.	1810.	C	s.p	Bot. cab. 843
5370 vágans *L.*	Cornish	■	or	1	jl.au	R	Cornwall	hea.	C	s.p	Eng. bot. 3
β alba	*white-flowering*	■	or	1	jl.au	W	......	...	C	s.p	
5371 longipedunculata *L.*	long-stalked	■ ⊔	pr	1	jl.au	Pk	C. G. H.	1805.	C	s.p	Bot. cab. 103
5372 ciliáris *L.*	ciliated	■	or	1	jl.s	Pu	Portugal	1759.	C	s.p	Bot. mag. 484
5373 pilósa *Lodd.*	pilose	■ ⊔	cu	¾	jn	G	C. G. H.	1800.	C	s.p	Bot. cab. 606
5374 álbens *W.*	pallid	■ ⊔	or	1½	mr.au	W	C. G. H.	1789.	C	s.p	Bot. mag. 440
5375 propéndens *Andr.*	pendent	■ ⊔	or	1½	jl.au	Pu	C. G. H.	1800.	C	s.p	And. hea. vol. 2
5376 pyramidális *B. M.*	pyramidal	■ ⊔	pr	1½	f.my	Pk	C. G. H.	1787.	C	s.p	Bot. mag. 366
5377 echiiflóra *Andr.*	Echium-flower	■ ⊔	el	1½	f.jn	Sc	C. G. H.	1798.	C	s.p	And. hea. vol. 3
5378 filamentósa *Andr.*	long-peduncled	■ ⊔	or	2	ja.d	Pu	C. G. H.	1800.	C	s.p	Bot. reg. 6
5379 pulchélla *Thunb.*	neat	■ ⊔	de	1½	jn.s	R	C. G. H.	1792.	C	s.p	Th. er. n. 24. t. 4
5380 viscária *W.*	clammy-flower.	■ ⊔	el	2½	mr.jl	R	C. G. H	1774.	C	s.p	Ic. hort. kew. 1
5381 flexicaúlis *H. K.*	crook-stalked	■ ⊔	or	½	ja.my	Pu	C. G. H.	1800.	C	s.p	And. hea. vol. 2
glandulósa Andr.											
5382 tenélla *Andr.*	delicate	■ ⊔	or	½	my.au	Pu	C. G. H	1791.	C	s.p	And. hea. vol. 2
5383 alopecuroídes *Wen.*	scurfy	■ ⊔	el	¾	my.jn	Pa.pu	C. G. H.	1810.	C	s.p	Bot. cab. 874
5384 furfurósa *Sal.*	column.-thread.	■ ⊔	or	1	au.d	R	C. G. H.	1789.	C	s.p	And. hea. vol. 1
5385 multiflóra *W.*	many-flowered	■ ⊔	or	2	jn.n	F	France	1731.	C	s.p	And. hea. vol. 2
5386 depréssa *W.*	depressed	■	el	¾	jn.au	Y	C. G. H.	1789.	C	s.p	And. hea. vol. 2
rupéstris Andr.											
5387 nána *Sal.*	dwarf	■ ⊔	el	¾	my.au	Y	C. G. H.	1792.	C	s.p	
5388 palus'tris *Andr.*	marsh	■ ⊔	or	1	my.o	F	C. G. H.	1799.	C	s.p	And. hea. vol. 2
5389 formósa *W.*	beautiful	■ ⊔	or	2	jn.s	R	C. G. H.	1795.	C	s.p	Thu.eri. n.82. t.3
α álba	*white-flowered*	■ ⊔	or	2	jn.s	W	C. G. H.	1795.	C	s.p	
β rúbra	*red-flowered*	■ ⊔	or	2	jn.s	R	C. G. H.	1795.	C	s.p	
5390 flórida *W.*	florid	■ ⊔	or	1	my.au	R	C. G. H.	1803.	C	s.p	Thu.eri. n.64. t.6



History, Use, Propagation, Culture,

the seeds, if fresh, will begin to come up, when the glasses may be removed by degrees, and the pots kept near the glass, and shaded from the mid-day sun till autumn, when they may be transplanted into pots of the smallest size.

Seeds which are saved in this country may be sown as soon as gathered, if they ripen before November; but if after that period, it will be better to preserve them till spring, and then treat them like foreign seeds.

Only a few heaths are propagated by layers, such as E. Massoni, retorta, petiolata, and one or two other delicate sorts, which when layed require two years to throw out roots. On the continent most sorts of heaths are propagated by layers, because there they are ignorant of the easiest mode of managing cuttings.

One of the best growers of heaths in Britain is a gardener of the name of Henderson, at Woodhall, in West Lothian. This judicious cultivator has had an extensive collection of Ericæ for upwards of thirty years under his care, and has given some account of his mode of management in a late volume (vol. iii. p. 323.)

F. OVATÆ. *Corollas small, not globose.*

5345 Anthers crested, Cor. cylindrical, Style exserted, Leaves 3 spreading
5346 Anthers crested, Cor. ovate, Leaves 3, Stigma capitate

5347 Anth. bearded, Style included, Cor. ovate, Fl. term. umbelled, Leaves 4 lin. horizontal
5348 Anth. crested included, Leaves 3 recurved rough at edge, Cal. short, Cor. campanulate viscid
5349 Anth. crested, Leaves 4 ovate ciliated, Fl. capitate, Cal. ciliated
5350 Anth. crested, Leaves 4 lanc. erect smooth, Fl. capitate cernuous
5351 Anth. crested included, Fl. capitate, Leaves 3 or 4 lines long
5352 Anth crested, Cor. ovate, Style included, Leaves 4 ciliated, Fl. capitate

5353 Very like E. cinerea, but the branches and calyx are downy with long hairs, Leaves 5 ciliated
5354 Anth. bearded, Cor. ovate-conical villous, Style included, Sepals lanceolate, Fl. umb. Leaves 3
5355 Anth. beardless included, Cor. camp acute, Style included, Cal. 4 cornered, Leaves 4 spreading
5356 Anth. bearded included, Leaves 4 spreading hairy, Cor. dilated at end, Fl. terminal
5357 Anth. beardless exsert. Style exsert. Leaves 3, Branches downy
5358 Anth. bearded included, Leaves obtuse hairy, Fl. capitate, Bractes remote, Cor silky

5359 Anth. bearded, Cor. ovate, Style included, Cal. acute, Fl. racemose
5360 Anth. bearded included, Style included, Cor. slender, Leaves 4 obtuse glandular, Fl. capitate
5361 Anth. crested included, Cor. prismatical, Leaves 3, Fl. in bundles, Bractes many imbric. involving the fl
5362 Anth. beardless nearly exserted, Leaves 4 spreading hairy, Fl. terminal umbelled, Sepals ovate
5363 Anthers beardless exserted, Cor. oval twice as long as smooth calyx

5364 Anthers beardless exserted, Cor. campan. Style exserted, Leaves 3 acerose
5365 Anth. exserted, Fl. axill Leaves linear 3, Filam. very long reflexed
5366 Anth exserted, Fl. axill. Leaves 3 ovate
5367 Anth. exserted, Fl. axill. Leaves linear 3 or 4, Bractes in middle of flower-stalks, Cor. conical

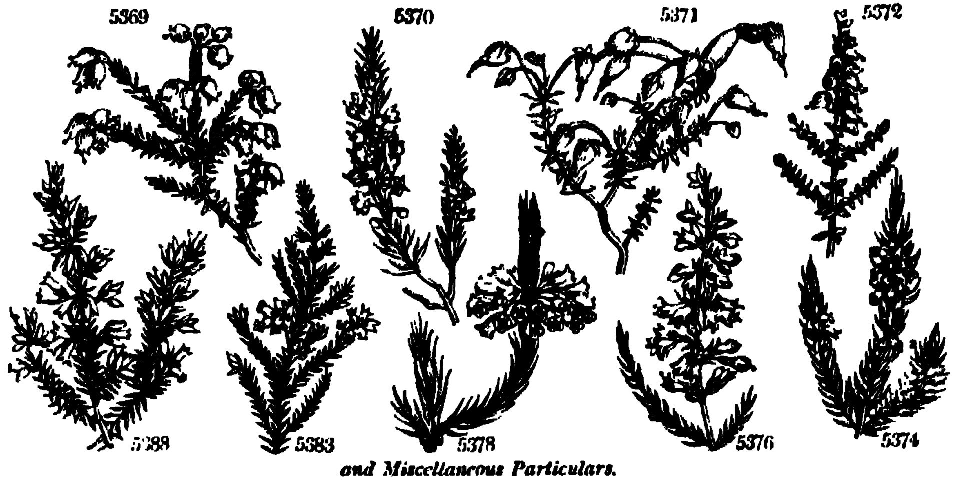
5368 Anth. exserted, Fl. axill. Leaves 4-5, Bractes above the middle of flower-stalk, Cor. urceolate
5369 Leaves short spreading, Fl. terminal urceolate, Style a little spreading
5370 Anth exserted, Fl. axill. Leaves 4-5, Cor. campanulate, Pedunc. the length of cor.

5371 Anth and style much exserted, Flowers axillary on very long slender hairy stalks
5372 Cor. conical, Leaves 3 ovate ciliated, Anth. beardless
5373 Plant all over hairy, Cor. ovate, Sepals brown at end, Stamens and style exserted
5374 Cor. conical, Leaves 3 linear smooth, Anth. beardless
5375 Cor cylindrical, Fl term. Bractes remote, Anth. beardless, Sepals ovate
5376 Cor. cylind. dilated upwards, Fl. term Bractes remote, Anth. beardless, Sepals subul. from a broad base
5377 Cor. cylindrical dilated upwards, Fl. axill. Two bractes next cal. Sepals ovate oblong
5378 Cor. cylindrical dilated upwards, Fl. axill. Sepals subulate, Peduncles longer than flower
5379 Cor. cylindrical dilated upwards, Fl. axill. Sepals subulate, Peduncles much shorter than flower
5380 Cor. cylindrical dilated upwards, Fl. axill Sepals linear
5381 Cor. conical, Anth. beardless, Leaves 4, Limb of cor. erect

5382 Anth. beardless, Leaves linear 4 smooth, Fl. terminal 4
5383 Anth beardless included, Fl. term. Bractes remote, Cor narrowed upwards
5384 Leaves 5, Anthers beardless exserted, Flowers terminal
5385 Anth. exserted, Fl. axill. Bractes remote, Leaves lin. 5, Cor. camp. Limb reflex. Ped. twice as long as cor.
5386 Cor cylindrical, Fl. term. Bractes remote, Anth. bearded

5387 Stem spread on the ground, Leaves obtuse, Cor. dewy outside clavate, Anth. bearded
5388 Anth. beardless included, Cor. linear downy, Leaves downy 4
5389 Anth. crested, Leaves 3 ovate entire smooth, Fl. umb. furrowed, Cal. spreading entire

5390 Anth. bearded, Style included, Cor. globose, Cal. villous reflexed, Fl term. umbelled, Leaves 4 hairy

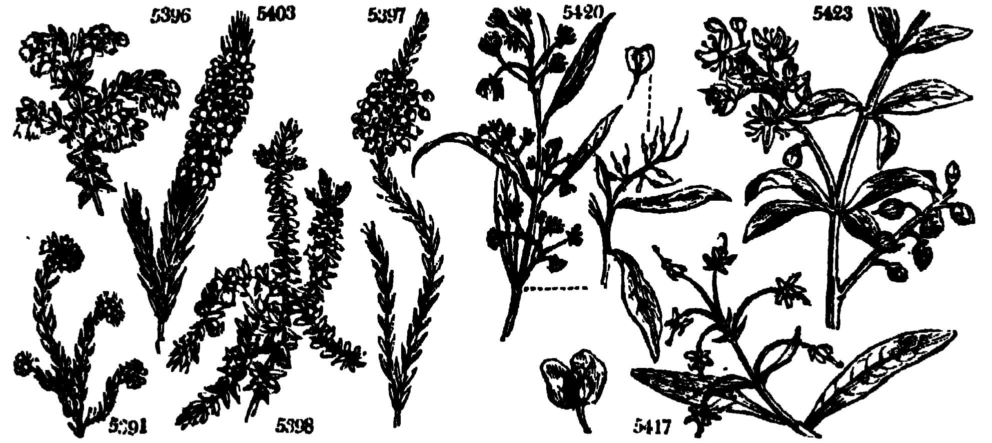


and Miscellaneous Particulars.

of the Caledonian Horticultural Society's Memoirs. He keeps his Ericas, he says, "at all times cool and airy, opening the glasses in winter when there is no frost, and letting the wind blow on them, and using no fire but in time of frost." "Never," he says, "shift any plant till the pot is quite full of *roots*. When the plants get large, several of them will continue in good health for three or four years without shifting, and flower well. I have plants of E. retorta here, in pots seven inches in diameter, which are very bushy, being eighteen inches across, and fourteen inches high above the pot; E. infundibuliformis, two feet and a half in diameter, and two feet nine inches high; Erica pilosa between five and six feet high and three feet across, in pots eleven inches in diameter: these have not been shifted for five years, and are in high health, and covered with strong fine flowers from the mouth of the pot to the top of the plant." (*Caled. Mem.* iii. 327.)

"A prejudice," Page observes, "having spread that the culture of heaths is difficult, one of the greatest ornaments of the greenhouse has hence of late been neglected; although the method of culture is as easy and nearly as certain as that of the Geranium, but requiring a little more delicacy in the execution."

5391 Solan'dra *Andr.*	Solander's	♣	⊔	el	1	mr.s	Pk	C. G. H.	1800.	C	s.p	And. hea. vol. 2
5392 acúta *Andr.*	pointed-cupped	♣	⊔	de	½	my.jl	R	C. G. H.	1799.	C	s.p	And. hea. vol. 2
5393 empetroides *Andr.*	close-flowered	♣	⊔	or	1½	my.au	L.F	C. G. H.	1788.	C	s.p	And. hea. vol. 2
5394 turrígera *Sal.*	Cypress	♣	⊔	or	1½	jn.s	R	C. G. H.	1796.	C	s.p	
5395 Bergiána *W.*	Bergius's	♣	⊔	cu	1½	ap.au	Pu	C. G. H.	1787.	C	s.p	And. hea. vol. 2
quadriflóra Andr.												
5396 barbáta *Andr.*	bearded	♣	⊔	or	1	my.au	W	C. G. H.	1799.	C	s.p	And. hea. vol. 2
5397 retroflex'a *Wendl.*	jointed	♣	⊔	el	1	jl.s	W	C. G. H.	1787.	L	s.p	W. er. 8.p.7.c. ic.
pulchélla Andr												
articuláris Thunb.												
5398 thymifólia *Andr.*	Thyme-leaved	♣	⊔	de	¾	my.au	Pu	C. G. H.	1789.	C	s.p	And. hea. vol. 2
5399 ténuis *W. en.*	slender-flower.	♣	⊔	el	1	f.o	Pk	C. G. H.	1790.	C	s.p	
5400 hirta *W.*	hairy-leaved	♣	⊔	or	2	ap.jn	R.Pk	C. G. H.	1795.	C	s.p	Th. er. n. 56. t. 2
5401 strigósa *W.*	dwarf-downy	♣	⊔	or	1½	mr.ap	Pa.R	C. G. H.	1775.	C	s.p	
5402 molleáris *Sal.*	soft-leaved	♣	⊔	de	1	ap.o	R	C. G. H.	1803.	C	s.p	Schne. ic. n. 17
5403 racemífera *Andr.*	compact-flow.	♣	⊔	or	1¾	ap.jn	R	C. G. H.	1803.	C	s.p	And. hea. vol. 3
5404 pilulífera *W.*	ball-bearing	♣	⊔	cu	1	ap.my	R	C. G. H.	1789.	C	s.p	
5405 catervæfólia *Sal.*	huddled-leaved	♣	⊔	or	¾	ap.jn	R	C. G. H.	1790.	C	s.p	
5406 tardiflóra *Sal.*	pubescent	♣	⊔	cu	1½	mr.s	Pu	C. G. H.	1790.	C	s.p	Bot. mag. 480
E. pubescens B. M.												
5407 parviflóra *Sal*	small-fl.-downy	♣	⊔	pr	1	mr.s	Pk	C. G. H.	1790.	C	s.p	
5408 exígua *Sal.*	small-downy	♣	⊔	pr	1	mr.s	Pk	C. G. H.	1790.	C	s.p	
893. MENZIESIA. *Sm.*	MENZIESIA.					*Rhodoraceæ.*		*Sp.* 5—6.				
5409 ferruginea *Ph.*	ferrugineous	♣̲		or	½	my.jn	Br	N. Amer.	1811.	L	s.p	Sm. ic. in. 1. t. 56
5410 globuláris *Ph.*	globular-flow.	♣̲		or	½	my jn	Br	N. Amer.	1806.	L	s.p	Par. lond. 44
5411 pilósa *W.*	pilose	♣		or	½	my.jn	Br	......	1822.	L	s.p	
5412 polifólia *H. K.*	Irish	♣		or	2	jn.s	Pu	Ireland	moun.	L	s.p	Eng. bot. 35
β *nána*	*dwarf*	♣̲		cu	½	jn.s	...	Ireland	...	L	s.p	
5413 cærúlea *L. T.*	Yew-leaved	♣̲		or	¼	jn.jl	B	Scotland	hea.	L	s.p	Eng. bot. 2169
894. CHLO'RA. *W.*	YELLOW-WORT.					*Gentianeæ.*		*Sp.* 1—2.				
5414 perfoliáta *W.*	perfoliate		○	or	1	jn.jl	Y	Britain	ch. so.	S	s.l	Eng. bot. 60
895. MICHAUX'IA. *W.*	MICHAUXIA.					*Campanulaceæ.*		*Sp.* 1.				
5415 campanuloides *W.*	rough-leaved	⚘	▣	or	4	jn.au	L.B	Levant	1787.	S	r.l	Bot. mag. 219
896. JEFFERSO'NIA. *Ph.*	JEFFERSONIA.					*Papaveraceæ.*		*Sp.* 1.				
5416 diphylla *Ph.*	two-leaved	⚘	△	pr	½	my	W	N. Amer.	1792.	D	s.l	Bot. mag. 1513
897. DODONÆA. *W.*	DODONÆA.					*Terebintaceæ.*		*Sp.* 5—17.				
5417 viscósa *W.*	clammy	♣	□	un	6	jn.jl	G	S. Amer.	1690.	C	p.l	Cav. ic. p.4.t.327
5418 bialáta *Kth.*	two-winged	♣	□	un	4	...	G	S. Amer.	1822.	C	co	
5419 oblongifólia *Lk.*	oblong	♣	□	un	4	...	G	......	[illegible]	C	co	
5420 triquetra *W.*	three-sided	♣	⊔	un	5	jn.au	G	N. S. W.	1790.	C	s.p	Bot. rep. 230
5421 angustifólia *W.*	narrow-leaved	♣	⊔	un	5	my.au	G	Jamaica	1758.	C	s.p	
898. LAWSO'NIA. *W.*	LAWSONIA.					*Salicariæ.*		*Sp.* 3—6.				
5422 inérmis *W.*	Henna-plant	‡	□	cu	10	...	W	Egypt	1759.	S	s.p	Rauw. ic. 60.t. 7
5423 spinósa *W.*	prickly	‡	□	cu	18	...	W	E. Indies	1759.	S	s.p	Rh. mal. 1. t. 40
5424 purpúrea *Lam.*	purple	‡	□	cu	12	...	Pu	E. Indies	1820.	S	s.p	
899. OSBECK'IA. *W.*	OSBECKIA.					*Melastomaceæ.*		*Sp* 4—7.				
5425 zeylánica *W.*	Ceylon	¥	▣	pr	2	jl.au	Y	Ceylon	1799.	C	s.p.l	Bot. reg. 565
5426 Chinénsis *W.*	Chinese	♣̲	□	pr	2	jl	Pu	China	1818.	C	s.p	Bot. reg. 542
5427 stelláta *Don.*	starry	♣̲	□	pr	1	jn.au	Pk	Nepal	1820.	C	p.l	Bot. reg. 674
5428 nepalénsis *Hook.*	Nepal	♣̲	□	pr	1½	jn	Pu	Nepal	1821.	C	p.l	Hook. ex. fl. 31



History, Use, Propagation, Culture,

(*Prodromus*, &c. art. *Erica.*) Those who complain of the difficulty of growing the heath, are often, as Loddiges remarks, ignorant people who have never had a heath to grow.

One circumstance in favor of the culture of heaths is, that they are not subject to insects, or at least very rarely so. (*Greenhouse Companion*, p. 62.)

The number of species is here reduced to those which are certainly different from each other. Of those enumerated in garden catalogues many are mere repetitions of each other.

893. *Menziesia.* Named in honor of Mr. Archibald Menzies, an assiduous and successful botanist, who accompanied Vancouver, in the capacity of his surgeon, in his voyage round the world. He is still living, and the ornament of the private circle in which he moves. Small heath-like plants, all hardy, and requiring the same cultivation as Erica.

894. *Chlora.* From χλωρος, green, in allusion to the color of the dried flower of C. perfoliata. The whole plant dyes yellow.

895. *Michauxia.* In memory of Andrew Michaux, botanist to the king of France, who travelled into Syria,

5391 Anth. crested included, Flowers capitate campan. cernuous, Leaves 4 cernuous
5392 Anth. crested included, Fl. 3, Leaves 4 subulate erect mucronate
5393 Anth. bearded, Cor. campan. Fl. whorled, Leaves 6 hairy spiral
5394 Leaves narrow, Cal. recurved horizontal, Cor. globose with segm. imbricated at base
5395 Anth. crested, Leaves 3 lanceolate rough, Fl. 3, Cal. ciliated reflexed

5396 Anth. crested included, Cor. urceolate hairy, Fl. umbelled, Leaves 4 ovate
5397 Anth. bearded included, Cor. globose much less than colored calyx, Leaves 3 with a membranous edge

5398 Anth. 2 horned included, Cor. axill. solitary, Leaves 3 ovate cordate ciliated
5399 Anth. bearded included, Style exserted, Cor. camp. smooth, Fl. term. sol. Leaves 3 lin. Branches hairy
5400 Anth. bearded, Leaves 3 linear hispid, Fl. umbelled, Cal. rough
5401 Anth. bearded, Cor. camp. smooth, Leaves 4 pubescent ciliated
5402 Cal. 4-cleft, Cor. linear smooth urceolate with a recurved limb, Capsule hairy
5403 Anth. bearded included, Flowers racemose, Leaves 6 clustered
5404 Anth. bearded, Leaves 4 ciliated, Fl. umb. Cal. navicular ciliated at end
5405 Anth. bearded perforated, Leaves 4, Stem angular downy, Cor. narrow obovate
5406 Anth. bearded, Leaves 4, Cal. appressed, Cor. linear pubes. with a very short recurved limb, Caps. hairy

5407 Anth. bearded, Leaves 4, Cal. appressed, Cor. linear pubescent, Capsule smooth [smooth
5408 Anth. bearded, Leaves 4, Cal. appressed, Cor. linear pubes. with an oval tube and very short limb, Caps.

5409 Leaves obov. lanc. beneath, beyond the nerves smooth, Cal. 4-cleft, Fl. urceol. 8-androus
5410 Leaves pubescent beneath, Calyx 4-fid, Cor. with a globose tube
5411 Leaves oval pubescent, Fl. term. aggregate nodding
5412 Leaves beneath densely downy, Cal. 4-parted, Tube of cor. oval

5413 Leaves linear obtuse with cartilaginous teeth, Flowers 5-cleft decandrous

5414 Leaves perfoliate

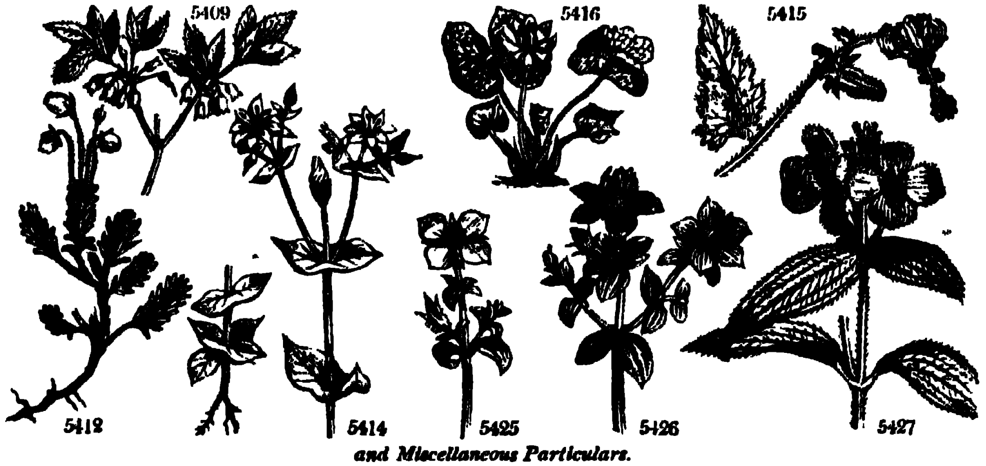
5415 The only species

5416 The only species

5417 Leaves obovate oblong viscous, Fl. racemose, Fruit with 2 or 3 wings longer than stalk
5418 Leaves lanc. narrowed at both ends viscid, Racemes branched, Fruit always with 2 wings length of stalk
5419 Leaves obl. mucronate entire, Fl. term. sessile
5420 Leaves lanceolate narrowed at each end, Branches 3-cornered, Fruit with narrow wings
5421 Leaves oblong lanceolate with revolute edge, rather clammy, Flowers in short racemes

5422 Unarmed, Leaves subsessile ovate acute at each end
5423 Branches spiny
5424 Leaves subsessile lanceolate with terminal corymbs of flowers

5425 Leaves stalked, Calyx hispid
5426 Leaves sessile, Calyx smooth
5427 Leaves lanc. obl. acumin. 5 nerved and branches hispid, Cal. covered with entangled radiate hairs
5428 Leaves lanceolate sessile, Tube of calyx ciliate scaly



and Miscellaneous Particulars.

Persia, and North America, and discovered this his genus. It is a handsome biennial, which bears a profusion of shewy flowers bearing some distant resemblance to those of the Passion-flower.

896. *Jeffersonia.* Named after Mr. Jefferson, the celebrated President of the United States. A very curious plant, remarkable for the peculiar mode of dehiscence of its capsule.

897. *Dodonæa.* So named in honor of Rambert Dodoens, professor of medicine, a famous botanist of the sixteenth century, author of Fragum Historia, 1552; and Pemptades, 1583. He was born at Malines, in 1518, and died in 1585. The species are ugly tropical shrubs, of neither use nor beauty.

898. *Lawsonia.* In memory of Isaac Lawson, M. D. author of A New Voyage to Carolina, London, 1709. L. inermis is the Henna plant, with the leaves of which the Egyptian women dye their nails pink. It is of easy culture and propagation.

899. *Osbeckia.* So named by Linnæus, in honor of Peter Osbeck, a Swedish clergyman, member of the academy of Stockholm, and of the society of Upsal: author of a voyage to China and the East Indies, in 1751. Englished by Forster, in 1771. Little plants resembling Melastoma. Young cuttings strike freely under a hand-glass.

900. RHEX'IA. *W.*	RHEXIA.					*Melastomaceæ.*		*Sp.* 7—50.				
5429 mariána *W.*	Maryland	♃	△	pr	¾	jn.au	Pu	N. Amer.	1759.	D	s.p	Bot. cab. 366
5430 vimínea *Don.*	twiggy	■	□	or	6	jn au	Pu	Brazil	1821.	D	s.p	Bot. reg. 664
5431 ciliósa *Ph.*	ciliated	¥	△̲	pr	1	jn.au	Cr	Carolina	1812.	D	p.l	Ph. am. 1. t. 10
5432 bival'vis *W.*	two-valved		⊡	cu	2	my.jn	W	Guiana	1893.	S	p.l	
5433 virgínica *W.*	Virginian	♃	△	pr	¾	jn.au	Pu	N. Amer.	1759.	D	p l	Bot. mag. 968
5434 aquática *W.*	marsh	■	□	pr		...		S. Amer.	1793.	C	p.l	Aub. gui. 1.t.169
5435 holosericea *Humb.*	silky	■	□	or	10	jl	B	Brazil	1816.	C	p l	Bot. reg. 323
5436 glomeráta *W.*	headed	■	□	or	1½	jl	W	W. Indies	1818.	C	p.l	Bot. cab. 534
901. ŒNOTHE'RA. *W.*	ŒNOTHERA.					*Onagrariæ.*		*Sp.* 32—41.				
5437 biénnis *W.*	common	♃	◑	or	4	jn.s	Y	N. Amer.	1629.	S	co	Flor. dan. 446
5438 grandiflóra *W.*	great-flowered	♃	◑	or	4	jn.au	Y	N. Amer.	1778.	S	co	Bot mag. 2068
5439 parviflóra *W.*	small-flowered	♃	◑	or	4	jn.au	Y	N. Amer.	1757.	S	co	Meerb. ic. 1 t.34
5440 muricáta *W.*	prickly-stalked	♃	◑	or	3	jl.au	Y	N. Amer.	1789.	S	co	M. co. got. 6. t.1
5441 longiflóra *W.*	long-flowered	♃	◑	or	3	jl.s	Y	B. Ayres	1776.	S	co	Bot. mag. 365
5442 mollíssima *W.*	soft wave-leav.	♃	◑	or	2	jn.o	Y	B. Ayres	1732.	S	co	Sch. han. 1. t.105
5443 odoráta *W.*	sweet-scented	♃	△	or	2	ap.au	Y	S. Amer.	1790.	D	co	Bot. reg. 147
5444 noctúrna *W.*	night-smelling	¥	⊡	or	2	ap.au	Y	C. G. H.	1790.	S	co	Jac. ic. 3. t. 455
5445 villósa *W.*	villous	¥	⊡	or	2	jl.au	Y	C. G. H	1791.	S	co	
5446 dentata *Lindl.*	toothed	♃	△	or	½	jn.au	Y	Peru	1818.	D	co	Lindl. coll. 10
5447 fruticósa *W.*	shrubby	♃	△	or	3	jn.au	D.Y	N. Amer.	1737.	D	s p	Bot mag. 332
5448 púmila *W.*	dwarf	♃	△	or	½	my.s	D Y	N. Amer.	1757.	D	p l	Bot. mag. 355
5449 rósea *W.*	rosy-flowered	♃	△̲	or	1	my.au	Pk	Peru	1783.	D	p l	Bot. mag 347
5450 purpúrea *W.*	purple-flowered		○	or	1	my.au	Pu	N. Amer.	1794.	C	co	Bot. mag. 352
Œ. Romanzovii Bot. reg. 562.												
5451 corymbósa *B. M.*	corymbose	♃	△	or	3	s	Y	Mexico	1816.	D	co	Bot. mag. 1974
5452 stricta *Ledebure*	upright		○	or	1½	jn.jl	Y	......	1822.	S	co	
5453 média *Link.*	intermediate	♃	△	or	2	jl.au	Y	N. Amer.	1823.	D	p l	
5454 lineáris *Mich.*	linear	♃	△	or	1½	jn	Y	N. Amer.	1822.	D	co	
5455 sinuáta *W.*	scollop-leaved		○	or	3	jl	Y	N. Amer.	1770.	S	s l	M. co. got. 5. t. 9
5456 tetráptera *W.*	white-flowered		○	or	1	jn.au	W	Mexico	1796.	S	s.l	Bot mag. 468
5457 cæspitosa *B. M.*	turfy	♃	△	or	1	jn jl	W	N. Amer	1811	D	p.l	Bot. mag. 1593
5458 macrocárpa *B. M.*	Missouri	♃	△	or	4	jn jl	Y	N. Amer.	1811.	D	s p	Bot. mag. 1592
5459 glaúca *Ph.*	glaucous	♃	△	or	2	my.o	Y	N Amer	1812.	D	s.p	Bot. mag. 1606
5460 Fraséri *Ph.*	Fraser's	♃	△	or	1½	my.o	Y	N. Amer.	1811.	D	s p	Bot. mag. 1674
5461 tenuifólia *Fl. p.*	fine-leaved	♃	△̲	pr	1½	jl s	Y.Pu	Peru	1824	D	co	
5462 acaúlis *Cav.*	stemless	♃	△	or	½	my s	W	Chili	1821.	D	co	Bot. reg. 763
5463 tenélla *Fl. per.*	slender		○	pr	½	ap au	Pu	Chili	1822.	S	co	Bot. mag. 2424
5464 speciósa *Hook.*	shewy	¥	△	or	1	mr.s	W	N. Amer.	1821.	S	co	Hook. ex. fl. 80
5465 virgáta *Fl. per.*	twiggy	♃	△	pr	1½	jn	Pu	Peru	1823	D	co	Fl. per. t. 15
5466 hírta *Lk.*	hairy		○	or	1	my jl	Y	California	1823.	S	co	
5467 triloba *Nutt.*	three-lobed	♃	△	or	¾	my.s	Y	N. Amer.	1822.	D	co	
5468 albicaúlis *Ph*	white-stalked	♃	◑	cu	½	my.au	W	N. Amer.	1811.	S	s.p	
902. GAU'RA *W.*	GAURA					*Onagrariæ.*		*Sp.* 5—7.				
5469 biénnis *W.*	biennial	♃	◑	or	5	au.o	R.w	N. Amer.	1762.	S	p l	Bot. mag. 389
5470 coccínea *Ph.*	scarlet	♃	△	or	½	au.o	S	Louisiana	1811.	S	s.l	
5471 fruticósa *W.*	shrubby	■	□	pr	3	...	R.w	S. Amer.	1816.	S	s.l	Jac. ic. 3. t. 457
5472 mutábilis *W.*	changeable	♃	⊡	pr	1½	jl au	Y	N. Amer.	1795.	S	s.l	Bot. mag. 388
5473 tripétala *Cav*	three petalled		○	cu	1	au	Pk	Mexico	1804.	S	s.l	Cav. ic 4. t 396 f 1
903. EPILO'BIUM. *W.*	WILLOW-HERB.					*Onagrariæ.*		*Sp.* 15—20.				
5474 angustifólium *W.*	Rose-bay	♃	△	or	4	jl.au	Pu	Britain	mea.	D	m.s	Eng bot. 1947
5475 angustissimum *W.*	linear-leaved	♃	△	or	2	jl.au	Pu	Al. of Eur.	1775.	D	m.s	Bot. mag. 73
5476 latifólium *W.*	Orache-leaved	♃	△	or	4	jl.au	R	N Eur.	1779.	D	co	Par. lond. 58

History, Use, Propagation, Culture,

900. *Rhexia.* A Greek name employed by Pliny to designate a Boragineous plant. It is derived from ῥήσσω, to burst; that is to say, good against ruptures. The hardy species thrive best in a bed of peat; or they will grow very well in pots.

901. *Œnothera.* Derived from οἶνος, wine, and θηράω, to hunt. The roots of this plant, O. biennis, eaten after meals, are incentives to wine-drinking, as olives are. This is an ornamental genus of easy culture in light rich soil, and they increase either by seeds or cuttings O. biennis is called the night primrose, because the flowers usually open between six and seven o'clock in the evening. The mode of their expanding is curious. The petals are held together at top by the hooks at the end of the calyx, the segments of which first separate at bottom and discover the corolla, a long time before it acquires sufficient expansive force to unhook the calyx at top; when it has accomplished this, it expands very fast, almost instantaneously, to a certain point, and then makes a stop, taking a little time to spread out quite flat: it may be half an hour from the first bursting of the calyx at bottom to the final expansion of the corolla; which commonly becomes flaccid in the course of the next day, sooner or later according to the heat or coolness of the weather. The

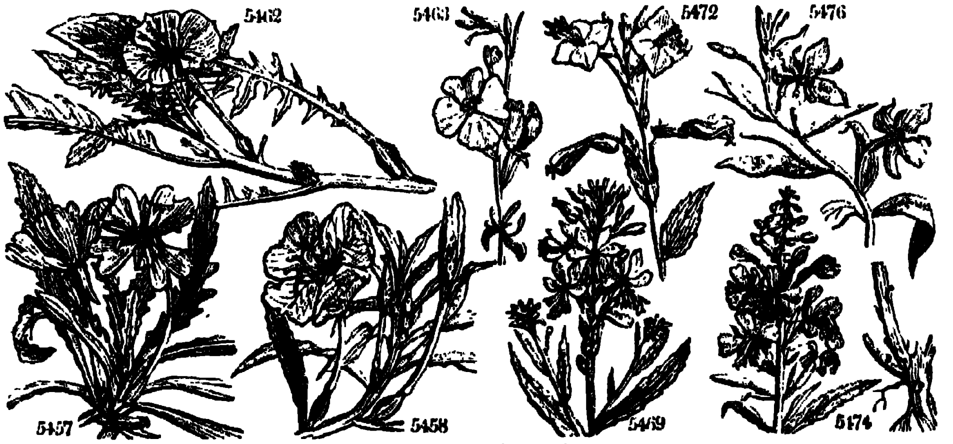
5429 Lvs. sess. lanc. 3-nerved villous ciliated, Cal. stellate hairy
5430 Leaves ovate lanc. 5-nerved hairy on each side, Panic. term. loosely many-fl.
5431 Leaves finely hispid at edge, Stem quadrangular smooth, Flowers solitary in an involucre
5432 Decandrous, Lvs. sessile smooth ovate obtuse 3-nerved, Caps. 2-valved
5433 Lvs. sessile lanceolate 3-nerved serrate ciliated, Cal. glandular ciliated
5434 Lvs. opp. cordate crenulate hairy, Pan. term. trichotomous, Branches filiform much spreading
5435 Leaves cordate oval silky on each side 7-nerved sessile, Pan. term. Flowers with bractes 10-andr.
5436 Lvs. stalked ovate entire 3-nerved villous, Fl. terminal clustered

5437 Lvs. ovate-lanceolate flat, Stem muricated villous, Stamens shorter than cor.
5438 Lvs. ovate-lanceolate, Stamens declinate, Stem shrubby
5439 Lvs. ovate-lanceolate flat, Stem smooth subvillous, Stamens longer than cor.
5440 Lvs. lanc. flat, Stem purp. muricated, Stamens length of cor.
5441 Lvs. toothletted, Stems simple hairy, Petals distant 2-lobed
5442 Lvs. lanceolate wavy
5443 Lvs. linear lanceolate toothletted wavy pubescent glaucous, Stem hairy
5444 Lvs. lanc. repand toothed pubescent, Stem rounded pubescent
5445 Lvs. lanc. villous, Stem angular hairy
5446 Lvs. sublinear toothletted, Caps. cylindr. very narrow toothed
5447 Lvs. lanceol. somewhat toothed acute, Caps. stalked obl. clavate angular
5448 Lvs. lanc. entire obtuse, Caps somewhat stalked ellipt. ovate angular
5449 Lvs. ovate narrowed at each end toothed; lower lyrate, Caps. stalked obovate angular
5450 Lvs. glaucous smooth lanceolate entire, Caps. sessile ovate angular

5451 Stem upright hispid furrowed, Leaves lanc. repand toothletted, Caps. sess. angular cylindrical
5452 Stem muricated, Lower lvs. linear very long toothletted; cauline lanceolate
5453 Stem erect pubescent, Lvs. lanc. lin. soft pubescent, Caps. obl. rounded sessile
5454 Pubescent, Lvs. lin. lanc. acute at each end entire, Fl. term. aggregate, Caps clavate 4-cornered
5455 Lvs. toothed sinuated, Caps. prismatical
5456 Lvs. lanc. pinnatifid at base, Caps. obovate with 4 wings
5457 Lvs. lanc. cut-toothed, Caps. obl sessile, Tube of cal. very long, Pet. 2-lobed
5458 Stem branched, Lvs. lanc. stalked with distant glandular teeth, Caps ellipt. 4-winged on short stalks
5459 Leaves broad-oval repand toothed lævigated glaucous, Caps. ovate 4-cornered
5460 Stem simple below, Leaves ovate stalked glandular toothletted, Racemes leafy, Caps. obovate 4-cornered
5461 Lower leaves oblong, upper linear, Caps. cylindrical straight, Petals crenulate
5462 Leaves pinnatifid, with the terminal segment large and toothletted
5463 Leaves linear obovate, Caps. cylindrical curved
5464 Downy, Leaves oblong lanc. toothed subpinnatifid, Raceme naked, Caps. obovate angular
5465 Leaves lyrate and lanceolate toothed, Caps. stalked clavate
5466 Hairy, Leaves lanc. toothletted, Caps. axillary curved angular acute
5467 Very like Œnothera acaulis, from which it is chiefly distinguished by its yellow flowers
5468 Finely pubescent, Stem and nerves of leaves white, Leaves pinnatifid, Fl. spiked

5469 Leaves lanc toothed, Pet. obovate ascending spreading, Style and stamens declinate
5470 Leaves lin. lanc. toothletted, Spike close, Petals as long as cal. Stigma entire
5471 Leaves lin. lanc. toothletted, Style and stamens straight
5472 Leaves ovate toothed, Pet. ovate acute cruciate, Style and stamens straight
5473 Leaves lin. lanc. deeply toothed, Pet. 3 ascending, Stamens 6 declinate

5474 Leaves scattered lin. lanc entire veiny, Fl. unequal
5475 Leaves scattered lin. obsoletely toothletted veinless, Petals unequal entire
5476 Leaves altern. and opposite lanc. ovate nearly entire pubescent veinless, Fl. unequal



and Miscellaneous Particulars.

uppermost flowers come out first in June, the stalk keeps continually advancing in height, and there is a constant succession of flowers, till late in autumn. The roots are eaten in some countries in the spring.

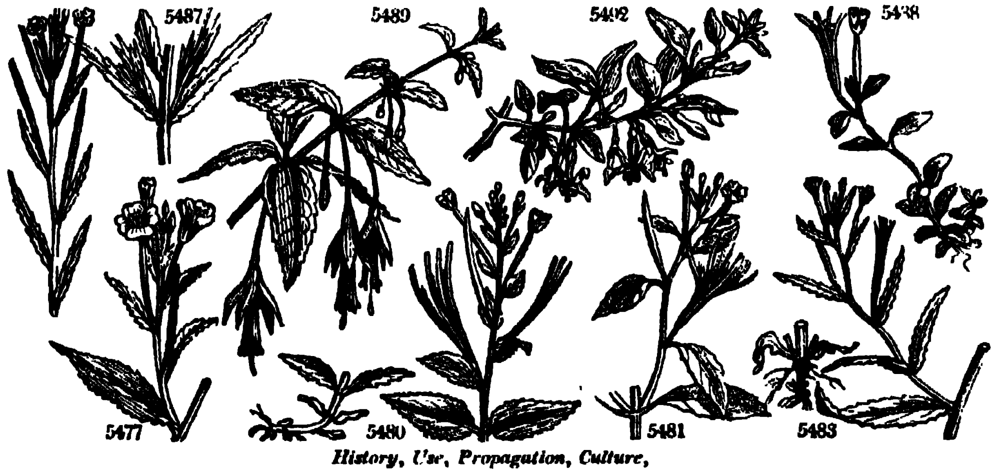
O. longiflora has flowers uncommonly large and shewy, which continue from July to October.

The dwarf North American herbaceous kinds, are among the most beautiful plants of our borders.

902. *Gaura.* A very curious genus, so called from γαυρος, superb. Its flowers are rose colored, in fine terminal spikes. Plants with the habit of Œnothera, and requiring the same management.

903. *Epilobium.* From επι, upon, and λοβος, a pod; that is to say, a flower growing upon a pod. E. angustifolium is a native of most parts of Europe, from Lapland to Italy. It is valuable in shrubberies as thriving under the drip of trees, and su[illegible]s every where, even in the smoke of cities, and in parks: It is a good plant to adorn pieces of water, bei[illegible]rdy, of rapid increase, not much relished by cattle, and very shewy when in flower. According to H[illegible] the young shoots are eatable, although an infusion of the plant stupifies: the pith when dried, is boiled, [illegible] becoming sweet, is by a proper process made into ale, and this into vinegar by the Kamtschatdales; it is [illegible] added to the cow-parsnip, to enrich the spirit that is prepare

5477	hirsútum *W.*	Codlins&Cream	Δ	or	4	jl.au	Pu	Britain	wat.pl.	D	co	Eng. bot. 838
5478	parviflórum *E. B.*	small-flowered	Δ	pr	2	jl.au	Pu	Britain	wat.pl.	D	co	Eng. bot. 795
5479	villósum *W.*	Cape	⊔Δ	or	2	jl.au	Pu	C. G. H.	1790.	D	co	
5480	montánum *W.*	broad-smth-lv.	Δ	w	2	jn.jl	Pu	Britain	woods.	D	co	Eng. bot. 1177
5481	róseum *Sm.*	pale-smooth-lv.	Δ	w	1½	jl	Pk	England	mar.	D	m.s	Eng. bot. 693
5482	alsinifólium *Sm.*	Chickweed-lvd.	Δ	w	½	jl	Pk	Britain	sc. al.	D	m s	Eng. bot. 2000
5483	tetragónum *W.*	square-stalked	Δ	w	2	jl	Pu	Britain	mar.	D	m.s	Eng. bot. 1948
5484	colorátum *W.*	Pink-flowered	Δ	or	2	jl	Pu	N. Amer.	1805.	D	l.p	
5485	alpéstre *Schmidt.*	alpine	○	pr	½	jn.jl	Pu	Switzerl.	1820.	S	l.p	
5486	dahúricum *Fisch.*	Daurian	○	pr	½	jl	W	Dauria	1822.	S	co	
5487	palústre *W.*	round-stalked	Δ	w	3	jl	Pu	Britain	mar.	D	co	Eng. bot. 346
5488	alpinum *W.*	Alpine	Δ	w	½	jn	R	Britain	al. riv.	D	s.l	Eng. bot. 2001
904.	**FUCH'SIA.** *W.*	**FUCHSIA.**				*Santalaceæ.*		*Sp.* 4—18.				
5489	coccinea *W.*	scarlet	⊔	or	6	my.au	S.Pu	Chili	1788.	C	p.l	Bot. mag. 97
5490	grácilis *Lindl.* *decussáta* B. M.	slender	⊔	or	3	my.o	S.Pu	Chili . .	1823.	C	p.l	Bot. reg. 847
5491	excorticata *W.*	barked	⊔	or	3	jn.o	G.Pu	N. Zeal.	1824.	C	p.l	Bot. reg. 857
5492	lycioides *W.*	Boxthorn-leav.	⊔	or	2	ap o	S	Chili	1796.	C	p.l	Bot. mag. 1024
905.	**JAMBOLI'FERA.** *L.*	**JAMBOLIFERA.**				*Terebintaceæ.*		*Sp.* 1—3.				
5493	pedunculáta *Dec.*	peduncled	▭	cu	4	f.d	G	E. Indies	1800.	C	lt.l	Vah. sym. 3. t.61
906.	**OXYCOC'CUS.** *P. S.*	**CRANBERRY.**				*Ericeæ.*		*Sp.* 3.				
5494	palústris *P. S.*	common		fr	½	my.jn	Pk	Britain	tur. bo.	L	p	Eng. bot. 319
5495	macrocárpus *Ph.*	large-fruited		fr	½	my jn	Pu	N. Amer.	1760.	L	p	Dend. brit. 122
5496	erythrocárpus *P. S.* *O. eréctus* Psh.	upright		fr	2	my.jn	Pk	N. Amer.	1806.	L	p	Dend. brit. 31
907.	**VACCINIUM.** *L.*	**WHORTLE-BERRY.**				*Ericeæ.*		*Sp.* 27—30.				
5497	myrtil'lus *L.*	Bilberry		fr	1½	ap jn	R	Britain	hea.	L	p	Eng. bot. 456
	β fructu albo	*white-fruited*		fr	1½	ap jn	G	Britain	moors.	L	p	
5498	pal'lidum *H. K.*	pale		or	2	my jn	W	N. Amer.	1772.	L	p	
5499	stamineum *L.*	long-stamened		or	2	my jn	W	N. Amer.	1772.	L	p	Pl. al t. 339. f. 3
5500	álbum *L.*	white-flowered		or	2	my.jn	W	N. Amer.	1772.	L	p	Bot. rep. 263
5501	cæspitósum *Mich.*	turfy		or	½	...	W	Hud. Bay	1823.	L	p	Bot. mag. 3429
5502	uliginósum *L.*	Bleaberry		fr	2	ap.my	Pk	Britain	...	L	p	Eng. bot. 581
5503	diffúsum *H. K.* *arbóreum* Mich.	tree		or	20	my.jl	Pk	Carolina	1765.	L	p	Bot. cab. 1885
5504	angustifólium *H. K.* *myrtilloides* Mich.	Bluets		or	2	ap.my	Pk	N. Amer.	1776.	L	p	Bot. mag. 3447
5505	dumósum *B. M.* *hirtéllum* H. K.	bushy		or	3	my.jn	W	N. Amer.	1774.	L	p	Bot. mag. 1106
5506	fuscátum *H. K.* *formósum* Andr.	clustered-flow.		or	2	my.jn	Pk	N. Amer.	1770.	L	p	Bot. rep. 97
	β angustifólium	narrow-leaved		or	2	my.jn	Pk	N. Amer.	...	L	p	
5507	frondósum *L.* *glaúcum* Mich.	Blue Tangles		or	3	my jn	W	N. Amer.	1761.	L	p	Bot. rep. 140
	β venústum H. K.	*red-twigged*		or	3	my jn	Pk	N. Amer.	1770.	L	p	
5508	ligustrinum *L.*	Privet-leaved		or	3	my.jn	Pu	N. Amer.	...	L	p	



History, Use, Propagation, Culture,

from that plant; as fodder, goats are said to be extremely fond of it, and cows and sheep to eat it; the down of the seeds mixed with cotton or fur has been manufactured into stockings and other articles of clothing.

E. hirsutum is found only in rich moist soil by water. The leaves smell like scalded codlings or gooseberry pye when green, but lose that odor when dry. Cattle are rather fond of the plant both recent and dried.

904. *Fuchsia.* So named in honor of Leonard Fuchs, a famous German botanist, author of Historia Stirpium, in 1542, with 516 excellent engravings in wood. F. coccinea is one of the most elegant of deciduous greenhouse shrubs; the young wood and nerves of the leaves are tinged with purplish red: the pendent blossoms, like most produced from the axils of the leaves, as the shoots grow, continue during the greater part of the growing season, and are succeeded as they fade by a purple berry. The finest specimen in England of this species is at Salt-Hill.

Many other species have been lately introduced, some of which will probably be very handsome. South America contains some most splendid species, of which we know nothing in this country.

905. *Jambolifera.* From *fero*, to bear, and *Jambol*, the name of a Malabar fruit. Cuttings strike freely in sand under a hand-glass.

906. *Oxycoccus.* From *ὀξὺς*, acid, and *κόκκος*, fruit; on account of its acidity. A genus well distinguished from Vaccinium, by the narrow revolute segments of corolla. These are pretty little trailing evergreen plants, to which a peat soil and rather a moist situation are absolutely necessary: they are very little changed by culture.

O. palustris bears edible berries which are gathered wild both in England and Scotland, and made into tarts. Lightfoot says, twenty or thirty pounds worth are sold each market day, for five or six weeks together,

5477 Leaves opp. and altern. subamplexicaul. ovate-lanceolate hairy, Stem much branched hairy
5478 Leaves sessile lanc. pubescent, Stem simple villous, Root fibrous
5479 Leaves altern. lanceolate serrated hairy
5480 Leaves opp ovate toothed
5481 Leaves stalked ovate acute toothed, Stem erect branched square, Petals bifid
5482 Leaves on short stalks ovate acute toothed shining, Stem ascending simple, Petals half bifid
5483 Leaves lanceolate toothletted : the lower opposite, Stem square
5484 Stem round pubescent, Leaves lanc. serrul stalked opp. upper alternate smooth veiny
5485 Leaves opp. and alt. ovate toothletted sess. smooth, Fl. axill. sess. Caps. 4-cornered
5486 Stem erect simple, Leaves toothed pubescent, Ovary with scattered hairs
5487 Leaves sessile lanc. toothletted, Stem rounded, Stigma undivided
5488 Leaves on short stalks opp. lanc. ellipt. obt. entire, Stem ascending few-flowered

5489 Peduncles 1-flowered axillary, Leaves in threes serrated
5490 Branches slightly downy, Leaves opposite stalked smooth, Flowers much longer than leaves

5491 Peduncles axillary 1-flowered, Leaves ovate alternate
5492 Flowers stalked axillary, Sepals reflexed, Leaves ovate-lanceolate about 3

5493 Leaves oblong lanceolate smooth, Cymes terminal shorter than the leaves

5494 Leaves oval revolute at edge acute white beneath, Segm. of cor. oval
5495 Leaves oblong flat obtuse, Segm. of cor lanceolate

5496 Leaves oval acuminate serrulate ciliated, Flower not revolute at first

5497 Peduncles 1-flowered, Leaves serrate ovate deciduous, Stem angular

5498 Leaves ovate acute serrulate smooth, Racemes with bractes, Cor. cylind. camp.
5499 Leaves oval ac. ent. glauc. beneath, Pedic. sol. axill filif. Cor. open camp. Anth. exserted [exserted
5500 Lvs. oval or obov. acute ent. glauc. ben. Nerves and veins pub. Ped axill sol. filif. Cor. open camp. Anth.
5501 Dwarf tufted glabrous, Leaves cuneate rounded deeply sawed membranous, Fl. sol.
5502 Leaves small obov obt. ent above smooth, beneath veiny pubescent glaucous, Fl. sol. cor. urceolate
5503 Leaves stalked obovate acute at each end serrate, Racemes nodd. Cor. cylind. camp. Anth. included

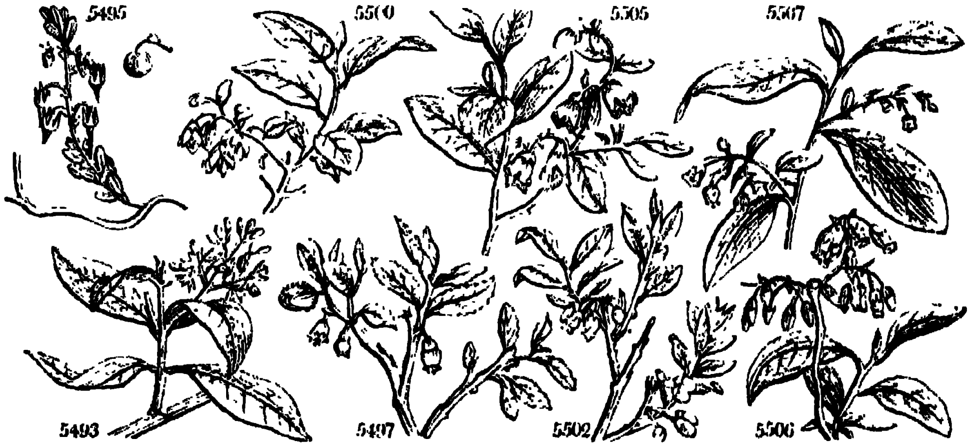
5504 Leaves narr. lanceol. membr. ent. Nerves and edge pubescent beneath, Fl. scatt. sol. nearly sessile

5505 Branches and lvs. covered with resin. dots, Lvs. obov. ent. Rac. with bractes, Cor. camp. with round. seg.

5506 Lvs. obl. acute serrul. smooth, Racemes aggreg. term. corym. Cor. cylind. with short erect seg. Style exsert

5507 Leaves obov. blunt ent. glaucous and resinous beneath, Racemes loose, Cor. ovate campanulate

5508 Branches ang. Leaves subsess. erect mucron. lanc. Clusters sessile, Cor. oblong ovate, Fl. stalks none



and Miscellaneous Particulars.

in the town of Langtown, on the borders of Cumberland. The plant might no doubt be cultivated with equal ease as the American species.

O. macrocarpus furnishes the cranberries sent from America: it was first cultivated in this country by Sir J. Banks, on the margin of a pond (*Hort. Trans.* i. 71.), and subsequently both in moist and dry situations by different cultivators. Peat earth is essential to every mode of culture; but a much less degree of moisture will do than was at first believed. Salisbury found it do very well in pots of bog earth set in the shade; and Milne found "vigorous shoots and abundant crops produced on dry beds of peat earth, even in the warm summer of 1822." The American cranberry he found easier to cultivate than the common sort; but Hallet found both the cranberry and bilberry succeed perfectly under such treatment (*Hort. Trans.* iv 483, and v. 279.

907. ***Vaccinium*** A name, the derivation of which is not known. Neither are commentators more decided as to what was the Vaccinium of the Latins. The only conclusion to which they have come, is that the Vaccinia nigra of Virgil are the same as the *μελαν ὑακινθος* of the Greeks. The species are neat little evergreen under shrubs, and inhabitants of moist alpine or subalpine regions in peat earth.

V. Myrtillus is an elegant and also a fruit-bearing plant. The young fresh green leaves, and wax-like red flowers appear in May, and towards autumn the leaves grow darker and more firm, and the ripe berries are gathered in the north for tarts, and in Devonshire and Poland are eaten with clotted cream. (*Eng. Bot.*) The berries are very acceptable to children, either eaten by themselves or with milk, or in tarts. The moor-game live upon them in the autumn. The juice stains paper or linen purple. Goats browse upon the plant; sheep are not fond of it; horses and cows refuse it. (*Withering.*) The berries have an astringent quality; and in Arran and the Western Isles are given in diarrhœas and dysenteries with good effect. The High-

5509	resinósum *H. K.*	clammy	♣		or	4	my.jn	...	N. Amer.	1772.	L	p	W. am. t. 30.f.69
	α viridéscens	*green-flowered*	♣		or	3	my.jn	Y.G	Canada	1772.	L	p	
	β rubéscens	*red-flowered*	♣		or	3	my.jn	Pk	N. Amer.	1772.	L	p	Bot. mag. 1288
	γ parviflórum Andr.	*small-flowered*	♣		or	3	my.jn	R.Y	N. Amer.	1804.	L	p	Bot. rep. 125
5510	corymbósum *L.*	corymbose	♣		or	7	my	W	N. Amer.	1806.	L	p	Bot. mag. 3433
	disomorphum Mich.												
5511	amœ'num *H. K*	broad-leaved	♣		or	6	my.jn	Pk	N. Amer.	1765.	L	p	Bot. rep. 138
5512	virgátum *H. K.*	twiggy	♣		or	3	ap.my	Pk	N. Amer.	1767.	L	p	Bot. rep. 181
5513	galézans *Mich.*	Gale-leaved	♣		or	2	my.jn	W	N. Amer.	1806.	L	p	
5514	tenéllum *H. K.*	Pensylvanian	♣		fr	1½	my.jn	Pk	N. Amer.	1772.	L	p	Bot. mag. 3434
	pensylvánicum Mich.												
	ramulósum W.												
	húmile W.												
5515	padifólium *Sm.*	Madeira	♣		fr	4	jn.au	Pk	Madeira	1777.	L	p	Bot. mag. 974
	arctostáphylos B. M.												
5516	meridionále *Sw.*	Jamaica	♣	⊔	or	2	mr.jn	W.G	Jamaica	1778.	L	p	
5517	myrtifólium *Mich.*	Myrtle-leaved	∽	⊔	pr	1	my.jl	W	Carolina	1812	L	p	
5518	crassifólium *Andr*	thick-leaved	♣		pr	1	jn.jl	Pk	Carolina	1787.	L	p	Bot. mag. 1152
5519	Vitis Idæa *L.*	Cow-Berry	⌓		pr	¾	ap.jn	Pk	Britain	...	Sk	p	Eng. bot. 598
	β május	*large*	⌓		pr	¾	ap.jn	Pk	N. Amer.	...	Sk	p	Bot. cab. 616
	γ máximum	*largest*	⌓		pr	¾	ap.jn	Pk	N. Amer.	...	Sk	p	
5520	hispidulum *W.*	Snowberry	∽		fr	¼	ap.my	W	Huds.Bay	1815.	L	p	Pursh am. t. 23
	Gaultheria serpyllifolia Psh.												
5521	nítidum *Psh.*	glossy	⌓		pr	2	my.jn	Pk	Carolina	1794.	L	p	Bot. rep. 480
	β decúmbens	*decumbent*	⌓		pr	¾	my.jn	Pk	Carolina	1794.	L	p	Bot. mag. 1550
5522	myrsinites *Mich.*	Myrsine-leaved	⌓		pr	1½	my.jn	Pk	Carolina	...	L	p	
	β lanceolátum	*lanceolate*	⌓		pr	1½	my.jn	Pk	Florida	...	L	p	
	γ obtúsum	*obtuse*	⌓		pr	1½	my.jn	Pk	Carolina		L	p	
5523	buxifólium *Andr.*	Box-leaved	∽		cu	1	my.jn	Pk	N. Amer.	1794.	L	p	Bot. mag. 928
	brachýcerum Mich.												
908.	MEME'CYLON. *W.*	Memecylon.					*Santalaceæ.*		*Sp.* 1—6.				
5524	capitellátum *W.*	Ceylon	♣	□	or	10	jl	...	E. Indies	1796	L	p.l	Bur. zeyl. t. 30
909.	LAGE'TTA. *J.*	Lagetta.					*Thymelæœ.*		*Sp.* 1				
5525	lintéaria *P. S*	lace-bark	♣	□	cu	6	ja.d	W	Jamaica	1793	C	l p	Lam. ill. t. 289
910.	DA'PHNE *W.*	Daphne					*Thymelæœ.*		*Sp.* 13—34.				
5526	Mezéreum *W.*	Mezereon	♣		m	4	f.ap	Pk	England	woods	C	p l	Eng. bot. 1381
	α rúbrum	*red flowered*	♣		or	4	f.ap	Pk	England	woods.	C	p l	
	β álbum	*white-flowered*	♣		or	4	f.ap	W	......	...	C	p l	
5527	Thymelæ'a *W.*	smooth-leaved	♣		or	3	f.ap	Y	Spain	1815			Pl. al. t. 329. f. 2
5528	Tarton-raira *W.*	silvery-leaved	♣		or	3	my.jl	W	France	1640	G	s l	Fl. græc. 354
5529	alpína *W*	Alpine	♣		or	2	my.jl	W	Italy	1759.	S	p.l	Bot. cab. 66
5530	Lauréola *W.*	Spurge Laurel	♣		or	6	ja.mr	G	Britain	woods	S	s.l	Eng. bot. 119
5531	póntica *W.*	Pontic	♣		or	3	ap.my	G	Pontus	1759	C	s l	Bot. mag. 1282
5532	tinifólia *W.*	Bonace-bark	♣	□	or	6	...	...	Jamaica	1733.	C	l p	
5533	Gnídium *W.*	Flax-leaved	♣		or	2	jn.au	W	Spain	1597	G	s l	Bot. cab. 150
5534	odóra *W*	sweet-scented	♣	⊔	or	3	mr.d	Pu	China	1771.	C	r m	Bot. mag. 1587
5535	Cneórum *W.*	trailing	⌓		or	1	ap.s	Pk	Austria	1752.	L	s.p	Bot. mag. 313
5536	altáica *W.*	Altaic	♣		or	3	ap.my	W	Siberia	1796	G	p.l	Bot. mag. 1875
5537	oleoídes *B. M.*	Olive-leaved	♣		or	2	ja.d	W	Crete	1815.	G	p l	Bot. mag. 1917
5538	collína *W.*	hairy	♣		or	3	ja.jn	Pu	Italy	1752.	L	s l	Bot. mag. 428
	β neapolitana Hort.	*Neapolitan*	♣		or	2	ja.jn	Pu	Naples	1822	L	s l	Bot. reg. 822

History, Use, Propagation, Culture,

landers eat them with milk, and make them into tarts and jellies, which last they mix with whisky to give it a relish to strangers.

V. uliginosum grows taller than the common bilberry, and has large globular, black, glaucous fruit. These have less flavor, but abound with a weak acid juice. (*Eng. Bot.*) In large quantities it occasions giddiness, and a slight head-ache, especially when full grown and quite ripe. (*Linn. Suec.* and *Withering.*) Many vintners in France are said to make use of the juice to color their wines red. (*Withering.*) They furnish an ardent spirit which is highly volatile and intoxicating. The Alpine birds feed upon the fruit, and it is very common in their haunts. (*Villars.*)

V. Vitis idæa is of very humble growth and almost herbaceous, though evergreen. The berries are red, acid, astringent, and bitter. They are scarcely to be eaten raw, and though made into pies in Derbyshire, where they are called cow-berries, their flavor is far inferior to the cranberry. Their best use is for making a rob or jelly, which is eaten with all kinds of roast meat in Sweden, and is far preferable to that of the red currant as a sauce for venison. It is also an excellent medicine in colds, sore throats, and all irritation of the mouth or fauces. (*Smith, Brit.* and *Eng. Bot.*) Linnæus says, that they are sent in large quantities from West Bothnia to Stockholm for pickling, and the same thing is confirmed by Dr. Clarke. Miller was informed that this plant was used for edgings in Norway.

V. tenellum is a very good fruit.

5509 **Lvs. stalked obl. oval blunt entire beneath resin. Racemes lateral one-sided, Cor. ovate conical 5 angular**

5510 Fl. branches leafless, Lvs. obl. oval acute at each end ent. young ones downy on both sides, Rac. short scaly

5511 Flowering branches leafless, Lvs. obl. acute at each end smooth, Racem. clust. bract. Cor. cylind. Cal. refl.
5512 Flowering branches oblong leafl. Lvs lanc. acute at each end serrul. smooth, Rac. sess. corym. obl. bract. Cor. cylind. contracted at mouth
5513 Lvs. sessile cuneate-lanc. serrul. veiny pubes. Clust. sess. Cor. ov. much contracted at mouth, Style exsert.
5514 Branches angular green, Leaves sess. ovate lanc. mucronate, Fasc. clustered term. sessile, Cor. ovate

5515 Flowers racemose, Leaves crenulate ovate smooth

5516 Leaves ovate obl. acute serrate flat shining, Racemes terminal erect, Cor. prismatical
5517 Creeping very smooth, Leaves stalked oval shining, Clusters axill sessile few-flowered, Cor. glob. camp.
5518 Spread. Lvs. obl. lanc. acute at each end serr. rigid smooth, Racem. term. corymb. Fl. nodd. Cor. open camp.
5519 Dwarf, Leaves obovate emarginate serrulate shining above dotted beneath, Cor. cylind. camp.

5520 Stem creeping hispid, Leaves roundish oval acute bristly at edge

5521 Erect much branched, Leaves evergeen obl. lanc. acute at each end rigid, Cor. open camp. deeply 5-toothed

5522 Leaves very small sessile oval mucron. beneath hairy dotted, Clusters term. and lat. Cor. obl. ovate

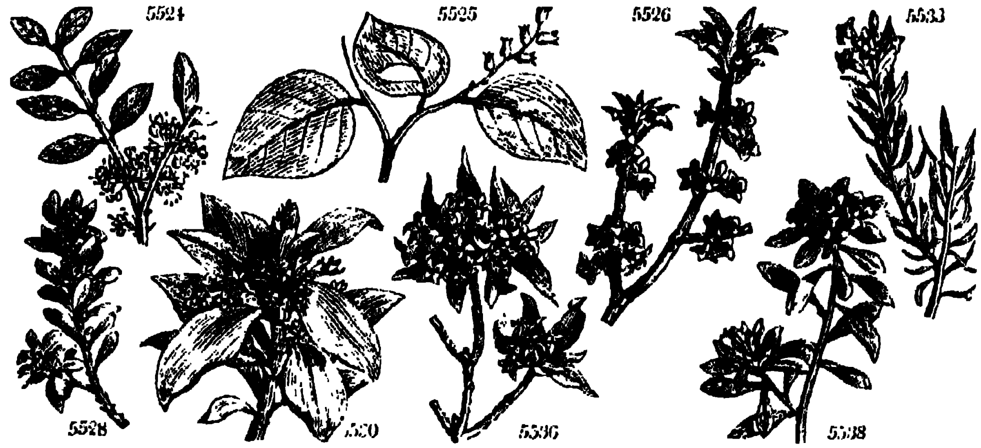
5523 Dwarf, Leaves obovate crenate toothed smooth, Filam. gland. Stigma cap. Cor. short ovate

5524 Leaves ovate stalked, Umbels capitate axillary sessile

Spikes panicled terminal, Leaves ovate acute

5526 Flowers sessile three on the stem, Leaves lanceolate deciduous

5527 Flowers sessile axillary, Leaves lanceol. Branches simple
5528 Flowers sessile lateral aggregate at the base scaly, Leaves obovate nerved silky
5529 Flowers sessile lateral aggregate, Leaves lanceolate obtuse downy beneath
5530 Racemes axillary 5-flowered, Leaves lanceolate smooth
5531 Pedunc. lateral 2-flowered, Leaves lanceol ovate
5532 Racemes compound erect, Flowers terminal clustered, Leaves oblong
5533 Racemes term. panicled, Leaves linear lanceolate cuspidate
5534 Head terminal sessile many-flowered, Leaves scattered obl. lanceol. smooth
5535 Flowers fascicled term. sessile, Leaves lanceol naked mucronate
5536 Flowers term subsessile, Leaves opp obl lanceol obtuse narrowed at base glabrous
5537 Flowers twin terminal sessile, Leaves elliptic lanceol. smooth
5538 Flowers fascicled terminal, Leaves obovate obtuse above very smooth beneath villous



and Miscellaneous Particulars.

908. *Memecylon.* The Greek name of the fruit of the Arbutus. The shrub now so called has a certain degree of resemblance to the Arbutus. Young cuttings plunged in sand in heat and covered with a hand-glass will root freely.

909. *Lagetta.* This plant in Jamaica is called Lagetto. Ripened cuttings will root in sand under a hand-glass.

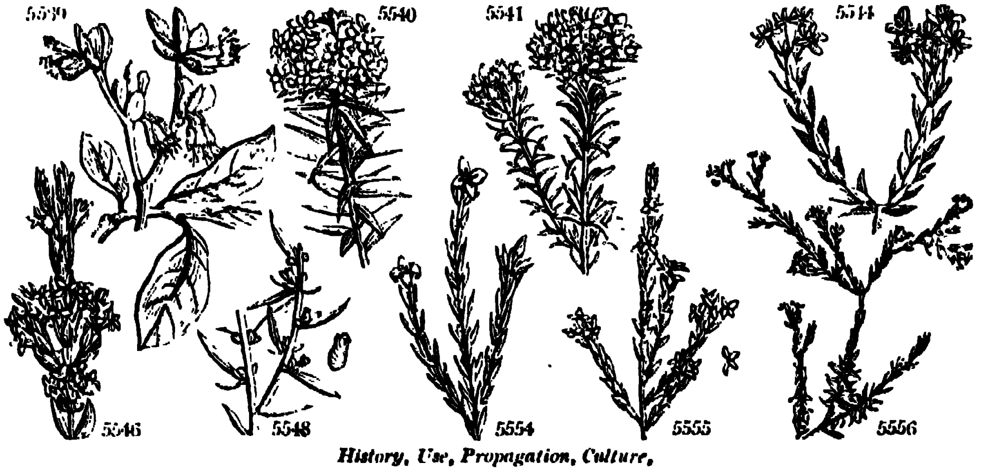
910. *Daphne.* The Greek name of the Laurel. This is a genus of diminutive shrubs, mostly evergreens of great beauty and fragrance in the flower, and with a peculiar velvet texture in the leaf. It is mentioned by Linnæus as a characteristic of the genus, that the terminating buds of the shoots produce leaves, and the lateral ones flowers. This affords a hint to the cultivator to be sparing of his knife.

D. Mezereum (*Mádzaryoün* is the Persian name according to Richardson), *Laureole gentille*, Fr., *Kellerhals*, Ger., and *Laureola femina*, Ital., is an old inhabitant of the shrubbery, and deservedly much admired for its precocity and fragrance. It thrives well in loamy soil, and will grow in the shade and even drip of other trees. It is a native of all parts of Europe from Lapland to Sicily, but was first received from Elbing before it was observed to be a native. The roots of Mezereon acquire a very large size in proportion to the branches, and have more the character of the fusiform or ramose roots of a herbaceous, than of a ligneous vegetable. They are remarkably hot and acrid, and have long and in most countries been a popular topical

911. DIR'CA. *W.*	LEATHER-WOOD					*Thymelææ.*	*Sp.* 1.					
5539 palústris *W.*	marsh	✽		ec	6	mr.ap	Y	Virginia	1750.	S	s.l	Bot. reg. 292
912 GNI'DIA. *W.*	GNIDIA.					*Thymelææ.*	*Sp.* 8—13.					
5540 pinifólia *W.*	Pine-leaved	♄	⊔	pr	1	my.jn	Pa.Y	C. G. H.	1768.	C	s.p	Bot. reg. 19
5541 imbérbis *H. K.*	smooth-scaled	♄	⊔	pr	1¼	ap au	Pa.Y	C. G. H.	1792.	C	s.p	Bot. mag. 1463
5542 símplex *W.*	Flax-leaved	♄	⊔	el	1	my.jn	Pa.Y	C. G. H.	1786.	C	s.p	Bot. mag. 812
5543 capitáta *W.*	purple-twigged	♄	⊔	cu	1	jn.jl	Pa.Y	C. G. H.	1788.	C	s.p	
5544 oppositifólia *H. K.*	opposite-leaved	♄	⊔	pr	1	my.jl	Pa.Y	C. G. H.	1783.	C	s.p	Bot. reg. 2
5545 sericea *H. K.*	silky	♄	⊔	pr	1¼	my.jl	Pa.Y	C. G. H.	1786.	C	s.p	Bot. rep. 225
5546 denudáta *Lindl.*	shaven	♄	⊔	pr	1¼	my.jl	Pa.Y	C. G. H.	1820.	C	s.p	Bot. reg. 757
5547 lævigáta *Thunb.*	polished	♄	⊔	pr	1	my.jl	Pa.Y	C. G. H.	1822.	C	s.p	
913. STELLE'RA. *W.*	STELLERA.					*Thymelææ.*	*Sp.* 1—3.					
5548 Passerina *W.*	Flax-leaved	✽		cu	1	jl.au	W	S. Europe	1759.	C	s.p	Jac. ic. 1. t. 68
914. PASSERI'NA. *L.*	SPARROW-WORT.					*Thymelææ.*	*Sp.* 8—19.					
5549 filifórmis *W.*	filiform	♄	⊔	cu	1	jn.au	W	C. G. H.	1752.	C	s.p	Wen. ob. t.2.f.15
5550 hirsúta *W.*	shaggy	♄	⊔	cu	1¼	jn.s	W	S. Europe	1759.	C	p.l	Bot. mag. 1949
5551 tenuiflóra *W. en.*	slender-flower.	♄	⊔	cu	¾	jn.s	W	C. G. H.	...	C	s.p	
5552 capitáta *W.*	headed	♄	⊔	cu	1	jn o	W	C. G. H.	1789.	C	s.p	Wen. ob t.2.f.17
5553 uniflóra *W.*	one-flowered	♄	⊔	cu	½	ap my	W	C. G. H.	1759.	C	s.p	Wen. ob. t.2.f.18
5554 grandiflóra *W.*	great-flowered	♄	⊔	cu	1	my.jn	W	C. G. H.	1789.	C	s.p	Bot. mag. 292
5555 spicáta *W.*	spiked	♄	⊔	cu	1	my jn	W	C. G. H.	1787.	C	p l	Bot. cab. 311
5556 láxa *W.*	lax	♄	⊔	cu	¾	jn jl	W	C. G. H.	1804.	C	p.l	Bot. cab. 755
915 LACHNÆ'A. *W.*	LACHNÆA.					*Thymelææ.*	*Sp.* 5—28.					
5557 conglomeráta *W.*	clustered	✽	⊔	or	2	jn jl	W	C. G. H.	1773.	S	r.m	
5558 eriocéphala *W.*	woolly-headed	✽	⊔	or	2	jn.jl	W	C. G. H.	1793.	C	p.l	Bot. mag. 1295
5559 purpúrea *H. K.*	purple-flowered	✽	⊔	or	2	jn.jl	Pu	C. G. H.	1800.	C	p.l	Bot. mag. 1594
5560 glaúca *H. K.*	glaucous	✽	⊔	or	2	my jl	W	C. G. H.	1800.	C	p.l	Bot. mag. 1658
5561 buxifólia *Lam.*	green-box-leav.	✽	⊔	or	2	my.jl	W	C. G. H.	1800.	C	p.l	Bot. mag. 1657
916. COMBRE'TUM. *W.*	COMBRETUM.					*Combretaceæ.*	*Sp.* 2—20.					
5562 purpúreum *W.*	purple	§	□	or	15	jn.d	S	Madagasc.	1818.	C	r.m	Bot. mag. 2102
5563 comósum *Hort.*	comose	§	□	or	20	...	Pu	S. Leone	1821.	C	r.m	

DIGYNIA.

917. GALE'NIA. *W.*	GALENIA.					*Chenopodeæ*	*Sp.* 1—3.					
5564 africána *W.*	African	♄	⊔	cu	2	jn.au	W	C. G. H.	1752	C	p l	Lam. ill. t. 314
918 APHANAN'THE. *Lk.*	APHANANTHE.					*Amaranthaceæ.*	*Sp.* 1.					
5565 celosioides *Lk.*	Cock's-comb	♄	⊔	cu	1¼	jl	W.G	Brazil	1813.	C	p l	
919. WEINMAN'NIA. *L.*	WEINMANNIA					*Saxifrageæ*	*Sp* 1—12.					
5566 pinnáta *L.*	pinnate	✽	□	or	6	my.jn	W	Jamaica	1815.	C	r.m	
920. MŒHRIN'GIA. *W.*	MŒHRINGIA.					*Caryophylleæ.*	*Sp.* 1—3.					
5567 muscósa *W.*	mossy	♃	△	w	¼	jn jl	L.Pu	S. Europe	1775		s l	Sch. ha. 1. t. 108



History, Use, Propagation, Culture,

application for the toothach. The whole plant is extremely acrid, especially when fresh, and if retained in the mouth excites great heat and inflammation, particularly of the throat and fauces. The berries when swallowed prove a powerful poison, not only to man, but to many quadrupeds. Both the bark and the berries of Mezereon in different forms have been long used externally in cases of obstinate ulcers and ill-conditioned sores. In France the bark is used as an application to the skin, which, under certain management, produces a serous discharge without blistering, and is thus rendered useful in chronic cases of a local nature, answering the purpose of what is called a perpetual blister, while it occasions less pain and inconvenience. In our own country the Mezereon has been principally employed in syphilitic cases. The branches make a good yellow dye.

D. Laureola is valuable in the shrubbery as thriving under the shade and drip of other trees, and never growing to an unshapely size and figure, and in the nursery as affording stocks for the more rare species. The roots and other parts of the plant possess similar qualities to those of the Mezereon.

911. *Dirca.* From διρκα, a fountain. A plant which grows in watery places. *Bois de Plomb,* Fr. This shrub grows in hilly swamps in North America: it is in all its parts remarkably tough, and the twigs are in consequence used for rods, and the bark for ropes, baskets, &c. Layers are generally two years in rooting; cuttings do not succeed, and it does not ripen seeds here. Snails, Sweet observes, are particularly fond of this plant.

912. *Gnidia.* One of the names given by the ancients to the Daphne. These plants "thrive well in a sandy peat soil, with their pots well drained with broken potsherds: care must be taken not to over water them, or to let them flag for want of water, as their roots are very tender and are easily killed; the tenderest kinds are G. oppositifolia, and G. pinifolia. (*Bot. Cult.* p. 198.)

5539 The only species. Flowers appearing before the leaves

5540 Leaves scattered 3-cornered, Flowers in umbellate heads, Scales four bearded
5541 Leaves scattered 3-quetrous linear acute: floral lin. lanc. shorter than heads, Scales eight beardless
5542 Leaves all linear acute, Flowers terminal sessile, Scales four and cor. smooth
5543 Leaves scattered lanc smooth, Flowers capitate surrounded by bractes, Peduncle naked
5544 Leaves opp. lanceolate tomentose, Flowers terminal, Scales 4
5545 Leaves opp. ovate tomentose, Flowers terminal, Scales 8
5546 Leaves ovate oblong imbricated hairy with naked nerves
5547 Leaves opp. ovate smooth, Fl. terminal subcapitate

5548 Leaves linear, Flowers axillary sessile 4-cleft

5549 Leaves lin. convex imbricated in 4 rows, Branches downy
5550 Leaves fleshy smooth outside, Stems downy
5551 Leaves linear smooth, Fl. sessile in terminal filiform silky heads
5552 Leaves linear smooth, Heads stalked downy
5553 Leaves lin. opposite, Flowers term. solitary, Branches smooth
5554 Quite smooth, Leaves oblong acute concave rugose outside, Fl. term sessile solitary
5555 Leaves ovate villous, Flowers lateral solitary
5556 Leaves ovate scattered, Flowers capitate, Branches lax cernuous

5557 Heads clustered, Leaves loose
5558 Heads solitary woolly, Flowers imbricated in four rows
5559 Leaves opp imbricated 4 ways, Heads smooth
5560 Leaves scattered elliptical ovate, Heads woolly
5561 Leaves oval sessile very smooth, Fl. capitate woolly

5562 Leaves opposite ovate acute, Racemes one-sided bracteate, Bractes shorter than peduncle, Fl decandrous
5563 Leaves opp. oblong hairy, Racemes numerous terminal one-sided

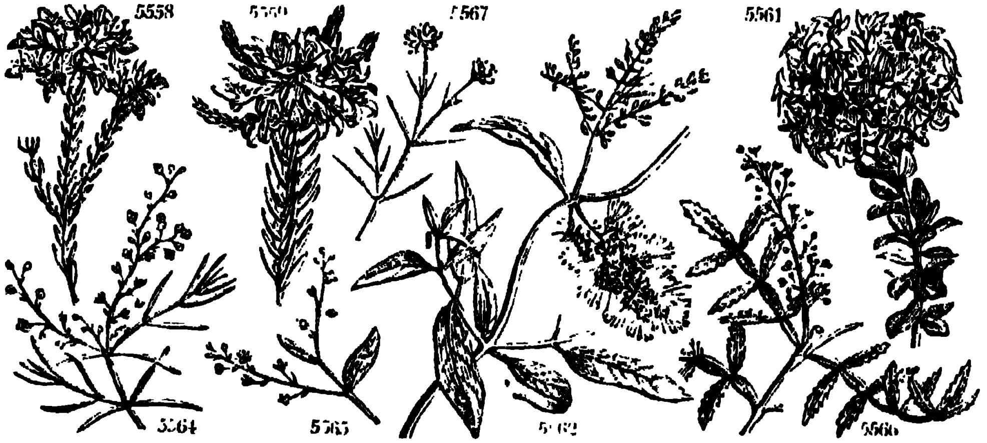
DIGYNIA.

5564 Erect shrubby, Leaves linear fleshy

5565 Flowers loosely spiked very minute, Bractes lanceolate membranous

5566 Leaves pinnate, Leaflets obovate crenate smooth

5567 Leaves linear connate, Sepals flat the length of the stem-joints lanceol. acute



and Miscellaneous Particulars.

913. *Stellera.* So named by Gmelin, in memory of Georg. Wilh. Steller, adjunct of the academy at Petersburg, who collected plants in Kamtschatka, and died in Siberia, in 1746. An inconspicuous plant resembling the next genus and requiring the same culture.

914. *Passerina.* From *passer*, a sparrow. Its seed has an appendage at the end like the beak of a sparrow. Young cuttings root freely under a bell-glass in sand.

915. *Lachnæa.* Derived from λαχνη, wool, on account of the woolly heads of flowers.

916. *Combretum.* A name employed by Pliny. The plant of the ancients could have no relation to the plant now called by this name, which is a genus of splendid climbing shrubs, with beautiful branches of flowers which are often crimson or purple, and sometimes white. A number of species are found at Sierra Leone. They are all stove plants.

917. *Galenia.* So named by Linnæus from the famous physician Claudius Galenus, born at Pergamus, 133 years before the Christian æra. A coarse-looking shrub, with the leaves obscurely papillose or bladdery, and the stem round.

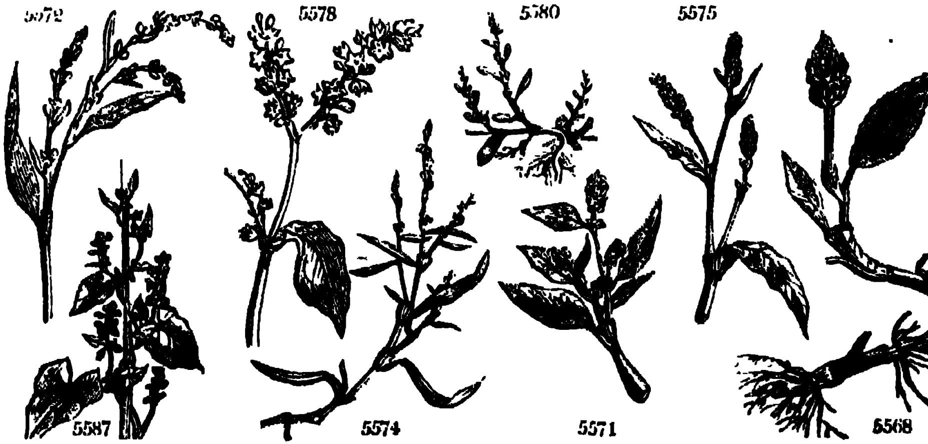
918. *Aphananthe.* A name contrived from α, privative, φαινω, to be remarkable, and ανθος, a flower: that is to say, a plant which is not remarkable for the beauty of its flowers. A curious little Brazilian weed.

919. *Weinmannia.* In honor of John William Weinmann, a German botanist, who published in 4 vols. folio, his Phytanthoza Iconographica, about the middle of the last century. Handsome shrubs, with pinnated leaves.

920. *Mœhringia.* So named by Linnæus, from Paul Henry Gerard Moehring, a physician, author of Hortus Proprius, 1736. A little inconspicuous weed-like plant. It suits very well for rock-work, or to be grown in small pots.

TRIGYNIA.

921. POLY'GONUM. *W.*	PERSICARIA.					*Polygoneæ.*	*Sp.* 36—60.					
5568 amphibium *L.*	amphibious	≛	△	w	1	jn.au	Pk	Britain	dit.	D	s.l	Eng. bot. 436
5569 ocreátum *L.*	spear-leaved	⚘	△	pr	2	jn.s	W.o	Siberia	1780.	D	s.l	Gmel. sib. 3. t. 8
5570 virginiánum *L.*	Virginian	⚘	△	w	3	au.s	W	N. Amer.	1640.	D	s.l	Pa. th. 857. f. 6
5571 lapathifólium *H. K.*	pale-flowered		○	w	1	jn.s	G	England	dungh.	S	s.l	Eng. bot. 1382
5572 Hydropiper *L.*	Water Pepper	≛	○	w	1	jl.s	R	Britain	wat. pl.	S	s.l	Eng. bot. 989
5573 tinctórium *Loureiro*	dyer's	£	[○]	dy	2	jl.au	R	China	1776.	C	s.l	
5574 minus *W.*	small		○	w	½	au.s	Pk	England	wat.co.	S	s.l	Eng. bot. 1043
5575 Persicária *L.*	spotted		○	w	2	jl.au	Pk	Britain	dit.	S	s.l	Eng. bot. 756
5576 incánum *Schmidt*	hoary		○	w	2	jl.au	W	Germany	1804.	S	s.l	Pet. h. br. t. 3. f. 8
5577 barbátum *L.*	bearded	✱	△	cu	2	jn	W	China	1819.	S	s.l	
5578 orientále *L.*	common		○	or	6	jl.o	R	E. Indies	1707.	S	co	Bot. mag. 213
β *álbum*	*white-flowered*		○	or	4	jl.o	W.o	E. Indies	1781.	S	co	
5579 frutéscens *W.*	shrubby	§	○	or	2	jl.au	Pk	Siberia	1770.	L	s.l	Bot. reg. 254
5580 aviculáre *L.*	Knot-grass	✱	○	w	3	ap.o	G	Britain	rubble.	S	co	Eng. bot. 1252
5581 arenárium *Bieb.*	sand	✱	○	w	1	my.au	Pu	Hungary	1807.	S	co	Pl. rar. hu. t. 67
5582 élegans *Tenore.*	elegant	§	[△]	pr	2	ap.au	W.o	Naples	1824.	D	co	
5583 eréctum *L.*	upright	✱	○	w	1	jl.au	P.s	N. Amer.	1792.	D	s.l	
5584 chinénse *W.*	Chinese	§	○	dy	6	jl.au	W.o	China	1795.	S	s.l	Bur. in. t. 30. f. 3
5585 sagittátum *W.*	arrow-leaved	§	○	cu	6	jl.au	W.o	N. Amer.	1759.	S	s.l	Lin. hor. cl. t. 12
5586 arifólium *W.*	Arum-leaved	§	○	cu	6	my.o	W.o	N. Amer.	1816.	S	s.l	Pl. am. t. 398. f. 3
5587 Convólvulus *L.*	common-climb.	§	○	w	3	my.s	W.o	Britain	corn.fi.	S	s.l	Eng. bot. 941
5588 dumetórum *L.*	bush	§	○	un	12	my.s	W	S. Europe	1803.	S	co	Flor. dan. t. 756
5589 scándens *L.*	American-clim.	§	△	un	12	jl.s	Pk	N. Amer.	1749.	D	co	Pl. al. t. 177. f. 7
5590 littorále *Lk.*	sea-shore	§	△	un	1	jn	W.o	S. Europe	...	S	co	
5591 Bellar'dii *All.*	Bellardi's	§	△	un	1	jn.jl	W.o	S. Europe	...	S	co	Al. ped. t. 90. f. 2
5592 acetósum *Bieb.*	sour	§	○	un	½	d	W.o	Crimea	1820.	S	co	
5593 críspulum *B. M.*	upright	⌂	△	pr	1½	jl.au	W.pk	Siberia	1800.	C	s.l	Bot. mag. 1065
5594 Bistórta *L.*	Snake's-weed	⚘	△	m	1½	my.s	P	Britain	me. pa.	D	co	Eng. bot. 509
5595 viviparum *L.*	Alpine-Bistort	⚘	△	pr	½	my.s	W	Britain	al. pas.	D	s.l	Eng. bot. 669
5596 divaricátum *L.*	divaricating	⚘	△	un	2	jl.au	W.o	Siberia	1759.	D	co	Gm. si. 3 t 11. f 1
5597 undulátum *L.*	wave-leaved	⚘	△	un	3	jn.jl	W.o	Siberia	1789	D	s.l	Gmel. sib. 3. t. 10
5598 acidulum *W. en.*	narrow-leaved	⚘	△	un	2	jn.jl	W.o	Siberia	1816.	D	s.l	
5599 salignum *W. en.*	Willow-like	⚘	△	un	4	my.au	W.o	Siberia	1816.	D	s.l	
5600 tatáricum *L.*	Tartarian		○	un	2	jl.au	W.pk	Siberia	1759.	S	s.l	Gm. si. 3. t. 13. f. 1
5601 emarginátum *Roth.*	notch-seeded		○	cu	2	jl.au	Pk	China	1796.	S	s.l	
5602 Fagopýrum *L.*	Buck-Wheat		○	ag	2	jl.au	Pk	England	corn.fi.	S	s.l	Eng. bot. 1044
5603 alpinum *All.*	alpine	⚘	△	un	1	my.au	W	Switzerl.	1816.	D	s.l	Al. ped. t. 68. f. 1
922. COCCOLO'BA. *W*	SEASIDE-GRAPE					*Polygoneæ.*	*Sp* 8—20.					
5604 uvífera *W.*	round-leaved	♀	□	fr	60	...	W.o	W. Indies	1690.	C	r.m	Jac. amer. t. 73



History, Use, Propagation, Culture.

921. ***Polygonum.*** From πολυς, many, and γονυ, knee, many joints. These are nearly all common weeds of temperate climates. P. Bistorta, being one of the strongest vegetable astringents, might well be applied to the purpose of tanning leather, if it could be procured in sufficient quantity. The young shoots were formerly eaten in herb-puddings in the north of England, where the plant is known by the name of Easter Giant, and about Manchester they are substituted for greens under the name of Patience Dock. (*Curtis, Withering.*) The root was formerly considered to be alexipharmic and sudorific.

P. viviparum is so named on account of the flowers frequently changing into vegetable bulbs. The roots have the same qualities as those of P. Bistorta, and are eaten in Sweden and Lapland, Siberia and Tartary.

P. amphibium is one of the most difficult weeds to eradicate from recovered alluvial lands, and has no equal in this respect unless Equisetum. The roots, which in the water are properly stems, are found to a great depth in such soils; and though by fallowing or otherwise stirring the surface, the leaves may be prevented from showing themselves for several years; yet if the field be allowed to lie a year in grass, the surface will be found abounding with Polygonum. Many tracts in Scotland which have been recovered from rivers and estuaries for an unknown series of years still abound with this plant, and as under such circumstances it never advances so far as to flower and seed, the individuals must be the same which formerly were suspended in the water. As an aquatic, it has a gay, showy appearance, when in flower.

P. Hydropiper is a powerful diuretic, and will dye woollen cloth of a yellow color.

P. tinctorium, and also chinense and aviculare, are cultivated in China for dying cloth of a beautiful blue or green.

TRIGYNIA.

§ 1. *Flowers pentandrous.*

5568 Half digyn. Spike ovate, Stipules lacerate, Leaves oblong or lanceolate
5569 Flowers trigynous, Leaves lanceolate
5570 Flowers half digynous, Cor. 4-cleft unequal, Leaves ovate

§ 2. *Flowers hexandrous.*

5571 Flowers digynous, Stipules unarmed, Pedunc. rough, Seeds depressed on each side
5572 Flowers half digynous, Leaves lanc. wavy not spotted, Spikes filiform nodding
5573 Flowers trigynous, Spikes twiggy, Stipules smooth truncate ciliated, Leaves ovate acute smooth
5574 Flowers nearly monogynous, Leaves lin. lanceol. flat, Spikes filiform erect, Stem rooting at base
5575 Flowers half digynous, Spikes ovate-oblong erect, Pedunc. smooth, Stipules ciliated
5576 Flowers digynous, Spikes oblong, Leaves obl. lanceolate pubescent beneath
5577 Flowers trigynous, Spikes twiggy, Stipules truncate ciliated, Leaves oblong acute smoothish

§ 3. *Flowers heptandrous.*

5578 Flowers digynous, Leaves ovate, Stem erect, Stipules hairy hypocrateriform

§ 4. *Flowers octandrous.*

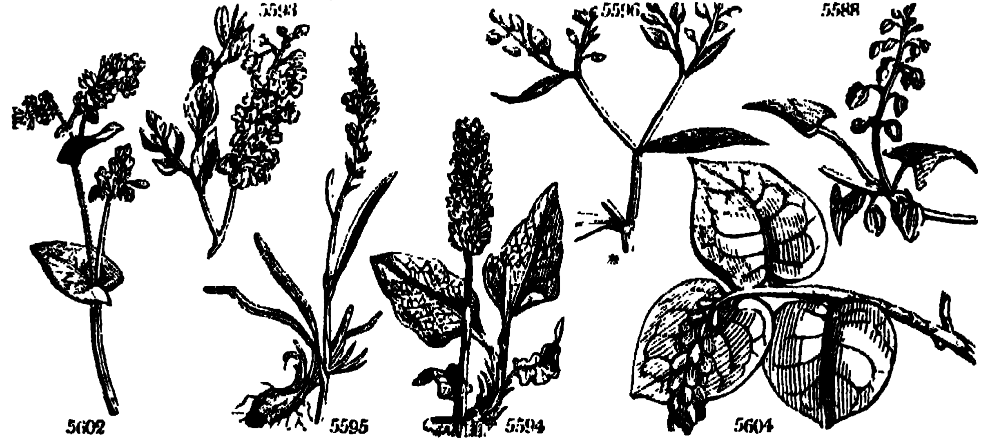
* *Stem twining.*

5579 Leaves lanceolate narrowed each way, Stipule lanceol shorter than the joint. — TRAGOPYRUM. *Bieb.*
5580 Flowers axill. Leaves ellipt. lanceol. rough at edge, Nerves of stipules remote
5581 Flowers trigynous, Spikes term. leafless, Leaves lanc. lin. Stems angular declinate herbaceous
5582 Flowers large axillary, Spike compact, Stem stout sheathed
5583 Flowers trigynous axillary, Leaves oval, Stem erect herbaceous
5584 Flowers trigynous, Peduncles rough, Leaves ovate stalked, Bractes cordate sessile
5585 Leaves sagittate, Stem prickly
5586 Leaves hastate, Stem prickly
5587 Leaves cordate sagittate, Stem angular, Segm. of cal. obtusely keeled
5588 Leaves cordate, Stem smooth, Leaves keeled winged
5589 Leaves cordate, Raceme simple axillary, Stem smooth
5590 Stem procumbent, Leaves oblong acute veiny fleshy, Stipules ciliated much shorter than the joints
5591 Flowers axill. trigynous, Leaves ellipt. lanceol. Sheaths ciliated
5592 Flowers trigynous axillary, Leaves lanceolate fleshy veinless, Stipules 2-parted

* *Stem not twining.*

5593 Leaves stalked obovate mucronulate smooth with a crisp revolute edge
5594 Stem simple one-spiked, Leaves ovate wavy running down the stalk
5595 Stem simple one-spiked, Leaves revolute lanceolate at edge
5596 Flowers trigynous racemose, Leaves lanceolate smooth, Stem divaricating spreading smooth
5597 Flowers trigynous panicled, Leaves lanceolate wavy rough above pubescent beneath
5598 Flowers trigynous racemose-panicled, Leaves linear lanceolate smooth
5599 Flowers trigynous racemose-panicled, Leaves linear lanceolate smooth acuminate ciliated at edge
5600 Leaves cordate sagittate, Stem unarmed, Seeds toothed
5601 Leaves cordate sagittate, Stem unarmed, Seeds truncate at end emarginate winged
5602 Leaves cordate sagittate, Stem unarmed, Angles of seeds equal
5603 Flowers trigynous racemose-panicled, Leaves ovate lanc. smooth ciliated at edge

5604 Leaves cordate roundish shining



and Miscellaneous Particulars.

P. orientale is a well known annual, showy, and fit for shrubberies. The seeds were first sent to Europe by Tournefort, who saw it growing in the garden of the monks of the three churches near Mount Ararat. They cultivate this plant there, not only for the beauty of the flowers, but for its medicinal qualities, which are the same with those attributed to our common species. (*Mill. Fig.*) The seeds are farinaceous.

P. aviculare is so named from the gratefulness of its seeds to small birds; the English name, knot-grass, from the knottiness of the stem, and because it is eaten by cattle; many such plants having obtained the name of grass, though they bear no similitude to real grasses. Hogs eat it with great avidity, and hence it is known in many countries by the name of hogweed. All other domestic quadrupeds are said to eat it. The seeds are useful for every purpose in which those of buckwheat are employed, but they are much smaller.

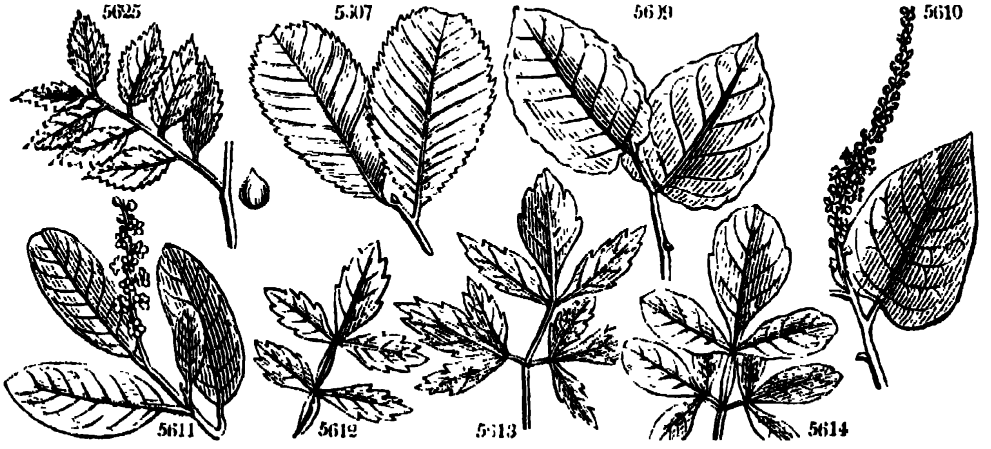
P. Fagopyrum, (*Fagus*, beech, and πυρος, corn, its grain is like the mast of beech,) properly beechwheat, *Bled noir* or *Sarrazin*, Fr. Buckwheat is considered a native of Asia and not of Europe, though sometimes found in a seemingly wild state. It will not, however, bear the frosts of our springs or the severity of winter. In China and other countries of the East, it is cultivated as a bread corn. The flower is also used in cookery and bread-making in various parts of Europe, to make cakes and crumpets in England, and [illegible] gruel in Germany and Poland. The seed is said to be excellent for horses and poultry, the flowe[illegible] the plant green for soiling cows, cattle, sheep or swine. As an agricultural plant it is valuabl[illegible] short time on the ground; but it produces little straw for manure.

922. *Coccoloba.* From κοκκος, fruit, and λοβος, a lobe; the fruit has three lobes. C. u[illegible] a common tree in most of the sugar colonies, generally near the sea. It is remarkable for its large leaves, and when of

5605 latifólia *Lam.*	broad-leaved	♀	☐	or	20	...	W.G	S. Amer.	1812.	C	r.m	La. il. t. 316. f. 4
5606 pubéscens *W.*	downy	♀	☐	tm	70	...	W.G	W. Indies	1690.	C	r.m	Pl. phy. 222. f. 8
5607 excoriáta *W.*	oval-leaved	♀	☐	tm	80	...	W.G	W. Indies	1733.	C	r.m	Pl. ic. t. 146. f. 1
5608 punctáta *W.*	spear-leaved	♀	☐	or	15	...	W.G	W. Indies	1733.	C	r.m	Jac. am. 114.t.77
5609 barbadénsis *W.*	Barbadoes	♀	☐	tm	60	...	W.G	Barbadoes	1790.	C	r.m	Jac. obs. 1. t. 8
5610 diversifólia *Jacq.*	various-leaved	♀	☐	or	20	au	W.G	St. Dom.	1818.	C	r.m	Hook. ex. fl. 102
5611 laurifólia *Jacq.*	laurel-leaved	♀	☐	or	20	au	W.G	Caraccas	1822.	C	r.m	Jac. sch. 3. t. 267
923. PAULLI'NIA. *W.*	PAULLINIA.						*Sapindaceæ.*	*Sp.* 6—39.				
5612 pinnáta *W.*	winged-leaved	ɭ	☐	or	15	...	W.G	W. Indies	1752.	C	r.m	Jac. ob 3.t.62.f.12
5613 curassávica *W.*	shining-leaved	ɭ	☐	or	18	...	W.G	S. Amer.	1739.	C	r.m	Jac. ob. 3.t 61.f.8
5614 barbadénsis *W.*	Barbadoes	ɭ	☐	or	16	...	W.G	W. Indies	1786.	C	s.p	Jac. ob. 3.t.62.f.9
5615 polyphýlla *W.*	Supple-Jack	ɭ	☐	or	20	...	W.G	W. Indies	1739.	R	s.p	Jac.ob.3.t.61.f.10
5616 caribæ'a *Jac.*	Caribæan	ɭ	☐	or	10	...	W.G	W. Indies	...	C	s.p	Jac. ob.3. t.62.f.7
5617 meliæfólia *Juss.*	Beadtree-lvd.	ɭ	☐	or	12	...	W.G	Brazil	1819.	C	s.p	Hook. ex. fl. 110
924. SERIA'NA. *W.*	SERIANA.						*Sapindaceæ*	*Sp.* 2—21.				
5618 sinuáta *W.*	sinuate-leaved	ɭ	☐	or	15	...	W.G	S. Amer.	...	C	co	Jac. ob.3.t.61. f.2
5619 caracásana *W.*	tooth-leaved	ɭ	☐	or	15	...	W.G	Caraccas	1816	C	co	Jac. sch. 1. t. 99
925. CARDIOSPER'MUM. *W.*	HEART-SEED.						*Sapindaceæ.*	*Sp.* 3—12.				
5620 Halicácabum *W.*	smooth-leaved	ɭ	⊡	cu	4	jl	W.G	India	1594.	S	co	Bot. mag. 1049
5621 Corindum *W.*	Parsley-leaved	ɭ	⊡	cu	4	jl au	W.G	Brazil	1750.	S	co	
5622 pubéscens *Lag.*	downy	ɭ	☐	cu	6	jn	S.	N. Spain	1823.	S	co	
926. SAPIN'DUS. *W.*	SOAP-BERRY.						*Sapindaceæ.*	*Sp* 6—18.				
5623 Saponária *W.*	common	♀	☐	ec	20	...	W.G	W. Indies	1697.	S	p.l	Com. hort. t. 94
5624 marginátus *W. en.*	edged	♀	☐	or		...	W.G	Carolina	...	S	p.l	
5625 rigidus *W.*	Ash-leaved	♀	☐	or	25	jl.s	W.G	America	1759.	S	p.l	Pl. alm. t.217. f.7
5626 longifólius *Vahl.*	long-leaved	♀	☐	or	16	...	W.G	E. Indies	1820.	S	co	
5627 emarginátus *Vahl.*	emarginated	♀	☐	or	12	...	W.G	E. Indies	1822.	S	r.m	
5628 rubiginósus *Roxb.*	rusty	♀	☐	or	15	...	W.G	E. Indies	1821.	S	p.l	Rox. cor. 1. 62

TETRAGYNIA.

927. VE'REA *W.*	VEREA.						*Sempervivеæ.*	*Sp.* 3—8.				
5629 laciniáta *P. S.*	cut-leaved	⩍	⊐	fr	2	jl au	Y	E. Indies	1781	Ls	s.l	Plant. grass. 100
5630 crenáta *W.*	Vere's	⩍	⊐	or	2	jl.s	Y	S. Leone	1793.	Ls	s.l	Bot. mag. 1456
5631 acutiflóra *Haw.*	white-flowered	⩍	⊐	or	2	jl s	W	E. Indies?	1806.	Ls	s.l	Bot. rep. 560
928. BRYOPHYL'LUM. *Sal.*	BRYOPHYLLUM.						*Sempervivеæ.*	[illegible]				
5632 calycinum *Sal.*	large-cupped	⩍	⊐	cu	2	ap.jl	G.Pu	E. Indies	1800.	Ls	s.l	Par. lond 3
929. PA'RIS. *W.*	PARIS.						*Asphodeleæ?*	*Sp* 1—2.				
5633 quadrifólia *W.*	Herb	⚘	△	cu	¼	my jn	G	Britain	woods.	D	p.l	Eng. bot 7
930. ADOX'A. *W.*	MOSCHATEL.						*Saxifrageæ.*	*Sp* 1.				
5634 Moschatéllina *W.*	tuberous	✲	△	cu	¼	mr.my	G.W	Britain	woods.	D	s.p	Eng. bot. 453
931. ELA'TINE. *W.*	WATER-WORT.						*Caryophylleæ.*	*Sp.* 1—4.				
5635 Hydropiper *W.*	small	⚘	○	cu	⅛	au	G	England	mar.la.	S	s.l	Eng. bot. 955



History, Use, Propagation, Culture,

a considerable size, its wood is valued for cabinet work. The berries are of the size of grapes, reddish brown or purplish without, with a thin pulp, rather astringent, and a large stone within. All the species grow freely in light loamy soil; and ripened cuttings, taken off at the joint, and placed under a hand-glass, in a pot of sand, will root freely: one cutting under a glass is sufficient, as the leaves must not be shortened. (*Bot. Cult* 41.)

923. ***Paullinia.*** So named by Linnæus, from Simon Paulli, professor of botany at Copenhagen; author of Botanicum Quadripartitum, 1640, and Flora Danica, 1648. P. polyphylla affords a well known walking-stick. In the woods of Jamaica it rises with a slender, woody, tough, flexile stalk, and ascends among the bushes to a considerable height. When the wood is ripe it is cut down, barked, and used as riding or walking sticks.

All the species succeed well in a light loamy soil; and large sized cuttings root in sand under a hand-glass.

924. ***Seriana.*** Named by Schumacher, after one Paul Serjeant. Cuttings root in sand under a hand-glass.

925. ***Cardiospermum.*** From *καρδια*, a heart, and *σπερμα*, seed, in allusion to its round seeds, which are marked with a spot like a heart. The plant is remarkable for its inflated membranous capsule, from which it is sometimes called balloon vine.

926. ***Sapindus.*** A syncope of sapo-indicus, Indian soap. Its fruit is covered with a pulp, which is used in America for washing linen. S. Saponaria bears a berry as large as a cherry, inclosing a nut of a shining black when ripe These nuts were formerly brought to England for buttons to waistcoats; some were tipped with silver, and others with different metals; they were very durable, as they do not wear, and seldom broke. The skin or pulp which surrounds the nut is saponaceous, and is used in America to wash linen; but it is very apt to burn and destroy it, if often used, being of a very acrid nature.

The whole plant, especially the seed-vessel, being pounded and steeped in ponds, rivulets, or creeks, is ob-

5605 Leaves entire very broad contracted at base
5606 Leaves orbicular pubescent
5607 Leaves oblong-ovate acute cordate at base, Racemes pendulous
5608 Leaves lanceolate ovate
5609 Leaves cordate ovate wavy
5610 Leaves of the branchlets ovate, of the branches ovate cordate
5611 Leaves oblong obtuse at each end coriaceous flat

5612 Caps. pyriform, Leaves in 2 pairs with an odd one, Leaflets ovate lanceolate sessile crenate
5613 Valves of caps. half obcordate, Leaves 2 ternate, Leaflets oval crenate, Footstalk edged
5614 Valves of caps. half ovate villous, Leaves 2 ternate, Leaflets oval entire and serrated coriaceous
5615 Valves of caps. obovate, Leaves supradecompound, Leaflets ovate cuneate crenate at end
5616 Leaves biternate, Leaflets oval toothletted at end, Branches prickly
5617 Caps. pyriform 3-winged at end, Leaves in 3 pairs with an odd one, Leaflets subsessile pubescent beneath

5618 Leaves ternate, Leaflets ovate lanceol. toothed sinuated, Wings of fruit dilated behind
5619 Leaves biternate, Leaflets oblong remotely toothed quite smooth, Wings of fruit rounded behind

5620 Stem stalks and leaves smooth, Leaves biternately cut, Segm. stalked cut-toothed
5621 Leaves beneath downy biternately cut, Segments stalked cut obtuse
5622 All over pubescent, Capsules obtuse

5623 Rachis of leaves winged, Leaflets entire lanceol. of 3-4 pairs: the terminal with long points
5624 Rachis of leaves winged unarmed, Leaflets lanceolate of 6 pairs
5625 Rachis not winged, Leaflets ovate oblong smooth of 3 pairs
5626 Rachis not winged, Leaflets lanceolate smooth of 5 pairs: one terminal
5627 Rachis not winged, Leaflets oblong emarginate villous beneath
5628 Rachis not winged, Leaflets oblong lanceolate acute villous beneath of 3-5 pairs

TETRAGYNIA.

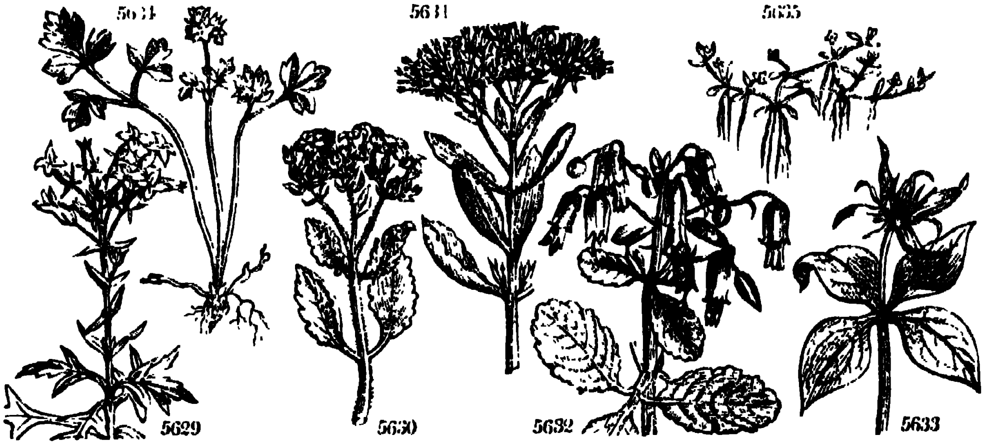
5629 Leaves 3-parted toothed: the floral linear entire
5630 Leaves obovate doubly crenate
5631 Leaves broad lanceolate opposite crenate thick, Segm. of cor. acute

5632 Leaves oval crenate, Flowers long pendulous cylindrical

5633 All the parts of the plant green and in fours

5634 The only species

5635 Leaves opposite, Flowers alternate stalked tetrapetalous



served to intoxicate and kill the fish. Loureiro celebrates the berries, slightly bruised and steeped in water, as a very excellent soap; and remarks that it is only required to use them with prudence, all abstergents being in some degree corrosive.

927. *Verea* So named after the late James Vere, Esq., a gentleman of fortune, who patronized gardening, and had once a fine collection of living plants. The species thrive best in sandy loam, and should be plunged in the bark pit to make them flower. The leaves placed on a pot of mould, or on the tan, will shoot out young plants from the notches of the margin. (*Bot. Cult.* 35.)

928 *Bryophyllum.* From βρυω, to grow, and φυλλον, a leaf. If the leaves are laid upon damp earth their notches push forth roots, whence proceed young plants. This plant requires very little water, and the pot to be well drained: it flowers best plunged in a tan heat; rich loamy soil suits it best.

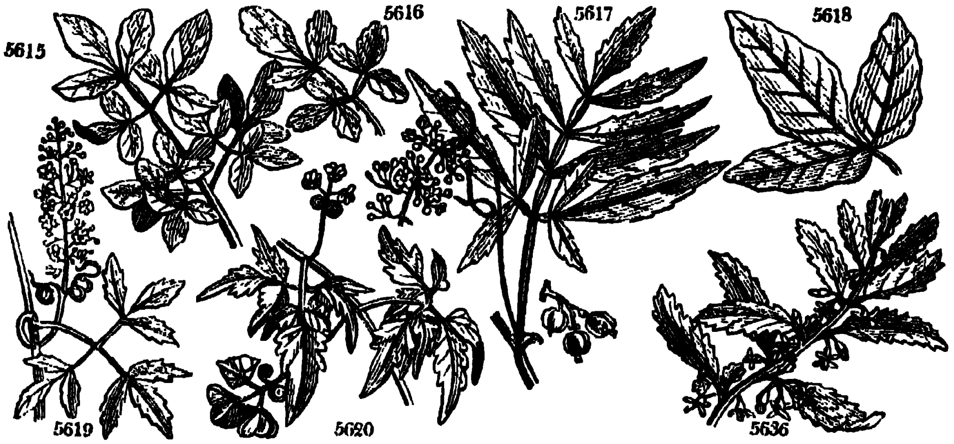
929. *Paris.* According to some authors, this word is derived from *par*, equal; in allusion to the regularity of the parts of the plant. Few plants are more readily distinguished than this, by the proportion and regularity of all the parts.

The regular number is four, or some aliquot part or multiple of that number. There are, however, sometimes only three leaves, and they are even said to vary from one to seven. The calyx also has sometimes three leaves. The leaves and berries are said to partake of the properties of opium; and the juice of the latter to be useful in inflammations of the eyes. Linnæus says, the root will vomit as well as ipecacuanha, given in a double quantity. It is a suspicious plant, which has nevertheless been used in medicine in a great variety of ways.

930. *Adoxa.* From α, privative, and δοξα, glory — inglorious. This plant is minute, and by no means beautiful, and grows in obscure places.

931. *Elatine.* From ελατη, a fir, in Greek. Its fine leaves have been compared to those of a fir-tree.

932. HALO'RAGIS. *W.*	HALORAGIS.				*Halorageæ.*	*Sp.* 1—5.					
5636 Cercódia *W.*	whorl-flowered	♃ ⊔	cu	2	ap.s	G.r	New Zeal.	1772.	C	s.p	Jac. ic. 1. t. 69
933. FORSKOH'LEA.	FORSKOHLEA.				*Urticeæ.*	*Sp.* 3—5.					
5637 tenacissima *W.*	clammy	○	cu	1½	jl.au	G	Egypt	1767.	S	lt.l	Jac. vind. 1. t. 48
5638 cándida *W.*	rough	£ △	cu	1½	jn.jl	W.g	C. G. H.	1774.	C	lt.l	
5639 angustifólia *W.*	narrow-leaved	○	cu	2	jl.au	G.w	Teneriffe	1779.	S	lt.l	M. c. g. p. 24. t. 2



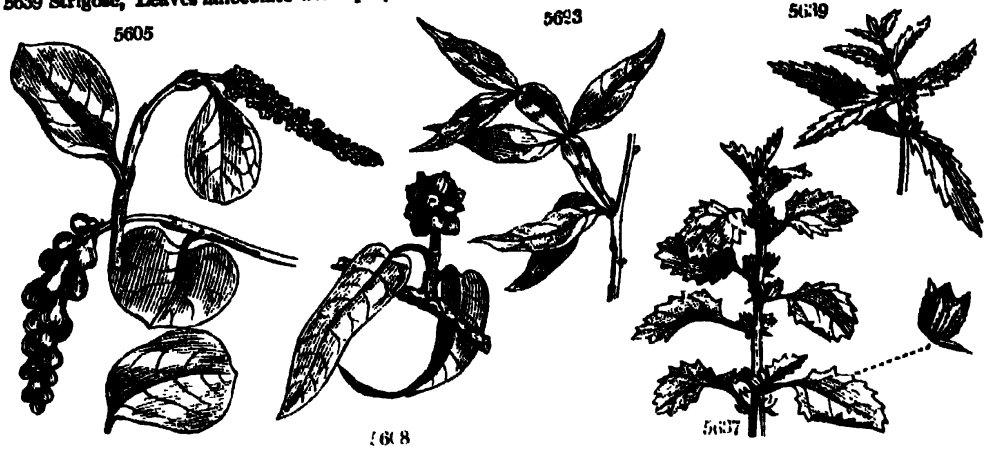
History, Use, Propagation, Culture,

932. *Haloragis.* From ἁλς, αλος, the sea, and ῥαξ, the berry of a bunch of grapes. This plant grows on the sea shore, and its fruit is globular like a berry.

933. *Forsköhlea.* In memory of Peter Forsköhl, a Swede, born in 1732; he was professor at Copenhagen;

5636 Leaves serrate, Flowers whorled

5637 Pilose hispid, Leaves elliptical unarmed, Sepals oblong lanceolate acute
5638 Rough, Leaves elliptical wavy unarmed, Sepals ovate obtuse
5639 Strigose, Leaves lanceolate with spiny teeth, Sepals lanceolate subulate



and Miscellaneous Particulars.

travelled at the expence of the king of Denmark into Egypt and Arabia, and died in the latter country of the plague in 1763. Inelegant plants, with the aspect of a nettle.

CLASS IX. — ENNEANDRIA. 9 STAMENS.

ONE of the smallest of the Linnean classes; containing, however, three important genera; the Laurel, famous for the valuable spices it produces, and for the beautiful foliage of its insipid species; the Cashew nut, well known at the tables of the great or luxurious; and the Rhubarb, one of the most valuable of medicines.

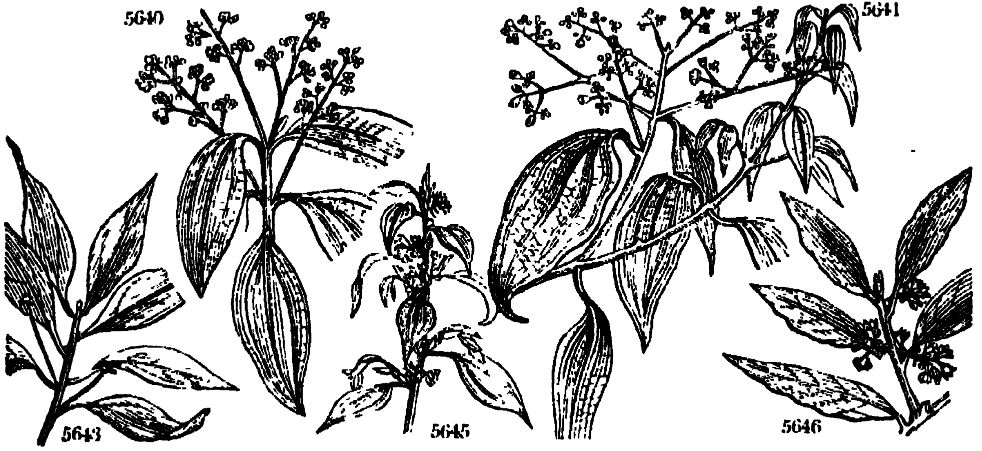
The class itself is extremely unnatural, and the assemblage of genera most incongruous.

Order 1. MONOGYNIA. 9 Stamens. 1 Style.

934. *Laurus.* Cal. 4-6-parted. Nect. 3 glands, with 2 bristles surrounding the ovary. Anthers opening transversely. Valves hinged to the upper side.

MONOGYNIA.

934. LAU'RUS. *W.*	LAUREL.					*Laurinæ.*	*Sp.* 18—68.					
5640 Cinnamómum *W.*	Cinnamon	🌳	☐	m	20	jn.s	G.Y	Ceylon	1763.	L	s.p	Bot. rep. 596
5641 Cássia *W.*	Bastard-Cinn.	🌳	☐	m	50	my s	W	E. Indies	1768.	C	s.p	Bot. mag. 1636
5642 Malabátrum *P. S.*	tall	🌳	☐	or	30	...	G.Y	E. Indies	1805.	C	s.p	Rhe m.1. 5 t 58
5643 cámphora *W.*	Camphire-tree	🌳	⊔	m	20	mr jn	G.w	Japan	1727.	C	s.p	Jac. col 4. t.3. f.2
5644 chloróxylon *W.*	Cogwood-tree	🌳	☐	tm	60	...	G.w	Jamaica	1778.	C	s.p	Bro jam. t. 7. f 1
5645 aggregáta *Sims.*	glaucous	♣	⊔	or	3	ja f	G.Y	China	1806.	L	s.p	Bot. mag 2497
5646 nóbilis *W.*	Sweet-Bay	🌳		or	15	ap my	Y w	Italy	1561	C	s.l	Zorn. ic. 52
β *unduláta*	*wave-leaved*	♣		or	4	ap my	Y.w	.....	...	C	s.l	
γ *salicifólia*	*willow-leaved*	♣		or	6	ap.my	Y w	..	...	C	s l	
5647 Culilában *L.*	Culilaban	🌳	☐	or	20	...	G.Y	E. Indies	1823.	C	s l	Rumph. 2. t 14



History, Use, Propagation, Culture,

934. *Laurus.* From the Celtic *blaur* (the *b* is dropped in pronunciation, *laur*), green. The laurel is perpetually green. This genus contains several important spice or drug-bearing trees, besides the poetical laurel and a fruit tree.

I. Cinnamomum (*qu.* China Amomum) has a smooth ash-colored bark, a short erect trunk, and wide spreading branches, which form an elegant head. The leaves are of a bright green above, pale beneath, and white veined; the flowers are in panicles, have no shew, and are inodorous, or perhaps somewhat fœtid; the fruit is the size of a middling olive, soft, insipid, and of a deep blue; it encloses a nut, the kernel of which germinates soon after it falls, and therefore cannot easily be transported to a distance. The timber is white, and not very solid; the root is thick and branching, and exudes abundance of camphor. The inner bark forms the cinnamon of commerce. There are many varieties, and probably some of them species, especially in the island of Ceylon, but only four are said to be barked. Besides Ceylon, the tree grows plentifully in Malabar, Cochin China, Sumatra, and the Eastern islands. It has been cultivated in the Brazils, the Mauritius, India, Jamaica, and other places. The soil in which it thrives best is nearly pure quartz sand. That of the cinnamon garden near Colombo in Ceylon, was found by Dr. Davy to consist of 98·5 of silicious sand, and of 1·0 only of vegetable matter in 100 parts "The garden is nearly on a level with the lake of Colombo; its situation is sheltered; the climate is remarkably damp; showers are frequent, and the temperature is high and uncommonly equable." (*Davy's Ceylon*, p. 39.)

The trees that grow in the valleys, in a white sandy soil, are fit to be barked when four or five years old, but those in a wet soil or in shady places, require to be seven or eight years of age. The bark is good for nothing if the tree be older than eighteen years. The tree was formerly propagated by a species of pigeon that ate the fruit and voided the seed; but since Falck, one of the Dutch governors, about the middle of the eighteenth century, raised it from berries sown in his garden, it has been regularly cultivated.

The barking commences early in May, and continues until late in October. Branches of three years old are selected, and topped off with a pruning knife or bill hook. To remove the bark a longitudinal incision is made through it on both sides of the shoot, so that it can be gradually loosened and taken off entire, forming hollow cylinders. The bark in this state, tied up in bundles, is allowed to remain for twenty-four hours, by which a fermentation is produced that facilitates the separation of the epidermis, which, with the green pulpy matter under it, is carefully scraped off. The bark now soon dries, contracts, and assumes the quilled form, after which the smaller pieces are put within the larger. The cinnamon, when dry, is tied up in bundles of 30 lbs. weight, and carried to the Government store-house, where the quality is determined by inspection of the bundles. It was formerly chewed for this purpose; and the surgeons who used to be thus employed, had their

935. *Anacardium.* Cal. 5-parted. Pet. 5, reflexed. Anthers 9, and one filament barren. Nut reniform, upon a fleshy receptacle.
936. *Cassytha.* Cal. 6-parted. Nect. 3 truncate glands surrounding the ovary. Inner filaments glanduliferous. Drupe 1-seeded.
937. *Eriogonum.* Cal. campanulate, 6-cleft. Nut 1, 3-cornered, covered by the calyx.

Order 2. TRIGYNIA. ✽ 9 Stamens. 3 Styles.

938. *Rheum.* Cor. 6-cleft, persistent. Nut 1, 3-cornered.

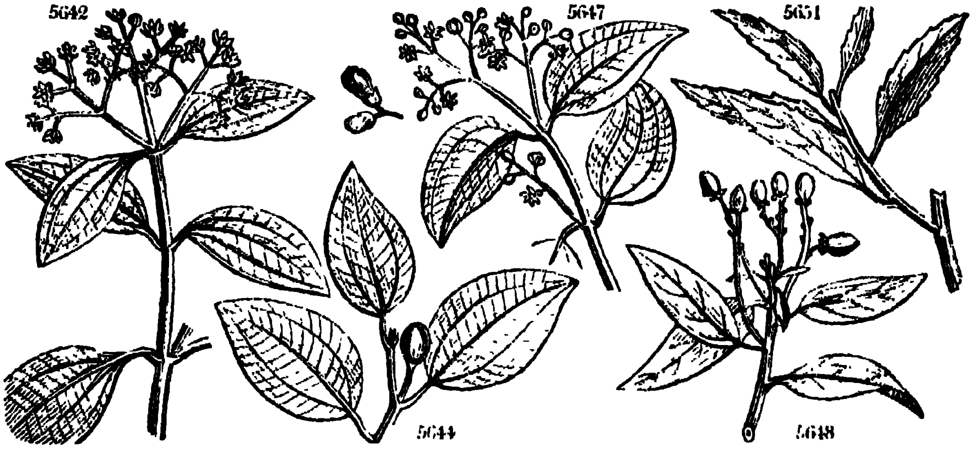
Order 3. HEXAGYNIA. ✽ 9 Stamens. 6 Styles.

939 *Butomus.* Sepals 6. Caps. 6, many-seeded.

MONOGYNIA.

5640 Leaves 3-nerved ovate-oblong, Nerves vanishing towards the end
5641 Leaves triple-nerved lanceolate
5642 Leaves opp. very long acute at each end triple-nerved veiny across
5643 Leaves triple-nerved lanceolate ovate
5644 Leaves 3-nerved ovate coriaceous, Nerves reaching the end
5645 Leaves ovate acuminate 3-nerved glaucous beneath, Flowers axillary numerous
5646 Leaves lanceolate veiny perennial, Flowers 4-fid dioicous

5647 Leaves triple-nerved opposite



and Miscellaneous Particulars.

mouths so excoriated, as to be unable to continue the process longer than two days together: but tasting is now seldom had recourse to.

Cinnamon bark is astringent, cordial, and tonic. But the principal use of cinnamon is to cover the nauseous state of other remedies. (*Thomson's London Dispensatory,* 354)

An oil is procured from the leaves and roots of cinnamon; the former is called the oil of cloves, and the latter the oil of camphor: both are powerfully stimulant, and used in cramps of the stomach, flatulent colic, hiccough, toothach, and nervous langour.

According to Sweet L. Cinnamomum is the hardest plant of the genus to cultivate in our stoves. "I have scarcely," he says, "ever seen it do well any where but at Messrs. Loddiges," who generally keep their stoves warmer than other gardeners usually do; and the cinnamon likes a warm atmosphere, and very little water in winter. It grows best in a mixture of sandy loam and peat, the pots being well drained with small potsherds. Ripened cuttings soon take root in a pot of sand, plunged under a hand-glass, in a good moist heat. (*Bot. Cult.* 74.)

The plant has regularly flowered and ripened seeds in the hothouse of the Bishop of Winchester for several years past.

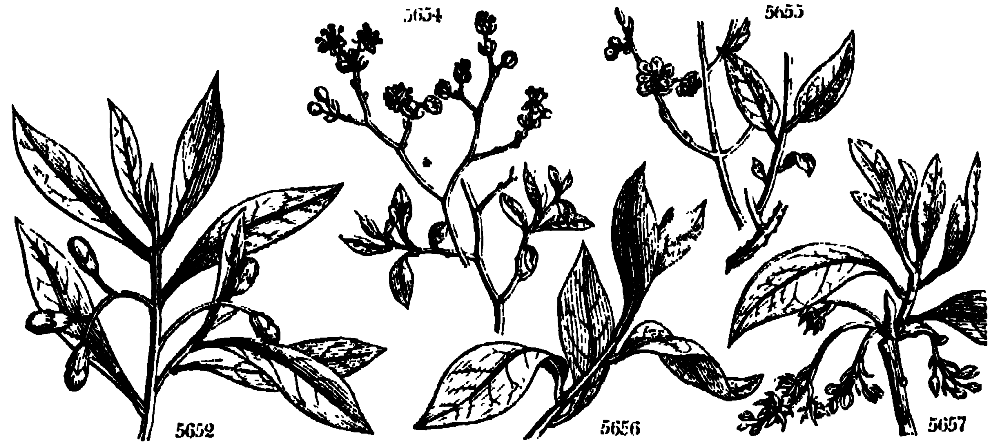
L. Cassia is also decorticated like the cinnamon, but it is considered of inferior value, on account of containing a greater proportion of mucilage. What are called Cassia buds, are not obtained from this tree, but are the hexangular fleshy receptacles of the seed of the L. Cinnamomum. Cassia bark and buds are used in the same manner as cinnamon bark: the tree also affords an oil of similar use. In our stoves, the cassia grows more readily than the cinnamon; the same kind of soil suits it; and cuttings root freely treated in the same manner. (*Bot. Cult.* 74.)

L. Camphora, an alteration of the Arabic name, *käfoor*, is nearly allied to the cinnamon tree. The roots, wood, and leaves of this tree have a very strong odor of camphor; and from the roots and smaller branches it is obtained by distillation. They are cut into chips, which are suspended in a net within a kind of still or iron pot, the bottom of which is covered with water, and an earthen head fitted to it; heat is then applied, and the steam of the boiling water, penetrating the contents of the net, elevates the camphor into the capital, where it concretes on straws, with which this part of the apparatus is lined. Camphor is stimulant, narcotic, and diaphoretic, but its stimulant powers are very transitory, and followed by sedative effects. In moderate doses it operates as a cordial, increasing the heat of the body, and exhilarating, besides softening, and rendering fuller the pulse, and promoting diaphoresis; in large doses it allays irritation and spasm, abates pain, and induces sleep. But in immoderate doses camphor produces vomiting, vertigo, delirium, convulsions, and other

5648 indica *W.*	Royal-bay	♀	⊔	tm	20	mr.o	G.Y	Madeira	1665.	C	l.p	Pl. alm. t. 304 f. 1
5649 fœ'tens *W.*	Madeira, or Til.	♀	⊔	tm	20	mr.o	G.Y	Madeira	1760.	C	l p	
5650 canariénsis *W. en.*	Canary	♀	⊔	or	10	...	G.Y	Canaries	1815.	C	l.p	
5651 Pérsea *W.*	Alligator Pear	♀	☐	fr	30	...	G.Y	W. Indies	1739.	C	l p	Pl. alm. t. 267. f. 1
5652 Borbónia *W.*	brd.-lvd.-Carol.	♀	⊔	or	15	ap.my	Y.G	N. Amer.	1739.	C	l p	Cat. car. 1. t. 63
5653 carolinénsis *P. S*	Red-Bay	♀	⊔	tm	15	ap.my	Y.G	N. Amer.	1806.	L	l.p	
5654 geniculáta *Ph.*	flexuose	♣		or	6	ap.my	Y	N. Amer.	1759.	L	l.p	Bot. mag. 1471
5655 Diόspyrus *Ph.*	twiggy	♣		or	6	ap.my	G.Y	N. Amer.	1810.	L	l.p	Bot. mag. 1470
5656 Benzóin *W.*	Benjamin-tree	♣		m	8	ap.my	Y.G	N. Amer.	1683.	S	p.s.l	Com. hort. 1. t. 97
5657 Sássafras *W*	Sassafras-tree	Ψ		m	50	my.jn	G.Y	N. Amer.	1633.	S	p.s.l	Cat. car. 1. t. 55
935. ANACAR'DIUM. *W.*	CASHEW-NUT.					*Terebintaceæ.*	*Sp.* 1.?					
5658 occidentále *W.*	common	♀	☐	fr	12	...	R	India	1699.	C	r.m	Cat. car. 3. t. 9
936. CASSY'THA.	CASSYTHA.					*Laurinæ.*	*Sp.* 1—2.					
5659 filifórmis *W.*	filiform	£	☐	cu	3	ap.au	W	E. Indies	1796.	C	s.p	Pl. al. t. 172. f. 2
937. ERIO'GONUM. *Mi.*	ERIOGONUM.					*Polygoneæ.*	*Sp.* 2—3.					
5660 tomentósum *Ph.*	woolly	⚘	△	cu	2	my.jn	Y	Carolina	1811.	S	l.p	Mich. am. t. 24
5661 sericeum *Ph.*	silky	⚘	△	cu	1	jl	Y	Missouri	1811.	S	l.p	

TRIGYNIA.

938. RHE'UM. *W.*	RHUBARB					*Polygoneæ.*	*Sp.* 7—10.					
5662 Rhapónticum *W.*	common	✱	△	cul	4	my.jn	W.G	Asia	1573.	R	co	Sabb. hort. 1. t. 34
5663 undulátum *W.*	Bucks	✱	△	cul	4	my.jn	W.G	China	1734.	R	co	Amæn. ac. 3. t. 4



History, Use, Propagation, Culture,

deleterious effects. The greater part of the camphor brought to Europe is obtained in Sumatra from the Dryobalanops Camphora. This tree is cut and split, and the camphor which is found concreted in the heart of it is picked out and washed in a ley of soap. *Zea* describes a variety of camphor which is procured in South America from a tree, the botanical characters of which are not yet known, but which is termed *caratta* by the natives The camphor exudes from the bark in the form of tears. (*Thomson's London Dispensatory*, 356.)

L. Chloroxylon has its specific from the color of the wood, χλωρον, green, and ξυλον, wood; it is esteemed one of the best timber trees in Jamaica, and used on all occasions where strength and durability are required: being both hard and tough, it answers better than any other wood for the cogs of sugar mills.

L. nobilis, the *Laurier*, Fr., *Lorbeerbaum*, Ger., *Alloro*, Ital., *Laurel*, Span , the *Laurus* of the Romans, and *Daphne* of the Greeks, was designated *nobilis* by Linnæus, because it was consecrated to priests, sacrifices, and heroes in the ages of antiquity, and has been celebrated accordingly. To the poet and sculptor it still affords emblems for victorious heroes; and it is also used in cookery and medicine. In the south of Italy it grows to a sufficient height to be considered a tree, but is so prolific in suckers and low shoots as always to have the character of a shrub. It forms a dense and yet broken and picturesque mass of a very fine deep green, inclining to olive, and is abundantly covered with berries, which are dark purple or black, when ripe. Oil is obtained from the latter by boiling water. Both the leaves and the berries have a sweet fragrant odour, and an aromatic, astringent taste; and the oil, which is of a yellowish green color, has a stronger but similar odor and taste. Water distilled from the leaves shews traces of prussic acid; and it is probably on this component that their medicinal and poisonous property depend. Leaves, berries, and oil are narcotic and carminative. (*Thomson's London Dispensatory*, 301.)

L. indica grows in the Canary Isles and Virginia. The wood is of a yellow color, not heavy, good for building, but better still for furniture: it is called *Vigniatico* in the island of Madeira, and is probably what is imported into England under the name of Madeira mahogany. It is hardly to be distinguished from mahogany, except that it is somewhat less brown (*Hawksw Voy.* ii. p 5.)

L. Persea (Persea is a name under which Theophrastus describes an Egyptian tree not now known,) has a trunk as large as our common apple tree; the bark is smooth, and of an ash color; the branches are very succulent and soft, beset with pretty large oblong smooth leaves, like those of laurel, of a deep green color. The flowers are, for the most part, produced towards the extremities of the branches. The fruit is the size of one of our biggest pears. The pulp of the fruit is covered with a tough skinny coat, and contains a large rugged seed, which is wrapped up in one or two thin membranous covers. This fruit is held in great esteem in the West Indies: the pulp is of a pretty firm consistence, and has a delicate rich flavor; it gains upon the palate of most persons, and becomes soon agreeable even to those who cannot like it at first; but it is so rich and mild, that most people make use of some spice or pungent substance to give it a poignancy; and, for this purpose, some make use of wine, some of sugar, some of lime-juice, but most of pepper and salt. This fruit seems equally agreeable to the horse, the cow, the dog, and the cat, as well as to all sorts of birds; when plentiful, it makes a great part of the delicacies of the negroes. (*Browne.*)

L. Borbonea was regarded by Plumier as a genus distinct from Laurus, and he applied what is now its specific name, in memory of Gaston Bourbon, son of Henry IV. and uncle of Louis XIV. It is a very common tree in swamps in Carolina, and affords a fine grained wood excellent for cabinets; some of the best resembles watered satin.

L. Sassafras (Sassafras is an alteration of the Spanish word *Salsafras*, which signifies *Saxifrage*, the virtues of which are attributed by the Spanish Americans to this plant,) has the flowers often imperfect as to the male and female organs, which, before observation was so accurate and scientific as at present, led to the conclusion

5648 Leaves veiny lanceolate perennial flat, Branches scarred, Flowers racemose
5649 Leaves veiny elliptical acute perennial, Axils of veins villous beneath, Racemes panicled
5650 Leaves veiny oblong acute at each end perennial shining, Peduncl. axill. 3-4-flowered
5651 Leaves ovate coriaceous transversely veiny perennial, Flowers corymbose
5652 Leaves lanceolate perennial, Calyx of fruit berried
5653 Leaves oval lanc. perenn. glaucous beneath, Berries globose
5654 Branches divaricating flexuose, Leaves oval obtuse smooth at the base beneath bearded, Anth. 4-celled
5655 Twiggy naked-flowering, Leaves decid. oblong beneath veiny downy, Flowers clustered, Buds villous
5656 Leaves nerveless ovate acute at each end entire annual
5657 Leaves entire and 3-lobed

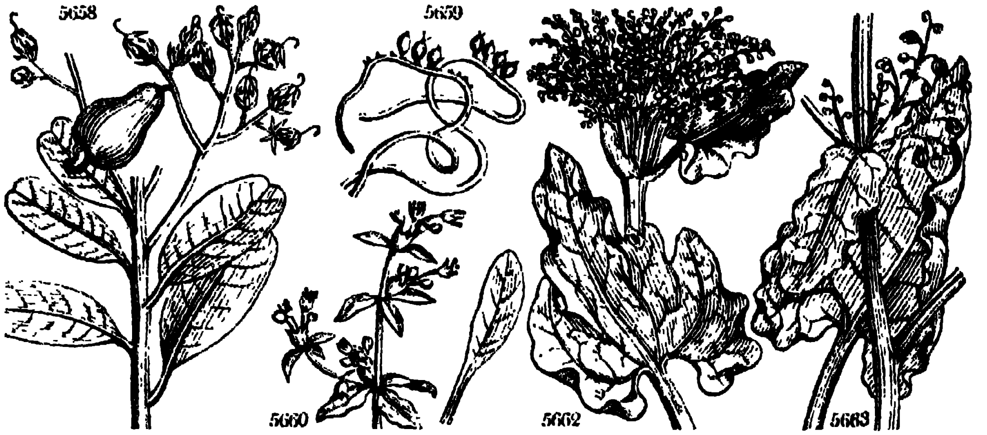
5658 The only species

5659 Branches filiform lax

5660 Leaves sessile cauline 3-4 cuneate obovate smooth above
5661 Leaves radical stalked lanc. oblong villous above

TRIGYNIA.

5662 Leaves obtuse smooth, Veins beneath hairy, Leafst. furrowed above rounded at edge
5663 Leaves villous wavy, Leafst. flat above with an acute edge



that one plant bore only males and the other only hermaphrodites; it is now found the alleged males are only imperfect hermaphrodites. The wood, root, and bark have a fragrant odor, and a sweetish aromatic taste: their sensible qualities and virtues depend on an essential oil, which can be obtained separate by distilling the chips or the bark with water; it is a stimulating diaphoretic and diuretic, and has been employed in cases of scurvy, chronic rheumatism, gout, and in cutaneous affections; but its effects are very uncertain; and even the diaphoresis which it is supposed to occasion may rather be ascribed to the guaiac, and other more powerful medicines, with which it is generally combined. (*Thomson's London Dispensatory*, 361.)

The species are well divided into several genera, such as Laurus, Tetranthera, Cinnamomum, and others: but as this division has not been applied to the old species of Laurus generally, it has not been practicable to adopt it here.

935. *Anacardium.* From *ανα*, in composition, like, and *καρδια*, heart, in allusion to the form of the nut. This is an elegant tree, bearing panicled corymbs of sweet-smelling flowers, succeeded by an edible fruit of the pome kind, of a yellow or red color. This fruit or apple has an agreeable sub-acid flavor, with some degree of astringency. The juice expressed and fermented yields a pleasant wine; and distilled, a spirit is drawn from it, far exceeding arrack or rum, making an admirable punch, and powerfully promoting urine. The dried and broken kernels are occasionally imported for mixing with old Madeira wine, the flavor of which they improve prodigiously. Some planters in the West Indies roast the ripe fruit, or slice one or two into a bowl of punch, to give it a pleasant flavor. The astringency of the apple has recommended it as a very signal remedy in dropsical habits.

The nut protrudes from one end of the apple. (*Long.*) It is of the size and shape of a hare's kidney, but is much larger at the end next the fruit than at the other. The outer shell is of an ash color, and very smooth, under this is another which covers the kernel; between these there is a thick inflammable oil, which is very caustic; this will raise blisters on the skin, and has often been very troublesome to those who have incautiously put the nuts into their mouths to break the shell. This oil has been used with great success in eating off ring-worms, cancerous ulcers, and corns, but it ought to be applied with caution. The kernel when fresh, has a most delicious taste, and abounds with a sweet milky juice. It is an ingredient in puddings, &c. When older it is generally roasted; and in this state is not so proper for costive habits. Ground with cacao, it makes an excellent chocolate. When kept too long it becomes shrivelled, and loses its flavor and best qualities. The thick oil of the shell tinges linen of a rusty iron-color, which can hardly be got out; and if any wood be smeared with the oil, it prevents the wood from decaying.

From the body of the tree is procured, by tapping or incision, a milky juice, which will stain linen of a deep black, that cannot be washed out again.

This tree also annually transudes from five to ten or twelve pounds weight of a fine semi-transparent gum, similar to gum arabic and not inferior to it in virtue or quality, except that it has a slight astringency, which, perhaps, renders it in some respects more valuable. (*Long's Jam.* iii 725, &c.)

As a stove-plant it grows in light loam or rich mould, and ripe cuttings with their leaves, planted in a pot of sand, and plunged under a hand-glass, will strike root.

936 *Cassytha.* The Greek name of the Cuscuta, which this plant much resembles in habit and characters of analogy. Its affinity, however, is very curious; from a minute analysis of its constituent parts it has been decided by the most learned botanists to be referable to Laurinæ.

937. *Eriogonum.* From *εριον*, wool, and *γονυ*, a knee. The stem of this plant is very woolly at the joints. The species thrive best in pots, and are principally to be increased by seeds.

938 *Rheum.* This name was ingeniously supposed by Linnæus to have been derived from *ρεω*, to flow, because the root causes a discharge of bile. It, nevertheless, was formed from *Rha*, the ancient name of the Volga.

5664 palmátum *W.*	officinal	⚘	△ m	5	ap.my	W.o	Bucharia	1763.	R	co	Lin. fasc. 7. t. 4
5665 compáctum *W.*	thick-leaved	⚘	△ m	3	my.jn	W.o	Tartary	1758.	R	co	Mill. ic. 2. t. 218
5666 tatáricum *W.*	Tartarian	⚘	△ m	3	my.jn	W.o	Tartary	1793.	R	co	
5667 Ríbes *W.*	warted-leaved	⚘	△ cul	2	my.jn	W.o	Levant	1724.	R	co	An. mus. 2. t. 49
5668 hýbridum *W.*	bastard	⚘	△ cul	5	my.jn	W.o	Asia	1778.	R	co	Mur. co. got. t. 1

HEXAGYNIA.

939. BU'TOMUS. *W.*	FLOWERING-RUSH.				*Butomeæ.*	*Sp.* 1—2.					
5669 umbellátus *W.*	umbelled	≛	△ el	2	jn.jl	Pk	Britain	dit.	D	r.l	Eng. bot. 651

5664

5665

History, Use, Propagation, Culture,

Ammianus Marcellinus, lib. xii., says, "the *Rha* is a river, on the border of which grows a root, which bears its name, and is much renowned in medicine" The construction of the specific names confirms this; *Rha* ponticum, *Rha* barbarum, whence the name *Rhubarb* was obtained

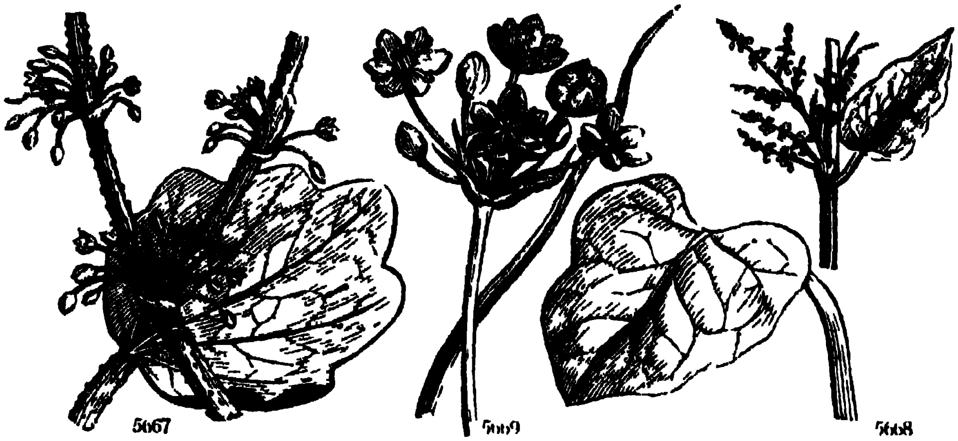
R. Rhaponticum was thought to be the true rhubarb of druggists, till Dr. Hope of Edinburgh described the R. palmatum, some seeds of which he had received from Russia, as of the genuine species. It is not, however, finally settled, whether these species or the R. compactum yield the foreign roots, nor does it appear of much consequence, as these three species agree so nearly in their medical properties, that any of them may be used with equal certainty of success. All the rhubarb of commerce, known under the names Turkey or Russian, and East Indian or Chinese, grows on the declivities of the chain of mountains in Tartary which stretches from the Chinese town Sun to the lake Kokonor near Thibet. The soil is light and sandy; and the Bucharians assert that the best grows in the shade on the southern side of the mountains. Rhubarb, however, is also cultivated in China, in the province of Chen-See, where it is called *Hai-houng*. In Tartary, the roots are taken up twice a-year, in spring and in autumn, and after being cleansed and decorticated, and the smaller branches cut off, the body of the root is divided transversely into pieces of a moderate size, which are placed on tables, and turned three or four times a-day, during five or six days. A hole is then bored through each piece, by which it is hung up to dry, exposed to the air and wind, but sheltered from the sun. In about two months, the roots have lost seven parts in eight of their weight, and are fit for the market. In China, the roots are not dug up till winter, and the cultivators, after cleaning, scraping off the bark, and cutting them, dry the slices by frequently turning them on stone slabs heated by a fire underneath; after which, the drying is completed by hanging them up in the air exposed to the greatest heat of the sun. (*Thomson's London Dispensatory*, 471.)

Rhubarb has been cultivated in different parts of Britain with a view to drying the root for medical purposes with the most perfect success; but such is the prejudice in favor of the foreign article, that sufficient de-

5664 Leaves palm acute roughish, Leafst above obscurely furrowed rounded at edge
5665 Leaves somewhat lobed very obtuse shining finely toothletted smooth
5666 Leaves cordate ovate entire flat smooth, Leafst. half-round angular, Panicle furrowed
5667 Leaves very obtuse somewhat warted, Veins beneath spinulose, Leafst flat above rounded at edge
5668 Leaves smooth above somewhat lobed acute, Recess of base contracted

HEXAGYNIA.

5669 Flowers in handsome terminal umbels



and Miscellaneous Particulars

mand was not produced to encourage the cultivator The only point in which British culture was rather deficient was in the drying, but that a little experience would soon have overcome

R. Rhaponticum and hybridum, indeed any of the species, are or may be cultivated for the petioles of the leaves in a green state, to be used in tarts and pies, as a substitute or along with gooseberries All that is required is a dry soil well enriched and trenched two, or better, three feet deep The plants the year after planting may have half their leaves slipped off for the cook, as soon as they arrive at full growth Keeping the plants from flowering will obviously strengthen the leaves

Tart rhubarb may be forced either by taking up the roots and planting them in pots, or by covering them with dung where they grow in the open garden, as is done with sea-kale It may also be blanched, as is done with that vegetable See *Encyc of Gard* art *Rheum*)

R. Ribes is so called from a rob made from its stalks, and called *Rybes of Serapias*

It is thought that all the supposed species are reducible to Rhaponticum, undulatum, palmatum, and ribes It is certainly very difficult to distinguish the others

932 *Butomus* From *βους*, an ox, and *τεμνω*, to cut, the sharp leaves of the plant cut and cause to bleed the mouths of cattle feeding upon it

This is the only plant of the class Enneandria that grows wild in Britain It is an elegant aquatic "The water Gladiole, or grassie Rush," says Gerarde, "is of all others the fairest and most pleasant to behold, and serveth very well for the decking and trimming up of houses, because of the beautie and braverie thereof"

The corolla varies in different shades of red, or purple mixed with white, and is sometimes entirely white The stem at bottom and the peduncles at top are often tinged with red The number three is evidently predominant in the fructification, the corolla being doubly tripetalous, the stamens thrice three, the pistils six, the capsules six, in a hexagon form, the involucre three leaved

Class X. — DECANDRIA. 10 Stamens.

This is the last of the Linnean classes in which the stamens are distinct, and bear any determined relation to the other parts of the flower. It is composed of portions of a considerable number of natural orders, of which the most important is Leguminosæ, with which the class usually is made to commence. These are of two kinds; those which are papilionaceous, and those which have a regular expanded flower. The former are remarkable in their kind for bearing distinct stamens combined with a papilionaceous corolla; the greater part are natives of New Holland or the Cape of Good Hope, a very few of the Northern Hemisphere; and all of them ornamental plants. Of those with regular flowers the most beautiful genus is the Bauhinia, which, in the latitudes of the tropics, constitutes the most formidable obstacle to the passage of human beings through the woods, which are interlaced in every direction by the climbing or leaning stems of these and other plants commonly called *Lianes;* the most extensive genus is Cassia, the species of which are little esteemed as objects of ornament, but of material importance in medicine; the famous Senna of the shops being the produce of at least three species. The Hæmatoxylon and Swietenia, the one producing Logwood, the other Mahogany, are included in this class, as are the important Quassia drug, and the beautiful tribes of Kalmias, Rhododendrons, and Andromedas.

The *second and succeeding orders are chiefly occupied* by the most important of the genera of the natural order of Caryophylleæ, the whole of which have lately been remodelled and arranged, under the direction of Decandolle, by M. Seringe, an ingenious Swiss botanist. Of this order the most extensive genus is Silene, and the most beautiful Dianthus, out of which the fine carnations, pinks, and piccotees of the florist have been obtained

Order 1. MONOGYNIA. 10 Stamens. 1 Style.

§ 1. *Leguminosæ. Flowers papilionaceous.*

940. *Edwardsia.* Cal. 5-toothed. Pod 4-winged, many-seeded.

941. *Sophora.* Cal. 5-toothed. Pod necklace-shaped, not winged, many-seeded.

942 *Ormosia.* Cal. 5-cleft, 2-lipped. Stigmas 2, approximate, ob[illegible] one on one side. Pod compressed, woody, 1-3-seeded.

943. *Anagyris.* Cal. 5-toothed, 2-lipped. Keel of 2 petals, which are larger than the wings, which are longer than the standard. Pod compressed, many-seeded.

944. *Thermopsis.* Cal. oblong 4-5-cleft, 2-lipped, convex behind. Petals of equal length. Standard reflexed at edges. Keel obtuse. Stamens persistent. Pod compressed, linear, many-seeded.

945. *Virgilia.* Cal. 5-cleft. Petals of equal length; standard not reflexed at edges. Stigma beardless. Pod compressed, oblong, many-seeded.

946. *Cyclopia.* Cal. 5-cleft, unequal, pushed inwards at base. Standard with longitudinal wrinkles: wings with a transverse plait. Stamens deciduous. Stigma bearded on one side. Pod compressed, many-seeded.

947. *Baptisia.* Cal. half 4-5-cleft, 2-lipped. Petals of equal length. Standard reflexed at edges. Stamens deciduous. Pod ventricose, stalked, many-seeded.

948. *Podalyria.* Cal. 5-cleft, unequal, pushed inwards at base. Standard larger than the rest. Stamens persistent, connate at base. Pod ventricose, many-seeded.

949. *Chorozemia.* Cal. half-5-cleft, 2-lipped. Keel ventricose, shorter than wings Style short, hooked. Stigma oblique, obtuse. Pod ventricose, many-seeded.

950. *Podolobium.* Cal. 5-cleft, 2-lipped. Keel compressed, the length of the wings, which are equal to the expanded standard. Ovary many-seeded in a single row. Style ascending. Stigma simple. Pod stalked, linear, oblong, moderately ventricose, smooth inside.

951. *Oxylobium.* Cal. deeply 5-cleft, rather 2-lipped. Keel compressed, the length of the wings, which are equal to the open standard. Style ascending Stigma simple. Pod many-seeded, ventricose, ovate, acute

952. *Callistachys.* Cal. 2-lipped. Standard erect, keel and wings drooping. Style incurved. Stigma simple. Pod stalked, woody before ripening, many-celled.

953. *Brachysema.* Cal. 5-cleft, but little unequal, with a ventricose tube. Standard shorter than the compressed keel, which is as long as the wings. Ovary with a stalk, surrounded at base by a little sheath. Style filiform, long. Pod many-seeded, ventricose.

954. *Gompholobium.* Cal. 5-parted, nearly equal. Standard unfurled. Stigma simple. Pod many-seeded, nearly spherical, very obtuse, smooth.

955. *Burtonia.* Cal. deeply 5-cleft. Cor. deciduous. Petals nearly equal. Ovary 2-seeded. Style subulate, dilated at base. Stigma blunt, beardless. Pod roundish, moderately inflated. No appendage to the seed.

956. *Jacksonia.* Cal. 5-parted, nearly equal. Corolla and stamens deciduous. Ovary 2-seeded. Style subulate, filiform. Stigma simple. Pod moderately inflated, ovate or oblong, with valves downy inside. No appendage to the seed.

957. *Viminaria.* Cal. 5-toothed, angular Style capillary, a little longer than the 2-seeded ovary. Stigma simple. Pod valveless, ovate. No appendage to the seed.

958. *Sphærolobium.* Cal. 5-fid, 2-lipped. Style on one side at the end, with a membranous appendage, on the other beardless. Stigma terminal Pod spherical.

959 *Aotus.* Cal. 5-cleft, 2-lipped. Stamens deciduous. Ovary 2-seeded. Style filiform. Pod 2-valved. No appendage to the seed.

960. *Dillwynia.* Cal. 5-cleft, 2-lipped, narrow at base. Petals and stamens deciduous, inserted into the middle of tube of calyx. Standard twice as broad as long, spreading, 2-lobed. Ovary 2-seeded. Style hooked. Stigma capitate. Pod inflated. Seeds with an appendage.

961. *Eutaxia.* Cal. 2-lipped. Standard a little broader than long. Ovary 2-seeded. Style hooked. Stigma capitate. Pod moderately ventricose. Seed with an appendage. Leaves opposite.

962. *Sclerothamnus.* Cal. 5-cleft, 2-lipped, with 2 bractes at base. Keel as long as wings. Ovary 2-seeded, stalked. Style ascending filiform. Stigma simple. Pod ventricose.

963. *Gastrolobium.* Cal. 5-cleft, 2-lipped, without bractes. Petals of equal length. Ovary 2-seeded, stalked. Style subulate, ascending. Stigma simple. Pod ventricose. Seeds with an appendage.

964. *Euchilus.* Cal. deeply 5-cleft, 2-lipped, the upper lip very large, with 2 bractes at base. Keel as long as wings. Ovary 2-seeded, stalked. Style subulate, ascending. Stigma simple. Pod compressed. Appendage of the seed with the hind lobes entire.

965. *Pultenæa.* Cal. 5-cleft with even-sized lips, 2-bracted. Ovary sessile, 2-seeded. Style subulate, ascending. Stigma simple. Appendage of the seed with the hind lobes cut.

966. *Daviesia.* Cal. angular without bractes. Keel shorter than standard. Ovary stalked, 2-seeded. Style straight. Stigma simple. Pod compressed, angular, opening with elasticity. Appendage of seed entire behind.

967. *Mirbelia.* Cal. 5-cleft, 2-lipped. Pod 2-celled, with each suture bent inwards.

968. *Cercis*. Cal. 5-toothed. Pod compressed with the seed-bearing suture winged. Seeds obovate, with a straight embryo.

969. *Schotia*. Cal. 5-cleft. Petals 5, inserted on the calyx, and approaching the papilionaceous form. Pod stalked.

§ 2. *Leguminosæ. Flowers nearly regular.*

970. *Bauhinia*. Cal. 5-cleft, deciduous. Petals spreading, oblong, clawed; the upper one more distant; all inserted in the calyx.

971. *Afzelia*. Cal. tubular, with a 4-cleft deciduous limb. Petals 4, with claws: the upper very large. The upper filaments sterile. Pod many-celled. Seed with an arillus at base.

972. *Hymenæa*. Cal. 5-parted. Petals 5, nearly equal. Pod filled with a powdery fæcula.

973. *Cynometra*. Cal. 4-leaved: the opposite leaves largest. Pod 1-seeded, fleshy.

974. *Cassia*. Cal. 5-leaved. Petals 5. The three upper anthers sterile: three lower beaked.

975. *Cathartocarpus*. Cal. 5-parted, deciduous. Cor. regular, of 5 petals. The lower filaments bowed. Pod long, round, woody, many-celled. Cells filled with pulp.

976. *Parkinsonia*. Cal. 5-cleft. Petals 5, ovate, the lowest reniform. Style O. Pod necklace-shaped.

977. *Poinciana*. Cal. 5-parted. Petals 5, clawed; the upper dissimilar. Stamens very long, all fertile. Pod plano-compressed.

978. *Cæsalpinia*. Cal. 5-parted, with the lowest segment largest and vaulted. Petals 5. Stamens woolly at base, all fertile. Pod unarmed. Seeds compressed.

979. *Guilandina*. Cal. 5-cleft, the lowest segment largest. Petals inserted in the neck of the calyx, nearly equal. Pod prickly. Seeds stony.

980. *Hyperanthera*. Cal. 5-parted. Petals inserted in calyx, unequal. Pod 3-valved, torulose. Seeds winged.

981. *Hoffmannseggia*. Cal. 5-parted, persistent. Petals 5, clawed, spreading: the upper broader, glandular at base. Filaments glandular. Stigma clavate. Pod linear, compressed, many-seeded.

982. *Adenanthera*. Cal. 5-toothed. Petals 5. Anthers with a globose gland at their extremity. Pod membranous. Seeds lentiform.

983. *Cadia*. Cal. 5-cleft. Petals 5, equal, obcordate. Pod many-seeded.

984. *Prosopis*. Cal. hemispherical, 4-toothed. Pod many-seeded.

985. *Hæmatoxylon*. Cal. 5-parted. Petals 5. Caps. lanceolate, 1-celled, 2-valved; valves navicular.

986. *Copaifera*. Cal. O. Petals 4. Pod 1-seeded.

§ 3. *Ovary superior. Stamens united in a tube. Flowers complete.*

987. *Trichilia*. Cal. 4-5-toothed. Petals 4-5, ovate or oblong. Stamens sometimes nearly distinct. Caps. 3-celled, 3-valved, with one or two seeded cells. Seeds with a berried arillus.

988. *Melia*. Cal. 5-toothed. Petals 5. Drupe with a five-celled nut.

989. *Quivisia*. Cal. urceolate, 4-5-toothed. Petals 4-5, short, silky outside. Stamens with a short tube. Stigma capitate. Caps. coriaceous, 4-5-celled, opening at the end into 4-5-valves.

990. *Swietenia*. Cal. 5-cleft. Petals 5. Caps. 5-celled, woody, opening at base. Seeds imbricated, winged

991. *Ekebergia*. Cal. 4-parted. Petals 4. Nect. a ring surrounding the ovary. Berry 5-seeded.

992. *Heynea*. Cal. 5-toothed. Petals 5. Style 1. Ovary 2-celled. Caps. 2-valved, 1-celled, 1-seeded. Seed with an arillus not winged.

§ 4. *Ovary superior. Stamens separate. Flowers complete.*

993. *Guaiacum*. Cal. 5-parted, unequal. Petals 5, equal. Caps. angular, 2-5-celled.

994. *Zygophyllum*. Cal. 5-leaved. Petals 5. Nect. 10-leaved, covering the ovary and bearing the stamens. Caps. 5-celled.

995. *Fagonia*. Cal. 5-leaved. Petals 5, cordate. Caps. 5-celled, 10-valved; with 1-seeded cells.

996. *Tribulus*. Cal. 5-parted. Petals 5, spreading. Style O. Caps. 5, gibbous, spiny, many-seeded.

997. *Dictamnus*. Cal. 5-leaved, deciduous. Petals 5, clawed, unequal. Filam. declinate, with glandular dots. Caps. 5, united.

998. *Ruta* Cal. 5-parted. Petals concave. Recept. surrounded by 10 honey-spots. Caps. lobed.

999. *Crowea*. Cal. 5-parted. Petals 5, sessile. Stamens flat, subulate, connected by entangled hairs. Anthers united lengthwise to the filaments on their inner side. Style from the base of the ovary. Caps 5, united. Seeds with an arillus.

1000. *Codon*. Cal 10-parted. Cor. campanulate, 10-cleft. Caps. many-seeded.

1001. *Gomphia*. Petals 5. Filaments scarcely any. Anthers long, pyramidal, erect, opening at end by a double pore.

1002. *Quassia*. Cal. 5-leaved. Petals 5. Nect. 5-leaved. Drupes 5, distant, 2 valved, 1-seeded, inserted on a fleshy receptacle.

1003. *Limonia*. Parts of the flower 4 or 5. Stamens free, twice as numerous as petals, or sometimes as many only. Fruit berried, pulpy, 4-5-celled, with 1-celled seeds.

1004. *Glycosmis*. Parts of the flower 5. Stamens with flat subulate filaments, and elliptical anthers. Style short, cylindrical. Ovary 5-celled. Fruit fleshy, 1-2-celled, 1-2-seeded. Coat of the seed membranous.

1005. *Murraya*. Parts of the flower 5. Cor. campanulate. Stamens with linear subulate stamens, and roundish anthers. Fruit fleshy, berried, 1-2-celled, 1-2-seeded. Coat of the seed thick, woolly.

1006. *Cookia*. Parts of the flower 5. Petals navicular, villous. Stamens with linear distinct filaments, and roundish anthers. Fruit berried, globose, 1-5-celled, with one-seeded cells.

1007. *Gærtnera*. Cal. 5-parted. Petals 5 torn. Filaments slightly cohering at base: one longer than the rest. Samara 1-seeded, with four unequal wings.

1008. *Monotropa* Cal. like a corolla, gibbous at the base. Capsule 5-celled, many-seeded.

1009. *Dionæa*. Cal. 5-leaved. Petals 5. Capsule 1-celled, gibbous, many-seeded.

1010. *Garuga*. Cal. campanulate, 5-cleft, bearing the stamens. Petals equal. Stigma 5-lobed. Drupe with 2-5 1-seeded nuts.

1011. *Kalmia*. Cal. 5-parted. Cor. hypocrateriform, with a limb having 5 horns beneath. Caps. 5-celled.

1012. *Ledum*. Cal. 5-cleft. Cor. flat, 5-parted. Caps. 5-celled, bursting at base.

1013. *Rhodora*. Cal. 5-toothed. Petals 3. Stamens declinate. Caps. 5-celled.

1014. *Rhododendron*. Cal. 5-parted. Cor. somewhat funnel-shaped. Stamens declinate. Caps. 5-celled.

1015. *Epigæa*. Outer calyx 3-leaved, inner 5-parted. Cor. salver-shaped. Caps. 5-celled.

1016. *Andromeda*. Cal. 5-parted. Cor. ovate, with a 5-cleft orifice. Caps. 5-celled: valves contrary to the dissepiment.

1017. *Enkianthus*. Cal. small, persistent. Cor. campanulate, with a 5-cleft limb. Nectaries 5, at base of corolla. Anthers 2-horned. Capsule 1.

1018. *Gualtheria*. Outer calyx 2-leaved: inner 5-cleft, ovate. Nect. with 10 points. Caps. 5-celled, clothed with an inner berried calyx.

1019. *Arbutus*. Cal. 5-parted. Cor. ovate, with a 5-cleft orifice; pellucid at base. Berry 5-celled.

1020. *Clethra*. Cal. 5-parted. Petals 5. Stigma 3-fid. Caps. 3-celled, 3-valved.

1021. *Mylocaryum*. Cal. 5-toothed. Petals 5. Stigma capitate, 3-cornered, sessile. Caps. 3 or 4-winged, 3-celled.

1022. *Pyrola*. Cal. 5-parted. Petals 5. Capsule 5-celled, opening at the angles.

1023. *Chimaphila*. Cal. 5-parted. Petals 5. Stigma sessile, thick, orbicular, sunk in the ovary. Anthers beaked, opening by a 2-valved cleft. Caps. 5-celled, opening at the angles.

1024. *Inocarpus.* Cal. bifid. Cor. funnel-shaped. Stamens in a double row. Drupe 1-seeded.
1025. *Styrax.* Cal. inferior. Cor. funnel-shaped. Drupe 2-seeded.

§ 5. *Ovary inferior. Flowers complete.*

1026. *Jussiæa.* Cal. 4-5-parted. Petals 4-5. Caps. 4-5-celled, oblong, opening at the angles. Seeds numerous, minute.
1027. *Getonia.* Cal. 5-leaved, persistent. Filaments alternately broader, 5 in the orifice of the calyx. Seed coated, oblong, crowned by the calyx.
1028. *Quisqualis.* Petals 5, inserted on a filiform calyx.
1029. *Melastoma.* Cal 5-cleft, campanulate. Petals 5, inserted in calyx. Berry 5-celled, surrounded by calyx.
1030. *Petaloma.* Petals 5, between the segments of the calyx. Berry 1-celled.
1031. *Acisanthera.* Cal. ventricose, 5-cleft. Petals 5. Anthers sagittate, versatile. Caps. crowned, 2-celled, many-seeded.

§ 6. *Flowers incomplete, or apetalous.*

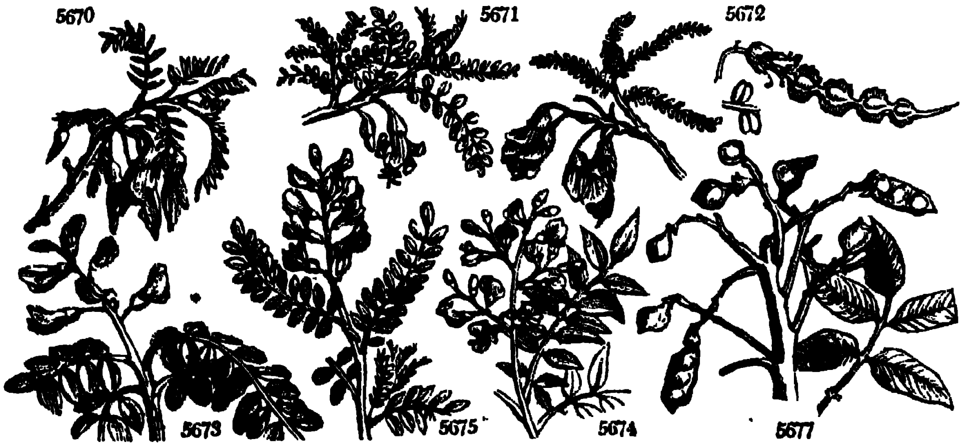
1032. *Dais.* Involucre 4-leaved. Cor. 4-5-cleft. Berry 1-seeded.
1033. *Bucida.* Cal. 5-toothed, superior. Berry 1-seeded.
1034 *Samyda.* Cal. 5-parted, colored. Nect. campanulate, stamen-bearing. Caps. berried inside, 4-valved, 1-celled. Seeds nidulant.

Order 2. DIGYNIA. 10 Stamens. 2 Styles.

1035. *Royena.* Cal. urceolate. Cor. 1-petalous, with a revolute limb. Caps. 1-celled, 4-valved.
1036. *Trianthema.* Cal. mucronate under the end. Cor. O. Stam. 5-10. Ovary blunt. Caps cut round.
1037. *Scleranthus.* Cal. 1-leaved. Cor. O. Seeds 2, included in calyx.
1038. *Cunonia.* Petals 5. Sepals 5. Capsule 2-celled, acute.
1039. *Hydrangea.* Cal. superior, 5-toothed. Petals 5. Caps. 2-celled, 2-beaked, opening by a hole between the beaks.
1040. *Chrysosplenium.* Cal. 4-5-cleft, colored. Cor. O. Caps. 2-beaked, 1-celled, many-seeded.
1041. *Saxifraga.* Cal 5-parted. Petals 5. Caps. 2-beaked, 1-celled, many-seeded.
1042. *Tiarella.* Cal. 5-parted. Petals 5, inserted in the calyx, entire. Caps. 1-celled, 2-valved: one valve largest.
1043. *Mitella.* Cal. 5-cleft. Petals 5, inserted in calyx, pinnatifid. Caps. 1-celled. 2-valved; with equal valves.
1044. *Gypsophila.* Cal. 1-leaved, campanulate, angular. Petals 5, ovate, sessile. Caps. globose, 1-celled.
1045. *Saponaria.* Cal. 1-leaved, naked. Petals 5, clawed. Caps. 1-celled, oblong.
1046. *Dianthus.* Cal. cylindrical, 1-leaved, with scales at the base. Petals 5, clawed. Capsule cylindrical, 1-celled.

MONOGYNIA.

940. **EDWARD'SIA.** *Sal.*	Edwardsia.					*Leguminosæ.*		*Sp.* 3.				
5670 grandiflóra *Sal.*	large-flowered	♣	⌴	or	12	my.jn	Y	N. Zeal.	1772.	C	s.p	Bot. mag. 167
5671 chrysophýlla *Sal.*	golden-leaved	♣	⌴	or	12	my.jn	Y	N. Zeal.	...	C	s.p	Bot. reg. 738
5672 microphýlla *Sal.*	small-leaved	♣	⌴	or	6	my.jn	Y	N. Zeal.	1772.	C	s.p	Bot. mag. 1442
941. **SOPHO'RA.** *H. K.*	Sophora.					*Leguminosæ.*		*Sp.* 4— .				
5673 tomentósa *W.*	downy	♆	▭	or	12	...	W	India	1690.	C	p.l	Trew. ehret. t.59
5674 japónica *W.*	Japanese	♆		tm	40	au.s	W	Japan	1753.	S	s.l	Bot. rep. 585
5675 alopecuroídes *W.*	Fox-tail	⚘	△	or	4	jl.au	B	Levant	1731.	D	r.l	Pall. astr. t. 87
5676 flavéscens *W.*	Siberian	⚘	△	or	2	my.jl	Y	Siberia	1785.	D	r.l	
942. **ORMO'SIA.** *Jacks.*	Ormosia.					*Leguminosæ.*		*Sp.* 1—4.				
5677 dasycárpa *Jacks.*	smooth-leaved	♆	▭	or	10	jn.jl	B	W. Indies	1793.	C	lt.l	Lin. tran. 10. t.26



History, Use, Propagation, Culture

940. *Edwardsia.* Named after the late Mr. Sydenham Edwards, a celebrated botanical draughtsman. The reputation of the Botanical Magazine has arisen almost wholly from the skill he displayed in the management of the figures of that work. These plants are hardy enough to survive through our winters out of doors, when they are not very severe: but are best protected under a frame, or planted in a conservatory: they generally ripen seeds, by which, or by young cuttings planted under a bell-glass in sand, they may be readily encreased. (*Bot. Cult.* 183.)

Order 3. TRIGYNIA. 10 Stamens. 3 Styles.

1047. *Cucubalus.* Cal. 1-leaved, inflated. Petals 5, clawed. Berry superior, 1-celled, many-seeded.
1048. *Silene.* Cal. 1-leaved, ventricose. Petals 5, clawed. Caps. 1-3-celled, opening at end, many-seeded
1049. *Stellaria.* Cal. 5-leaved, spreading. Petals 5, 2-parted. Caps. 1-celled, many-seeded.
1050. *Arenaria.* Cal. 5-leaved, spreading. Petals 5, entire. Caps. 1-celled, many-seeded.
1051. *Cherleria.* Cal. 5-leaved. Nectaries 5, bifid, petal-like. Every other anther sterile. Caps. 3-valved, 3-celled, 3-seeded.
1052. *Brunnichia.* Cal. ventricose, 5-cleft. Cor. O. Caps. 3-cornered, 1-celled, 1-seeded.
1053. *Garidella.* Cal. 5-leaved, petaloid. Nect. 5, two-lipped, bifid. Caps. 3, united, many-seeded.
1054. *Malpighia.* Sepals 5, with two honey pores at base. Petals 5, roundish, clawed. Filaments cohering at base. Drupe 1-celled, with 3 one-celled nuts.
1055. *Banisteria.* Cal. 5-parted, with two honey pores outside at the base. Petals roundish, clawed. Filaments cohering at base. Samaræ 3, 1-seeded, with a single wing at end.
1056. *Hiræa.* Cal. without glands. Petals 5, with claws. Samaræ 3, surrounded by two opposite wings.

Order 4. PENTAGYNIA. 10 Stamens. 5 Styles.

1057. *Cnestis.* Petals 5. Capsules 5, one-seeded.
1058. *Averrhoa.* Sepals 5. Petals 5, spreading upwards. Stamens inserted in a nectariferous ring: every other one shorter. Apple 5-cornered, 5-celled.
1059. *Spondias.* Cal. 5-toothed. Petals 5. Drupe with a 5-celled nut.
1060. *Cotyledon.* Cal. 5-cleft. Cor. 1-petalous. Five honey scales at the base of ovary. Caps. 5.
1061. *Sedum.* Cal. 5-cleft. Petals 5. Five honey scales at base of ovary. Caps. 5.
1062. *Penthorum.* Cal. 5-cleft. Petals O. to 5. Caps. 5-pointed, 5-celled.
1063. *Grielum.* Cal. 5-cleft. Petals 5. Filaments persistent. Pericarps 5, one-seeded.
1064. *Biophyton.* Sepals 5. Petals 5. Stamens all distinct; the five outer shortest. Styles 5, emarginate at end. Capsule ovate, round, somewhat 5-cornered.
1065. *Oxalis.* Sepals 5, distinct or united at base. Petals 5. Stamens united at base, the five outer shortest. Styles 5, pencil-shaped, or capitate at end. Capsule oblong or cylindrical.
1066. *Agrostemma.* Cal. 1-leaved, coriaceous. Pet. 5-clawed. Limb obtuse, undivided. Caps. 1-celled.
1067. *Lychnis.* Cal. 1-leaved, oblong, smooth. Petals 5-clawed, with a nearly 2-fid limb. Caps. 5-celled.
1068. *Cerastium.* Sepals 5. Petals bifid. Capsule 1-celled, opening at end.
1069. *Larbræa.* Cal. 5-cleft, urceolate at base. Petals 5, biparted, perigynous. Styles 5. Ovary 1-celled, many-seeded. Capsule 6-valved at end.
1070. *Spergula.* Sepals 5. Petals 5, entire. Capsule ovate, 1-celled, 5-valved.

Order 5. DECAGYNIA. 10 Stamens. 10 Styles.

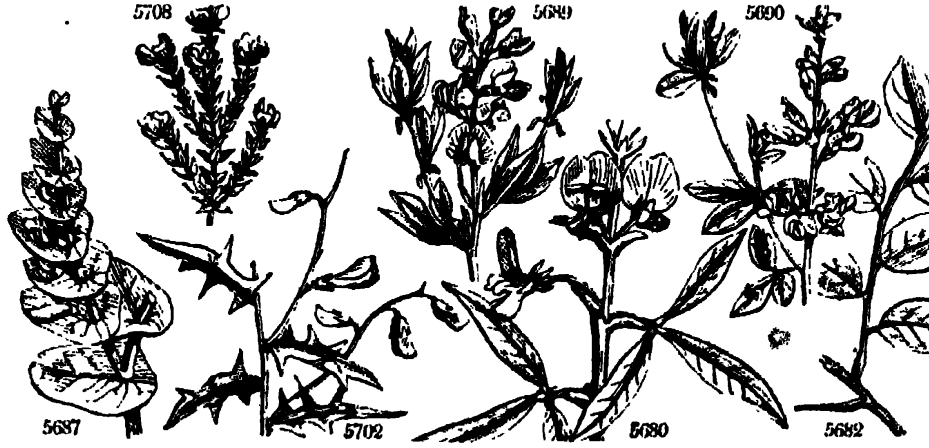
1071. *Phytolacca.* Sepals 5. Berry superior, 10-celled, 10-seeded.

MONOGYNIA.

5670 Leaflets 13-19 lanceolate oblong
5671 Leaflets 8-10 lines long obovate, Pubescence yellowish brown
5672 Leaflets 25-41 obovate

5673 A tree, Leaflets roundish or oval very obtuse at each end as well as the calyx downy
5674 A tree, Leaflets oblong ovate acute and pods smooth
5675 Herbaceous, Leaflets oblong when full-grown silky above
5676 Herbaceous, Leaflets ovate-oblong smoothish

5677 Leaflets 9-11 acuminate smooth on each side, Pods downy



and Miscellaneous Particulars.

941 *Sophora.* An alteration of the Arabic name *Sophera.* This genus has been much altered from what it formerly was. It now consists chiefly of fine trees, some of which are hardy.

942. *Ormosia.* From ορμος, a necklace, for making which the handsome seeds, red with a black-eye, of the species are well adapted. The kind cultivated in England is exceedingly rare.

943. ANAGY'RIS. *W.*	Bean-trefoil.					*Leguminosæ.*		*Sp.* 3.				
5678 fœ'tida *W.*	stinking	♀	⊔	or	9	ap.my	Y	Spain	1570.	C	p.l	Bot. cab. 740
5679 latifólia *W. en.*	broad-leaved	♀	⊔	or	10	ap.my	Y	Teneriffe	1815.	C	p.l	
5680 indica *Wall.*	Nepal	♀	⊔	or	8	jl	Y	Nepal	1821.	S	p.l	Hook ex. fl. 131
Baptisia nepalénsis	Hook.											
944. THERMOP'SIS. *R. Br.*	Thermopsis					*Leguminosæ.*		*Sp.* 1—3.				
5681 lanceoláta *R. Br.*	sharp-leaved	⚘	△	pr	1	jn.jl	Y	Siberia	1776.	D	lt.l	Bot. mag. 1389
Podalýria lupinöides	W.											
945. VIRGI'LIA. *Lam.*	Virgilia.					*Leguminosæ.*		*Sp.* 4—7.				
5682 lútea *Ph.*	yellow-flower'd	♀	△	or	15	jn.jl	Y	N. Amer.	1812.	C	p.l	Mich. arb. c. ic.
5683 aúrea *H. K.*	great-flowered	●	⊔	or	6	jl	Y	Abyssinia	1777.	C	p.l	L'H.st. no.1.t.75
5684 intrúsa *H. K.*	small-flowered	●	⊔	or		my.au	Y.w	C. G. H.	1790.	C	p.l	
5685 capénsis *H. K.*	vetch-leaved	●	⊔	or	2	jl.au	W	C. G. H.	1767.	C	p.l	Bot. mag. 1590
946 CYCLO'PIA. *R. Br.*	Cyclopia.					*Leguminosæ.*		*Sp.* 1—2.				
5686 genistoídes *H. K.*	Genista-leaved			or	2	jl.au	Y	C. G. H.	1787.	C	p.l	Bot. mag. 1259
947. BAPTI'SIA. *R. Br.*	Baptisia.					*Leguminosæ.*		*Sp.* 5—7.				
5687 perfoliáta *H. K.*	perfoliate	⚘	△	pr	3	au	Y	Carolina	1732.	D	c	D.elt. t.102. f.122
5688 villósa *Ph.*	villous	⚘	△	or	2	jn.jl	Y	N. Amer.	1811.	D	c	
5689 austrális *H. K.*	blue-flowered	⚘	△	or	4	jn.jl	B	N. Amer.	1758.	D	c	Bot. mag. 509
5690 álba *H. K.*	white-flowered	⚘	△	or	2	jn.jl	W	N. Amer.	1724.	D	c	Bot. mag. 1177
5691 tinctória *H. K.*	dyer's	⚘	△	or	1½	jl.au	Y	N. Amer.	1759.	D	c	Bot. mag. 1099
948. PODALY'RIA. *R. Br.*	Podalyria.					*Leguminosæ.*		*Sp.* 10—13.				
5692 myrtillifólia *W.*	Myrtle-leaved	●	⊔	or	6	ap.jl	Pu	C. G. H.	1795.	C	p.l	
5693 sericea *H. K.*	silky	●	⊔	or	6	ja.o	Pu	C. G. H.	1778.	C	p.l	Bot. mag. 1923
5694 cuneifólia *V.*	wedge-leaved	●	⊔	or	6	my.au	W	C. G. H.	1804.	C	p.l	Vent. cels. t. 99
5695 biflóra *W.*	two-flowered	●	⊔	or	6	f.jn	Pu	C. G. H.	1789.	C	p.l	Bot. mag. 753
5696 calyptráta *H. K.*	one-flowered	●	⊔	or	6	ap.jl	Pu	C. G. H.	1792.	C	p.l	
5697 styracifólia *B. M.*	Storax-leaved	●	⊔	or	6	my.jl	Pk	C. G. H.	...	C	p.l	Bot. mag. 1580
5698 buxifólia *W.*	Box-leaved	●	⊔	or	2	my.jl	B	C. G. H.	1790.	C	p.l	Bot. reg. 869
5699 oleæfólia *P. L.*	Olive-leaved	●	⊔	or		my	Pu	C. G. H.	1804.	C	p.l	Par. lond. 114
5700 hirsúta *H. K.*	hairy	●	⊔	or	2	jl.au	B	C. G. H.	1774.	C	p.l	Bot. rep. 525
5701 cordáta *H. K.*	heart-leaved	●	⊔	or	2	my.jl	B	C. G. H	1794.	C	p.l	
949. CHOROZE'MIA. *Lab.*	Chorozemia.					*Leguminosæ.*		*Sp.* 3.				
5702 ilicifólia *H. K.*	Holly-leaved	●	⊔	or	3	mr.o	Y	N. Holl.	1803.	S	s.p	Lab. voy. 1. t. 21
5703 nána *H. K.*	dwarf	●	⊔	or	¾	mr.o	Y	N. Holl.	1803.	S	s.p	Bot. mag 1032
5704 rhómbea *H. K*	few-flowered	●	⊔	or	2	ap.jn	Y	N. Holl.	1803.	S	s.p	Bot. cab. 1619
950. PODOLO'BIUM. *H. K.*	Podolobium.					*Leguminosæ.*		*Sp.* 1—2.				
5705 trilobátum *H. K.*	common	●	⊔	or	2	ap.jl	Y	N. S. W.	1791.	S	s.p	Bot. mag. 1477
951. OXYLO'BIUM *H. K.*	Oxylobium.					*Leguminosæ.*		*Sp.* 3—5.				
5706 arboréscens *H. K.*	tall	●	⊔	or	6	ap.jn	Y	V. Di. L.	1805.	S	s.p	Bot. reg. 392
5707 ellípticum *H. K.*	oval-leaved	●	⊔	or	3	my.s	Y	V. Di. L.	1805	S	s.p	Lab n.ho.1.t 135
5708 cordifólium *H. K.*	heart-leaved	●	⊔	or	3	ap.s	Y	N. S. W.	1807.	S	s.p	Bot. rep. 492
952. CALLISTA'CHYS. *Vent.*	Callistachys.					*Leguminosæ.*		*Sp.* 2—3				
5709 lanceoláta *V.*	spear-leaved	●	⊔	or	3	jn.au	Y	N. Holl.	1815.	S	s.p	Bot. reg. 216
5710 ováta *B. M.*	oval-leaved	●	⊔	or	3	jn.au	Y	N. Holl.	1815.	S	s.p	Bot. mag. 1925
953. BRACHYSE'MA. *H. K.*	Brachysema.					*Leguminosæ.*		*Sp.* 2.				
5711 latifólium *H. K.*	broad-leaved	⚘	⊔	or	3	ap.jl	Cr	N. Holl.	1803.	C	s.p	Bot. reg. 118
5712 undulátum *Ker.*	wavy-leaved	⚘	⊔	cu	3	mr.ap	G	N. S. W.	1820.	C	s.p	Bot. reg. 642

History, Use, Propagation, Culture,

943. *Anagyris.* From ανα, like, and γυρος, a circle. Its pod is curved inwards at its extremity. Small trees native of the South of Europe and North of Africa, and one doubtful species of Nepal. Young cuttings root in sand under a hand-glass.

944. *Thermopsis.* So named from the resemblance of the flower to that of a Lupine. This genus is cultivated with difficulty: it grows best in a light loamy soil, and may be increased by seed; dividing the root is liable to injure the plant, so that it is increased with difficulty by that means. (*Bot. Cult.* 427.)

945. *Virgilia.* A genus dedicated by Lamarck to the poet Virgil, whose Georgics contain many things interesting to botanists.

946. *Cyclopia.* Named by Ventenat, from κυκλος, a circle, and πους, a foot, in allusion to the replicate circle which is found about the base of the pods.

947. *Baptisia.* So named from βαπτω, to dye, in allusion to the economical properties of some species. Herbaceous plants of easy cultivation, and as border flowers ornamental.

948. *Podalyria.* Podalyrus was a son of Æsculapius. Small Cape shrubs, with simple silky leaves and purple blossoms. The species may be grown in leaf mould and peat, or peat loam, and rooted by cuttings in sand, or raised from seeds.

949. *Chorozemia.* M. Labillardiére originally discovered this plant upon the south-west coast of New

5678 Leaves lanceolate acute
5679 Leaves elliptical obtuse
5680 Leaves lanceolate shining silky beneath

5681 Leaflets oblong-lanceolate, Stipules lanceolate twice as long as stalk, Pedicels whorled

5682 Leaves pinnate, Leaflets with a short point smooth, Racemes long pendulous
5683 Stamens persistent, Ovaries downy, Leaflets oval obtuse pointless
5684 Stamens persistent, Ovaries smooth, Base of calyx pushed inwards, Leaflets oval obt. with a little point
5685 Stam. decid. woolly at base, Ovaries downy, Keel acuminate, Leaflets lanceolate

5686 Leaflets subulate and sepals pointless, Bractes oblong ovate shorter than peduncle, Branchlets smooth

5687 Leaves perfoliate entire roundish
5688 Stem and leaves very hairy, Leaflets oval obtuse, Raceme terminal spiked
5689 Leaves ternate stalked, Leaflets cuneate lanceolate, Stipules longer than stalk lanceolate
5690 Leaves ternate stalked, Leafl. ellipt. obl. Stipules deciduous subulate shorter than stalk, Ovaries smooth
5691 Leaves ternate stalked, Leafl. roundish obovate, Stipules setaceous obsolete

5692 Leaves oblong obovate on both sides with the calyxes silky, Pedunc. one-fl. as long as leaves
5693 Leaves oblong obovate on both sides with the calyxes silky, several times longer than the 1-flow. fl-stalk
5694 Leaves cuneiform emarginate silky, Pedunc. shorter than leaf
5695 Leaves oval silky on both sides shorter than 2-fl. peduncle, Cal. downy rough
5696 Lvs. oval and obov. pubes. beneath netted: when full-grown not silky, Cal. vill. with a scarious refl. limb
5697 Leaves ovate reticulate, Branches hairy angular striated, Peduncles as long as leaves
5698 Leaves simple ovate downy, Fl. axillary, Peduncles longer than leaf
5699 Leaves elliptical-lanceolate, Peduncles 1-fl shorter than leaves, Calyx deeply split
5700 Leaves villous stalked: upper ovate; lower roundish, Cal. villous with segments as long as wings
5701 Leaves cordate roundish subsessile very villous, Segments of villous calyx shorter than wings

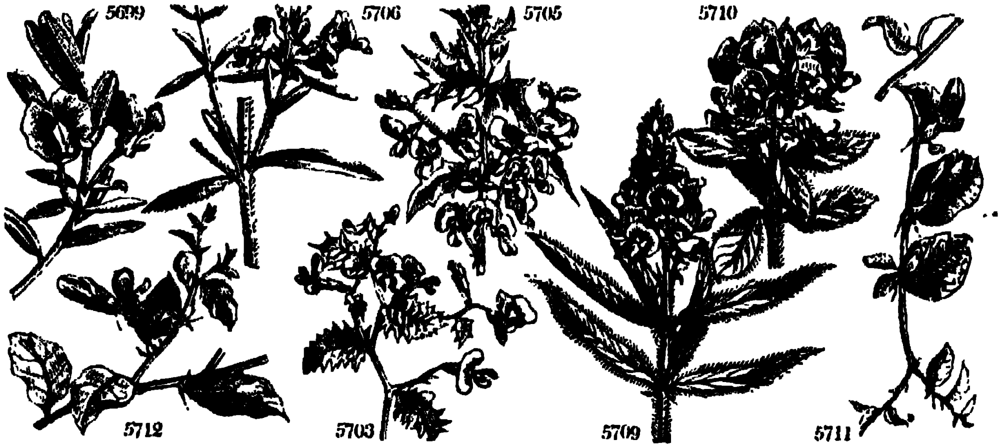
5702 Leaves pinnatifid-toothed spiny oblong-lanceolate: with an entire point longer than the teeth
5703 Leaves sinuate-toothed spiny oblong obtuse, Bractes below the end of stalk
5704 Leaves entire flat mucronate: lower rhomboid orbicular; the upper elliptical lanceolate

5705 Lvs. opp. spiny toothed 3-lobed with a transverse base, Lateral lobes much shorter than term. toothed one

5706 Leaves lin. lanc. Bractes adhering to top of the footstalk, Corymb. clust. Pods scarcely longer than cal.
5707 Leaves oval. obl. Bractes deciduous below the end of footstalk, Corymb. clust. Pods twice as long as cal.
5708 Leaves ovate cordate hairy, Umb. terminal sessile

5709 Leaves lanceolate acute
5710 Leaves ternate obovate mucronate silky beneath

5711 Leaves ovate flat, Standard oblong obovate
5712 Leaves elliptical wavy mucronate, Standard oblong cordate



and Miscellaneous Particulars.

Holland, at the foot of the mountains, in a loamy soil, near a spot where, after having been tantalized with finding many salt springs, his party had just met with an ample supply of fresh water. This welcome refreshment, of which he speaks feelingly in his book, seems to have suggested a name for this plant, which he had properly determined to constitute a new genus. He called it *Chorozēma*, evidently from χορος, a dance or joyous assembly, and ζιμα, a drink, in allusion to the circumstance just mentioned. (*Smith*.)

This genus ripens abundance of seeds, from which it may be readily increased, and also by young cuttings in sand under a bell-glass.

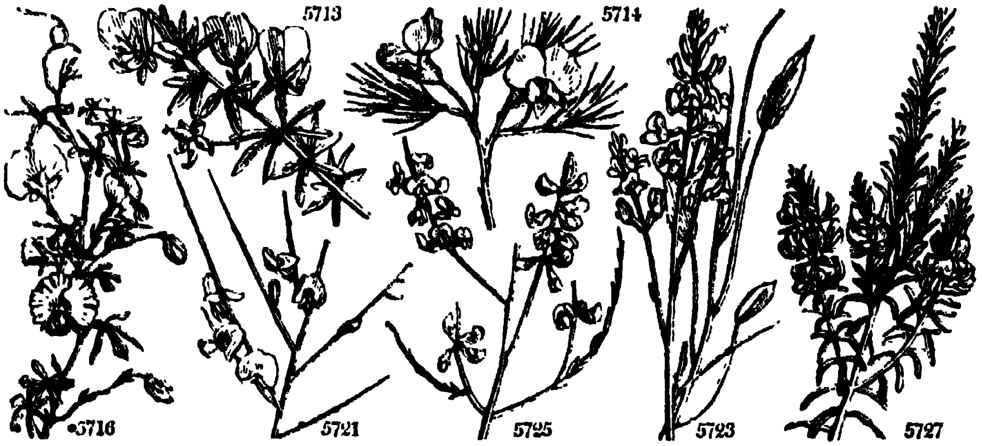
950. *Podolobium.* This and the succeeding names ending in *lobium*, refer in that part of their derivation to their pod; this genus is called from πους ποδος, a foot, the pod being on a stalk. The species may be treated as Chorozemia.

951. *Oxylobium.* From οξυς, pointed, the pods being pointed. See Podolobium.

952. *Callistachys.* From καλος, beautiful, and σταχυς, a spike, in reference to the fine spikes of yellow flowers. These are handsome conservatory shrubs, which grow rapidly and flower freely. They may be raised from seeds or cuttings in sand under a bell-glass.

953. *Brachysema.* From βραχυς, short, and σημα, a standard. The standard of the flower of the genus is very short. This is a handsome climber, increased by layers, cuttings in sand, or by seeds.

954. GOMPHOLO'BIUM. *H. K.*	GOMPHOLOBIUM.			*Leguminosæ.*	*Sp.* 7—10.					
5713 latifólium *H. K.*	broad-leaved	■ ⊔ de	2	mr.s	Y	N. S. W.	1803.	C	s.p	Ex. bot. 58
G. fimbriàtum Sm.										
5714 grandiflórum *Sm.*	large-flowered	■ ⊔ de	2	mr.s	Y	N. S. W.	1803.	C	s.p	Bot. reg. 484
5715 marginátum *H. K.*	small-flowered	■ ⊔ de	2	mr.s	Y	N. Holl.	1803.	C	s.p	
5716 polymórphum *H. K.*	variable	■ ⊔ de		mr.au	Y	N. Holl.	1803.	C	s.p	Bot. mag. 1533
5717 minus *Sm.*	hairy-stalked	■ ⊔ de	2	mr.au	Y	N. S. W.	1812.	C	s.p	
5718 tomentósum *H. K.*	tomentose	■ ⊔ de	3	ap.jl	Y	N. Holl.	1803.	C	s.p	Lab.n.ho.1.t.134
5719 venústum *H. K.*	purple-flowered	■ ⊔ de	3	ap.jl	Pu	N. Holl.	1803.	C	s.p	
955. BURTO'NIA. *H. K.*	BURTONIA.			*Leguminosæ.*	*Sp.* 1—3.					
5720 scábra *H. K.*	rough-leaved	■ ⊔ pr		my.jl	Y	N. Holl.	1803.	C	s.l.p	
956. JACKSO'NIA. *H. K.*	JACKSONIA.			*Leguminosæ.*	*Sp.* 2—4.					
5721 scopária *H. K.*	Broom-like	■ ⊔ pr		jn.au	Y	N. S. W.	1803.	C	s.p	Bot. cab. 427.
5722 spinósa *H. K.*	spinous	■ ⊔ pr		ap.s	Y	N. Holl.	1803.	C	s.p	Lab.n.ho.1.t.136
957. VIMINA'RIA. *H. K.*	RUSH-BROOM.			*Leguminosæ.*	*Sp.* 2.					
5723 denudáta *H. K.*	leafless	■ ⊔ cu	3	jn.s	Y	N. Holl.	1789.	C	s.p	Bot. mag. 1190
5724 lateriflóra *Link.*	side-flowering	■ ⊔ cu	3	jn.s	Y	N. Holl.	1824.	C	s.p	
958. SPHÆROLO'BIUM. *H. K.*	SPHÆROLOBIUM.			*Leguminosæ.*	*Sp.* 2—4.					
5725 vimíneum *H. K.*	yellow-flowered	■ ⊔ or	2	my.au	Y	N. Holl.	1802.	S	s.p	Bot. mag. 969
5726 médium *H. K.*	red-flowered	■ ⊔ or	3	jn.au	R	N. Holl.	1803.	S	s.p	
959. AO'TUS *H. K.*	AOTUS.			*Leguminosæ.*	*Sp.* 1—3.					
5727 villósa *H. K.*	villous	■ ⊔ or	2	ap.jn	Y	N. Holl.	1790.	S	s.p	Bot. mag. 949
960. DILLWY'NIA. *H. K.*	DILLWYNIA.			*Leguminosæ.*	*Sp.* 6—10.					
5728 floribúnda *H. K.*	close-flowered	■ ⊔ or	2	ap.jl	Y	N. S. W.	1794.	C	s.l.p	Ex. bot. t. 26
5729 ericifólia *H. K.*	Heath-leaved	■ ⊔ or	2	mr.jl	Y	N. S. W.	1794.	C	s.l.p	Ex. bot. t. 25
5730 glabérrima *H. K.*	smooth	■ ⊔ or	2	mr.jl	Y	N. S. W.	1800.	C	s.l.p	Bot. mag 944
5731 parvifólia *B. M.*	small-leaved	■ ⊔ or	2	mr.jl	Y	N. S. W.	1800.	C	s.l.p	Bot. mag. 1527
5732 cineráscens *R. Br.*	grey	■ ⊔ or	2	mr.jl	Y	N. S. W.	1819.	C	s.l.p	Bot. mag 2247
5733 juniperina *Lodd.*	Juniper-leaved	■ ⊔ pr	2	ap.my	Y	V. Di. L.	1818.	C	s.l.p	Bot. cab. 401
961. EUTA'XIA. *H. K.*	EUTAXIA.			*Leguminosæ.*	*Sp.* 1—2.					
5734 myrtifólia *H. K.*	Myrtle-leaved	■ ⊔ pr	1½	mr.jn	Y	N. Holl.	1803.	C	s.l.p	Bot. mag. 1274
962. SCLEROTHA'MNUS. *H. K.*	SCLEROTHAMNUS.			*Leguminosæ.*	*Sp.* 1.					
5735 microphýllus *H. K.*	small-leaved	■ ⊔ pr	1	my.jn	Y	N. Holl.	1803.	C	s.l.p	
963. GASTROLO'BIUM. *H. K.*	GASTROLOBIUM.			*Leguminosæ*	*Sp.* 1—3.					
5736 bilobum *H. K.*	two-lobed	■ ⊔ or	2	mr.my	Y	N. Holl.	1803.	C	s.l.p	Bot. reg. 411
964. EUCHI'LUS. *H. K.*	EUCHILUS.			*Leguminosæ.*	*Sp.* 1.					
5737 obcordátus *H. K.*	heart-leaved	■ ⊔ or	2	mr.jn	Y	N. Holl.	1803.	C	s.l.p	Bot. cab. 60
965. PULTENÆ'A. *H. K.*	PULTENÆA.			*Leguminosæ.*	*Sp.* 13—19					
5738 daphnoides *H. K.*	Daphne-leaved	■ ⊔ or	2	jn.jl	Y	N. S. W.	1792.	C	s.l.p	Bot. mag. 1394
5739 obcordáta *H. K.*	heart-leaved	■ ⊔ or	2	my.jl	Y	V. Di. L.	1808.	C	s.l.p	Bot. mag. 574
5740 scábra *H. K.*	rough-leaved	■ ⊔ or	1½	my.jl	Y	N. S. W.	1803.	C	s.l.p	
5741 retúsa *H. K.*	blunt-leaved	■ ⊔ or	1	ap.my	Y	N. S. W.	1789.	C	s.l.p	Bot. reg. 378
5742 stricta *B. M.*	upright	■ ⊔ or	2	ap.jn	Y	N. S. W.	1803.	C	s.l.p	Bot. mag. 1588
5743 linophýlla *H. K.*	Flax-leaved	■ ⊔ or	2	my.jl	Y	N. S. W.	1789.	C	s.l.p	Sch.s.han 3. t 18
5744 paleácea *Sm.*	chaffy	■ ⊔ or	1½	ap.jl	Y	N. S. W.	1789.	C	s.l.p	Bot. cab. 291
5745 stipuláris *H. K.*	scaly	■ ⊔ or	2	ap.jl	Y	N. S. W.	1792.	C	s.l.p	Bot. mag. 435
5746 vestita *H. K.*	awned	■ ⊔ or	3	ap.jl	Y	N. Holl.	1803.	C	s.l.p	
5747 villósa *H. K.*	villous	■ ⊔ or	2	ap.my	Y	N. S. W.	1790.	C	s.l.p	Bot. mag. 967



History, Use, Propagation, Culture.

954. *Gompholobium.* The name of this genus alludes to the tumid shape of the legume, which swells from a narrow base upwards; according to the primary signification of *γομφος*, a word thence used to signify a club or wedge, or any thing formed upon a similar principle. Delicate plants, difficult to preserve, requiring a large proportion of sand in the peat, and moderate watering. Young cuttings root under a bell-glass in sand.

955. *Burtonia.* A genus defined in the Hortus Kewensis, without an explanation of the origin of the name. This plant, Sweet observes, requires more than ordinary treatment to keep it in good health; an equal mixture of very sandy loam and peat is the best soil for it, and the pots to be well drained with small potsherds, that the water may pass off freely, as nothing is more injurious to it than too much water. Young cuttings are not difficult to root, planted in sand under a bell-glass; it may also be raised from seeds, which are sometimes produced. (*Bot. Cult.* 156.)

956. *Jacksonia.* Named after Mr Jackson, formerly librarian to Aylmer Bourke Lambert, and an excellent practical botanist, of whom too little is known. Young cuttings will root in sand under a bell-glass, or ripened ones under a hand-glass.

957. *Viminaria.* From *vimen*, a twig. The appearance of the species which have no leaves is that of a bundle of naked twigs.

5713 Leaves term. Leafl. lin. or obl. lin. an inch and more long, Stem erect, Keel fringed, Cal. in fruit reflexed

5714 Leaves ternate linear mucronate straight, Branches angular smooth
5715 Leaves ternate, Leafl. obovate edged flat, Stipules as long as leafstalk, Cor. length of calyx
5716 Lvs. tern. and quinate, Leafl. linear recurved at edge, somewhat dilated at end, Stem procum. or twining
5717 Leaves ternate linear smooth mucronate, Branches round hairy, Keel hairy
5718 Leaves pinn. Leafl. subulate linear mucronate rough above, Cal. hairy shorter than pod, Keel silky ciliate
5719 Leaves pinn. of many pairs, Leafl. subulate veiny revolute at edge and calyxes smooth, Cor. purple

5720 Leaves ternate, Cal. smooth, Style beyond the middle beardless

5721 Arborescent unarmed, Branches angular, Racemes terminal
5722 Shrubby, Branches spiny 2-3-chotomous spreading angular, Bractes very short

5723 Segments of calyx straight ovate
5724 Flowers racemose, Segments of calyx lanceolate reflexed

5725 Tube of cal. a little shorter than lips, Style included bowed from the base, Cor. yellow
5726 Tube of cal. twice as short as the lips, Cor. red

5727 Cal. silky with appressed hairs, Pods stalked, Seeds dotted rugose, Leaves rough above

5728 Flowers axillary ternate, Leaves subulate mucronate
5729 Corymbs terminal sessile, Leaves subul. rough with dots divaricate twisted, Branches pubescent
5730 Corymbs terminal stalked, Leaves filiform erect smooth, Mucro weak recurved
5731 Leaves short spreading decussate, Fl. capitate, Pedunc. with two bractes, Stigma capitate
5732 Corymbs terminal sessile, Leaves filiform erect, with a weak short point, Branches silky
5733 Leaves acerose horizontal, Branches weak, Heads 3-9-flowered

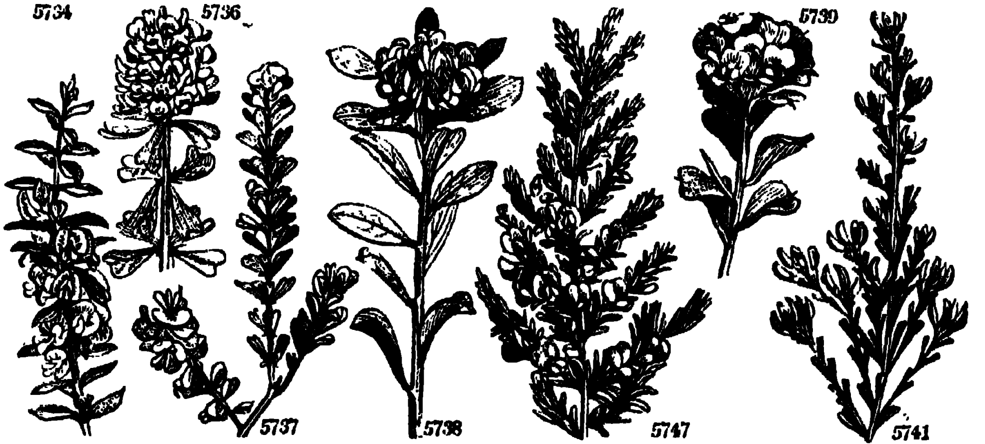
5734 Leaves lanceolate or lanceolate-obovate, Peduncles axillary twin, Appendages of wings very short

5735 The only species

5736 Lvs. beneath somew. silky retuse, Lobes round. longer than little point, Stalk of pod as long as tube of cal.

5737 The only species

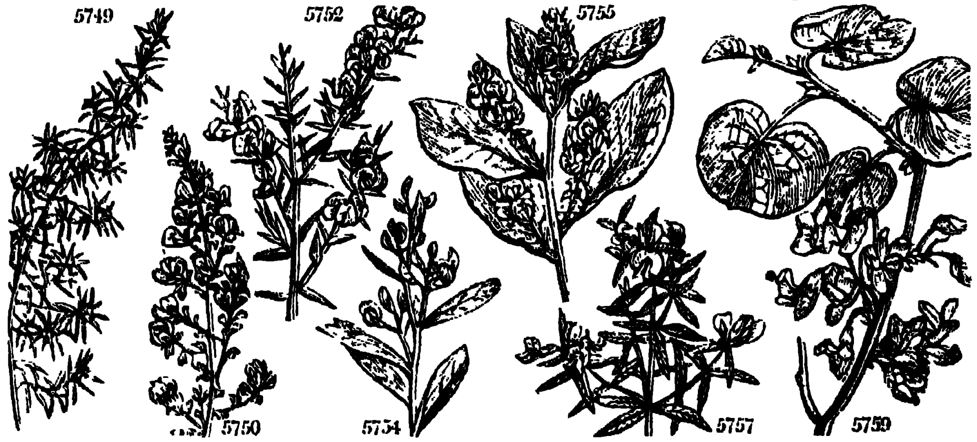
5738 Heads terminal, Leaves obovate oblong flat quite smooth 3 times as long as broad, Point pungent
5739 Heads term. Leaves cuneate obcord. retuse flat smooth scarcely twice as long as broad, Point pungent
5740 Heads term. few-fl. Leaves cuneate truncate bristly pointed recurved at edge rough above villous beneath
5741 Heads term. Leaves linear retuse blunt flat smooth, Bractes a little longer than cal.
5742 Heads term. Leaves obovate mucronate smooth, Stem upright, Calyx and pods hairy
5743 Bractes shorter than 6-8-fl. head, Lvs. lin. with a little point and recurv. edge, Stip. shorter than footstalk
5744 Leaves linear mucronate revolute recurved at end, Stipules solitary 2-nerved with membr. torn sheaths
5745 Heads many-fl. Bractes about as long as cal. Leaves flat linear acute, Stipules bifid flat imbricated
5746 Fl. axill. Leaves linear lanceolate mucronate smooth, Stip. imbric. ciliated, Cal. and bractes bearded
5747 Racemes leafy, Leaves linear oblong, above concave, beneath cal. and branchlets pilose



and Miscellaneous Particulars.

958. *Sphærolobium.* From σφαιρα, a sphere; the pods being nearly spherical. See Jacksonia.
959. *Aotus.* From α, privative, and ωτα, ears, in allusion to the want of the appendages to the calyx in this genus. In Pultenæa, to which it is most nearly allied, they are very distinct.
960. *Dillwynia.* Named by Sir James Edward Smith, after Mr. Lewis Weston Dillwyn, whose labors upon Confervæ and other parts of British botany are well known. These plants being liable to suffer from wet, the pots must be well drained with sherds and refuse peat siftings. Young cuttings root freely in sand under a bell-glass.
961. *Eutaxia.* From ευταξια, modesty, in allusion to the humble, modest appearance of the plant. Mr. Sweet directs to top the plants frequently when young, otherwise they are apt to run up naked and unsightly.
962. *Sclerothamnus.* From σκληρος, hard, and θαμνος, a shrub. The species are rigid plants with stiff hard leaves.
963. *Gastrolobium.* From γαστηρ, the belly; or, in botanical composition, something inflated. The pods of the genus are much swollen.
964. *Euchilus.* From ευ, well, and χειλος, a lip; well lipped. The upper lip of the calyx is very large.
965. *Pultenæa.* Named after William Pulteney, M. D., author of a view of the writings of Linnæus, and

5748 fléxilis *H. K.*	shining-leaved	■	⊔	or	1½	ap.jn	Y	N. S. W.	1801.	C	s.l.p	
5749 tenuifólia *R. Br.*	thin-leaved	■	⊔	or	1½	ap.my	Y	N. S. W.	1817.	C	s.l.p	Bot. mag. 2086
5750 bíloba *R. Br.*	two-lobed	■	⊔	or	2	ap.my	Y	N. S. W.	1817.	C	s.l.p	Bot. mag. 2091
966. DAVIE'SIA. *L. T.*	Daviesia.					*Leguminosæ.*		*Sp.* 6—10.				
5751 aciculáris *Sm.*	needle-leaved	■	⊔	or	2	jn.jl	Y	N. S. W.	1804.	C	s.l.p	
5752 ulicína *Sm.*	Furze-leaved	■	⊔	or	3	ap.au	Y	N. S. W.	1792.	C	s.l.p	Bot. cab. 44
5753 corymbósa *Sm.*	glaucous-leav'd	■	⊔	or	2	my.au	Y	N. S. W.	1804.	C	s.l.p	
5754 mimosoídes *H. K.*	green-leaved	■	⊔	or	2	jn.au	Y	N. S. W.	1809.	C	s.l.p	Bot. rep. 611
D. glauca Lodd.												
5755 latifólia *H. K.*	broad-leaved	■	⊔	or	3	my.au	Y	N. S. W.	1805.	C	s.l.p	Bot. mag. 1757
5756 aláta *Sm.*	winged	■	⊔	or	3	my.au	Y	N. S. W.	1818.	C	s.l.p	Bot. reg. 728
967. MIRBE'LIA. *L. T.*	Mirbelia.					*Leguminosæ.*		*Sp.* 2—4.				
5757 reticuláta *L. T.*	reticulated	■	⊔	or	3	my.au	B	N. S. W.	1792.	C	s.l.p	Bot. mag. 1211
5758 dilatáta *H. K.*	lobed-leaved	■	⊔	or	3	my.au	B	N. Holl.	1803.	C	s.l.p	
968. CER'CIS. *W.*	Judas-Tree.					*Leguminosæ.*		*Sp.* 2.				
5759 Siliquástrum *W.*	European	Ұ		or	20	my.jn	Pu	S. Europe	1596.	L	co	Bot. mag. 1138
5760 canadénsis *W.*	American	Ұ		or	18	my.jn	Gr	N. Amer.	1730.	L	co	Mill. ic. t. 2
969. SCHO'TIA. *W.*	Schotia.					*Leguminosæ.*		*Sp.* 3—7.				
5761 speciósa *H. K.*	small-leaved	■	□	or	5	jl.d	Cr	C. G. H.	1759.	C	l.p	Bot. rep. 348
5762 tamarin'difólia *H. K.*	Tamarind-leav.	■	□	or	6	my.s	Cr	C. G. H.	1795.	C	l.p	Bot. mag. 1153
5763 stipuláta *H. K.*	large-stipuled	■	□	or	5	my.s	Cr	C. G. H.	1794.	C	l.p	
970. BAUHI'NIA. *W.*	Mountain-Ebony.					*Leguminosæ.*		*Sp.* 13—30.				
5764 scándens *W.*	small-lvd. clim.	§	□	or	30	...	W.y	E. Indies	1799.	C	l.p	Rhe. mal. 8. t.29
5765 racemósa *W.*	great-leaved	§	□	spl	20	...	...	E. Indies	1790.	C	lt.l	Vah. sym. 3. t.62
5766 aculeáta *W.*	prickly-stlkd.	§	□	or	6	jn.au	W	W. Indies	1737.	C	lt.l	Plu. ic. t. 44. f. 1
5767 divaricáta *W.*	dwarf	§	□	or	5	jn.s	W	W. Indies	1742.	C	lt.l	Hort. cliff. t. 15
5768 auríta *W.*	long-eared	§	□	pr	6	s	W	Jamaica	1756.	C	lt.l	Mill. ic. 1. t. 61
5769 porrécta *W.*	smooth-leaved	§	□	pr	15	jl	St	W. Indies	1737.	C	lt.l	Bot. mag. 1708
5770 parviflóra *W.*	small-flowered	§	□	pr	20	...	W	E. Indies	1808.	C	lt.l	
5771 variegáta *W.*	variegated	§	□	or	20	jn.jl	St	E. Indies	1690.	C	lt.l	Rh. mal. 1. t. 32
5772 cándida *W.*	white	§	□	or	10	my.jn	W	E. Indies	1777.	C	lt.l	
5773 purpúrea *W.*	purple	§	□	or	25	...	P	E. Indies	1778.	C	lt.l	Rh. mal. 1. t. 33
5774 tomentósa *W.*	tomentose	§	□	or	12	...	Y.w	E. Indies	1808.	C	lt.l	Rh. mal. 1. t. 35
5775 acumináta *W.*	acute-leaved	§	□	or	8	...	W	E. Indies	1808.	C	lt.l	Rh. mal. 1. t. 34
5776 forficáta *Link.*	pincer-leaved	§	□	or	6	...	W	Brazil	1823.	C	lt.l	
971. AFZE'LIA. *Sm.*	Afzelia.					*Leguminosæ.*		*Sp.* 1.				
5777 africána *Sm.*	african	♀	□	tm	30	...	Cr	S. Leone	1821.	C	r.m	
972 HYMENÆ'A. *W.*	Locust-Tree.					*Leguminosæ.*		*Sp.* 2.				
5778 Coúrbaril *W.*	leathery-leaved	♀	□	or	20	...	Y.P	W. Indies	1688.	C	p.l	La. ill. t. 330. f. 1
5779 verrucósa *W.*	warted-podded	♀	□	or	20	...	...	Madagas.	1808.	C	p.l	La. ill. t. 330. f. 2



History, Use, Propagation, Culture,

of various other works of merit. These are small New Holland bushes, with numerous yellow flowers, frequently brown on the outside

966. *Daviesia.* Named after the Rev. Hugh Davies, a Welsh botanist. Plants like furze. The species root best when the cuttings are somewhat ripened and planted in pots of sand, and covered with a hand-glass without bottom heat.

967. *Mirbelia.* In honor of Mr. Mirbel, a distinguished French physiological botanist, whose elucidations of the reticulated structure of vegetables make it proper to consecrate to his merits plants remarkable for their reticulation.

968. *Cercis.* Κερκις is a name of Theophrastus, supposed to have appertained to the tree now so called. *Gainier* or *Arbre de Judée*, Fr., *Arbold Amor*, Span. Handsome low trees, with singular leaves and fine shewy flowers. These having an agreeable poignancy, and being abundant on the branches, are frequently eaten in salads on the continent, and those of the C. canadensis are pickled by the French families in Canada. The wood of both species is finely veined with black and green, and takes a good polish; and the young branches of the Canadian species are said to dye wool of a fine nankeen color. They may be propagated either by layers or seeds: the latter make the best plants. Gerarde, in compliance with the popular notions of his time, says, "this is the tree whereon Judas did hang himselfe; and not upon the elder tree, as it is said."

969. *Schotia.* So named by Jacquin, in memory of Richard van der Schott, a Dutchman, gardener at Schoenbrunn, and his companion in his travels. This beautiful genus has lately been increased by Burchell, the African traveller "They require," Sweet observes, "rather more warmth than a common greenhouse, to keep them in good health through the winter. The coldest part of the stove will suit them better; but they should not be plunged in the tan, as they want no bottom heat. A mixture of loam and peat is the best soil for them; and cuttings planted in sand, and plunged in mould (not in tan), under a hand-glass, will strike root." (*Bot. Cult.* 105.)

970. *Bauhinia.* So named by Plumier, in honor of the two famous botanists, John and Caspar Bauhin. The species consist of trees or shrubs, most of them climbing. The leaves are simple, but two-lobed or two-

5748 Very smooth, Fl. axill. Leaves oblong linear mucronate flat
5749 Heads terminal 2-flowered, Fruit lateral, Leaves subulate linear hairy above concave
5750 Heads terminal few-fl. Leaves wedge-shaped at the end dilated 2-lobed above rough beneath silky

5751 Leaves linear revolute pungent straight rough, Flowers axillary solitary
5752 Branches spiny smooth spreading, Leaves lanceolate or linear, Pedunc. axill. 1-fl. Bractes 8 imbricated
5753 Leaves linear oblong flat pointless, Pedunc. axill. twin corymbose many-fl. Calyx regular
5754 Branches unarmed, Lvs. long-lanc. with a very short weak point, Corymbs axill. Upper lip of calyx retuse

5755 Branches unarmed, Leaves ellipt. or oval veiny attenuated at base, Racemes axillary many-fl.
5756 Stem leafless winged, Umbels lateral, Calyx and bractes fringed

5757 Leaves lanceolate linear veiny, Ovaries 2-seeded
5758 Leaves wedge-shaped at the end dilated-trifid

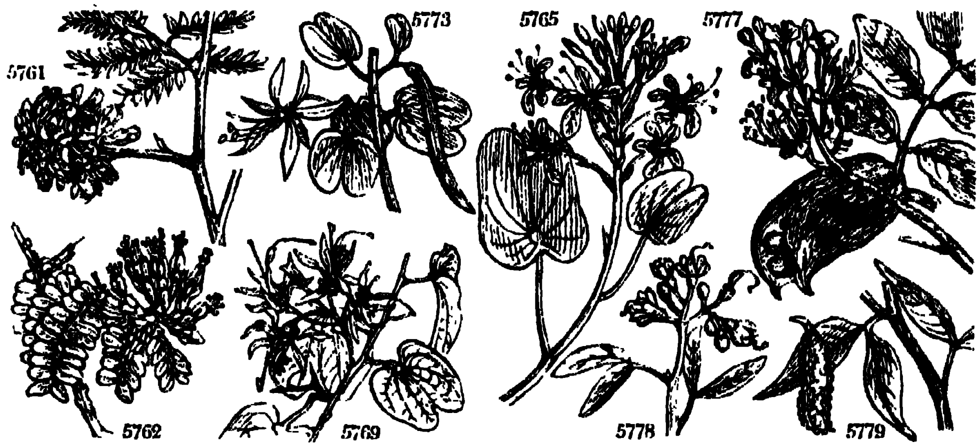
5759 Leaves orbicular cordate
5760 Leaves cordate acuminate

5761 Leaves 7-10 pairs oval-lanceolate mucronate, Stipules subulate
5762 Leaves 8-10 pairs oval obtuse mucronate or not, at the base in front a little swollen
5763 Leaves 5 pairs oval acute mucronate, Stipules half-ovate falcate mucronate

5764 Stem tendril-bearing, Lobes of leaves attenuated
5765 Stem tendril-bearing, Fl. triandr. on outside with stam. at base hairy, Lvs. downy beneath, Lobes rounded
5766 Stem prickly
5767 Leaves smooth, Lobes divaricate acute 2-nerved, Petals lanceolate
5768 Leaves at the base nearly transverse, Lobes lanceolate porrect 3-nerved, Petals lanceolate
5769 Leaves cordate, Lobes porrect acute 3-nerved, Petals lanceolate
5770 Racemes axill. and term. nodding, Petals linear, Lobes of leaves rounded smooth
5771 Cal. 1-leaved bursting, Petals sessile ovate, Lobes of leaves ovate obtuse
5772 Leaves cordate downy beneath, Lobes ovate obtuse, Cal. narrowed upwards lengthened
5773 Flowers triandrous, Lobes of leaves oval obtuse
5774 Leaves cordate, Lobes half orbicular downy
5775 Leaves ovate, Lobes acuminate half-ovate spreading
5776 Stem prickly, Leaves cordate with porrect 4-nerved lobes

5777 Leaves alternate abruptly pinnated, Pod woody, Seeds black with a scarlet arillus

5778 Leaflets coriaceous veinless unequal at base, Flowers of panicle stalked
5779 Leaves veiny unequal at base, Panicle wavy spreading, Pedunc. many-fl. Pods warted



and Miscellaneous Particulars.

parted, which circumstance gave occasion, it is said, to Plumier to name this genus from the two brothers. They merit a place in the stove, where they are easily cultivated in light loamy soil, and cuttings taken off when the plants are in a growing state, not over ripened, nor yet quite succulent, with their leaves on, will do well in sand under bell-glasses in moist heat. The species rarely flower in this country. In their native woods they are great ornaments of the trees, among which they climb in every direction. The stem of Bauhinia scandens, which had twined around a smaller plant, is said to have been the origin of Æsculapius's snaken rod, which he brought from India.

971. *Afzelia.* Named by Sir J. E. Smith, after Dr. Adam Afzelius, an amiable and excellent Swedish botanist, resident for many years, in the service of the African Company, at the colony of Sierra Leone, and now living at Upsal.

972. *Hymenæa.* A poetical application of this plant, the leaves of which grow in pairs, to Hymen, the god of marriage. *Courbaril* is a vernacular American name. This tree is abundant in the West Indies, where it grows to a large size, with a spreading head. It has stiff sub-perfoliate leaves obliquely placed, and terminal spikes of flowers, which are succeeded by thick, fleshy, brown pods, shaped like those of the garden bean; they are six inches long, and two inches and a half broad, of a purplish brown color, and a ligneous consistence, with a large suture on both edges; they contain three or four roundish compressed seeds, divided by transverse partitions, and inclosed in a whitish substance of fine filaments, as sweet as honey. The Indians eat this substance with great avidity, though it is apt to purge when fresh gathered, but it loses this quality as it grows old.

Between the principal roots of the tree exudes a fine transparent resin, yellowish or red, which is collected in large lumps, is called gum Anime, and makes the finest varnish that is known, superior even to the Chinese lacca: for this latter use it is dissolved in the highest rectified spirits of wine. It burns readily, and with a clear flame, emitting a grateful and fragrant smell, for which reason it is sometimes ordered by way of fumigation in the chambers of persons laboring with asthmas or suffocative catarrhs. Its vapours not only strengthen the head, but all parts of the body affected with cold. Some apply it outwardly, dissolved in oil or spirits of wine, to strengthen the nerves. An oil may be distilled from it, useful in palsies, in cramps, and

973. **CYNOME'TRA.** *W.*	Cynometra.					*Leguminosæ.*		*Sp.* 1—2.				
5780 cauliflóra *W.*	stem-flowering	♀	□	or	30	...	Y.p	E. Indies	1804.	C	s.l.p	Lam. ill. t. 331
974. **CAS'SIA.** *W.*	Cassia					*Leguminosæ.*		*Sp.* 56—149.				
5781 diphýlla *W.*	two-leaved	♃	⊡	pr	3	my.jl	Y	W. Indies	1781.	C	lt.l	Ca. ic. 5. t. 600. f. 1
5782 Ab'sus *W.*	four-leaved		⊡	un	¾	jn.jl	Y	India	1777.	C	lt.l	Burm. zeyl. t. 97
5783 viminea *W.*	twiggy	♣	□	pr	3	...	Y	W. Indies	1786.	S	p.l	
5784 bacilláris *W.*	rod	♣	□	or	3	...	Y	E. Indies	1782.	C	co	
5785 Tágera *W.*	long-podded	♃	⊡	w	1½	jl	Y	E. Indies	1803.	C	p.l	
5786 Tora *W.*	oval-leaved		⊡	w	3	au	Y	E. Indies	1693.	C	r.m	Dill. elt. 63. f. 73
5787 bicapsuláris *W.*	six-leaved	♣	□	or	4	my.jn	Y	W. Indies	1739.	C	p.l	Plu. ic. t. 76. f. 1
5788 sennoides *W.*	Senna-leaved	♣	□	or	3	jl.au	Y	E. Indies	1808.	S	s.p	Jac. ic. 1. t. 70
5789 acumináta *W.*	pointed	♣	□	or	8	...	Y	Surinam	1820.	S	s.p	
5790 mollissima *W. en.*	soft-leaved	♣	□	or	6	...	Y	S. Amer.	1816.	S	p.l	
5791 corymbósa *W.*	corymbose	♣	⊔	or	3	jl	Y	B. Ayres	1796.	C	s.p	Bot. mag. 633
5792 emargináta *W.*	notch-leaved	♣	□	or	15	my.jn	Y	Jamaica	1759.	C	p.l	Sl. hi. 2. t. 180. f. 1. 4
5793 obtusifólia *H. K.*	blunt-leaved		⊡	w	2	jl.au	Y	Jamaica	1732.	C	p.l	Dil. el. t. 62. f. 72
5794 péndula *W. en.*	pendulous	♣	□	or	3	jl.au	Y	S. Amer.	1820.	C	p.l	
5795 lævigáta *W. en.*	smooth	♣	□	pr	3	my.au	Y	......	...	C	lt.l	
5796 sericea *W.*	silky-leaved		⊡	w	1½	my.au	Y	Jamaica	1731.	C	s.p	
5797 dispar *W. en*	unequal	♣	□	or	3	...	Y	S. Amer.	1824.	C	s.p	
5798 occidentális *W.*	occidental	♣	□	pr	1½	my.au	Y	W. Indies	1759.	C	p.l	Bot. reg. 83
5799 pátula *W.*	shining	♣	□	pr	2	au.s	Y	W. Indies	1778.	C	lt.l	
5800 prostráta *W. en.*	prostrate	⌓	□	or	½	my.au	[illegible]	S. Amer.	1819.	C	co	
5801 arboréscens *W.*	tree	♣	□	un	3	jn.jl	Y	E. Indies	1800.	C	p.l	Rh. ma. 6. t. 9, 10
5802 italica *Lam.*	Italian Senna		⊡	or	3	jn.jl	Y	S. Europe	...	S	co	Mo. h. 2. t. 24. f. 2
5803 Sénna *H. K.*	false Senna		⊡	m	3	jl.au	Y	Egypt	1640.	S	lt.l	
5804 orientális *P. S.*	true Senna		○	m	3	jl.au	Y	Levant	...	S	lt.l	Tabern. ic. 507
5805 ruscifólia *W.*	Ruscus-leaved	♣	⊔	or	2	my jl	Y	Madeira	1816.	C	lt.l	Jac. ic. 1. t. 71
5806 purpúrea *Roxb.*	purple	♣	□	or	4	jn.au	Y	E. Indies	1821.	C	co	Bot. reg. 856
5807 ægyptiaca *W. en.*	Egyptian	♣	⊔	or	3	my	Y	Egypt	1822.	C	co	
5808 biflóra *W.*	two-flowered	♣	□	or	6	ap.d	Y	W. Indies	1766.	C	p.l	Bot. mag. 810
5809 chinénsis *W.*	Chinese	♣	⊔	or	4	jn	Y	China	1807.	S	p.l	Jac. ic. 1. t. 73
5810 hirsúta *H. K.*	woolly	♃	⊡	w	4	jl	Y	America	1778.	C	s.p	
5811 coromandeliána *W. en.*	Coromandel	♣	□	or	4	jn	Y	E. Indies	1822.	C	co	
5812 lanceoláta *P. S.*	lanceolate	♣	□	pr	3	jl	Y	W. Indies	1822.	C	co	
5813 bracteáta *W.*	bracteate	♣	□	or	6	ap.d	Y	W. Indies	1822.	C	co	
5814 tomentósa *W.*	tomentose	♀	□	or	15	jl.s	Y	W. Indies	1822.	C	co	
5815 glandulósa *W.*	glandular	♣	□	pr	4	au.o	Y	W. Indies	1822.	C	co	Bot. mag. 3435
5816 grándis *W.*	fine	♀	□	or	25	...	Y	W. Indies	1822.	C	co	Brey. cent. t. 14
5817 planisiliqua *P. S.*	flat-podded	♣	□	pr	4	my.jl	Y	W. Indies	1822.	C	co	Plum. spec. t. 77
5818 robinioides *W. en.*	Robinia-like	♣	□	or	10	jl	Y	S. Amer.	1823.	C	co	
5819 stipulácea *W.*	large-stipuled	♣	□	or	3	...	Y	Chili	1786.	C	lt.l	Feu. per. 3. t. 42
5820 cuspidáta *W. en.*	cuspidate	♣	□	or	4	jn.au	Y	S. Amer.	1820.	C	co	
5821 marilándica *W.*	Maryland	♃	△	pr	4	au.o	Y	N. Amer.	1723.	C	s.p	Di. el. t. 260. f. 339
5822 aláta *W.*	broad-leaved	♣	□	or	12	...	Y	W. Indies	1731.	C	p.l	Jac. ob. 2. t. 45. f. 2
5823 ligustrina *W.*	Privet-leaved	♣	□	or	6	jl	Y	Baham. Is.	1726.	C	p.l	Bot. reg. 109
5824 multiglandulósa *W.*	glandular	♣	⊔	pr	4	jn.au	Y	Teneriffe	1779.	C	s.p	Jac. ic. 1. t. 72
5825 frondósa *W.*	smooth-shrub.	♣	⊔	or	3	mr.ap	Y	W. Indies	1769.	C	lt.l	Jac. ic. 1. t. 74
5826 Sóphera *W.*	round-podded	♣	□	or	4	jl.s	Y	E. Indies	1658.	C	lt.l	Rh. ma. 2. t. 52
5827 reticuláta *W. en.*	Matapasto	♣	□	or	10	au.s	Y	S. Amer.	1821.	C	co	
5828 auriculáta *W.*	eared	♣	□	or	4	...	Y	E. Indies	1777.	C	lt.l	Pl. alm. t. 314. f. 4
5829 Chamæcrista *W.*	dwarf	♃	⊡	pr	1	jn.s	Y	America	1699.	S	r.m	Bot. mag. 107
5830 hirta *W. en.*	long-haired	♣	□	or	3	jl.s	Y	S. Amer.	1820.	C	co	
5831 margináta *W. en.*	white-edged	♣	□	cl	3	my.jl	Y	Surinam	1823.	C	co	
5832 mimosoides *W.*	Mimosa-leaved	♃	⊡	pr	2	jn.s	Y	Ceylon	1806.	S	lt.l	
5833 microphýlla *W.*	small-leaved	♃	⊡	pr	2	jn.s	Y	Santa Cr.	1810.	S	lt.l	
5834 nictitans *W.*	Virginian	♃	⊡	pr	2	jl	Y	N. Amer.	1800.	S	lt.l	Pl. alm. t. 314. f. 5
5835 capensis *Th.*	Cape	♣	⊔	or	3	jn	Y	C. G. H.	1816.	S	lt.l	Bot. cab. 511 ?
5836 procúmbens *W.*	procumbent		○	w	1½	jn.jl	Y	N. Amer.	1806.	S	lt.l	Com. pct. t. 11

History, Use, Propagation, Culture,

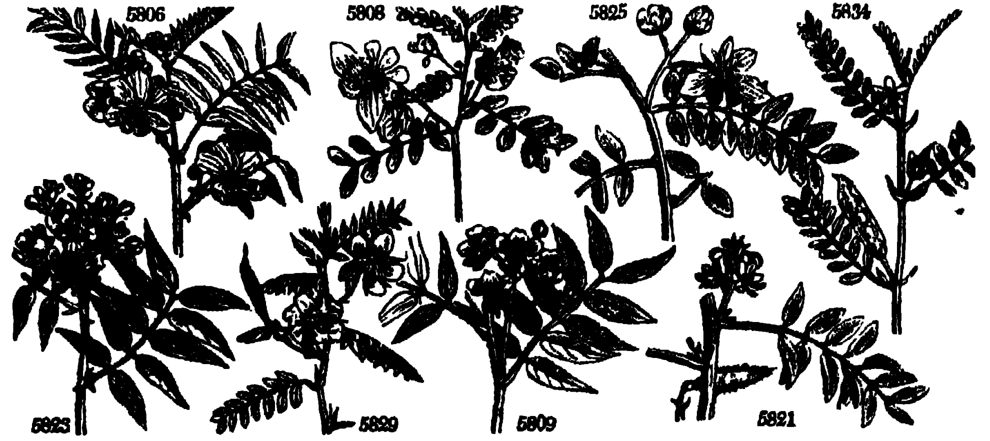
contractions of the sinews. The solution in spirits has been thought not inferior to Guaiacum in venereal cases. A decoction of the leaves expels flatulency, and gives ease in colicky pains, by gently opening the bowels; and the inward bark is an excellent vermifuge in substance or decoction.

The tree is excellent timber; but it must be very old before it is cut, otherwise the heart will be but small. It is in great request for wheel-work in the sugar-mills, particularly for cogs to the wheels, being extremely hard and tough: it is so heavy, that a foot cube weighs about a hundred pounds, and it will take a fine polish. It is much inhabited by wild honey bees. (*Browne.*)

Besides this locust-tree, there is the American tree of that name, Robinia Pseud-acacia, and the locust-tree of scripture, Ceratonia siliqua.

5780 Flowers growing upon the trunk

5781 Leaves 1 pair and calyxes smooth, Stipules cordate-lanceolate
5782 Leaves 2 pairs obovate, Two subulate glands between the lower pair
5783 Leaves 2 pairs ovate oblong acuminate, An obl. gland between the lower pair, Spines obsolete-3-toothed
5784 Leaves 2 pairs ovate oblique, An obtuse gland between the lowest, Racemes axill. stalked
5785 Leaves 3 pairs: with a gland on the footstalk, Stipules ciliate cordate acuminate
5786 Leaves 3 pairs obovate: outer largest, A subulate gland between the lower pair
5787 Leaves 3 pairs obovate smooth: the inner roundest with a globose gland between
5788 Leaves 3 pairs, Leaflets obtuse elliptical, A gland between the lower leaves
5789 Leaves 3 pairs, Leaflets ovate acuminate, A sessile gland between the leaflets
5790 Leaves 3 pairs ovate acuminate with soft down on each side
5791 Leaves 3 pairs lanceolate subfalcate smooth, A gland between the lowest, Corymbs stalked, Pods cylind.
5792 Leaves about 4 pairs ovate, Flowers racemose irregular, Stem arborescent
5793 Leaves 3 pairs obovate obtuse beneath very villous outer largest, A gland between lowest, Pods recurved
5794 Leaves 3 or 4 pairs obovate the outer largest, A gland between the lower pairs, Pods pendulous rounded
5795 Leaves 4 pairs ovate hairy with a subulate gland between the leaflets, Peduncles 4-flowered
5796 Leaves 4 pairs obovate pubescent ciliated, A stalked gland between all, Pedunc. 4-fl. Pod jointed
5797 Leaves 4 or 5 pairs oblong obtuse: the outer the largest with a gland between every pair
5798 Leaves 5 pairs ovate lanceolate rough at edge: outer largest, A gland at foot of leafstalk
5799 Leaves 5 pairs oblong acute smooth, A gland at base of footstalk, Branches smooth
5800 Leaves 5 pairs elliptical smooth with an obl. gland between the lower, Stip. subul. falcate, Rac. axillary
5801 Leaves 5 pairs elliptical smooth, An oblong gland between the lower, Racemes axillary
5802 Leaves 5 pairs cordate obtuse, Stalks without glands
5803 Leaves 6 pairs obovate smooth, Stalks without glands, Spikes racemose, Pods leafy compressed falcate
5804 Leaves 5 pairs lanceolate equal, Gland above the base of the leafstalks
5805 Leaves 6 pairs ovate lanceolate smooth with a gland at the base of the stalk, Pod compressed edged
5806 Leaves 8-9 pairs ovate lanceol. hairy with a gland at base of stalk, Racemes many-fl. shorter than leaves
5807 Leaves 6 pairs lanceolate acute the outer largest, A gland on leafstalk, Peduncles 2 flowered
5808 Leaves 6 pairs obl. smooth: lower smaller with a subulate gland between the lowest, Stalks 2-flowered
5809 Leaves 6 pairs ovate acute smooth, with a gland at the base of the stalk, Pod cylindrical hooked
5810 Leaves 5-6 pairs ovate acuminate woolly: the outer largest
5811 Leaves 6 or 8 pairs lanceolate acute smooth, with a gland on the leafstalk, Pod round smooth
5812 Leaves 2 pairs obovate veiny, Stipules lanceolate appressed, Leaflets nearly equal
5813 Leaves 10 pairs oblong obtuse without glands, Racemes long, Bractes ovate tumid imbricated
5814 Leaves 6-8 pairs linear obliquely rounded at base above hairy, Panic. axillary, Pod villous
5815 Leaves in many pairs with many glands, Stipules subulate
5816 Leaves 2 pairs velvety without glands
5817 Leaves 5 pairs ovate lanceolate smooth with a gland at the base of the leafstalk
5818 Leaves 6-9 pairs lanceolate acuminate smooth, A gland on the leafstalk
5819 Leaves 8 pairs ovate-lanceolate, A gland between the lower, Stipules ovate very large
5820 Leaves 10 pairs ovate-lanceolate obtuse mucronate smooth, Stalk without gland
5821 Leaves 8 pairs ovate-oblong equal, Gland at the base of the leafstalk
5822 Leaves 8 pairs oval-oblong: the outer smaller, Leafstalks without glands, Stipules spreading
5823 Leaves 7 pairs lanceolate: the outer smallest, A gland at base of leafstalk
5824 Leaves 6 pairs oval-obl. obt. hairy: the outer largest, A subulate gland between each pair, Pods linear
5825 Leaves 9 pairs oval-obl. smooth obt. A cylindrical gland between the lowest, Footst. with no gland at base
5826 Leaves 10 pairs lanceolate with an oblong gland at the base
5827 Leaves 10 pairs, Leaflets oblong rounded at each end beneath hoary, No gland on stalk, Pod compressed
5828 Leaves 12 pairs obtuse mucronate, Glands many subulate, Stipules reniform bearded
5829 Leaves many pairs, Gland of the footstalk stalked, Stipules ensiform
5830 Branches hairy, Stipules lanceolate linear with elevated lines, Leaflets cuspidate
5831 Leaves 15 pairs, Leaflets with a cartilaginous white edge and a subulate gland between every pair
5832 Leaves many pairs linear with an obsolete gland at the base of the leafstalk, Stipules setaceous
5833 Leaves many pairs linear mucronate with a gland between the lowest, Pedunc. solitary 1-fl.
5834 Leaves many pairs, Flowers pentandrous, Stem erect
5835 Leaves many pairs linear, Stem flexuose erect villous. The plant in Bot. Cab. is something else?
5836 Leaves many pairs without glands, Stem procumbent



and Miscellaneous Particulars.

973. *Cynometra.* A name contrived to indicate the peculiar form of the pods of this genus, which grow from the old stems and branches of the tree. Large cuttings root best planted in sand, and plunged in heat under a hand-glass.

974. *Cassia.* According to Olaus Celsus, this name is to be traced to the Hebrew, *Ketzioth*, rendered by *Κασια* in the Septuagint, and Latinized by *Cassia.* Cuttings of the species, which do not seed freely, root in pots of sand, in moist heat, and covered by a hand-glass.

Of the trivial names of different species of Cassia, that of *Absus* is the name under which it is described by Professor Alpinus, and is supposed to have arisen from a river of Palestine of that name. *Tagera* is a Malabar name, *Sophera*, an Egyptian name, and *Senna*, the Arabic name of the plant — *Sœnna.*

975. CATHARTOCAR'PUS. *P. S.*	CATHARTOCARPUS.					*Leguminosæ.*		*Sp.* 2—5.				
5837 Fis'tula *P. S.*	purging	♣	☐	m	3	jn.jl	Y	E. Indies	1731.	C	l.p	Rh. mal. 1. t. 22
5838 javánicus *P. S.*	Java	♣	☐	m	4	...	Pk	E. Indies	1779.	C	l.p	Co. hort. 1. t.111
976. PARKINSO'NIA. *W.*	PARKINSONIA.					*Leguminosæ.*		*Sp.* 1.				
5839 aculeáta *W.*	prickly	♣	☐	or	12	...	Or	W. Indies	1739.	C	l.p	Jac. amer. t. 80
977. POINCIA'NA. *H. K.*	POINCIANA.					*Leguminosæ.*		*Sp.* 2.				
5840 pulchérrima *H. K.*	Flower-fence	♣	☐	or	10	jn.s	R.Y.G	E. Indies	1691.	S	r.m	Bot. mag. 995
5841 eláta *H. K.*	smooth	♣	☐	or	15	...	Y	E. Indies	1778.	S	r.m	
978. CÆSALPI'NIA. *H. K.*	BRASILETTO.					*Leguminosæ.*		*Sp.* 9—18.				
5842 bijuga *W.*	broad-leaved	♀	☐	ec	15	...	Y	Jamaica	1770.	S	p.l	Sl.h.2.t. 181.f.2,3
5843 brasiliénsis *W.*	smooth	♀	☐	ec	20	...	Or	Jamaica	1739.	S	p.l	
5844 Sap'pan *W.*	narrow-leaved	♀	☐	ec	20	...	Y	E. Indies	1773.	S	p.l	Roxb. cor.1.t.16
5845 Crista *Sw.*	oval-leaved	♀	☐	ec	15	...	W.Y	Jamaica	...	S	p.l	Plu. gen. t. 68
5846 mimosoides *W.*	Mimosa-leaved	♣	☐	pr	6	...	Y	E. Indies	1806.	S	p.l	Rh. mal. 6. t. 8
5847 Núga *H. K.*	acute-leaved	♣	☐	ec	10	...	Y	E. Indies	1801.	S	p.l	Rum. am. 5. t.50
5848 cassioídes *W. en.*	Senna-like	♣	☐	or	6	...	...	S. Amer.	1821.	S	p.l	
5849 mucronáta *W. en.*	mucronate	♣	☐	or	6	...	...	Brazil	1823.	S	p.l	
5850 punctáta *W. en.*	dotted	♣	☐	or	6	...	...	Brazil	1820.	S	p.l	
979. GUILANDI'NA. *H. K.*	NICKER-TREE.					*Leguminosæ.*		*Sp.* 1—7.				
5851 Bónduc *H. K.*	oval-leaved	♀	☐	or	12	...	Y	India	1640.	C	s.p	Lam. ill. t. 336
980. HYPERANTHE'RA. *W.*	HORSE-RADISH-TREE.					*Leguminosæ.*		*Sp.* 1—2.				
5852 Moringa *W.*	smooth	♀	☐	or	10	...	...	E. Indies	1759.	C	p.l	Jac. ic. 3. t. 461
981. HOFFMANSEG'GIA. *Cav.*	HOFFMANSEGGIA.					*Leguminosæ.*		*Sp.* 1—2.				
5853 falcária *Cav.*	sickle-leaved	♣	☐	cu	2	jl.au	...	Chili	1806.	C	s.l.p	Cav. ic. t. 392
982. ADENANTHE'RA. *W.*	ADENANTHERA.					*Leguminosæ.*		*Sp.* 2—5.				
5854 Payonína *W.*	yellow-flowered	♣	☐	or	5	my.au	Y	E. Indies	1759.	C	s.l.p	
5855 falcáta *W.*	woolly-leaved	♣	☐	or	5	...	Y	E. Indies	1812.	C	s.l.p	Ru. amb. 3. t.111
983. CA'DIA. *W.*	CADIA.					*Leguminosæ.*		*Sp.* 1.				
5856 purpúrea *W.*	purple	♣	☐	cu	6	ja.jl	W.pu	Arabia	1775.	C	k.l	Pic. h p. 9. c ic.
984. PRO'SOPIS. *Rox.*	PROSOPIS.					*Leguminosæ.*		*Sp.* 1.				
5857 spicígera *L.*	eatable-podded	♀	☐	ec	20	...	W.G	E. Indies	1812.	C	r.m	Roxb. cor. 1. t. 63
985. HÆMATOX'YLON. *W.*	LOGWOOD.					*Leguminosæ.*		*Sp.* 1				
5858 campechiánum *W.*	common	♀	☐	dy	20	...	Y	S. Amer.	1724.	C	r.m	Cat. car. 2. t. 66
986. COPAI'FERA. *W.*	BALSAM OF CAPEVI.					*Leguminosæ.*		*Sp.* 1.				
5859 officinális *W.*	officinal	♀	☐	m	20	...		S. Amer.	1774.	C	s.l	Jac. amer. t. 86

History, Use, Propagation, Culture.

975. *Cathartocarpus.* From καθαιρω, to purge, and καρπος, fruit; the fruit of the species being a strong cathartic. The species may be treated as Cassia.

976. *Parkinsonia.* So named by Plumier, in memory of John Parkinson, apothecary, of London, author of Paradisus Terrestris, 1629, and Theatrum Botanicum, 1640. It is a handsome low tree, not unlike the Laburnum, and planted in the West Indies near houses, as the latter is in this country.

977. *Poinciana.* So named by Tournefort, in memory of De Poinci, governor of the Antilles, placed by Linnæus among the promoters of botany.

P. pulcherrima is a low spiny tree, with an odor, when the leaves are bruised, like savin. It is a native of both Indies, and in Barbadoes is planted in hedges, whence the name of flower-fence, or Spanish carnations, which it is there called. In our stoves they require a strong heat to make them flower well. They are readily increased either by cuttings or seeds.

978. *Cæsalpinia.* So named by Plumier, in honor of Andreas Cæsalpinus, chief physician to Pope Clement VIII., and the father of systematic arrangement in plants, in his now very scarce work, entitled, De Plantis, libri sedecim, Flor. 1583. He died at Rome in 1602. The wood of all the genus may be used in dying. In our stoves the plants are thorny, and, therefore, not being much liked, are seldom suffered to grow large enough to flower freely.

C. sappan is a prickly tree, with the heart of the wood red, heavy, and very hard: it dyes a beautiful red, which, however, is said not to stand. It is very durable in sea-water, and exported abundantly by the Chinese for trenails in ship-building, and as a dye.

C. crista and brasiliensis afford the Brazil wood used in dying, and extensively imported to England from the West Indies. The timber of the last species is elastic, tough, and durable, and takes a fine polish; it is of a beautiful orange-color, full of resin, and yields a fine full tincture by infusion. The best Brazil wood is said to be produced by Cæsalpinia echinata. Cuttings, Sweet observes, will not root freely, but will sometimes succeed if taken off in a growing state, but not too young, and plunged in a pot of sand, under a hand-glass, in moist heat. (*Bot. Cult.* 32.)

979. *Guilandina.* Named after Melchior Guilandin, a Prussian traveller in Africa, and demonstrator of Botany at Padua. He died in 1590. The species are all fine trees, with large compound leaves.

980 *Hyperanthera.* From ὑπερ, upon, and ανθηρα, an anther. The five barren stamens of this

5837 Leaves 5 pairs
5838 Leaves 12 pairs

5839 The only species

5840 Prickly, Calyxes unequal smooth
5841 Unarmed, Calyxes equal downy

5842 Prickly, Leaves doubly in 2 pairs, Leaflets obcordate and calyxes smooth, Stam. as long as corolla
5843 Unarmed, Leaflets ovate-oblong, Rachis pubescent, Cal. downy, Stamens shorter than corolla
5844 Prickly, Leafl. obl. oval uneq. sided obt. and cal. smooth, Stamens longer than cor. Upper petal very small
5845 Prickly, Leaflets oval, Racemes simple, Petals ovate shorter than the smooth calyx
5846 Prickly, Leaflets oblong obtuse, Stamens shorter than cor. Pods woolly
5847 First petiole prickly beneath, Leaflets acute and cal. smooth, Pods 1-2-seeded
5848 Stipules spiny, Leaflets oblong retuse, Leafstalks hairy
5849 Prickly, Leaflets oblong obtuse mucronate smooth
5850 Unarmed, Leaflets unevenly bipinnate, Leaflets elliptical obtuse mucronate dotted

5851 The only species

5852 Flowers half decandrous, Leaves about bipinnate, Lower leaflets ternate, Pods 3-cornered

5853 Stem decumbent, Leaves bipinnate ovate glaucous

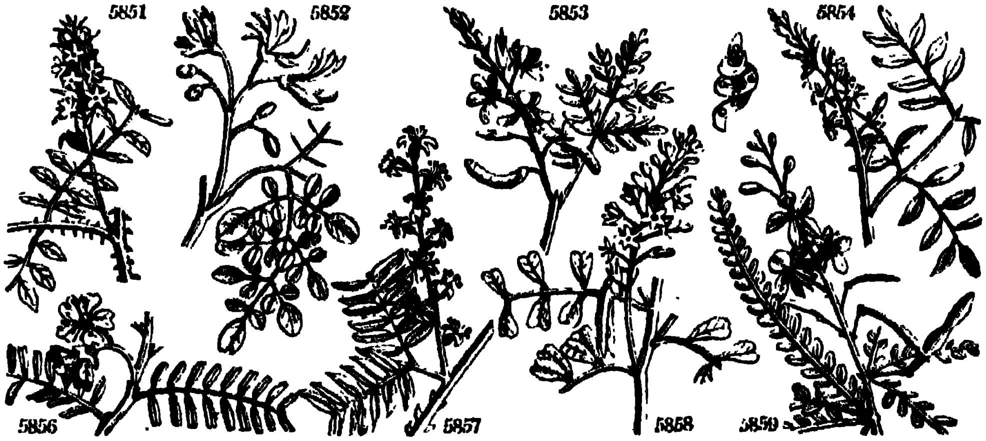
5854 Leaves decompound smooth on each side
5855 Leaves decompound downy beneath

5856 The only species

5857 The only species. Branches spiny, Leaves alternate conjugate

5858 The only species. Leaves abruptly pinnated, Leaflets obcordate

5859 The only species



and Miscellaneous Particulars.

genus are surmounted by the five fertile ones. (*Vahl.*) Cuttings root best under a hand-glass in sand.

981. *Hoffmanseggia.* Named by Cavanilles, after John Charles Hoffmansegg, whom he calls a distinguished naturalist. It may be with some propriety be employed to commemorate the merits of the present distinguished Count Hoffmansegg. Cuttings, somewhat ripened, root under a hand-glass in sand.

982. *Adenanthera.* From *αδην*, a gland, and *ανθηρα*, an anther. The essential character of the genus is to have each anther tipped with a gland. Large cuttings, with the leaves not shortened, root best in a pot of sand plunged in heat under a hand-glass. (*Bot. Cult.* 13.)

983. *Cadia.* Contrived by Forskahl, from the Arabic name of the plant, — *qadhy.*

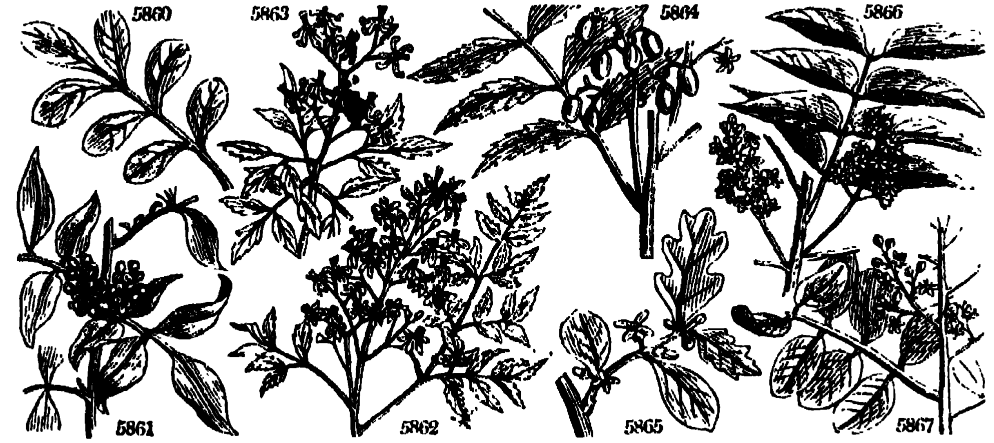
984. *Prosopis.* One of the names under which Dioscorides described the Arctium Lappa. The present plant has no sort of resemblance to that of the ancients. It is a leguminous plant, and the pods are eaten as a condiment in India.

985. *Hæmatoxylon.* From *αιμα*, blood, and *ξυλον*, wood, in allusion to the color of an infusion of its wood. The logwood of commerce. This is a crooked stemmed low tree, with pinnate leaves, originally from the Bay of Campeachy; the inner bark and wood red, the latter dark and very hard. It makes an excellent fence, the smaller shoots are cut for hoops, and the stems for exportation for dying. The gum is a gentle subastringent. In our stoves it grows well in loam and leaf-mould, kept rather moist, and cuttings root in sand under a hand-glass in heat.

986. *Copaifera.* This tree is so called from bearing the drug Copaiba, which is the name given to the tree itself by the people of Brasil. *Beaume de Copahu*, Fr., *Kopaiva Balsam*, Ger., *Balsamo del Coppaiba*, Ital. This is a lofty elegant tree, with a handsome branching head, the extreme branches flexuose at the axils, the bark ash-colored, and the leaves pinnate. It grows abundantly in the woods of Tolu, near Carthagena, and of Quito, in Brazil. The copaiba balsam of the shops is procured by wounding or boring these trees to the pith, near the base of the trunk, when it flows abundantly, in the form of a clear colorless liquid, which is thickened, and acquires a yellowish color by age. The operation is performed two or three times in the same year; and from the older trees the best balsam is obtained.

Copaiba balsam is stimulant, diuretic, and gently purgative. It has been recommended in pulmonary complaints, and it certainly affords considerable relief in hæmorrhoidal affections. (*Thompson's London Dispensatory*, 265.) It may be increased by ripened cuttings in sand under cover.

987. TRICHI′LIA. *W.*	Trichilia.					*Meliaceæ.*		*Sp.* 2—18.				
5860 glábra *W.*	smooth	♣	□	or	10	jn.jl	W	W. Indies	1794.	C	l.p	J.amer.t.175.f.38
5861 odoráta *B. R.*	sweet-scented	♣	□	or	10	jn.jl	W	W. Indies	1801.	C	l.p	Bot. rep. 637
988. ME′LIA. *W.*	Bead-tree.					*Meliaceæ.*		*Sp.* 3—7.				
5862 Azedarách *W.*	common	♀	⊔	or	40	jn.au	B	Syria	1656.	S	s.l	Bot. mag. 1066
5863 sempervirens *W.*	evergreen	♀	□	or	40	jn.au	B	Jamaica	1656.	C	s.l	Bot. reg. 643
5864 Azadiráchta *W.*	Ash-leaved	♀	□	or	60	jn.au	W	E. Indies	1759.	C	s.l	Cav. dis. 7. t. 208
989. QUIVI′SIA. *Cav.*	Quivisia.					*Meliaceæ.*		*Sp.* 1—4.				
5865 heterophylla *Cav*	various-leaved	♣	□	cu		...	W	Is. France	1822.	C	p.l	Cav. diss. t. 213
990. SWIETE′NIA. *W.*	Mahogany-tree.					*Meliaceæ.*		*Sp.* 2—3.				
5866 Mahágoni *W.*	common	♀	□	tm	80	...	R	W. Indies	1734.	C	p.l	Cav. dis. 7. t. 209
5867 febrifuga *W.*	Febrifuge	♀	□	m	60	...	R	E. Indies	1796.	C	p.l	Rox. cor. 1 t. 17
991. EKEBER′GIA. *W.*	Ekebergia.					*Meliaceæ.*		*Sp.* 1.				
5868 capénsis *W.*	Cape	♀	⊔	or	20	jl.au	W	C. G. H.	1789.	C	p.l	Lam. ill. t. 358
992. HEY′NEA. *Rox.*	Heynea					*Meliaceæ.*		*Sp.* 1.				
5869 trijuga *Roxb.*	Walnut-like	♀	□	or	20	s	W	Nepal	1812.	C	l.p	Bot. mag. 1738
993. GUAI′ACUM. *W.*	Lignum-vitæ-tree.					*Rutaceæ.*		*Sp.* 1—4.				
5870 officinále *W.*	officinal	♣	□	m	40	jl.s	B	W. Indies	1694.	C	l.p	Lam. ill. t. 342
994. ZYGOPHYL′LUM. *W.*	Bean-caper.					*Zygophylleæ.*		*Sp.* 8—19.				
5871 cordifólium *W.*	heart-leaved	♣	⊔	cu	6	o	O	C. G. H.	1774.	C	l.p	
5872 Fabágo *W.*	common	⚘	△	cu	4	jl.s	O.w	Syria	1596.	C	l.p	Lam. ill. t.345.f.1
5873 fœ′tidum *W.*	fœtid	♣	⊔	pr	4	jn.au	O.y	C. G. H.	1790.	C	l.p	Bot. mag. 372
insuave B. M.												
5874 maculátum *W.*	spotted-flower.	♣	⊔	pr	4	o.n	Y	C. G. H.	1782.	C	l.p	
5875 álbum *W.*	white	♣	⊔	or	2	o.n	W	Canaries	1779.	C	l.p	Linn. dec. 1. t. 6



History, Use, Propagation, Culture,

987. *Trichilia.* From τριχα, to[illegible] all the parts of the plant, the leaves, the stigmas, the cells of capsule, the seeds, being produced by threes. T. glabra is a tall branching tree, with an unpleasant fœtid smell. The species are rarely seen in collections, and seldom, when cultivated, flower.

988. *Melia.* Μελια was the Greek name of the manna ash, from μελι, honey. This tree has been thought to resemble the ash in its foliage.

M. azedarach (*azadaracht*, Arab.) grows to a large tree in the south of Spain and Italy, producing long loose bunches of blue flowers, succeeded by pale yellow berries, about the size of a cherry. These berries consist of a pulp, which is poisonous in a high degree, and mixed with grease, will kill dogs, enclosing a nut which is bored and strung as beads by the Catholics.

M. sempervirens is considered by some as [illegible] a variety of the Azedarach.

989. *Quivisia.* The tree is called [illegible] in the Isle of France.

990. *Swietenia.* So named by Jacquin, in honor of the illustrious Gerard L. B. Von Swieten, archiater to Maria Teresa, Empress of Germany, who at his persuasion founded the botanic garden at Vienna.

S. mahagoni. The mahogany tree is a lofty branching tree, with a wide handsome head, the flower of Melia, and the fruit of Cedrela, about the size of a turkey's egg. It grows in the warmest parts of America, as in Cuba, Jamaica, Hispaniola, &c. The trees on the Bahama islands are not so large, but are more curiously veined, and are known in Europe as Madeira wood. They generally grow on the solid rock, where there seems to be no earth for their nourishment. Mahogany, like other timber, varies in durability, firmness of grain, and other circumstances, with the soil on which it is grown. The best is furnished from the rocky soils of St. Domingo and the Bahama islands.

S. febrifuga is a lofty tree, in general apearance like the Mahogany. The wood is of a dull red color, remarkably hard and heavy; it is reckoned by the natives the most durable wood they know, and on that account is used for all the wood-work in their temples; it is also very serviceable for various other purposes. The bark is internally of a light red color: a decoction of it dyes brown of various shades, according as the cloth has been prepared. Its taste is a bitter and astringent united, and very strong, particularly the bitter; at the same time not any way nauseous or otherwise disagreeable. In India it is used for the cure of intermittents with considerable advantage, and has also been found efficacious in most of the diseases in which the cinchona bark proves serviceable. (*Thompson's London Dispensatory*, 533.)

991. *Ekebergia.* Charles Gustavus Ekeberg was a Danish naturalist, who travelled in Asia from 1770 to 1771. Cuttings to succeed must have their leaves entire, and be planted in sand and covered.

992. *Heynea.* Named after Dr. Benjamin Heyne, a learned German botanist and physician, who travelled many years in India, where he formed a large collection of dried plants.

993. *Guaiacum.* From *guaiac*, the name given to the tree by the natives of Guiana. *Gäjuac*, Fr., *Gujakgummi*, Ger., *Gujaco*, Ital. This tree rises forty feet high, and is four or five feet in circumference, with many divided knotted branches, greyish bark, and abruptly pinnate leaves. It has blue flowers, which are succeeded by compressed berries of a roundish form. The tree takes many years to arrive at its full growth. The roots run far into the ground perpendicularly, contrary to the usual growth of timber trees in the West Indies, which generally shoot the largest prongs of their roots in a horizontal direction, and are commonly observed to run very near the surface. The bark is thick and smooth, the wood of a dark olive color, and cross grained, the strata running obliquely into one another, in form of an X. It is a valuable timber where

5860 Leaves pinnated smooth, Outer leaflets largest
5861 Leaflets lanceolate undulate, Flowers with 4 petals

5862 Leaves bipinnate, Leaflets smooth somewhat quinate
5863 Leaves bipinnate, Leaves cut rugose shining about 9, Petiole rounded at base
5864 Leaves pinnate

5865 Leaves alternate oval and obovate entire sinuate-toothed or pinnatifid, Pedicels twin axillary 1-flowered

5566 Leaves pinnate in four pairs, Leaflets ovate-lanceolate equal at base, Panicles axillary
5867 Leaves pinnate in four pairs, Leaflets elliptical roundish emarginate unequal at base, Panicle terminal

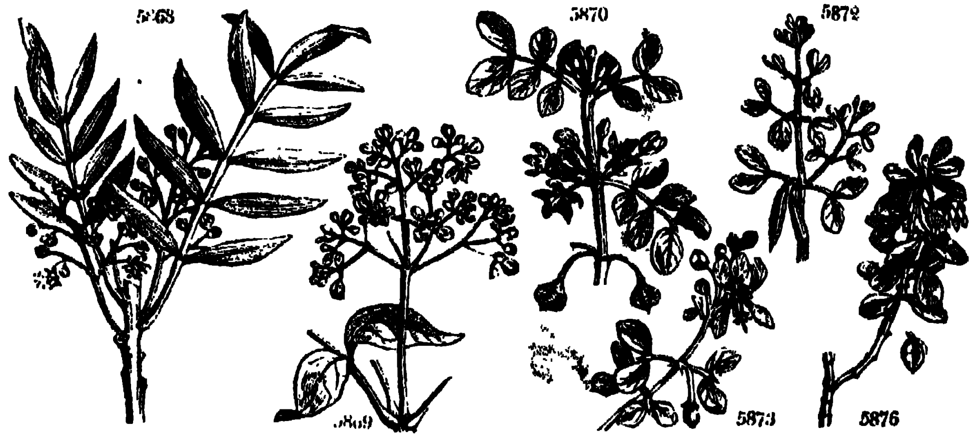
5868 The only species, Leaves pinnated with an odd one, Panicles axillary

5869 Leaves pinnated with an odd one in 3 pairs, Pan. axill. on long stalks

5870 Leaflets of 2 or 3 pairs obtuse, Capsules 2-celled

5871 Leaves simple opposite sessile roundish
5872 Leaves conjugate stalked, Leaflets obovate, Peduncles erect, Calyx smooth
5873 Leaves conjugate stalked, Leaflets obovate, Flower nodding, Calyx pubescent

5874 Leaves conjugate stalked, Leaflets linear-lanceolate
5875 Leaves conjugate stalked, Leaflets clavate fleshy with a cobweb surface



and Miscellaneous Particulars.

strength and duration is required, and weight no object. It takes a fine polish, turns well, and is much used for ship blocks. It is one of the most valuable trees of the West Indies; since the timber, the bark, fruit, leaves, and blossom, are all applicable to some useful purpose. The wood yields by incision the peculiar substance called Guaiacum, erroneously termed a gum, of great importance in medicine.

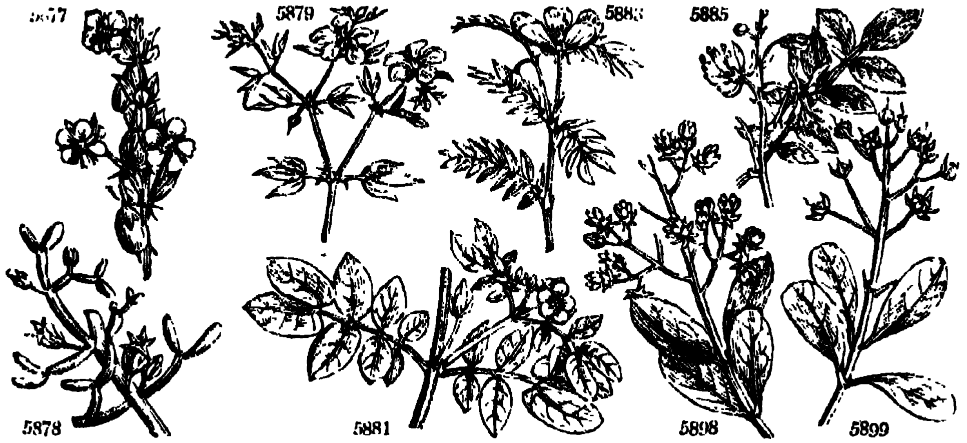
All the parts of this tree possess medicinal qualities; but the wood and the peculiar substance afforded by it are the only parts used: the virtues of the wood depend altogether on the peculiar matter it contains. This is spontaneously exuded from the tree, and is called native gum: it concretes in tears, which are semi-pellucid, and very pure; but the greater part of it is obtained by making incisions into the trunk, or, as it is termed, jagging the tree. This operation is performed in May; and the juice which flows copiously, is concreted by the sun. It is also obtained by sawing the wood into billets, and boring a hole longitudinally through them; so that, when one end of a billet is laid on a fire, the guaiac melting runs through the hole from the opposite end, and is collected in a calabash. Boiling the chips or raspings in salt and water also separates the guaiac, which, as it rises to the surface, may be collected by skimming.

Both the wood and the guaiac are stimulant, diaphoretic, diuretic, and purgative. The wood was introduced into Europe by the Spaniards as a remedy for lues venerea in 1508, and gained much celebrity from curing Van Hutten; but it had long before been used for the same purpose by the natives of St. Domingo. It obtained so much reputation, that the exhibition of mercury was discontinued for a considerable length of time, and even in the eighteenth century its specific powers over this disease were maintained by Boerhaave; but frequent disappointments and more correct observations have shown that it possesses no powers of eradicating the venereal virus; and that it is useful only after a successful mercurial course, for repairing the strength and vigor of the system, "and where a thickened state of the ligament, or of the periosteum, remains, or where there are foul indolent ulcers;" (*Pearson's Observations*, &c. p. 10.) or in suspending the progress of some of the secondary symptoms for a short time, as ulcers of the tonsils, eruptions, and nodes. The decoction of the wood has been found more useful in cutaneous diseases, scrofulous affections of the membranes and ligaments, and in ozæna. The guaiac itself is an efficacious remedy in chronic rheumatism and arthritic affections, as well as those diseases for which the decoction of the wood is usually given; and in every respect it may be regarded as the active ingredient of the wood. Its sensible effects are a grateful sense of warmth in the stomach, dryness of the mouth and thirst, with a copious flow of sweat, if the body be kept externally warm, or if the guaiac be united with opium and antimonials: but when the body is freely exposed, instead of producing diaphoresis, it augments considerably the secretion of urine. (*Thomson's London Dispensatory*, 318.)

Lignum vitæ in the stove grows freely in loam and peat. "Cuttings," Sweet observes, "are generally supposed to be difficult to root; but I find ripened cuttings, taken off at a joint, root readily, planted thin in a pot of sand, and plunged under a hand-glass in heat. When the cuttings are rooted, which will be easily perceived by their growing at the top, they should be potted off; when great care must be taken not to break off the young roots in taking the sand from them, as they are very small and easily broken. Pot them off in very small pots, and keep them under a close glass for a few days, till they have struck fresh root, when they must be exposed to the air by degrees." (*Bot. Cult.* 63.)

994. *Zygophyllum.* From ζυγος, a pair, and φυλλον, a leaf; all the leaves grow in pairs. *Morgsana*, which is the name of one species, is the Syrian name of the plant. These are plants of little ornament, generally with fleshy leaves, and flowers of a yellow or whitish yellow color.

5876 **Morgsána** *W.*	four-leaved	■	⊔	cu	3	my.s	Y	C. G. H.	1732.	C	l.p	Dl.elt.t.116.f.141
5877 **sessilifólium** *W*	sessile-leaved	■	⊔	cu	3	jl.au	Y	C. G. H.	1713.	C	l.p	Bot. mag. 2184
5878 coccíneum *L.*	scarlet	■	⊔	or	3	...	S	Egypt	1823.	C	s.p	Forsk. ic. t. 11
995. FAGO'NIA. *W.*	FAGONIA.					*Zygophylleæ.*		*Sp.* 2—10.				
5879 **crética** *W.*	Cretan		⊡	cu	1¼	jn.au	Y	Candia	1739.	S	lt.l	Bot. mag. 241
5880 **arábica** *W.*	Arabian	■	⊡	cu	2	jn.au	Y	Arabia	1759.	S	lt.l	
996. TRI'BULUS. *W.*	CALTROPS.					*Zygophylleæ.*		*Sp.* 3—7.				
5881 **máximus** *W.*	great		⊡	pr	1¼	jn.jl	Y	Jamaica	1728.	S	s.l	Jac. ic. 3. t. 462
5882 **terréstris** *W.*	small		○	cu	1	jn.jl	Y	S. Europe	1596.	S	co	Lam.ill. t.346.f.1
5883 cistoídes *W.*	Cistus-like	£	[△]	pr	1¼	jl	Y	S Amer.	1752.	C	lt.l	Bot. reg. 791
997 DICTAM'NUS. *W.*	FRAXINELLA.					*Rutaceæ.*		*Sp.* 2.				
5884 Fraxinélla *Link.*	red	ψ	△	or	3	my.jl	Pu	Germany	1596.	R	p.l	Jac. aust.5. t.428
5885 álbus *L.*	white	ψ	△	or	3	my.jl	W	Germany	1596.	R	p.l	
998. RU'TA. *W.*	RUE.					*Rutaceæ.*		*Sp.* 10—24.				
5886 gravéolens *W.*	common	ħ		m	3	jn.s	G.Y	S. Europe	1562.	C	co	Lam. ill. 345. t. 1
5887 montána *W.*	mountain	ψ	△	un	2	au.s	G.Y	S. Europe	1596.	C	co	Jac ic. 1. t. 76
5888 chalepénsis *P. S.*	brd.-lvd.-Afric.	ħ	⊔	un	2	jn.s	G.Y	Africa	1722.	C	r.m	
5889 angustifólia *P. S.*	narrow-leaved	ħ	⊔	un	2	jn.s	G.Y	Africa	1722.	C	r.m	Bot. mag. 2311
5890 pinnáta *W.*	winged-leaved	ħ	⊔	un	2	mr.au	G.Y	Canaries	1780.	C	r.m	
5891 pubéscens *W. en.*	pubescent	ψ	△	un	1¼	my.au	G.Y	Spain	1816.	C	co	
5892 linifólia *W.*	Flax-leaved	ψ	△	un	1¼	jn.s	G.Y	Spain	1752.	C	r.m	Bot. rep 565
5893 patavína *L.*	Paduan	ψ	△	un	1¼	jn.jl	G.Y	Italy	1819.	C	r.m	Michel. gen. t.19
5894 macrophýlla *Sol.*	large-leaved	ψ	△	un	3	jl	G.Y	Africa	1820.	C	r.m	Bot. mag. 2018
5895 albiflóra *Hook.*	white-flowered	£	[△]	pr	2	jl.au	W	Nepal	1823.	C	r.m	Hook. ex. fl. 79
999. CRO'WEA. *Sm*	CROWEA.					*Rutaceæ.*		*Sp.* 1.				
5896 salígna *Sm.*	Willow-leaved	■	⊔	or	3	jl.d	Pu	N. S. W.	1790.	C	s.l.p	Bot. mag. 989
1000. CO'DON. *W*	CODON.					....		*Sp.* 1.				
5897 Royéni *W.*	prickly	£	⊡	cu		s		C. G. H.	1801.	S	lt.l	Bot. rep. 325
1001. GOM'PHIA. *W.*	BUTTON-FLOWER.					*Ochnaceæ.*		*Sp.* 2—24.				
5898 nítida *W.*	glossy-leaved	■	□	el	4	...	Y	Jamaica	1803.	C	s.l	Ann. mus. t. 13
5899 obtusifólia *Dec.*	obtuse-leaved	■	□	el	3	...	Y	Jamaica	1803.	C	s.l	Ann. mus t. 8
1002. QUAS'SIA. *W.*	QUASSIA.					*Simarubaceæ.*		*Sp.* 2—4.				
5900 amára *W.*	bitter	↑	□	m	20	jn.jl	R	Guiana	1790.	C	p.l	Bot mag 497
5901 Simarúba *W.*	winged-leaved	■	□	or	6	...	R	W. Indies	1789.	C	p.l	Aub.gu.2.t.331.2



History, Use, Propagation, Culture,

995. *Fagonia.* So named by Tournefort, in honor of Mons. Fagon, archiater to Louis XIV, and a great patron of botany. Small prickly plants of no beauty.

996. *Tribulus.* From τρεις, three, and βελος, a point, in reference to the points of the capsules. *La Croix du Chevalier*, Fr. The term *Caltrops* is taken from the form of the fruit, which resembles the machines that were formerly cast in the way to obstruct an enemy's cavalry. It is composed of five nuts, united into a subglobular whorl armed with prickles.

T. terrestris is a native of most of the hot and temperate parts of the world: it is common about Kingston in Jamaica, where it is called Turkey blossom, and planted in gardens for the sake of its flowers, which have an agreeable smell. The fowls are observed to feed much on them, which is thought both to fatten them and heighten their flavor. In the south of Europe, it is a common weed in arable land, and is troublesome to cattle by the prickly fruit running into their feet. All the species are pretty, though seldom cultivated.

997. *Dictamnus.* An ancient name of what is now supposed to be the Origanum Dictamnus. *Fraxinella*, Fr., in allusion to the remarkable similarity which exists between the leaves of the plant and Fraxinus, the ash. The whole plant, especially when gently rubbed, emits an odor like that of lemon-peel, but when bruised it has something of a balsamic scent. This fine scent is strongest in the pedicels of the flowers, which are covered with glands of a rusty red color, exuding a viscid juice or resin, which exhales in vapor, and in a dark place may be seen to take fire. The root is used in medicine, and, it is said, with much success, as an opiate and drastic.

998. *Ruta.* This name is nearly the same in all languages. Ρυτη, in Greek; *Ruta*, in Latin; *ruz*, in Runic; *rude*, *ruta*, or *rutu*, in Anglo-Saxon; *rutiza*, in Sclavonic; in French and English, *rue*, &c. The root of the word is beyond the ingenuity of etymologists. R. graveolens was formerly in much repute as a medicinal plant, and also as emblematical of repentance and grace. In Shakspeare and other old authors, it is called herb of grace, as rosemary is called herb of remembrance. The leaves have a powerful unpleasant odor, and a hot, bitter, nauseous taste. In the recent state they will inflame and blister the skin; but much of this is dissipated in drying. Medicinally, rue is stimulant and antispasmodic, and is supposed to possess emmenagogue powers. It was in high estimation as early as the time of Hippocrates, who frequently ordered it in female complaints. In modern practice, it is chiefly used in hysteria and flatulent colic. (*Thomson's London Dispensatory*, 487.)

999. *Crowea.* So named by the president of the Linnean Society, after his friend James Crowe of Norwich, an excellent British botanist, whose collection of willows we believe still exists. This plant continues in flower the greater part of the year. An equal mixture of sandy loam and peat is the best soil for it, and care must be taken not to over water it, or it will look yellow and unhealthy. It likes an airy situation,

5876 Leaves conjugate stalked, Leaflets obovate, Stem shrubby
5877 Leaves conjugate sessile, Leaflets lanceolate oval rough at edge, Stem shrubby
5878 Leaves with double leaflets stalked, Leaflets cylindrical fleshy smooth, Petals acuminate

5879 Spiny, Leaflets lanceolate flat smooth
5880 Spiny, Leaflets linear convex

5881 Leaflets in 4 pairs: the outer larger, Pericarps 10-seeded blunt
5882 Leaflets in 6 pairs nearly equal, Seeds with four horns
5883 Leaflets in 8 pairs nearly equal

5884 Leafstalk obscurely edged
5885 Leafstalk scarcely edged at all

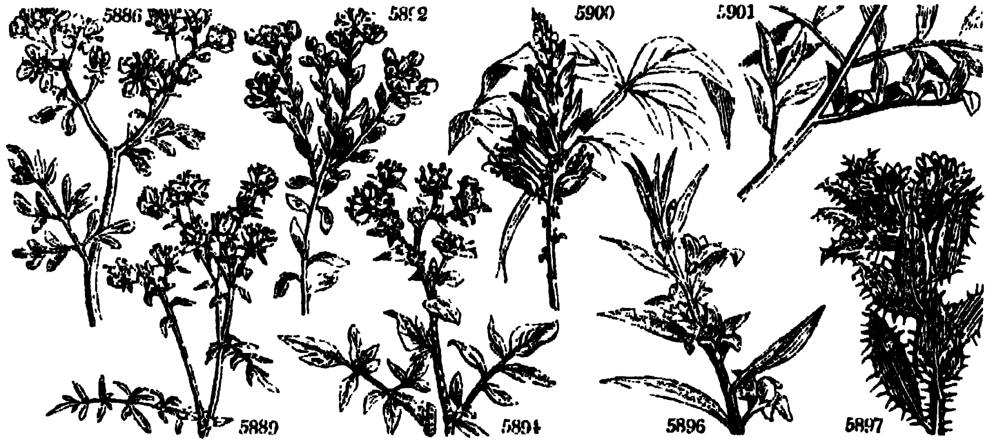
5886 Leaves supradecompound, Leaflets oblong terminal obovate, Petals entire
5887 Leaves supradecompound, Leaflets all linear, Petals entire
5888 Leaves supradecompound oblong, Terminal leaflet obovate, Petals toothed
5889 Leaves supradecompound, Lobes oblong cuneate nearly equal, Bractes very small ovate, Petals ciliate
5890 Leaves pinnate, Leaves lanceolate attenuate at base serrate crenate, Petals entire
5891 Leaves mostly ternate lanceolate pubescent: lateral very short, Cal. and ovaries villous
5892 Leaves simple lanceolate smooth, Filaments ciliated, Stem simple herbaceous
5893 Leaves in middle ternate linear narrowed at the base entire, Calyxes villous
5894 Leaves pinnatifid, Segments oblong somewhat stalked: the terminal very large, Petals ciliated
5895 Leaves bipinnate with obovate retuse leaflets, Flowers 4-petalous 8-androus

5896 The only species

5897 The only species

5898 Leaves ovate-lanceolate acuminate serrated at end, Cal. as long as cor. Berries ovate
5899 Leaves lanceolate entire very obtuse at end, Branches of panicle short angular

5900 Flowers hermaphrodite, Leaves pinnate with an odd one, Leaflets opposite sessile, Stalk jointed winged
5901 Flowers monœcious, Leaves abruptly pinnated, Leaflets alternate stalked, Stalk naked



and Miscellaneous Particulars.

and not to be crowded amongst other plants. Cuttings strike root freely in sand, under a bell-glass. (*Bot. Cult.* 173.)

1000 *Codon.* From κωδων, a bell. The corolla of this plant is globular, and formed like a bell in its upper part. A scarce Cape shrub, of which Thunberg speaks in terms of great delight upon finding a solitary individual growing by the side of a precipice in its native country.

1001. *Gomphia.* From γομφος, a club; but the application is not obvious. These are most beautiful tropical bushes, with long spikes of brilliant yellow flowers, and neat serrated shining entire leaves.

1002. *Quassia.* So named by Linnæus, in memory of Quassi, a negro slave of Surinam, who found and discovered to Rolander, a Swede, the wood of Q. excelsa, which he had employed with success as a secret remedy in the malignant endemic fevers of Surinam.

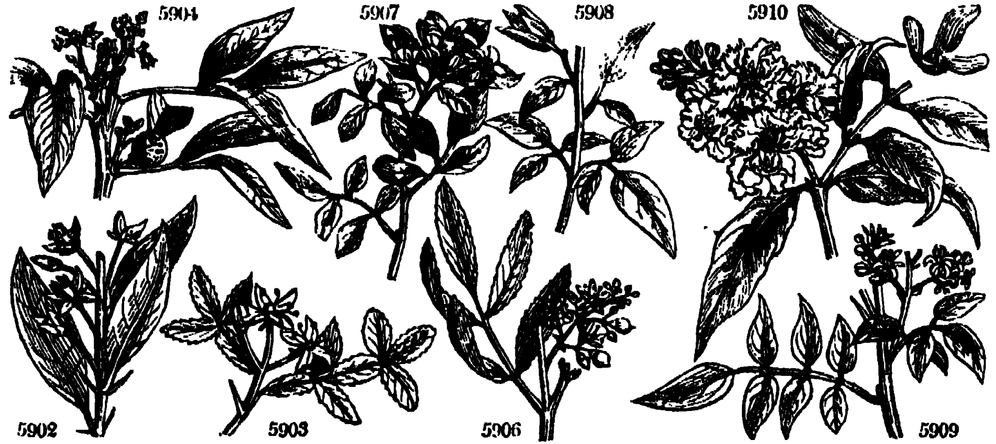
Q. amara is a lofty tree with strong branches, white light wood, their bark and leaves not unlike those of the common ash. The flowers are in terminal racemes, of a bright red. The root, wood, bark, and indeed all the parts of this tree are intensely bitter. Linnæus says that the wood of the root is a noble remedy; but that the wood of the small branches, which has since been substituted for it, is good for nothing. The wood of both is now thought to be less intensely bitter than the bark, which is at present regarded as the most powerful medicine. Quassia has no sensible odor; its taste is that of a pure bitter, more intense and durable than that of almost any other known substance: it imparts its virtues more completely to watery than spirituous menstrua, and its infusions are not blackened by the addition of martial vitriol. It is said that considerable quantities of this drug are used by the brewers instead of hops.

Q. Simaruba, or mountain damson, as it is called in Jamaica, is a tall tree with alternate branches, and a smooth grey bark, maculated with yellow spots. The leaves are pinnate; the flowers are male and female on the same axillary panicles, yellowish white; the fruit consists of five smooth, ovate, black, one-celled berries, on a common receptacle, and open spontaneously when ripe.

The officinal part of this tree is the bark of the root; it is inodorous, and has a bitter, but not disagreeable taste. The pieces are of a very fibrous texture, rough, scaly, warty, and of a full yellow color in the inside when fresh. Alcohol and water take up all its active matters by simple maceration, at a temperature of sixty degrees of Fahrenheit better than at a boiling heat; it is tonic, and has been employed with advantage in intermittent fever, obstinate diarrhœa, dysentery, and dyspeptic affections. (*Thomson's London Dispensatory*, 462.)

The different species of quassia flower freely in the stove; are of easy culture in loam and peat, and are increased by ripened cuttings taken off at a joint, and not deprived of their leaves, and planted in a pot of sand under a hand-glass.

1003. LIMO'NIA. *W.*	LIMONIA.					*Aurantiaceæ.*		*Sp.* 2—11.				
5902 monophýlla *W.*	simple-leaved	♣ ☐	or	4	...	W	E. Indies	1777.	C	r.m	Rox. cor. 1. t. 83
5903 crenuláta *H. K.*	crenulate	♣ ☐	or	4	...	W	E. Indies	1808.	C	r.m	Rox. cor. 1. t. 86
1004. GLYCOS'MIS. *Corr.*	GLYCOSMIS.				*Aurantiaceæ.*		*Sp.* 3.				
5904 citrifólia *Lindl.*	various-leaved	♣ ☐	fr	6	ja.d	W	China	...	C	r.m	Bot. mag. 2416
Limónia parviflóra	B. M.										
5905 pentaphýlla *Corr.*	five-leaved	♀ ☐	or	20	jn.jl	W	E. Indies	1790.	C	r.m	Rox. cor. 1. t. 84
5906 arbórea *Corr.*	tree	♀ ☐	or	20	my.au	W	E. Indies	1796.	C	r.m	Rox. cor. 1. t. 85
1005. MURRA'YA *W.*	MURRAYA.				*Aurantiaceæ.*		*Sp.* 2.				
5907 exótica *W.*	Ash-leaved	♣ └┘	ft	8	au.s	W	E. Indies	1771.	C	lt.l	Bot. reg. 434
5908 paniculáta *Wall.*	panicled	♣ └┘	ft	8	jl	W	E. Indies	1823.	C	r.m	Hook. ex. fl. 134
1006. COOK'IA. *W.*	WAMPEE-TREE.				*Aurantiaceæ.*		*Sp.* 1—2.				
5909 punctáta *W.*	Chinese	♀ ☐	fr	15	...	W	China	1795.	C	lt.l	Jac.schœ.1. t.101
1007. GÆRTNE'RA. *W.*	GÆRTNERA.				*Malpighiaceæ.*		*Sp.* 1—3.				
5910 racemósa *W.*	clustered	♀ ☐	or	15	mr.ap	W	E. Indies	1796.	C	p.l	Bot. rep. 600
1008. MONO'TROPA. *W.*	YELLOW BIRD'S-NEST.				*Monotropeæ.*		*Sp.* 2—4.				
5911 uniflóra *Mich.*	one-flowered	⚘ △	cu	♃		W	N. Amer.	1824.	S	s.p	Hook. ex. fl. 85
5912 Hypópithys *W.*	common	⚘ △	cu	♃	jn.jl	W	Britain	woods.	S	s.p	Eng. bot. 69
1009. DIONÆ'A. *W.*	DIONÆA.				*Droseraceæ.*		*Sp.* 1.				
5913 Muscipula *W.*	Venus's Flytrap	£ └△┘	cu	♃	jl.au	W	Carolina	1768.	L	s.p	Bot. mag. 785
1010. GARU'GA. *Rox.*	GARUGA.				*Terebintaceæ.*		*Sp.* 1.				
5914 pinnáta *H. K.*	winged-leaved	♀ ☐	or	20	...		E. Indies	1808.	S	p.l	Rox. cor.3. t. 203
1011. KAL'MIA. *W.*	KALMIA.				*Rhodoraceæ.*		*Sp.* 4—5.				
5915 latifólia *W.*	Calico-bush	♣	or	8	my.jl	R	N. Amer.	1734.	L	s.p	Bot. mag. 175
5916 angustifólia *W.*	Sheep-Laurel	♣	or	5	my.jl	R	N. Amer.	1736.	L	s.p	Bot. mag. 331
β *rúbra*	*red-flowered*	♣	or	5	my.jl	R	N. Amer.	......	L	s.p	Bot. cab. 502
5917 glaúca *W.*	glaucous	♧	or	2	ap.my	Pu	N. Amer.	1767.	L	s.p	Bot. mag. 177
β *rosmarinifólia* Ph.	*Rosemary-leav.*	♧	or	2	ap.my	R	N. Amer.	1812.	L	s.p	
5918 hirsúta *W.*	hairy	♧ └┘	or	1½	au.s	R	N. Amer.	1786.	L	s.p	Bot. mag. 138



History, Use, Propagation, Culture,

1003. *Limonia.* The general denomination of the citron in Arabia is *lymoün*, whence limon and lemon, to which fruits this genus is nearly related. L. monophylla is a small thorny tree, with a berry the size of a small nutmeg, very like a lime, and called by the Hindoos wild lime. Ripened cuttings of the species root in sand, under a hand-glass plunged in a moist heat.

1004. *Glycosmis.* From γλυκυς, sweet, and οσμη, smell; all the parts of the plant, leaves, flowers, fruit, having an agreeable perfume. G. pentaphylla is an elegant fragrant shrub, very common in most uncultivated lands in Coromandel, but chiefly under large trees, where birds have dropped the seeds. It flowers all the year there. The whole plant, when drying in the shade, diffuses a pleasant permanent scent; the flowers are exquisitely fragrant; birds eat the berries greedily.

G. arborea has also very fragrant flowers.

G. citrifolia is a beautiful stove plant, not, indeed, remarkable for the shewiness of its flowers, but most valuable on account of its fruit, which is about the size of a hazel nut, very juicy and sweet, and produced in profusion in our stoves.

1005. *Murraya.* So named by Koenig, in honor of John Andrew Murray, knight of the Swedish order of Vasa, professor of medicine and botany at Gottingen, and an editor of Linnæus's Systema Vegetabilium. The species are trees of the smallest size, with dotted pinnated leaves and fragrant white flowers, quite like those of an orange.

1006. *Cookia.* Named by Sonnerat in honor of our celebrated Captain Cook. The fruit is much esteemed in China, where it arrives at the size of a pigeon's egg, growing in bunches, and it is called Wampee. It grows well in light loam, and ripened cuttings with their leaves on root in sand in a moist heat.

1007. *Gærtnera.* In memory of Joseph Gærtner, M. D. F. R. S. Acad. Imp. Petrop. Memb., author of a most excellent work on the fruits and seeds of plants, Stutg. 1788. It is a large climbing woody shrub, cultivated all over the coast of Coromandel, on account of the beauty and fragrance of its flowers. In the stove it requires a good deal of room to flower freely. It is easily increased in sand under a hand-glass. The genus is now referred to the natural order of Malpighiaceæ, among which it is remarkable for its white flowers.

1008. *Monotropa.* From μονος, one, and τρεπω, to turn: its flowers are all turned one way. It is parasitical and without leaves, of a pale uniform hue, having a simple scaly stem; allied in habit to Orobanche, to some of the Orchis tribe in its peculiarity of scent, which is like that of primrose, or beans in blossom. The root is fibrous, much branched, and somewhat creeping, growing among dead leaves or in half decaying vegetable mould. Sir J. E. Smith says, he could never find it truly parasitical. In Sweden, Linnæus informs us, it is given dry to sheep affected with a cough.

Its natural affinity, which is certainly to the heath, Pyrola, and similar plants, is very singular and unexpected.

5902 Leaves simple, Spines solitary
5903 Leaves pinnate, Leaflets oblong lanceolate crenulate, Spines solitary

5904 Leaves simple and 3-leaved, Leaflets ovate-oblong acuminate, Peduncles axillary shorter than stalk

5905 Leaves pinnate in 2 pairs, Leaflets elliptical entire
5906 Leaves pinnate in 2 pairs, Leaflets oblong obsoletely serrate

5907 Leaflets ovate, Peduncles many-fl. corymbose
5908 Leaflets ovate-acuminate, Pedunc. axill. and solitary

5909 Leaves ovate-lanceolate acuminate nearly equal at base

5910 Leaves pinnated, Leaflets ovate-lanceolate

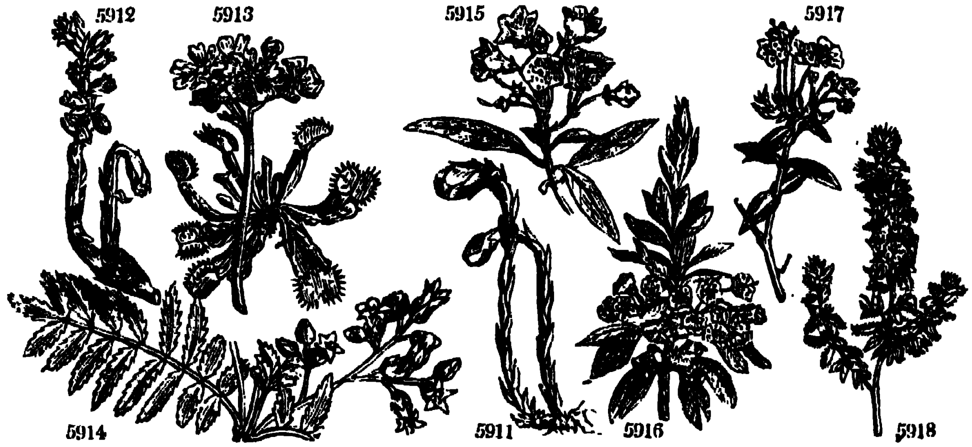
5911 Large cernuous, Scales close together
5912 Flowers smooth lateral octandrous

5913 The only species

5914 The only species

5915 Leaves ovate-elliptical ternate and scattered, Corymbs terminal
5916 Leaves oblong, Corymbs axillary, Bractes linear-lanceolate, Pedunc. and calyx downy with glands

5917 Leaves opposite oblong polished beneath glaucous revolute at edge, Branches 2-edged
β Leaves linear more revolute green beneath
5918 Leaves alternate and opposite ovate-lanceolate and branches hairy, Pedunc. axill. 1-flowered



and Miscellaneous Particulars.

1009. *Dionæa.* One of the names of Venus. It is a singular plant in respect of its leaves, which are of an anomalous form, and have a singular motion by which they catch insects, whence the specific name, *muscipula*, a fly-trap. The root is scaly, almost like a bulb, and not prolific in fibres. The leaves have the petiole winged as in the orange; the extreme part, or proper leaf, is the part that operates as a trap. Linnæus affirms, that when the entrapped insect ceases to struggle and is quiet, the leaf opens and permits it to escape. This does not agree with Ellis's account, for he affirms that the lobes never open again, so long as the animal continues there. He thinks it probable, that a sweet liquor discharged by the red glands tempts the insect to its destruction. He adds, that if a straw or a pin be introduced between the lobes, they will grasp it as fast as if it were an insect. The flowers grow in a corymb resembling an umbel. It is rather difficult to preserve. Sweet finds it "thrive best when planted in a pot of Sphagnum with a little mould at the bottom of the pot, and placed in a pan of water." Shepherd, of the Liverpool botanic garden, finds that leaves of Dionæa so placed will root and form new plants In all cases it is necessary that an abundance of fresh cool air should be supplied to the plants.

1010. *Garuga.* *Garugo* is the Telinga name of the plant, which is rare in our stoves, although not of recent introduction.

1011. *Kalmia.* So named by Linnæus in honor of Peter Kalm, professor at Abo in Sweden, author of Travels in America. The species are beautiful peat earth shrubs, deserving a place in every American ground. K. latifolia is a native of Carolina and other parts of North America, of Pennsylvania, New York, &c. but only in particular places; on rocks, hanging over rivulets, and on the sides of barren hills on the most sterile soil. The noxious qualities of this elegant shrub lessen that esteem which its beauty claims; for though deer feed on its green leaves with impunity, yet when cattle and sheep, by severe winters deprived of better feed, eat the leaves, many die annually. It blossoms in May, and continues in flower a great part of the summer. (*Catesby.*) The flesh of the American partridge is said to be poisonous in the winter from its feeding upon the buds of this plant. But Wilson denies this statement. The Indians use a decoction of the leaves for purposes of self-destruction. A few drops of the tincture poured upon the body of a large and vigorous rattle-snake, killed the reptile in a short time. An ointment made of the powdered leaves has been used with much success in tænia capitis, and some other cutaneous affections. (See *Bigelow's Medical Botany.*)

The wood, being very hard, is very useful in smaller works. The Indians are said to make small dishes, spoons, and other domestic utensils out of the roots: these are large, of a soft texture, and easily wrought when green; but when dry become hard and smooth. (*Curtis.*)

K. angustifolia is also reputed poisonous to sheep and cattle.

1012. LE'DUM. *W*	LABRADOR- EA.					*Rhodoraceæ.*		*Sp.* 3.				
5919 palústre *W.*	marsh	♄		or	2	ap.my	W	Europe	1762.	L	s.p	Bot. cab. 560
β decúmbens	*dwarf*	♄		or	½	ap.my	W	Huds. Bay	1762.	L	s.p	
5920 latifólium *W.*	broad-leaved	♠		or	3	ap.my	W	N. Amer.	1763.	L	s.p	Bot. cab. 534
5921 buxifólium *W.*	box-leaved	♄		or	½	ap.my	W	N. Amer.	1736.	L	s.p	Bot. reg. 531
Ammyrsine buxifolia Ph.												
1013. RHO'DORA. *W.*	RHODORA					*Rhodoraceæ.*		*Sp.* 1.				
5922 canadénsis *W.*	Canadian	♠		or	3	ap.my	Pu	N. Amer.	1767.	L	p.l	Bot. mag. 474
1014. RHODODEN'DRON *W.*	RHODODENDRON.					*Rhodoraceæ.*		*Sp.* 15—23.				
5923 ferrugíneum *W.*	rusty-leaved	♄		or	1½	my.jl	S	Switzerl.	1752.	L	s.p	Bot. cab. 65
5924 hirsútum *W.*	hairy-leaved	♄		or	1½	my.jl	S	Switzerl.	1656.	L	s.p	Bot. mag. 1853
5925 daúricum *W.*	Daurian	♠		or	3	mr.d	Pu	Siberia	1780.	L	s.p	Bot. mag. 636
β atrovírens	*dark-leaved*	♠		or	3	f.ap	Pu	Siberia	...	L	s.p	Bot. reg. 194
5926 camtcháticum *W.*	Kamtchatka	♠		or	2	...	Pu	Kamtsch.	1802.	L	s.p	Pall ross. 1. t. 35
5927 chamæcistus *W.*	Thyme-leaved	♄		or	½	my.jn	Pa.pu	Austria	1786.	C	s.p	Bot. mag. 488
5928 caucásicum *W.*	Caucasian	♄		or	1	au	Pu	Caucasus	1803.	L	s.p	Bot. mag 1145
5929 chrysánthum *W.*	yellow	♄		or	½	jn.jl	Y	Siberia	1796.	L	s.p	Par. lond. 80
5930 punctátum *W.*	dotted-leaved	♠		or	4	jn.au	Pk	N. Amer.	1786.	L	s.p	Bot. rep. 36
β májor	*large dotted-lvd.*	♠		or	6	jn.au	Pk	N. Amer.	1786.	L	s.p	Bot. reg. 37
5931 máximum *W.*	large	♣		spl	20	jn.au	Pk	N. Amer.	1736.	L	s.p	Bot. mag. 951
β álbum Ph.	*white*	♣		or	20	jn.au	W	N. Amer.	1811.	L	s.p	
γ purpúreum Ph.	*tree*	♣		spl	25	jn.au	Pu	N. Amer.	...	L	s.p	
5932 catawbiénse *Ph.*	Catawba	♠		or	4	jn.au	Pu	N. Amer.	1809.	L	s.p	Bot. mag. 1671
5933 pónticum *W.*	common	♠		spl	12	my.jn	Pu	Gibraltar	1763.	L	s.p	Bot. mag. 650
β obtúsum	*obtuse*	♠		spl	12	my.jn	Pu	Gibraltar	1763.	L	s.p	Dend. brit. 102
γ myrtifólium	*myrtle-leaved*	♠		spl	12	my.jn	Pu	Gibraltar	1763.	L	s.p	Bot. cab. 908
5934 arbóreum *Sm.*	tree	♣		spl	20	...	Pu	Nepal	1820.	L	s.p	Ex. bot. t. 6
5935 azaloídes *Hort.*	Thompson's hy.	♠		spl	3	jn au	Pk	......	...	L	s.p	Bot. rep. 379
5936 hýbridum *B. Reg.*	Herbert's hybr.	♠		spl	3	jn au	Pk	......	...	L	s.p	Bot. reg. 195
1015. EPIGÆ'A. *W.*	EPIGÆA.					*Rhodoraceæ.*		*Sp.* 1.				
5937 répens *W.*	creeping	♄		pr	½	jl.au	W	N. Amer.	1736.	L	s.p	Bot. reg. 201
1016 ANDRO'MEDA. *W.*	ANDROMEDA.					*Ericeæ.*		*Sp.* 26—39.				
5938 hypnoídes *W.*	Moss-like	♄		pr	½	jn.jl	Pk	Lapland	1798.			Fl. dan. 10
5939 mariána *W.*	Maryland	♠		or	2	jn.jl	W	N. Amer.	1736.	L	s.p	Pl. m t. 448. f. 6
α ovális	*oval-leaved*	♠		or	2	jn.jl	W	N. Amer.	1736.	L	s.p	Bot. mag. 1579
β oblónga	*oblong-leaved*	♠		or	2	jn.jl	W	N. Amer.	1736.	L	s.p	
5940 ferrugínea *Ph.*	rusty-leaved	♠		or	3	jn.jl	W	N. Amer.	1784.	L	s.p	Vent. malm 80
5941 rígida *Ph.*	rigid	♠		or	20	ap my	W.	N. Amer.	1774.	L	s.p	Bot. cab. 470
5942 jamaicénsis *W.*	Jamaica	♠	□	or	6	...	W	Jamaica	1793.	L	s.p	Bot. cab. 1873
5943 speciósa *Ph.*	large-flowered	♠		or	3	jn s	W	Carolina	1800.	L	s.p	Bot. cab. 551
α nítida	*smooth-leaved*	♠		or	3	jn s	W	Carolina	1800.	L	s.p	Bot. mag. 970
β pulverulénta	*mealy-leaved*	♠		or	3	jn.s	W	Carolina	1800.	L	s.p	Bot. mag. 667

History, Use, Propagation, Culture,

1012. *Ledum.* Ληδον was the name applied by the ancients to the plant producing the substance called Ladanum, and now known by the name of Cistus Ledum. In foliage the Ledum of modern botanists agrees with the plant of the ancients. Pretty American plants, very commonly cultivated for the beauty of their flowers.

1013. *Rhodora.* A name of the same meaning as Rhododendron. It is well known in shrubberies as remarkable for its purple flowers appearing on the naked shoots before the leaves come out.

1014. *Rhododendron.* From ῥοδον, a rose, and δενδρον, a tree, because the flowers resemble in color bunches of roses. Some of the species form beautiful and even splendid ornaments to the shrubbery or American ground; and all of them are interesting and deserving of culture.

R. ferrugineum and hirsutum abound on the high mountains of Switzerland, Austria, Savoy, Piedmont, Dauphiné, and terminate ligneous vegetation as we ascend, and furnish the shepherds with their only fuel. The grouse are said to eat them; and the white hares sometimes gnaw the bark in hard weather; but animals do not seem to feed on them, except from want of other food; and they are suspected of being in a small degree poisonous. The galls of some small insect are frequent on them.

R. dauricum is almost peculiar to the subalpine tracts of eastern Asia; it appears first at the mouth of the river Jenisea, and beyond that, especially from the river Uda, in the pine woods, it begins to be common; but about Baikal it is most abundant, and extends through the deserts of the Mongols to China and Tibet: at the Lena it becomes more rare, and beyond that it is much lower, with a more slender flower and narrower leaves. (*Pallas.*)

R. Camtschaticum is an elegant evergreen under shrub; it grows abundantly in the peninsula of Kamtchatka and Behring's island in muddy places on the mountains.

R. caucasicum is a native of the higher rocks of Caucasus, near the perpetual ice, in the highest range of shrubby vegetation, with Myrtillus and Vitis idæa.

R. chrysanthum is a beautiful evergreen, resembling R. dauricum, and like it is a native of the alpine regions of Siberia, where it is a noted remedy for rheumatism. It is cultivated in this country with the

5919 Leaves linear revolute at edge beneath downy

5920 Leaves oblong revolute at edge beneath downy, Flowers about pentandrous
5921 Leaves ovate oblong flat smooth

5922 The only species

5923 Leaves smooth leprous beneath, Corolla funnel-shaped
5924 Leaves elliptical acute ciliated dotted beneath, Corolla funnel-shaped
5925 Leaves smooth dotted naked, Corolla rotate

5926 Leaves ciliate nerved, Corollas rotate, Calyxes leafy
5927 Leaves elliptical acute glandular ciliated naked, Cor rotate, Petals obtuse
5928 Leaves scabrous rusty with down beneath, Umb. terminal, Cor. rotate, Petals round.....
5929 Leaves oblong scabrous beneath discolored smooth, Umbels terminal, Cor. rotate, Pet. obovate irregular
5930 Leaves oblong smooth beneath dotted with resin, Umbels terminal, Cor. funnel-formed

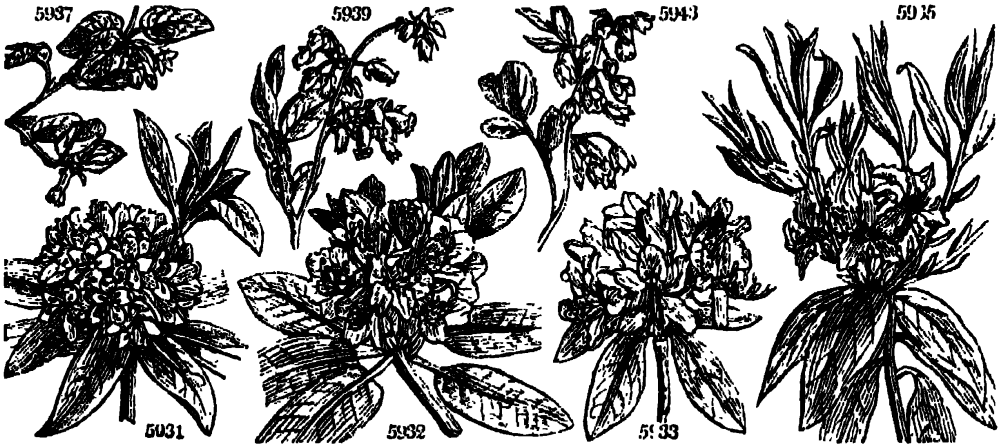
5931 Leaves oblong glabrous discolored beneath, Umb. terminal, Cor. rotate, Petals roundish
β Leaves cuneate-lanceolate flat
γ Leaves larger oblong-elliptical flattish
5932 Leaves short oval rounded at each end smooth discolored beneath, Sepals elong obl. Cor. campanulate
5933 Leaves oblong smooth : of the same color on both sides, Corymbs terminal, Cor. campan. rotate

5934 Leaves lanceolate acute silvery beneath, Flowers clustered campanulate, Calyxes woolly
5935 Leaves thin rugose lanceolate smooth subdeciduous
5936 Leaves oval coriaceous glaucous beneath

5937 Leaves cordate ovate entire, Cor. cylindrical

5938 Leaves imbricated subulate smooth, Pedunc. solitary terminal, Cor. globose-campanulate
5939 Pedunc. aggregate on the branches, Cor. ovate cylindrical, Leaves oblong-ovate entire deciduous

5940 Pedunc. aggregate axillary, Cor. globose, Leaves ellipt. entire beneath mealy scaly
5941 Arborescent, Lvs. coriaceous cuneate-lanc. acute entire with downy scales beneath, Fl.-stalks scurfy rusty
5942 Pedunc. aggregate, Cor. ovate transparent, Lvs. altern. broad lanc. obtuse entire cinereous beneath
5943 Pedunc. aggregate, Cor. globose campanulate, Leaves oval subserrate shining



and Miscellaneous Particulars.

greatest difficulty. The leaves have an austere, astringent, bitterish taste, and are stimulant, narcotic, and diaphoretic. When taken, they first increase the arterial action and the heat of the body, producing diaphoresis; and these effects, according to Dr. Home's observations, are followed by a proportional diminution of excitement, the pulse in one case having been reduced thirty-eight beats. It has not been much used in this country. (*Thomson's London Dispensatory*, 477.)

R. maximum grows on rocks and in barren soils, where it continues flowering great part of the year, and is very ornamental.

R. ponticum grows in wet places in beech and alder coppices, on rocky mountains, but not on high alps.

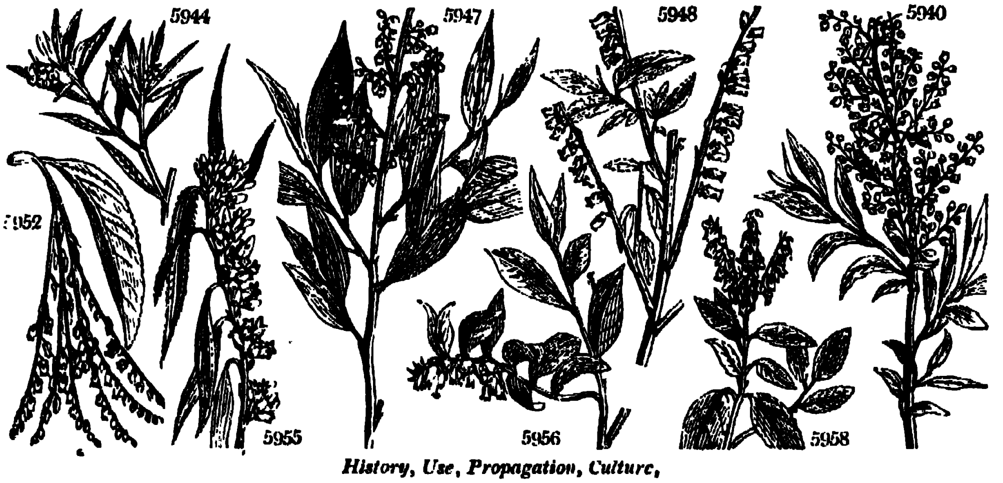
Rhododendrons are commonly propagated by layers, but some sorts produce seeds, and seeds of others are obtained from America. The seeds "should be sown early in spring, in flat pans or pots of peat soil, and very thinly covered: they may then be set in a close frame, or at the front of a hothouse, till they come up, watering them slightly when dry; as soon as they are high enough to be laid hold of, they must be pricked out in other pots, which should be placed in a shady situation; they may stand in a frame a few days till they have taken fresh root, but they must not remain long, or it will spoil them. The small kinds may be propagated freely by cuttings, taken off in the young wood, and planted in sand, under a bell-glass." (*Bot. Cult.* 815.)

1015. *Epigæa.* From ἐπι, upon, and γη, the earth. The stem grows flat upon the ground, and throws out roots all the length of its branches. A very pretty little American plant with delicate white flowers.

1016. *Andromeda.* Named in allusion to the virgin Andromeda, who, like this plant, was confined in a marsh, and surrounded by monsters of the waters. For an ingenious explanation of this application, see Linnæus's Flora Lapponica. The species are neat little plants, and some of them considerable shrubs and trees. They all require peat earth, and a moist situation; for those of them which do not grow naturally in bogs are mostly inhabitants of alpine regions, where the air is always more moist than on plains.

A. hypnoides has the appearance of a moss, spreads over great tracts of ground in the Lapland alps, and adorns them with its beautiful red flowers. The Andromeda is generally increased by layers, but may be also raised from seeds. "These must be very thinly covered, as they are small, and would rot if covered deep:

5944 polifólia *W.*	marsh	■		or	1	my.s	Pk	......	...	L	s.p	Eng. bot. 35
α latifolia	*broad-leaved*	■		or	1	my.s	Pk	N. Amer.	...	L	s.p	
β média	*Wild Rosemary*	■		or	1	my.s	W	Britain	tur.bo.	L	s.p	Eng. bot. 713
γ angustifólia	*narrow-leaved*	■		or	1	my.s	Pk	N. Amer.	...	L	s.p	P. ro. 2. t. 70. f. 13
A. glaucophylla Lk.												
δ subuláta	*awl-leaved*	■		or	1	my.s	Pk	......	...	L	s.p	
5945 japonica *W.*	Japan	■	└┘	or	3	...	W	Japan	1806.	L	s.p	Th. jap. t. 22
5946 paniculáta *Ph.*	panicled	■		or	3	my.jn	W	N. Amer.	1748.	L	s.p	Dend. brit. 37
5947 salicifólia *Wats.*	willow-leaved	■		or	4	jn	W	N. Amer.	...	L	s.p	Dend. brit. 38
5948 spicáta *Wats.*	spiked	■		or	2	jn	W	N. Amer.	...	L	s.p	Dend. brit. 36
5949 multiflóra *Wats.*	many-flowered	■		or	2	jl	W	N. Amer.	...	L	s.p	Dend. brit. 128
5950 crispa *Link.*	curled	■		or	3	...	W	N. Amer.	1824.	L	s.p	
5951 frondósa *Ph.*	bristly-flowered	■		or	3	my.jn	W	N. Amer.	1806.	L	s.p	
5952 arbórea *W.*	Sorrel-tree	♀		or	40	jl.s	W	N. Amer.	1752.	S	s.p	Bot. mag. 905
5953 racemósa *W.*	branching	■		ft	3	jl	W	N. Amer.	1736.	S	s.p	
5954 Catesbæ'i *W.*	Catesby's	■		or	2	jn.jl	W	N. Amer.	1793.	Sk	s.p	Bot. mag 1955
A. spinulosa Psh.												
5955 axilláris *W.*	axil-flowering	■		or	1	my.au	W	N. Amer.	1765.	Sk	s.p	Duhamel. 1. 39
β longifólia	*long-leaved*	■		or	1	my.au	W	N. Amer.	...	Sk	s.p	Bot. mag. 2357
5956 coriácea *W.*	thick-leaved	■		or	2	jn.au	Pk	N. Amer.	1765.	L	s.p	Bot. mag. 1095
A. nitida Psh.												
β rubra Lodd.	*red-flowered*	■		or	3	jn.au	R	N. Amer.				Bot. cab. 672
5957 acumináta *W.*	acute-leaved	■		or	3	au	W	N. Amer.	1765.	L	s.p	Ex. bot. 2. t. 89
A. lucida Jacq.	*Pipe or stem-w.*											
A. populifólia Lam.												
A. reticuláta Walt.												
A. laurina Mich.												
5958 floribúnda *Ph.*	many-flowered	■		or	3	my.jn	W	N. Amer.	1812.	L	s.p	Bot. mag. 1566
5959 calyculáta *Ph.*	Box-leaved	■		or	1½	f.ap	W	N. Amer.	1748.	L	s.p	P. ro. 2. t. 72. f. 1
α ventricósa	*globe-flowered*	■		or	1½	f.ap	W	Russia	1748.	L	s.p	Bot. mag. 1286
β latifólia	*broad-leaved*	■		or	1½	f.ap	W	Newfoun.	1748.	L	s.p	Bot. cab. 530
γ nana	*dwarf*	■		cu	½	f.ap	W	......	...	L	s.p	Bot. cab. 862
5960 angustifólia *Ph.*	narrow-leaved	■		or	3	f.ap	W	N. Amer.	1748.	L	s.p	
1017. ENKIAN'THUS *B. M.*	ENKIANTHUS.					*Ericeæ.*	*Sp.* 1?					
5961 quinqueflóra *B M.*	Canton	■	└┘	cl	3	f.s	Pk	China	1812.	C	s.l.p	Bot. mag. 1649
1018. GAULTHE'RIA. *W.*	GAULTHERIA.					*Ericeæ.*	*Sp.* 1—3.					
5962 procúmbens *W*	trailing	♀		pr	½	jl.s	W	. Amer.	1762.	Sk	s.p	Bot. rep. 116
1019. AR'BUTUS. *W.*	STRAWBERRY-TREE.					*Ericeæ.*	*Sp.*	-15.				
5963 Unédo *W.*	common	■		or	10	s.d	W	Ireland	ir. ro.	S	co	Eng. bot. 2377
β rúbra	*red-flowered*	■		or	10	s.d	Pk	......	...	L	co	Bot. cab. 123
γ plena	*double-flowered*	■		or	5	s.d	W.o	......	...	L	co	
δ integrifólia	*entire-leaved*	■		or	6	s.d	Pk	......	...	L	co	Bot. mag. 2319
5964 canariénsis *Lam.*	long-leaved		└┘	or	8	my jn	W.o	Canaries	1796.	L	co	Bot. mag. 1577
5965 Andráchne *W.*	oriental	■		or	6	mr.ap	W.o	Levant	1724.	G	p.l	Bot. reg. 113
5966 alpina *W.*	black-berried	■		or	½	ap my	W.o	Scotland	sc. mo.	Sk	s.p	Eng. bot. 2030
5967 Uva-ur'si *W.*	Bear-berry	♀		or	½	ap.jn	F	Britain	al.hea.	L	s.p	Eng. bot. 714
5968 phillyreæfólia *P. S*	Phillyrea-leav.	■	└┘	or	½	...	...	Peru	1812.	C	s.p	
5969 Andrachnoides *Link.*	hybrid	■		or	8	f.my	W.o	......	...	C	s.p	Bot. reg. 619
A. hybrida B. R.												
5970 serratifólia *Nois.*	serrate	■	└┘	or	6	f.mr	W.o	......	...	L	s.p	Bot. cab. 580



History, Use, Propagation, Culture,

when about an inch high they should be planted out thinly in other pots, where they will grow strong, and, when large enough, may be planted in the open ground. Spring is the best time to plant them out, as the frost and worms are apt to throw them out of the ground in winter, if planted out in autumn. (*Bot. Cult* 278.)

1017. *Enkianthus.* From *εγκυος*, a pregnant woman, a name given to the plant by Loureiro, because the great colored buds appear as if pregnant with the flowers which afterwards appear. This beautiful genus, as Sweet observes, has generally been considered difficult to propagate: the difficulty is now removed, as ripened cuttings root readily planted in pots of sand, and placed under a hand-glass, without bottom heat. The best soil for it is an equal mixture of sandy loam and peat, and care must be taken not to overwater it when not in a growing state: when it gets pretty large it is one of the most ornamental plants for the greenhouse or conservatory. (*Bot. Cult.* 186.) There are several species confounded under the common name Enkianthus quinqueflora.

1018. *Gaultheria.* Named after one Gaulthier, a French physician at Quebec. A small evergreen plant, cultivated in the American border for the sake of its ornamental bright scarlet berries. The species may be increased by dividing at the root, by suckers, layers, or from seeds.

1019. *Arbutus.* An ancient name of this plant, said to be traceable to the Celtic *ar boise*, austere bush, in allusion to the roughness of the fruit. In like manner Unedo is said by Pliny to have been so called from *unum edo*, I eat one, because, being found disagreeable, no one could eat a second. *L'Arbousier*, Fr., *Landbeere*,

5944 Pedunc. aggregate, Cor. ovate, Leaves alternate lanceolate revolute
  α Leaves oblong
  β Leaves lanceolate
  γ Leaves linear-lanceolate

  δ Leaves subulate
5945 Racemes 1-sided panicled terminal, Leaves lanceolate obovate acute serrulate at end
5946 Racemes terminal panicled, Cor. roundish, Leaves ovate entire
5947 Raceme compound, Leaves lanceolate subserrulate hairy shining
5948 Spikes terminal 1-sided, Leaves membranous smooth oval-lanceolate serrulate acute
5949 Raceme compound terminal crowded, Leaves narrow lanceolate rough at edge pilose beneath
5950 Leaves lanceolate wavy beneath rusty scaly, Cor. campan. finally of 5 petals, Anthers awned
5951 Hispid with pubescence, Leaves obov. lanc. acute serrul. Cor. globose hispid, Anthers awned
5952 Panicles terminal, Cor. pubescent, Leaves elliptical acuminate toothletted
5953 Racemes term. simple bracted, Cor. cylindrical, Leaves obl.-lanceolate serrated
5954 Racemes terminal and axillary 1-sided, Cor. ventricose tubular, Leaves oblong lanc. finely serrated

5955 Racemes axillary simple, Cor. oblong, Leaves ovate acute serrulate

5956 Racemes axillary simple, Leaves ovate entire shining, Branchlets 3-cornered

5957 Racemes axillary simple, Leaves ovate lanceolate acuminate serrate

5958 Quite smooth, Leaves obl. ovate acute finely serrulate, Racemes axillary and terminal clustered
5959 Peduncles solitary axillary 1-sided Bractes 2, Leaves oval scaly dotted obsoletely serrated
  α Cor. ventricose, Leaves obl. lanceolate
  β Cor. obl. cylindrical, Leaves oblong oval obtuse
  γ Very dwarf
5960 Pedunc. solitary axillary, Bractes 2, Leaves narrow oblong lanceolate, Corolla oblong oval

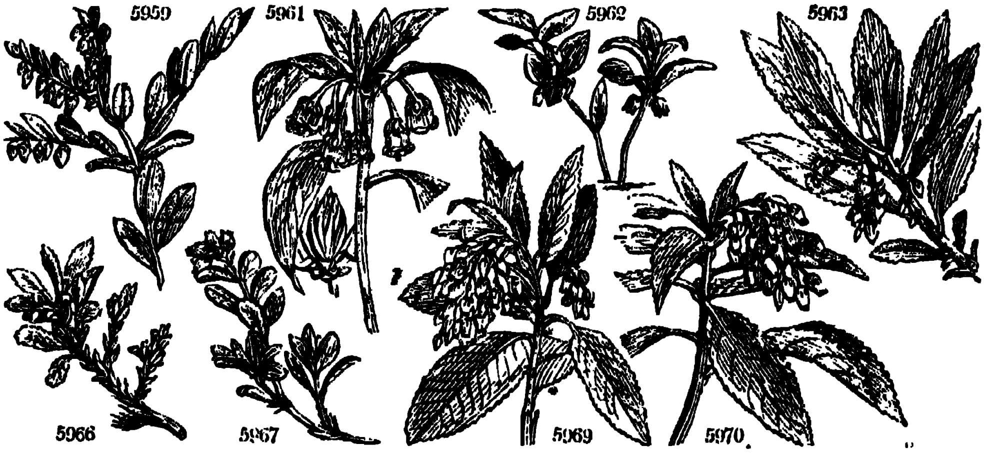
5961 The only species

5962 Leaves oblong obovate mucronate toothed crowded, Stem procumbent

5963 Stem arborescent, Leaves oblong lanceolate, Panicles smooth nodding, Berries many-seeded

5964 Leaves oblong-lanceolate serrated, Panicles vertical hispid glutinous
5965 Stem arborescent, Leaves ovate entire or serrated, Pan. pubescent erect, Berries many-seeded
5966 Stems procumbent, Leaves rugose serrated
5967 Stems procumbent, Leaves entire
5968 Stem much branched, Leaves lanceolate acuminate acutely serrate, Flowers axillary
5969 Bark deciduous, Ovary smooth. The same as next?

5970 Leaves lanceolate serrated very thin a little wavy



and Miscellaneous Particulars.

Ger., and *Arbuto*, Ital. This genus includes one of the most elegant of hardy shrubs, the A. unedo. This evergreen is peculiarly beautiful in October and November, covered at once with blossoms and ripe fruits. It is a native of the south of Europe, and is found also near Killarney in Ireland, where it has probably been brought from Spain or Italy at an early period by the priests. It grows there on limestone rocks, in greater luxuriance than it is often to be met with in the woods of Italy: in both countries the fruit is eaten; and in Spain both a sugar and spirit is extracted from it.

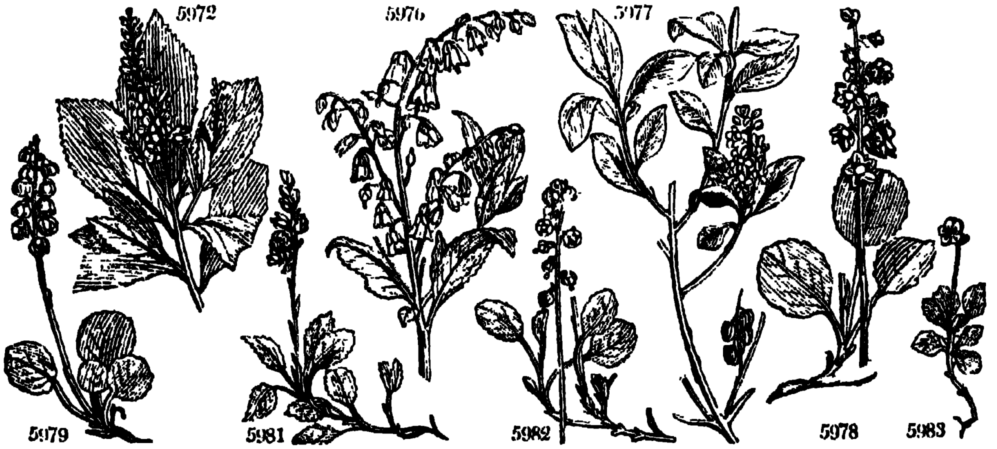
A. uva ursi, *La Busserole*, Fr., *Barrenbeere*, Ger., and *Uva d'orso*, Ital., is abundant in many parts of the continent, especially the alpine regions. It dyes an ash color; tans leather; the berries are food for grouse and other game, and the leaves are used in medicine. The fresh leaves are inodorous, and have a slightly bitter astringent taste, leaving a sweet sensation in the mouth. When properly dried and powdered, they acquire an odour similar to that of hyson tea; but the taste remains the same, the degree of bitterness only being increased. (*Thomson's London Dispensatory*, 163.)

It is used sometimes in calculous complaints and ulcerations of the urinary organs.

The dwarf species of this genus and those of Rhododendron and Andromeda, are very fit plants for rock work. A. alpina thrives best in peat kept moist and shaded. All the species may be increased by seeds, or by budding and inarching on each other: the dwarf kinds root readily by layers.

The Uva ursi has been brought into notice in modern times as an efficient remedy in nephritic and even in calculous cases. European practitioners have doubted its powers, but it has found many supporters of respec-

1020. CLE'THRA. *W.*	Clethra.					*Ericeæ.*	*Sp.* 6—8.					
5971 alnifólia *Ph.*	Alder-leaved	♣		or	4	au.o	W	N. Amer.	1731.	L	s.p	Lam. ill. t. 369
5972 tomentósa *Ph.*	woolly-leaved	♣		or	4	au.o	W	N. Amer.	1731.	L	s.p	Dend. brit. 39
5973 scábra *Ph.*	rough-leaved	♣		or	4	au.o	W	Georgia	1806.	L	s.p	
5974 paniculáta *W.*	panicled	♣		or	4	au.o	W	N. Amer.	1770.	L	s.p	
5975 acumináta *Ph.*	acute-leaved	♣	..	or	4	au.o	W	Carolina	1806.	L	s.p	Bot. cab. 1427
5976 arbórea *W.*	tree	♣	⊔	or	8	au.o	W	Madeira	1784.	C	p.l	Bot. mag. 1057
β *minor*	*dwarf*	♣	⊔	or	2	au.o	W	Madeira	...	C	p.l	
1021. MYLOCA'RYUM. *W en.*	Buckwheat-Tree.					*Ericeæ.*	*Sp.* 1.					
5977 ligustrinum *Ph.*	Privet-like	♣	⊔	or	8	my jn	W	Georgia	...	L	p.l	Bot. mag. 1625
1022. PY'ROLA *W.*	Winter-Green.					*Ericeæ.*	*Sp.* 6—10.					
5978 rotundifólia *W.*	round-leaved	£	△	cu	⅓	jn.jl	W	Britain	woods.	C	s.p	Eng. bot. 213
5979 média *E. B.*	intermediate	£	△	cu	½	jn.jl	W	England	woods.	C	s.p	Eng. bot. 1945
5980 minor *W.*	lesser	£	△	cu	⅓	jn jl	R	Britain	moi. w.	C	s.p	Eng. bot. 158
5981 secúnda *W.*	serrated	£	△	cu	⅓	jn.jl	W	Britain	moi. w.	C	s.p	Eng. bot. 517
5982 rósea *E. B.*	rose-colored	£	△	cu	⅓	jl.au	Pk	England	woods.	C	s.p	Eng. bot. 2543
5983 uniflóra *W.*	single-flowered	£	△	cu	⅛	jn.jl	W	Britain	al. wo.	C	s.p	Eng. bot. 146
1023. CHIMA'PHILA. *Ph.*	Chimaphila.					*Ericeæ.*	*Sp.* 2.					
5984 maculáta *Ph.*	spotted-leaved	£	△	pr	½	jn	W	N. Amer.	1752.	Sk	s.p	Bot. mag. 897
5985 corymbósa *Ph.*	corymb-flower.	£	△	pr	½	jn	Pk	N. Amer.	1752.	Sk	s.p	Bot. mag. 778
Pýrola umbelláta B. M.												
1024. INOCAR'PUS. *W.*	Otaheite-Chestnut.					*Sapoteæ.*	*Sp.* 1.					
5986 édulis *W.*	eatable	♠	☐	fr	20	...	W	South S. Is.	1793.	C	l.p	Lam. ill. t. 362
1025. STY'RAX. *W.*	Storax.					*Ebenaceæ.*	*Sp.* 4—6.					
5987 officinále *W.*	official	♣		or	12	ji	W	Italy	1597.	L	s.l	Bot. rep. 631
5988 grandifolium *W.*	great-leaved	♣		or	6	jl	W	N. Amer.	1765.	L	s.l	Dend. brit. 129
5989 pulveruléntum *Ph.*	powdery	♣		or	4	jn.jl	W	N. Amer.	1794.	L	s.l	Dend. brit. 41
5990 lævigátum *W.*	smooth	♣		or	4	jl.au	W	N. Amer.	1765.	L	s.l	Dend. brit. 40
S. glabrum Cav.												
1026. JUSSIÆ'A. *W.*	Jussiæa.					*Onagrariæ.*	*Sp.* 5—34.					
5991 grandiflóra *W.*	great-flowered	⚹	[△]	or	1½	jl.o	Y	Carolina	1812.	C	s.p	
5992 suffruticósa *W.*	tall	⚹	[△]	or	1½	au.s	Y	India	1808.	C	s.p	Bot. rep. 621
5993 octoválvis *P. S.*	spear-leaved	⚹	[○]	or	2	jl s	Y	S. Amer.	...	C	s.p	
5994 erécta *W.*	upright	⚹	[○]	or	3	jl.s	Y	S. Amer.	1759.	C	s.p	Pl. ic. t. 175. f. 2
5995 scábra *W. en.*	rough	⚹	[△]	or	4	jl s	Y	S. Amer.	1816.	C	s.p	
1027. GETO'NIA. *Roxb.*	Getonia.					*Combretaceæ.*	*Sp.* 1—2.					
5996 floribúnda *Roxb.*	many-flowered	♠	☐	or	6	...	Ap	E. Indies	1815.	C	l.p	Rox. cor. t. 87



History, Use, Propagation, Culture,

tability in North America. The late professor Barton found the plant of much service in his own case of nephritic paroxysms alternating with gout in the feet. It has also been recommended as a remedy in pulmonary complaints. (See *Bigelow's Med. Botany.*)

1020. *Clethra.* Κληθρα was the name given by the Greeks to the Alder, to which, in its leaves, this bears some resemblance. Pretty upright North American plants, with white flowers. One species is a native of Madeira.

1021. *Mylocaryum.* From μυλη, a mill, and καρυα, a kernel or stone; the four wings of the nut may be easily likened to the four sails of a small mill. A North American plant, with the habit of Andromeda, or rather of Clethra.

1022. *Pyrola.* A diminution of Pyrus, to which, in the leaves, this is thought to be similar. A genus of elegant little plants, mostly evergreens. They grow naturally in the shade, and in rocky or very poor soils; in the garden on sand or gravel shaded; and they are increased by seeds or young cuttings, planted under a hand-glass. All the species are powerfully astringent and tonic, and one or more of the American sorts is said to constitute the chief ingredient in the scorbutic draughts of Whitlaw.

P. uniflora, Sir J. E. Smith says is one of the most curious and elegant of British flowers.

1023. *Chimaphila.* From χειμα, winter, and φιλεω, to love; a sort of translation of the English name winter-green. The species may be treated as Pyrola, which they much resemble.

1024. *Inocarpus.* From ις ινος, fibre, and καρπος, fruit. The envelope of the nut is composed of tough interwoven fibres. It is a lofty tree, with alternate subcordate leaves, and flowers in racemes succeeded by by nuts called *Ratta* in Otaheite. The kernel of these, which is kidney-shaped, and about an inch in diameter, is eaten roasted by the inhabitants of the Society and Friendly Isles, the New Hebrides, New Guinea, the Molucca isles, &c. It is sweetish, but less pleasant than the chesnut, harder and less farinaceous. The bark is astringent, and is used in the dysentery. In New Guinea they smear the heads of their arrows with the expressed resinous juice. (*Forst. Escul.*)

1025. *Styrax.* A name altered by the Latins from the Arabic *asathirak.* Pliny says, that the Arabs in his time used the resin to flavor the perfumes of which they are so fond. S. officinale is a low tree with slender branches, ovate leaves, flowers in racemes from the sides of the branches, succeeded by ovate globular juiceless drupes, containing one or two angular nuts. From this tree storax is obtained in Asiatic Turkey. It issues from incisions made in the bark; and as it was formerly the custom to collect and export it in reeds, it was named Styrax calamita It has a fragrant odour, and a pleasant subacidulous, slightly pungent, and

5971 Leaves obovate serrate beneath pubescent, Raceme simple bracted
5972 Leaves cuneate obovate acute upwards finely serrated beneath white with down
5973 Leaves broad cuneate obovate acute coarsely serrated rough on each side
5974 Leaves lanceolate obovate serrated smooth, Panicle narrow bracted
5975 Leaves oval acuminate smooth on each side glaucous beneath, Racemes white with down
5976 Leaves oblong acuminate serrated smooth, Racemes panicled, Peduncles hairy

5977 Leaves cuneate lanceolate acute, Racemes spiked terminal

5978 Stamens ascending, Style declinate, Raceme many-flowered
5979 Stamens straight, Style declinate long, Peduncle twisted, Raceme many-flowered
5980 Stamens and styles straight, Flowers racemose spreading
5981 Raceme 1-sided
5982 Stamens and styles straight, Flowers racemose closed, Petals rounded obtuse, Peduncle straight
5983 Peduncle 1-flowered

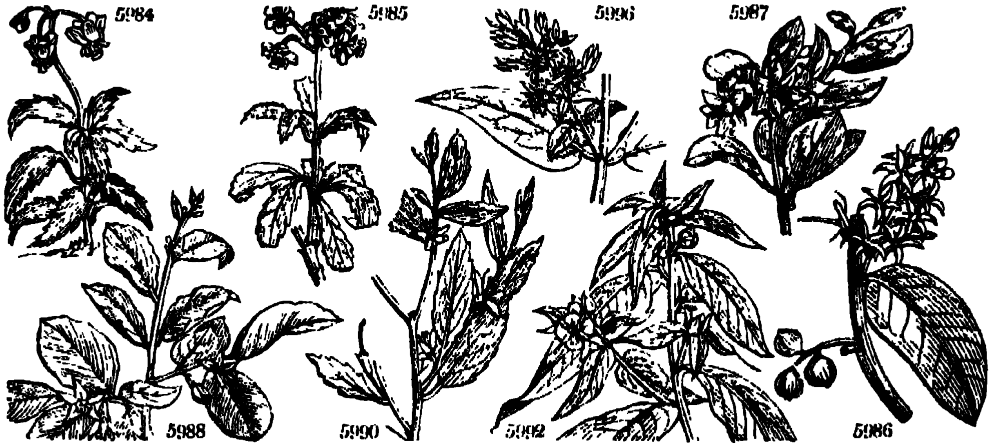
5984 Peduncles 2-flowered
5985 Peduncles umbelled

5986 The only species

5987 Leaves ovate beneath villous, Racemes simple shorter than the leaf
5988 Leaves obovate villous beneath, Lower peduncles axillary solitary 1-flowered
5989 Leaves subsessile oval or obovate beneath powdery, Fl. axill. and term. in threes on short stalks
5990 Leaves oblong smooth on each side, Peduncles axillary 1-flowered solitary or twin

5991 Root creeping, Stems erect with peduncles and calyxes villous, Lower leaves spatulate upper lanceolate
5992 Erect villous, Flowers tetrapetalous octandrous stalked
5993 Erect, Flowers tetrapetalous octandrous stalked, Caps. many-valved, Leaves lanceolate
5994 Erect smooth, Flowers tetrapetalous octandrous sessile
5995 Flowers tetrapetalous octandrous, Stem erect angul. hairy, Leaves oblong hairy

5996 Leaves opposite ovate, Flowers panicled, Bractes lanceolate



and Miscellaneous Particulars.

aromatic taste; is stimulant, and in some degree expectorant. It was formerly much prescribed in asthma, catarrh, phthisis, and menstrual obstructions; but it is now scarcely ever employed, except as an adjunct on account of its fragrance.

Benzoin is obtained from the S. Benzoin, by wounding the bark near the origin of the lower branches. The tree is never wounded under six years of age; and cannot sustain these annual incisions above twelve years. (*Thomson's London Dispensatory*, 525.)

As shrubs this genus affords some plants that may be considered pretty and desirable, on account of their small size and free flowering. They grow best in sandy loam, are commonly propagated by layers, and may also be increased by seeds, which they occasionally ripen.

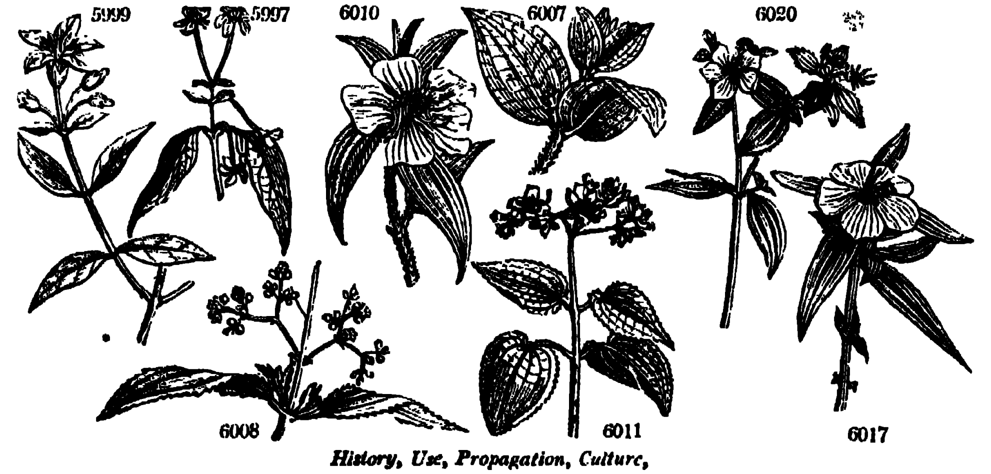
1026. *Jussiæa.* An obscure and most uninteresting genus of plants, selected, not very happily, to commemorate the family of the Jussieus, which has for more than a century and a half been at the head of botanical science. Antoine de Jussieu, born in 1686, and died in 1758, was professor of botany at the Jardin du Roi, and member of the academy of sciences. He published various papers upon exotic plants, and a discourse upon the progress of botany. He also edited the works of Barrelier. Bernard de Jussieu, his brother, born in 1698, died in 1777, was professor at the same garden, and member of the same academy. He also was author of various papers upon plants, a second edition of Tournefort's History of the Plants growing near Paris, and an arrangement of the plants growing in the garden of Trianon, which was published by his nephew. Joseph de Jussieu, a third brother, born in 1704, and died 1779. He was sent to South America by Louis XV., and remained there for six and thirty years. He made many discoveries, and brought home many new plants. Lastly, Antoine Laurent de Jussieu, their nephew, born in 1748, and still living, as demonstrator of botany at the Jardin du Roi, member of the Institute and of every learned body in Europe. He brought, in his Genera Plantarum, published in 1789, to a degree of extraordinary perfection, that system, the outlines of which had been traced by the hand of Tournefort, and partially filled up by his uncle Bernard. That system has now superseded, among men of science, all others, and if as yet inapplicable to merely popular purposes, can never be dispensed with in all philosophical investigations.

1027. *Getonia.* A Malabar plant, the meaning of whose name has not been explained. Cuttings root freely in sand, under a hand-glass, and plunged in heat.

1028. QUISQUA'LIS. *W.*	QUISQUALIS.					*Combretaceæ.* *Sp.* 1—4.						
5997 índica *W.*	Indian	L	□	or	20	my.au	O.R	E. Indies	1815.	C	l.p	Bot. mag. 2033
5998 pubéscens *Burm.*	pubescent	L	□	or	20	...	O.R	E. Indies	1815.	C	l.p	Bur. ind. t. 35. f. 2
1029. MELAS'TOMA. *W.*	MELASTOMA.					*Melastomaceæ.* *Sp.* 23—196.						
5999 áspera *W.*	rough	♣	□	or	6	au.n	P	E. Indies	1815.	C	l.p	Bur. zeyl. t. 72
6000 velutina *W.*	velvetty-leaved	♣	□	or	8	jl.o	Pu	W. Indies	1815.	C	l.p	
6001 trinérvia *W.*	three-nerved	♣	□	or	8	jl	Pu	Jamaica	1793.	C	s.p	
6002 octándra *W.*	octandrous	♣	□	or	3	...	W	Ceylon	1815.	C	l.p	
6003 tetrándra *W.*	tetrandrous	♣	□	or	2	...	...	Jamaica	1815.	C	l.p	
6004 hirta *W.*	hairy	♣	□	or	6	s.d	Pu	Jamaica	1740.	C	s.p	Pl. al. t. 264. f. 1
6005 Acinodéndron *W.*	oval-leaved	♣	□	or	6	...	Pu	Jamaica	1804.	C	l.p	Plu. ic. 142. f. 2
6006 cymósa *W.*	cyme-flowered	♣	□	or	2	ap.au	Pu	S. Amer.	1792.	C	l.p	
6007 rúbra *W.*	red	♣	□	or	6	my.jn	Pu	Guiana	1793.	C	s.p	Au. gui. 1. t. 161
6008 purpúrea *W.*	purple	♣	□	or	8	...	Pu	Guiana	1804.	C	l.p	Au. gui. 1. t. 154
6009 gróssa *W.*	large-leaved	♣	□	or	12	...	...	S. Amer.	...	C	l.p	
6010 malabáthrica *W.*	bristly	♣	□	or	6	jn.au	Pu	E. Indies	1793.	C	s.p	Bot. mag. 529
6011 corymbósa *H. K.*	corymb-flower.	♣	□	or	2	mr.o	Pk	S. Leone	1792.	C	s.p	Bot. mag. 904
6012 ecostáta *H. K.*	ribless	♣	□	or	4	my.jn	Pu	Jamaica	1793.	C	s.p	
6013 Tamonéa *Aubl.* *Fothergillia* Hort.	Fothergill's	♀	□	or	20	...	Pu	S. Amer.	1815.	C	s.p	Au. gui. 1. t. 175
6014 álbicans *Swz.*	white-leaved	♣	□	or	6	...	Pu	Jamaica	1815.	C	s.p	
6015 lævigáta *W.*	smooth	♣	□	cu	6	...	W.G	S. Amer.	1815.	C	s.p	Bot. reg. 663
6016 discolor *W.*	two-colored	♣	□	or	15	...	Pu	W. Indies	1793.	C	s.p	Plu. ic. t. 42. f. 1
6017 nepalénsis *Lodd.*	Nepal	♣	⊔	or	2	au	Pu	Nepal	1820.	C	p.l	Bot. cab. 707
6018 heteromálla *Don.*	Brazil	♣	□	or	6	ja.d	Pu	Brazil	1819.	C	p.l	Bot. reg. 644
6019 granulósa *Lam.*	Commerson's	♣	□	or	10	au.s	Pu	Brazil	1819.	C	p.l	Bot. reg. 671
6020 osbeckioides *Sims.*	osbeckia-like	♣	□	pr	2	s.o	Pu	Mauritius	1817.	C	p.l	Bot. mag. 2235
6021 sanguínea *Sims.*	bloody	♣	□	or	6	s.o	Pk	China	1818.	C	p.l	Bot. mag. 2241
1030. PETALO'MA. *W.*	PETALOMA.					*Melastomaceæ.* *Sp.* 1—2.						
6022 myrtilloides *Swz.*	Bilberry-like	♣	□	or	10	...	W.Y	W. Indies	1823.	C	p.l	Sl. hist. t. 187. f. 3
1031. ACISANTHE'RA. *J.*	ACISANTHERA.					*Salicariæ.* *Sp.* 1.						
6023 quadráta *P. S.*	four-sided	♣	□	cu	3	...	...	Jamaica	1804.	C	p.l	Br. jam. t. 22. f. 1
1032. DA'IS. *W.*	DAIS.					*Thymelææ.* *Sp.* 1—7.						
6024 cotinifólia *W.*	Cotinus-leaved	♣	⊔	or	10	jn.jl	W.G	C. G. H.	1776.	R	s.l	Bot. mag. 147
1033. BUCI'DA. *W.*	OLIVE-BARK-TREE.					*Santalaceæ.* *Sp.* 1—[illegible].						
6025 Búceras *W.*	Jamaica	♀	□	rc	25	au.s	Y.w	Jamaica	1793.	C	l.p	Lam. ill. t. 356
1034. SAMY'DA. *W.*	SAMYDA.					*Samydeæ.* *Sp.* 4—[illegible].						
6026 nítida *W.*	glossy	♣	□	un	7	...	W.G	W. Indies	1793.	C	l.p	Br. jam. t. 23. f. 3
6027 pubéscens *W.*	pubescent	♣	□	un	4	my.au	...	W. Indies	1793.	C	l.p	Jac. amer. 132
6028 serruláta *W.*	Elm-leaved	♣	□	pr	3	jl	W	W. Indies	1723.	C	s.p	Ja. co. 2. t. 17. f. 1
6029 rósea *H. K.*	rose-colored	♣	□	pr	4	jn.jl	Pk	W. Indies	1793.	C	s.p	Bot. mag. 550

DIGYNIA.

1035. ROYE'NA. *W.*	ROYENA.					*Ebenaceæ.* *Sp.* 9—15.						
6030 lúcida *W.*	shining-leaved	♣	⊔	cu	4	my.jn	W	C. G. H.	1690.	C	p.l	La. ill. t. 370. f. 1
6031 villósa *W.*	heart-leaved	♣	⊔	cu	6	jn.jl	W	C. G. H.	1774.	C	p.l	
6032 pállens *W.*	pale	♣	⊔	cu	4	jn.jl	W	C. G. H.	1789.	C	p.l	
6033 glábra *W.*	Myrtle-leaved	♣	⊔	cu	4	s	W	C. G. H.	1731.	C	l.p	Com. hor. 1. t. 65
6034 pubéscens *W. en.*	pubescent	♣	⊔	cu	4	jl.au	W.G	C. G. H.	1752.	C	l.p	Bot. reg. 500
6035 hirsúta *W. en.*	hairy-leaved	♣	⊔	cu	7	jl.au	W	C. G. H.	1752.	C	p.l	La. ill. t. 370. f. 2
6036 angustifólia *W.*	Willow-leaved	♣	⊔	cu	4	jn.jl	W	C. G. H.	1789.	C	p.l	
6037 ambígua *Vent.*	obovate-leaved	♣	⊔	cu	6	jn.jl	W	C. G. H.	1815.	C	p.l	Vent. mal. t. 17
6038 polyándra *W.*	oval-leaved	♣	⊔	cu	6	...	W	C. G. H.	1774.	C	p.l	



History, Use, Propagation, Culture,

1028. *Quisqualis.* A Latin word, expressive of uncertainty. It was given by Rumphius to a tree of Amboyna, because it was subject to variation. It is a fine climbing genus of easy culture. The best soil for the species is a mixture of loam and peat; and cuttings root freely in sand, under a hand-glass. (*Bot. Cult* 100.)

1029. *Melastoma.* From μελας, black, and ϛομα, mouth. Many of the species produce black berries similar to gooseberries, and which stain the mouth black. This is a very numerous genus of shrubs and low trees; the species display great unity of character, and may be considered ornamental. They require but little water in winter, and are easily increased in sand, plunged in a moist heat.

1030. *Petaloma.* From πεταλον, a petal, and λωμα, an edge. Flowers of which the petals are inserted on the edge of the calyx. A small plant with the leaves, but not flowers, of Melastoma.

1031. *Acisanthera.* From ακις, a point, the anthers being pointed. Plants with the habit of Melastoma.

5997 Leaves ovate
5998 Leaves subcordate pubescent

5999 Leaves ovate-lanc. entire 3-nerved rough, Fl. terminal subcorymbose
6000 Leaves 3-nerved entire sessile ovate acute villous silky, Racemes brachiate, Stems square
6001 Leaves 3-nerved without a marginal one entire smooth on each side thin, Racemes term. Fls. sessile
6002 Leaves entire 3-nerved ovate-lanc smooth, Margin and nerves hispid beneath, Fl. terminal
6003 Leaves entire 3-nerved oblong emarginate at base, Raceme erect term. Fl. tetrandrous
6004 Leaves toothletted 5-nerved ovate-lanceolate, Stem hispid
6005 Leaves ovate acuminate toothletted 5-nerved, Cymes axillary
6006 Leaves cordate acumin. 5-nerved serrulate pubescent, Cymes terminal, Sepals roundish, Stamens 5 sterile
6007 Leaves cordate subcrenate beneath rusty with down, Flowers axillary and lateral solitary sessile
6008 Leaves ovate lanceolate acuminate 5-nerved pilose somewhat toothletted, Branches bifid, Panic. term.
6009 Leaves entire 5-nerved subcordate scabrous, Cor. little hairy outside
6010 Leaves entire 5-nerved lanceolate ovate rough
6011 Leaves 7-nerved ovate subcordate acuminate ciliated with teeth, Corymb terminal, Flowers 1-sided
6012 Leaves 3-nerved without ribs ovate-lanceol. acuminate toothletted, Corymbs term. trichotomous powdery
6013 Leaves 5-nerved obl. lanceol. acute entire hoary beneath, Pedunc. umbelled, Bractes double

6014 Leaves 5-nerved entire ovate acute smooth above beneath hoary, Flowers clustered sessile
6015 Leaves entire 5-nerved ovate-oblong smoothish acuminate smooth at edge
6016 Leaves 5-nerved nearly entire oblong acuminate smooth beneath yellowish, Racemes cymose
6017 Leaves lanceolate ciliated 3-nerved obtuse at base, Stems square, Flowers terminal solitary
6018 Leaves cordate oval entire stalked beneath woolly, Petals obcordate, Petals bowed at base
6019 Branches winged, Leaves oval-lanceol. with a long point, Petals obovate pointed, Filam. woolly above
6020 Leaves oblong elliptical 3-nerved ciliated, Calyx setose at end
6021 Stamens 12, Leaves ovate-lanceolate 5-nerved, Stems and globose ovaries very hispid

6022 Peduncles solitary 1-flowered

6023 Leaves 3-nerved ovate crenate opposite

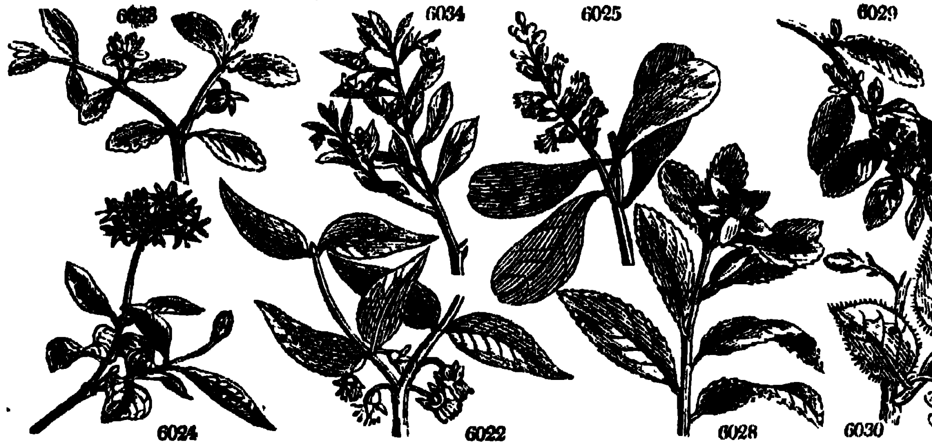
6024 Leaves obovate obtuse, Flowers 5-cleft decandrous

6025 Spikes elongated, Leaves wedge-shaped smooth

6026 Flowers octandrous, Leaves cordate smooth
6027 Flowers dodecandrous, Leaves ovate downy beneath
6028 Flowers 12-androus, Leaves ovate oblong serrulate
6029 Flowers 12-androus clustered, Leaves oblong obtuse serrated pubescent on each side

DIGYNIA.

6030 Leaves ovate roughish
6031 Leaves cordate oblong downy beneath
6032 Leaves oblong obovate obtuse smooth
6033 Leaves lanceolate smooth
6034 Leaves obovate lanceolate pubescent
6035 Leaves oblong lanceolate very villous
6036 Leaves lanceolate acute hairy beneath
6037 Leaves obovate villous coriaceous, Fl. stalked polyandrous polygynous
6038 Leaves elliptical, Flowers polyandrous polygynous



and Miscellaneous Particulars.

1032. *Dais.* A name of unknown application. The plant resembles in its leaves the Rhus cotinus, whence its specific name. It may be increased by cuttings of the roots placed in a warm situation.

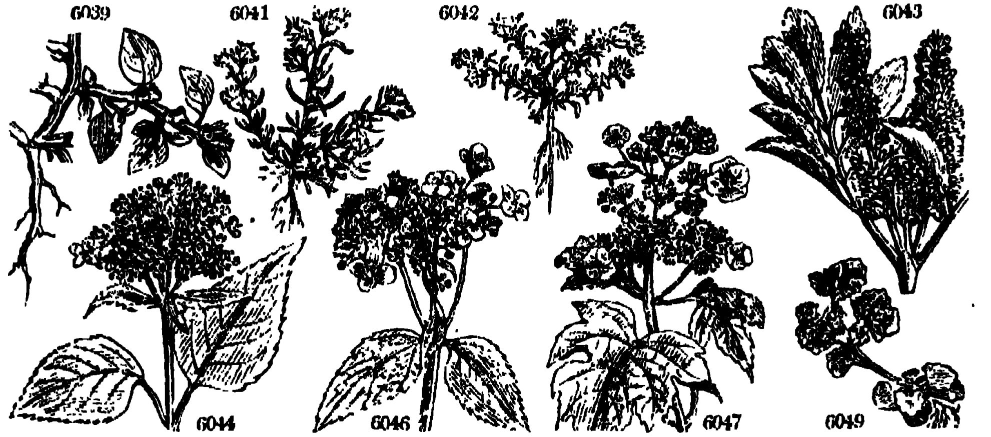
1033. *Bucida.* From βυς, an ox. The form of the fruit when ripe resembles the horn of such an animal. This tree grows in Jamaica in low swampy lands near the coast; it is remarkable for its slender crooked branches, and the tufted disposition of the leaves: it grows to a considerable size, is reckoned an excellent timber tree, and the bark is greatly esteemed by the tanners.

Well ripened cuttings root in sand, plunged in heat, and covered.

1034. *Samyda.* Σαμυδα is the Greek name of the birch, to which this genus may be likened in its leaves. The species are rather tardy in growth, but not difficult to root in sand under a hand-glass.

1035. *Royena.* So named by Linnæus, in honor of Adrian Van Royen, who with his son David were successively professors of botany at Leyden. It consists of shrubs of little beauty, which are increased by ripened cuttings in sand under a hand-glass. They are chiefly natives of the Cape of Good Hope.

1036.	TRIAN'THEMA. *W.*	TRIANTHEMA.					*Portulaceæ.*		*Sp.* 2—12.				
6039	monógyna *W.*	Purslane-leav.	✱	⊡	w	2	jl.au	G	Jamaica	1710.	S	co	Plant. grass. 109
6040	decándra *W.*	trailing	✱	⊡	w	1½	jl.au	G	India	1762.	S	co	Bur. in. t. 31. f. 3
1037.	SCLERAN'THUS. *W.*	KNAWEL.					*Portulaceæ.*		*Sp* 2—3.				
6041	ánnuus *W.*	annual		○	w	½	jl.au	G	Britain	sa. fi.	S	co	Eng. bot. 351
6042	perénnis *W.*	perennial		△	w	½	au.s	G	Britain	sa.hea.	D	co	Eng. bot. 352
1038.	CUNO'NIA. *W.*	CUNONIA.					*Cunoniaceæ*		*Sp.* 1—2?				
6043	capénsis *W.*	Cape	♀	⊔		20	au	W	C. G. H.	1816.	C	co	Bot. reg. 828
1039.	HYDRAN'GEA. *W.*	HYDRANGEA.					*Saxifrageæ?*		*Sp.* 5.				
6044	arboréscens *W.*	shrubby	♣		or	6	jl.au	W.G	Virginia	1736.	L	p.l	Bot. mag. 437
6045	cordáta *Ph.*	heart-leaved	♣		or	8	jl.au	W.G	Carolina	1806.	L	p.l	Dend. brit. 42
6046	nívea *Ph.* *radiata* W.	white-leaved	♣		or	5	jl.au	W.G	Carolina	1786.	L	p.l	Dend. brit. 43
6047	quercifólia *W.*	Oak-leaved	♣		or	4	jn.s	W.G	Florida	1803.	C	p.l	Bot. mag. 975
6048	horténsis *W.*	changeable	♣		or	3	ap.s	Pk	China	1788.	C	p.l	Bot. mag. 438
1040.	CHRYSOSPLE'NIUM. *W.*	GOLDEN SAXIFRAGE.					*Saxifrageæ.*		*Sp.* 2.				
6049	alternifólium *W.*	alternate-leav	✱	△	cu	¼	ap.my	Y	Britain	w.sh.p.	D	m.l	Eng. bot. 54
6050	oppositifólium *W.*	opposite-leaved	✱	△	cu	¼	ap.my	Y	Britain	w.sh.p.	D	m.l	Eng. bot. 490
1041.	SAXI'FRAGA. *W.*	SAXIFRAGE.					*Saxifrageæ.*		*Sp.* 56—70.				
6051	liguláta *Wall.*	ligulate	£	⊔	or	1	ap.jn	W	Nepal	1821.	D	p.l	Bot. cab. 747
6052	crassifólia *W.*	thick-leaved	£	△	or	1	mr.my	P	Siberia	1765.	D	s.l	Bot. mag. 196
6053	cordifólia *M. n.*	heart-leaved	£	△	or	1	mr.my	P	Siberia	1779.	D	s.l	
6054	Cotylédon *W.*	pyramidal	£	△	or	2	my.jl	W.G	Al. of Eur.	1596.	D	s.l	Fl. dan. 241
6055	récta *P. S.*	straight-leaved	£	△	or	1	my.jl	W.G	Al. of Eur.	...	D	s.l	Pl. ph. t. 221. f. 1
6056	Aizóon *P. S.*	large-margined	£	△	or	1	my.jl	W.G	Al. of Eur.	1731.	D	s.l	Jac. aus. 5. t. 438
6057	intácta *W. en.*	small-margined	£	△	or	1	my.jl	W.G	Tyrol	...	D	s.l	Hort. ber. 2. t 75
6058	mutáta *W. en.*	Saffron-colored	£	△	or	½	jn.jl	L.Y	Switzerl.	1779.	D	s.l	Bot. mag. 351
6059	pensylvánica *W.*	Pensylvanian	£	△	or	2	my.jn	G.Y	N. Amer.	1732.	D	s.l	Di. el. t. 253. f. 328
6060	hieracifólia *W.*	Hawkweed-lvd.	£	△	or	2	my.jn	W.G	Hungary	1789.	D	s.l	Pl. rar. h. 1. t. 18
6061	erósa *Ph.*	jagged-leaved	£	△	or	1	my.jn	Y.G	N. Amer.	1812.	D	s.l	
6062	punctáta *W.*	dotted-flowered	£	△	or	1	my.jn	W	Siberia	1699.	D	s.l	Mo. h. 3. t. 9. f. 17
6063	umbrósa *W.*	London-pride	£	△	or	1	ap.jn	F	Britain	mount.	D	s.l	Eng. bot. 663
6064	hirsúta *W.*	hirsute	£	△	or	1	my.jn	F	Ireland	mou.	D	s.l	Eng. bot. 2322
6065	Géum *W.*	kidney-leaved	£	△	or	1	jn.jl	W	Ireland	mou.	D	s.l	Eng. bot. 1561
6066	cuneifólia *W.*	wedge-leaved	£	△	or	½	my.jn	W.G	Switzerl.	1768.	D	s.l	Pl. rar. h. 1. t. 44
6067	leucánthemifólia *Ph.*	Stock-leaved	£	△	or	¼	jn	W	N. Amer.	1812.	D	s.l	Bot. mag. 2959
6068	sarmentósa *W.*	Chinese	£	△	or	2	jn.jl	W.R	China	1771.	D	s.l	Bot. mag. 92
6069	cuscutifórmis *Lodd.*	Dodder-like	£	△	pr	¼	jn.jl	W	China	1815.	D	s.l	Bot. cab. 186
6070	virginiénsis *Ph.*	Virginian	£	△	or	½	my.jl	W	N. Amer.	1790.	D	s.l	Bot. mag. 1664
6071	congésta *Sweet* *nivális* Ph.	close-flowered	£	△	or	½	my.jl	W	N. Amer.	1812.	D	s.l	



History, Use, Propagation, Culture,

1036. *Trianthema.* From τρεις, three, and ανθος, flower, the flowers growing by threes in the axillæ of the leaves. The species are weeds in their native countries, and of little interest here.

1037. *Scleranthus.* From σκληρος, hard, and ανθος, a flower; when in seed the envelopes of the flower appear very much indurated. S. annuus is common throughout Europe and Siberia on a sandy soil. It flowers about the middle of summer, and sows its seeds very abundantly in autumn, which produce a crop of young plants that generally survive the winter, or, if destroyed, are replaced by another crop arising from those seeds that happen not to vegetate till spring. (*Eng. Bot.*) The Swedes and Germans receive the vapour arising from a decoction of it into their mouths, to cure the tooth-ache. (*Withering.*)

S. perennis in several parts of Europe has its roots attacked by the insect Coccus Polonicus, *Lin.* which yields a fine crimson dye, and is said likewise to live on S. annuus and some Potentillæ. Sir J. Smith has "never been able to find this insect on these plants in England." (*Flora Brit.* ii. 283.)

These two species are occasionally found in abundance upon barren heathy wastes.

1038. *Cunonia.* In memory of John Christian Cuno, of Amsterdam, who described his own garden in Dutch verse in 1750. This is a handsome tree, with fine shining green foliage, contrasted by numerous dense elongated branches of small milk-white flowers, and twigs of a red color; having the habit of a tropical rather than of a Cape plant. Its colonial name is *Rood Elze* (red alder), although the tree has not in any point of view the least resemblance to the alder of Europe.

1039. *Hydrangea.* From ὑδωρ, water, and αγγειον, a vessel. The common garden species, H. hortensis, is quite a marsh plant, and to be managed well should have a very copious supply of water in summer. A large plant will consume ten or twelve gallons daily, in warm weather.

H. quercifolia is an elegant plant when in leaf; but as it is barely within the limits of ligneous plants, it dies down to the ground on the approach of frost. H. hortensis is much valued on account of the great profusion of its very elegant flowers, which are monstrous in the same manner as the Viburnum opulus. It has never

6039 Flowers pentandrous monogynous
6040 Flowers about decandrous digynous

6041 Calyx of fruit spreading
6042 Calyx of fruit closed

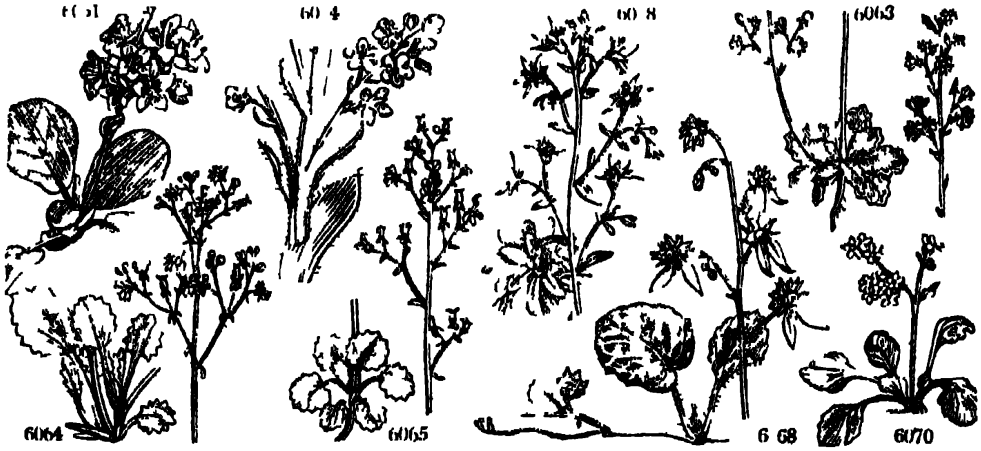
6043 The only certain species

6044 Cymes naked, Leaves oblong ovate acuminate toothed smooth
6045 Cymes radiate, Leaves cordate toothed
6046 Leaves ovate acuminate toothed beneath white with down, Serratures mucronate

6047 Cymes radiate, Leaves oblong sinuate-lobed toothed
6048 Cymes radiate, Leaves elliptical narrowed at each end and toothed smooth

6049 Leaves alternate
6050 Leaves opposite roundish hairy, Stems decumbent

6051 Leaves orbiculate or oval stalked pimpled ciliate cordate at base, Petals round, Sepals mucronate
6052 Leaves oval retuse obsoletely serrated stalked, Stem naked, Panicle bearded
6053 Leaves cordate orbicular serrated stalked, Panicle headed
6054 Leaves radical ligulate with cartilaginous teeth, Stem panicled leafy, Cal. hairy with glands
6055 Radical leaves rosed straight glaucous supine crenate, Panicle simple
6056 Leaves radical lingulate with cartilag. teeth, Stem simple racemose leafy, Cal. smooth
6057 Radical leaves aggreg. lanc. obov. with cartilaginous teeth, Stem leafy clammy, Calyxes glandular
6058 Leaves rad. lingulate with a cartilaginous repand edge, Stem racemose leafy, Cal. with gland. hairs
6059 Leaves obl. lanc. hairy toothletted, Stem naked, Peduncles altern. te in corymbose heads
6060 Leaves obl. lanc. smooth repand toothed, Stem naked, Peduncles 1-flowered aggregate
6061 Smoothish, Leaves oblong lanc. acute eroded, Stem naked, Panicle oblong
6062 Leaves roundish toothed with long stalks, Stem naked
6063 Leaves obovate retuse with cartilaginous crenæ, Stem naked panicled
6064 Leaves cordate oval retuse with cartilaginous crenæ, Stem naked panicled
6065 Leaves reniform toothed, Stem naked panicled
6066 Leaves cuneiform very obtuse repand, Stem naked panicled
6067 Very hairy, Lvs. elongate spatulate acutely toothed, Stems divaricate dichotomous, Panic. capillary lax
6068 Leaves roundish toothed hairy, Runners creeping, Two petals long
6069 Leaves rhomboid toothed variegated hairy, Runners very weak, Petals nearly equal
6070 Leaves cuneate obovate somewhat toothed shorter than stalk, Stem panicled
6071 Leaves roundish cuneate crenate in front, Stem naked simple, Flowers clustered racemose



and Miscellaneous Particulars

been found in a wild state, but is extensively cultivated in the gardens of China and Japan, from whence it was introduced to Kew by Sir Joseph Banks The flowers are almost always barren they are naturally of a rose color, but under certain circumstances of culture they become blue The yellow loam of Hampstead Heath and some other places, and some sorts of peat earth are found to produce this effect, but the cause is not yet ascertained Dr Dualen, of Antwerp, finds that turf ashes, and, still more effectually, those of the Norway spruce the wood generally used as fuel by him, applied to the roots of Hydrangea, produced the blue color of the petals *Neil's Hort Journ 122* According to Busch, of Petersburgh, ' the hydrangea will be turned blue by watering the young plant, the summer before, with alum water Our grey colored earth, under the black moor earth, has the same effect, being combined with aluminous salt *Hort Trans* vol iv 568) Sweet recommends a bed of peat, and says, the longer it remains there the bluer will be the flowers

The hydrangea, to flower freely, must not be allowed more than three or four strong shoots from the same root, it must have abundance of pot room, and plenty of water when in flower It is a good plan to shift the plants twice or oftener during the early part of the season If plunged and turned out of the pot into an open border in the end of May, they will flower vigorously, and will even stand the winter around and south of London, and flower yearly, and if well protected in winter very freely and strongly The flowers are produced from the extremities of the shoots of the current year

1040 *Chrysosplenium* From χρυσος, gold, and σπλην, the spleen, a figurative name applied to this plant, with reference to its medicinal qualities It is said to be a powerful cathartic In the Vosges the plants are used copiously as a salad, under the name of *Cresson de Roche*

1041 *Saxifraga Saxum-frango*, to break the stone, a name contrived in reference to supposed medicinal qualities which are now forgotten

An elegant genus of alpine plants, which have long been favorites in gardens Many of the species are

6072 nivális *W.*	clustered-Alp.	♃	△	or	¼	jn.jl	W	Britain	sc. alp.	D	s.l	Eng. bot. 440
6073 stelláris *W.*	stárry	♃	△	or	¼	jn.jl	W	Britain	al. riv.	D	s.l	Eng. bot. 167
6074 bryoides *W.*	thrd.-moss-like	♃	△	or	¼	jn.jl	W	Switzerl.	1752.	D	s.l	Jac. m. 2. t. 5. f. 1
6075 cæ'sia *W.*	gray	♃	△	or	¼	my.jn	W	Switzerl.	1752.	D	s.l	Bot. cab. 421
6076 androsácea *W.*	Androsace-lvd.	♃	△	or	¼	my.jn	W	Austria	1792.	D	s.l	Jac. aus. 4. t. 389
6077 oppositifólia *W.*	opposite-leaved	♃	△	or	½	mr.ap	Pu	Britain	al. roc.	D	s.l	Eng. bot. 9
6078 áspera *W.*	rough	♃	△	or	¼	au	W	Switzerl.	1752.	D	s.l	Jac. aust. 5. t. 31
6079 Hirculus *W.*	yellow-marsh	♃	△	or	½	au	Y	England	tu. bo.	D	s.l	Eng. bot. 1009
6080 Aizoides *Haw.*	smaller-mount.	♃	△	or	½	jl.au	Y	Britain	al. riv.	D	s.l	
6081 autumnális *Haw.*	larger-mount.	♃	△	or	½	jl.au	Y.R	Britain	...	D	s.l	Eng. bot. 39
6082 rotundifólia *W.*	round-leaved	♃	△	or	1	my.jn	W.R	Austria	1596.	D	s.l	Bot. mag. 424
6083 granuláta *W.*	grain-rooted	♃	△	or	1	my	W	Britain	me. pa.	D	s.l	Eng. bot. 500
β pléna	*double-flowered*	♃	△	or	1	ap.jl	W	......	...	D	s.l	
6084 cérnua *W.*	drooping	♃	△	or	¼	jl	W	Scotland	sc. alp.	D	s.l	Eng. bot. 664
6085 rivuláris *W.*	Alpine-brook	♃	△	or	½	jn.jl	W	Scotland	sc. alp.	D	s.l	Eng. bot. 2275
6086 hederácea *W.*	Ivy-leaved	♂	⌂	or	½	jl	W	Levant	1752.	S	s.l	
6087 pentadáctyla *Lap.*	five-fingered	♃	△	or	¼	my.jn	W	Pyrenees	1815.	D	s.l	Lapey. fl. t. 40
6088 geranioides *W.*	Crane's-bill-lvd.	♃	△	or	½	ap.my	W	Pyrenees	1770.	D	s.l	Lapey. fl. t. 43
6089 pedatífida *L. T.*	pedatifid	♃	△	or	[illegible]	my.jn	W	Scotland	sc. alp.	D	s.l	Eng. bot. 2278
6090 ceratophýlla *H. K.*	shining-calyxed	♃	△	or	½	my.jn	W	Spain	1804.	D	s.l	Bot. mag. 1651
6091 ajugifólia *W.*	Bugle-leaved	♃	△	or	1	jn.jl	W	Pyrenees	1770.	D	s.l	Lapey. fl. t. 31
6092 platypétala *L. T.*	broad-petalled	♃	△	or	1	jn	W	Scotland	al. roc.	D	s.l	Eng. bot. 2276
6093 sibírica *W.*	Siberian	♃	△	or	1	my.jn	W	Siberia	1802.	D	s.l	
6094 tridactýlites *W.*	Rue-leaved		○	w	¼	ap.my	W	Britain	walls.	S	s.l	Eng. bot. 501
6095 petræ'a *W.*	rock	♃	△	or	¼	ap.my	W	Norway	1752.	D	s.l	Fl. dan. 68
6096 adscéndens *W.*	ascending	♃	△	or	½	my	W	Pyrenees	1752.	D	s.l	Jac. ic. 1. t. 81
6097 Sternber'gii *W. en.*	large-flowered	♃	△	or	1	my	W	Germany	...	D	s.l	
6098 hírta *E. B.*	hairy	♃	△	or	1	jn	W	Scotland	sc. alp	D	s.l	Eng. bot. 2291
6099 palmáta *E. B.*	palmate	♃	△	or	¼	my.jn	W	Wales	wal. p.	D	s.l	Eng. bot. 455
6100 elongélla *L. T.*	long-stalked	♃	△	or	1	ap.my	W	Scotland	sc. alp.	D	s.l	Eng. bot. 2277
6101 hypnoides *W.*	mossy	♃	△	or	¼	ap.jn	W	Britain	al. roc.	D	s.l	Eng. bot. 454
6102 moscháta *W.*	musky	♃	△	or	¼	my.jn	L.Y	Pyrenees	...	D	s.l	Lapey. fl. t 37, 38
6103 pygmæ'a *Haw.* *moscháta* E. B.	pigmy	♃	△	or	¼	my.jn	W.Y	Scotland	sc. alp.	D	s.l	Eng. bot. 2314
6104 cæspitósa *W.*	tufted	♃	△	or	¼	my.jn.	Cr	Wales	w alp.	D	s.l	Eng. bot. 794
6105 grœnlándica *H. K.*	Greenland	♃	△	or	½	[illegible]	W	Pyrenees	1732.	D	s.l	Lapey. fl. t. 19
6106 muscoides *W.*	Moss-like	♃	△	or	¼	my.jn	W.Y	Pyrenees	...	D	s.l	Lapey. fl. t. 34

1042. TIAREL'LA *W.* Tiarella. *Saxifrageæ.* *Sp.* 3—10.

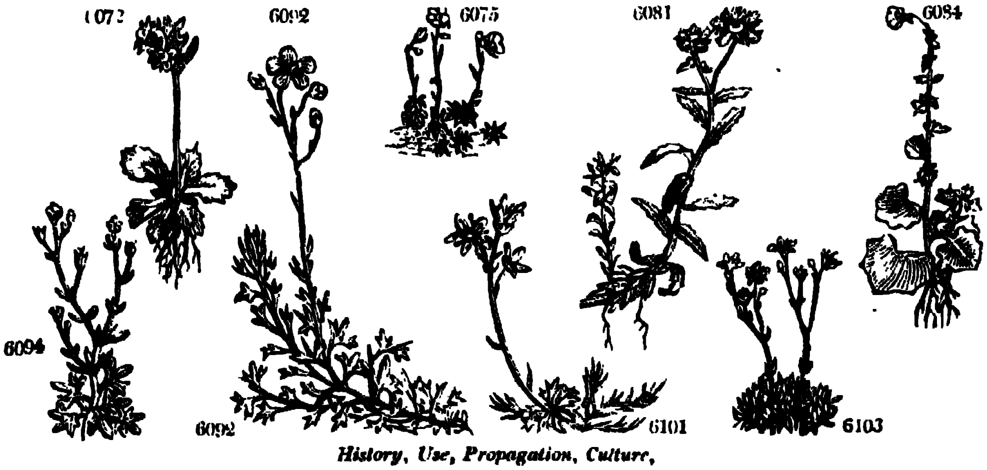
6107 cordifólia *Ph.*	heart-leaved	♃	△	or	¼	ap.my	W	N. Amer.	1731.	D	s.p	Bot. mag. 1589.
6108 Menziésii *Ph.*	leafy-stemmed	♃	△	or	1	ap.my	W	N. Amer.	1812.	D	s.p	
6109 biternáta *Vent.*	biternate	♃	△	or	2	my.jn	W	Carolina	1812.	D	s.p	Vent. malm. 54

1043. MITEL'LA. *W.* Mitella. *Saxifrageæ.* *Sp.* 5—10.

6110 diphýlla *W.*	two-leaved	♃	△	pr	¼	ap.my	W	N. Amer.	1731.	D	p.l	Bot. reg. 166
6111 cordifólia *Ph.*	heart-leaved	♃	△	pr	½	ap.my	W	N. Amer.	1812.	D	p.l	La. ill t. 373. f. 3
6112 núda *W.*	Kidney-leaved	♃	△	pr	¼	jn.au	W	N. Amer.	1758.	D	p.l	La. ill. t. 373. f. 2

1044. GYPSO'PHILA. *W.* Gypsophila. *Caryophylleæ.* *Sp.* 16—36.

6113 Struthium *L.*	fleshy-leaved	♃	△	or	2	jl.au	W	Spain	1729.	D	p.l	Bar. ic. t. 119
6114 fastigiáta *L.*	one-rowed	♃	△	or	1½	jn.jl	W	Germany	1759.	D	p.l	G sib. 4. t. 61. f. 1
6115 arenária *W. & K.*	sand	♃	△	or	1½	jl.au	W	Hungary	1801.	D	p.l	Pl. rar. h. t 41
6116 viscósa *Murr.*	clammy		○	or	1½	jn.jl	W	Levant	1773.	S	p.l	Mur. co. g. t. 3
6117 altíssima *L.*	upright	♃	△	or	1½	jl.au	St	Siberia	1759.	D	p.l	Gm. sib. 4. t. 60
6118 perfoliáta *L.*	perfoliate	♃	△	or	2	jl.au	F	Spain	1732.	D	p.l	Dill. elt. t. 276
6119 acutifólia *Fisch.*	acute-leaved	♃	△	or	3	jl.au	W.a	Siberia	1820.	D	co	
6120 paniculáta *L.*	panicled	♃	△	or	4	jn.jl	W	Siberia	1759.	D	p.l	Jac. au. 5. t. ap 1
6121 glaúca *Bieb.*	glaucous	♃	△	or	1½	jl.s	W	Caucasus	1822.	D	co	
6122 élegans *Bieb.*	elegant		○	or	2	jn.s	W.pk	Crimea	1823.	S	co	Sch. mon. t. 21



History, Use, Propagation, Culture,

quite easy to cultivate, and although naturally mountaineers, not incapable of breathing the more impure air of towns and vallies. The greater part known are delicate and difficult to rear: they are regardless of cold, but suffer from mild and humid weather during the winter months. Most of the species are perennial, with either fibrous or granular roots, and a few are annual. Of the latter one species, S. tridactylites, is common upon very old walls in England, flowering in the beginning of the spring. The parts of fructification are extremely variable in this genus, and have given rise to the construction of many supposed genera, the constituents of which have the recommendation of agreeing with one another pretty well in habit. The limits, however, of these genera are too obscure, and the gradations by which they are united so obvious, that they have not yet been adopted by men of science generally. Without interfering with that question, the old mode of considering Saxifrage has been here adhered to, as being the most popular and the best under-

6072 Leaves obovate crenate subsessile, Stem naked, Flowers headed
6073 Leaves serrate, Stem naked branched, Petals acuminate
6074 Leaves lanc. mucronate with a cartilaginous ciliated edge, Stem naked few-fl. Cal. obtuse
6075 Leaves linear perforated dotted aggregate recurved, Stem many-fl.
6076 Leaves lanc. obtuse hairy, Stem naked 2-flowered
6077 Leaves ovate opposite imbricated : the upper ciliated
6078 Cauline leaves lanc. alternate ciliated, Stems procumbent
6079 Cauline leaves lanc. alternate naked unarmed, Stem erect
6080 Cauline leaves lin. subul. scattered naked unarmed, Stem decumbent
6081 Cauline leaves linear alternate ciliated : radical aggregate
6082 Cauline leaves reniform toothed stalked, Stem panicled
6083 Cauline leaves reniform lobed, Stem branched, Root granular

6084 Cauline leaves palmate stalked, Stem very simple 1-fl. bulbiferous
6085 Cauline leaves palmate : the upper floral ovate, Stem simple about 2-flowered
6086 Cauline leaves ovate lobed, Stem filiform weak
6087 Leaves cuneiform 3-parted with trifid linear segments, Stem simple ascending, Petals lanceolate
6088 Radical leaves reniform 5-lobed many-cleft, Cauline linear, Stem nearly naked branched
6089 Rad. lvs. reniform pedatifid 7 lobed, Caul. palmate and lin. Stem nearly naked branched, Pet. lin. obov.
6090 Smooth, Radical leaves 3-lobed, Lobes many-cut ; lateral segments falcate, Stem panicled, Cal. colored
6091 Radic. leaves palm. 5-parted, Cauline linear undivided, Stems ascending many-fl.
6092 Leaves hairy trifid or 5-fid bearded, Runners procumbent, Stem leafy, Petals obovate rounded
6093 Leaves reniform palm. hairy, Stem and flower-stalks filiform
6094 Caul. leaves wedge-shaped trifid alternate, Stem erect branched
6095 Leaves wedge-shaped, Radic. entire and 3-toothed, Cauline 5-toothed ; upper trifid, Pedunc. about 3-fl.
6096 Leaves palmate 3-parted, Segments subtrifid, Stem branched ascending
6097 Leaves cuneiform palmate 5-fid ciliated longer than the linear petiole, Runners very short tufted
6098 Leaves hairy 3 or 5-parted, Lobes elliptical acute, Runners ascending, Petals obovate 3-nerved
6099 Leaves hairy palmate 5-cleft and trifid, Stem leafy panicled, Petals roundish
6100 Leaves ciliated cuneate trifid nearly 5-cleft, Pedunc. solitary elongate 1-fl.
6101 Cauline leaves lin. entire and trifid, Runners procumbent, Stem erect nearly naked
6102 Radic. leaves aggregate entire and trifid acute linear, Stem viscid nearly racemose, Petals length of cal.
6103 Radic. leaves aggregate membranous lin. lanceolate entire or trifid, Stem nearly naked about 2-fl.

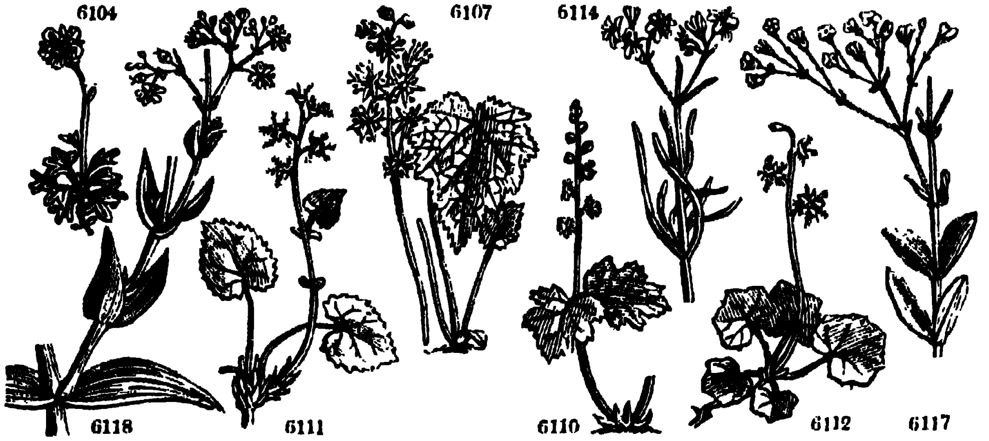
6104 Radic. leaves aggr. linear obtuse trifid cut, Stem erect many-fl. Petals twice as long as cal.
6105 Leaves imbric. cuneate-palmate ciliated, Petals round, Styles spreading, Stigmas flat woolly
6106 Radical leaves aggregate entire and trifid oblong obtuse, Stem filiform about 2-fl, Pet as long as calyx

6107 Leaves cordate acutely lobed toothed, Scape racemose
6108 Leaves ovate cordate acute shortly lobed toothed, Raceme filiform spiked
6109 Leaves biternate

6110 Leaves cordate about 3-lobed toothed, Scape 2-leaved
6111 Leaves orbiculate reniform doubly crenate lucid, Scape setaceous lucid
6112 Leaves reniform repand ciliated, Scape naked

1. *Calyxes not scaly.*

6113 Flowers clustered, Stems simple roughish, Leaves linear fleshy
6114 Flowers corymbose, Stem ascending, Leaves lanc. lin. obsoletely 3-cornered obt. 1-sided, Stam. exserted
6115 Flowers corymbose, Petals rarely subemarginate, Leaves linear fleshy smooth flat
6116 Flowers corymbose, Branches divaricating, Leaves ovate lanc. smooth at the base cordate amplexicaul.
6117 Branches spreading, Flowers panicled small, Pan. much branched, Fl.-stalks viscid
6118 Flowers panicled, Panic. much branched polished, Leaves ovate lanc. half stem-clasping
6119 Fl. trichotomous panicled, Pedunc. villous viscid, Petals emarginate twice as long as calyx
6120 Fl. panicled very minute diœcious, Peduncles smooth filiform divaricating, Leaves lin. lanc. rough
6121 Fl. panicled, Panic. divaricating, Branches few-flowered pubescent viscid, Leaves lin. lanc. obtuse
6122 Fl. dichotomous, Panic. smooth, Pet. emarg. twice as long as cal. Leaves lanceolate fleshy



and Miscellaneous Particulars.

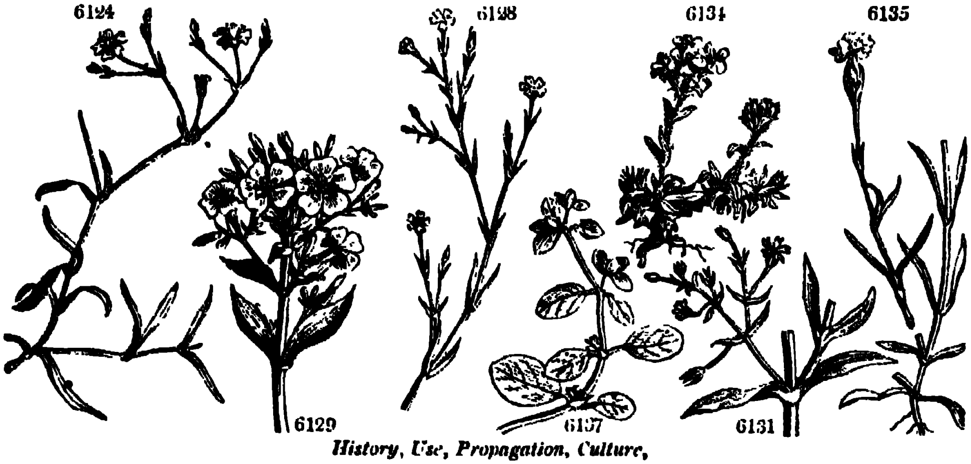
stood. The species are subject to great variation in appearance, and to much diversity of opinion among those who profess to be best acquainted with them. A middle course has here been taken, by which the doubtful kinds have been omitted, and those which are recognized, if not defined, satisfactorily, are alone admitted.

1042. *Tiarella.* From *tiara*, a particular kind of head-dress, a mitre, in allusion to the form of its capsule. Pretty little North American herbaceous plants, related to saxifrage, and easily cultivated in pots of light sandy peat and loam.

1043. *Mitella.* A diminutive of *mitra*, a mitre; so named for the same reason as the last genus, which it altogether resembles in habit and constitution.

1044. *Gypsophila.* From γυψος, chalk, and φιλεω, to love; most of the species delight in chalky districts.

6123	**Stevéni** *Fisch.*	Steven's	♃	△	or	2	jl.au	W	Iberia	1822.	D	co	
6124	**répens** *L.*	creeping	♃	△	or	½	jl.s	St	Siberia	1774.	D	p.l	Bot. mag. 1448
6125	**dúbia** *W.*	doubtful	♃	△	or	1	my.s	W	......	1815.	D	p.l	
6126	**prostráta** *L.*	trailing	♃	△	or	1	jl.s	W	Siberia	1759.	D	p.l	Bot. mag. 1281
6127	**murális** *L.*	wall	♃	△	or	½	jn.o	F	Germany	1739.	D	s.l	La. ill. t. 375. f. 1
6128	**Saxífraga** *L.*	small	♃	△	or	½	jl.au	Pk	Germany	1774.	D	p.l	Ex. bot. 2. t. 90
	β *rigida* Dec.	*rigid*	♃	△	or	½	jn.au	Pk	France	1769.	D	s.l	
1045.	**SAPONA'RIA.** *W.*	SOAPWORT.					*Caryophylleæ.*		*Sp.* 6—17.				
6129	**officinális** *W.*	common	♃	△	or	2	jl.o	Pk	England	hed.	D	co	Eng. bot. 1060
	β *plena*	*double-flower.*	♃	△	or	2	jl.o	Pk	......	...	D	co	
6130	**vaccária** *W.*	perfoliate		○	or	2	jl.au	Pk	Germany	1596.	S	s.l	Mor.ox.5.21.27
6131	**pórrigens** *W.*	hairy		○	or	1	jl.au	Pk	Levant	1680.	S	s.l	J. vind. 2. t. 109
6132	**ocymoídes** *W.*	Basil-leaved	♃	△	or	¼	my.jl	R	France	1768.	R	s.p	Bot. mag. 154
6133	**orientális** *W.*	small-annual	♃	△	or	1	jn.au	Pk	Levant	1732.	R	s.p	Di. el.t.167. f.204
6134	**lútea** *W.*	yellow	♃	△	or	½	jn.au	Y	Switzerl.	1804.	R	s.p	Smith spic. t. 5
1046	**DIAN'THUS.** *W.*	PINK.					*Caryophylleæ.*		*Sp.* 60—113.				
6135	**prólifer** *L.*	proliferous		○	pr	¾	jl.au	Pk	England	gra.pa.	S	p.l	Eng. bot. 956
6136	**diminutus** *L.*	small-flowered		○	pr	½	jl	Pk	S. Europe	1771.	S	p.l	
6137	**arméria** *L.*	Deptford		○	or	1	jl.s	R	England	gra.pa.	S	p.l	Eng. bot. 317
6138	**pseud-armeria** *Bieb.*	false Deptford	¥	△	or	1	jl.au	Pu	Crimea	1820.	C	p.l	Bot. mag. 2288
6139	**discolor** *Sims.*	two-colored	¥	△	or	1	jn.s	Pu	Caucasus	1803.	C	s.l	Bot. mag. 1162
6140	**barbátus** *L.*	Sweet-William	¥	△	or	1½	jn.jl	Pk	Germany	1573.	C	r.m	Bot. mag. 207
6141	**latifólius** *W.*	broad-leaved	¥	△	or	1½	jl.s	Pk	......	...	C	s.l	Sw. fl. gard. 2
6142	**japónicus** *Thunb.*	Japanese	¥	△|	or	1	jn.o	Pk	China	1804.	C	p.l	Thunb. jap. t. 23
6143	**cephalótes** *Scr.*	headed	¥	△	or	1½	jn.o	Pk	......	1823.	C	p.l	
6144	**capitátus** *Dec.*	capitate	¥	△	or	1½	jn.o	Pu	Caucasus	1822.	C	p.l	
6145	**polymórphus** *Bieb.*	variable	¥	△	or	1	jn.o	R	Crimea	1822.	C	p.l	
	β *diutinus* Lk.												
6146	**ferrugi'neus** *L.*	rusty	¥	⊙	or	1½	jl.s	Br	Italy	1756.	S	p.l	Mi. ic. 1. t. 81. f. 1
6147	**Carthusianórum** *L.*	Carthusian	¥	△	or	1½	jl.au	R	Germany	1573.	C	s.l	Loes pruss. t 7
6148	**atrorúbens** *All.*	dark-red	¥	△	or	1	jl.s	Cr	Italy	1802.	C	s.l	Jac. ic. 3. t 467
6149	**arbóreus** *L.*	tree	♄	⌋	or	1½	jn.au	Pk	Greece	1820.	C	s.l	Bot. cab. 459
6150	**fruticósus** *L.*	fleshy-leaved	♄	⌋	or	1½	jn.s	Pk	Greece	1815.	C	r.m	Tourn. it. 1. t. 9
6151	**suffruticósus** *W.*	shrubby	♄	⌋	or	1½	jn.jl	Pk	Siberia	1804.	C	p.l	
6152	**caroliniánus** *Walt.*	Carolina	¥	△|	or	1	jn.s	Pu	N. Amer	1811.	C	r.m	
6153	**ásper** *W.*	rough-stalked	¥	△	or	¾	jl.s	Pk	Switzerl.	1822.	C	s.l	
6154	**collinus** *W. & K.*	hill	¥	△	or	⅔	jl.s	W	Hungary	1800.	C	s.l	Par. lond. 62
6155	**campéstris** *Bieb.*	field	¥	△	or	1	jl.au	W.R	Tauria	1815.	C	s.l	Bot. mag. 1876
6156	**nitidus** *W. & K.*	shining	¥	△	or	1	jl.au	R	Carpath.	1822.	C	s.l	
6157	**diffúsus** *Sibth.*	diffuse	¥	△	or	1½	jl.au	R	Cyprus	1820.	C	s.l	
6158	**hir'tus** *Vill.*	hairy	¥	△	or	1	jl.au	R	France	1821.	C	s.l	
6159	**guttátus** *Bieb.*	rough-leaved	¥	△	or	1	jl.s	R	Caucasus	1816.	C	s.l	
6160	**versícolor** *Fisch.*	changeable	¥	△	or	1½	jl.s	R.Y	Russia	1823.	C	s.l	
6161	**praténsis** *Bieb.*	meadow	¥	△	or	1	jl.s	W.Y	Crimea	1820.	C	s.l	
6162	**chinénsis** *L.*	China	¥	⊙	or	1	jl.s	R	China	1713.	S	r.m	Bot. mag. 25



History, Use, Propagation, Culture,

Some of the species are fine border plants, but the greater part are of little beauty, and only grown in botanic gardens.

1045. *Saponaria.* In allusion to its mucilaginous sap, which is said to be fit for supplying the place of soap, *sapo.* S. officinalis plena is considered a border flower, but is inconvenient unless kept in pots, from its spreading very much by the roots, which are underground creepers, like those of couch. The leaves form a lather with soap, and take out spots of grease in the same manner. The whole plant is bitter, and was formerly used to cure the itch and the venereal disease.

1046. *Dianthus.* *Διος ανθος*, the flower of God, or divine flower; so named on account of its pre-eminent beauty. Most of the species of this genus are highly valued, not only for the beauty of their flowers, but also as being evergreens; their foliage during winter being as abundant and vivid as in summer. The fragrance of some of the species is peculiarly grateful, and no plant in this respect surpasses the carnation. D. barbatus is an old inhabitant of the flower garden, and was much esteemed in Gerarde's time " for its beauty to deck up the bosoms of the beautiful, and garlands and crowns for pleasure." The varieties are numerous, but as the plant has never been treated by florists as a leading flower, they have not been named or improved. A hybrid variety called the Mule, or Fairchild's Sweet-William, is supposed to have been produced from seeds of the

6123 Fl. panic. Stem diffuse, Leaves lin. lanc. grassy carinate callous
6124 Stems panic. few-fl. Stam. shorter than emarginate petals, Leaves linear smooth
6125 Petals obovate emarginate campan. Stamens shorter than corolla, Leaves linear somewhat fleshy
6126 Stems panicled, Styles longer than emarginate petals, Leaves lin. lanc. smooth
6127 Stem dichotomous panicled much branched, Fl. axill. solitary, Leaves lin. flat as long as fl.-stalks

2. Calyxes supported by 2-4 scarious scales.

6128 Stems numerous erect stiff, Fl. panicled terminal, Leaves linear rigid

6129 Flowers fascicled panicled, Cal. rounded villous yellowish, Leaves ovate lanc. acute or not

6130 Fl. panicled, Cal. pyramid. 5-ang. smooth, Bractes membranous acute, Leaves ovate lanc. sessile
6131 Stem erect, Branches divaric. with clammy hairs, Fl. on long stalks axill. Leaves lanc. linear
6132 Stems erect branched, Fl. panic. and corymbose, Cal. slender glandular purple, Lvs. ovate lanc. 1-nerved
6133 Stem dichotomous, Branches divaricating, Fl. axill. Cal. hispid round, Leaves linear spatulate
6134 Tufted, Stems 2-leaved, Flowers headed with an involucre, Cal. woolly

§ 1. *Flowers capitate or corymbose, sessile or stalked.*

* *Bractes ovate, blunt.*

6135 Scales of calyx ovate pointless longer than tube, Leaves serrulate
6136 Like the last, but the flowers nearly solitary

** *Bractes lanceolate, acute, Calyxes villous.*

6137 Flowers loosely bundled, Scales lanc. subul. as long as tube, Leaves subulate, Calyxes hairy
6138 Flowers densely bundled, Scales ovate subul. as long as tube, Pet. beard. Lvs. subul. pub. rough upright
6139 Fls. aggreg. Scales long. than cal. striat. rough, Lvs. lin. short. than joints rough, Stem simple rough upw.

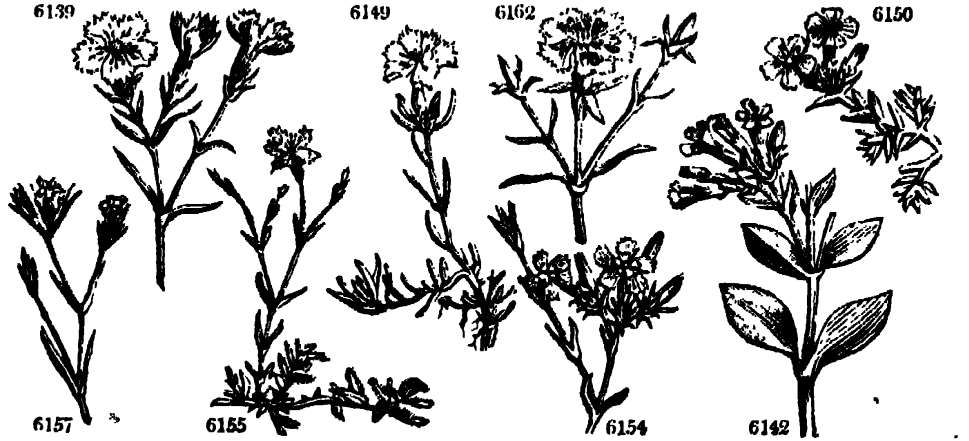
*** *Bractes ovate or lanceolate, Calyxes smooth.*

6140 Flowers aggregate fascicled, Scales ovate subulate as long as tube, Leaves lanceolate
6141 Flowers aggregate racemose corymbose, Scales ovate lanceolate finally longer than calyx, Lvs. obl. lanc.
6142 Flowers aggregate fascicled, Scales acute ciliated twice as short as tube, Leaves ovate short
6143 Fls. subsess. capitate, Scales imbric. mucron. at end spreading a little short. than tube, Lvs. long narrow
6144 Glaucous, Fls sess. capitate, Scales broad ovate with a long awn longer than head, Upper lvs. dilat. at base
6145 Dark green, Flowers sessile capitate, Scales ovate very short pointless, Leaves narrow rough
β Flowers panicled fastigiate and solitary stalked
6146 Fl. aggregate, Involucres and scales scarious rufous oblong awned a little shorter than cal.
6147 Fl. aggregate sessile and stalked, Scales ovate awned shorter than tube, Leaves linear 3-nerved
6148 Like the last, but flowers aggregate headed sessile 3-8
6149 Flowers aggregate, Claws of petals very long, Scales mucronulate closely imbricated, Leaves subul. fleshy
6150 Flowers aggregate, Claws of pet. as long as cal. Scales mucr. closely imbric. very short, Leaves lanc. obt.
6151 Flowers aggregate, Scales ovate subulate thrice as short as tube, Leaves lin. lanc. narrowed at each end
6152 Flowers aggregate on long stalks, Scales twice as short as tube

§ 2. *Flowers panicled or solitary.*

* *Petals toothed.*

6153 Flowers fascicled, Scales ovate lanceolate shorter than tube, Petals acutely toothed, Lvs. lin. lanc. rough
6154 Like the last, but the flowers more numerous, and the leaves linear lanc
6155 Stem panicled somewhat hairy, Fl. sol. Scales ovate acute twice as short as cal Leaves subul.
6156 Flowers fascicled twin, Scales awned as long as calyx, Petals crenate, Stem decumbent, Lvs. lanc. obt.
6157 Flowers somewhat corymbose, Scales furrowed mucron. twice as short as tube, Stems diffuse smoothish
6158 Flowers nearly sol. Scales 6 ovate mucron. much shorter than cal. Pet. crenate, Lvs. subul. rough at edge
6159 Stem panicled smooth, Flowers solitary, Scales ovate awned as long as tube, Leaves subulate nerved
6160 Stem many-fl. smooth, Scales cuspid. spreading shorter than tube, Pet. downy at orifice, Lvs. lin. roughish
6161 Stem panicled, Fl. sol. Scales acuminate appressed, Petals acutely toothed, Leaves subul. lanc.
6162 Stem branched, Fl. sol. Scales linear leafy, Petals toothed, Leaves lin. lanc.



and Miscellaneous Particulars.

carnation impregnated by a Sweet-William. D. caryophyllus is considered the source whence have sprung the numerous varieties of the carnation, and some think those also of the pink. The pink, however, is more probably derived from some of the smaller growing species, as plumarius, deltoides, armeria, carthusianorum, &c.

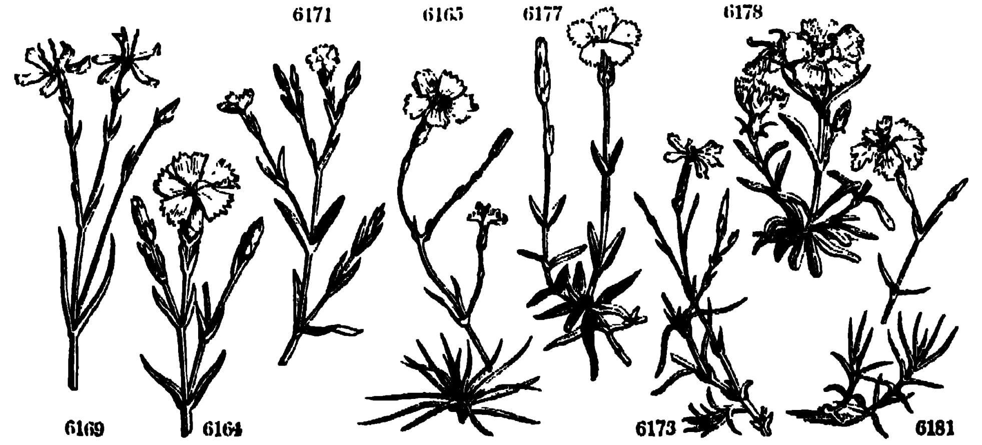
The carnation is rarely found wild in England, but it may be gathered on the south side of the Swiss Alps. It seems to have been unknown to the ancients, at least in its cultivated state, not being mentioned by Pliny, or sung by any of the Roman poets. It has, however, been cultivated from time immemorial in Europe, and is in the highest favor for its beauty and rich spicy odour. It is the principal florist's flower of Germany and Italy, from which countries the British florists procure their best carnation seed, and also some esteemed varieties.

The varieties of carnation amounted to nearly 400 named sorts in the beginning of the eighteenth century, and the number has not since diminished. They are arranged in three classes; flakes, bizarres, and picotees. Flakes have two colors only, and their stripes large, going quite through the leaves; *bizarres*, Fr. (odd, irregular) are variegated in irregular spots and stripes, and with no less than three colours; *picotees*, Fr. (*piquetée*, pricked or spotted) have a white ground, spotted or pounced with scarlet, red, purple, or other colors. Of

6163 **montánus** *Bieb.*	two-colored	♃	△	or	¾	jn.s	R	Caucasus	1803.	C	s.l	
6164 **caryophýllus** *L.*	Clove	♃	△	or	2	jn.au	F	England	walls.	C	r.m	Eng. bot. 214
β *flore plèno*	*Carnation*	♃	△	or	2	jn.au	Cr	England	...	C	r.m	Bot. mag. 39
γ *fruticòsus*	*tree-Carnation*	♄		or	3	jn.au	Cr	England	...	C	r.m	
δ *imbricàtus*	*wheat-ear*	♃	△	or	1½	jn.au	F	England	...	C	r.m	Bot. mag. 1662
6165 **virgíneus** *Sims.*	virgin	♃	△	or	1	jn.jl	W	S. Europe	1732.	C	s.l	Bot. mag. 1740
D. sylvestris Jacq.												
6166 **monadélphus** *Vent.*	procumbent	♃	△	or	1	jn.jl	Pk	Levant	...	C	s.l	Vent. cels. t. 39
D. procúmbens Pers.												
6167 **sylváticus** *Hoppe*	wood	♃	△	or	1¼	jn.s	R	Ratisbon	1815.	S	p.l	
6168 **pomeridiánus** *L.*	afternoon	♃	△	or	1	jn.jl	Y	Levant	1804.	C	s.l	Par. lond. 57
6169 **leptopétalus** *W.*	narrow-petalled	♃	△	or	1½	jl	W	Caucasus	1814.	C	s.l	Bot. mag. 1739
6170 **púngens** *L.*	pungent	♃	△	or	1	au.o	Pk	Spain	1781.	C	s.l	
6171 **deltoìdes** *L.*	maiden	♃	△	or	½	jn.o	F	Britain	gra.pa.	C	s.l	Eng. bot. 61
6172 **glaúcus** *L.*	glaucous-leaved	♃	△	or	¼	jn.o	W	Britain	...	C	s.l	Di. el. t.298.f.348
6173 **crenátus** *Thunb.*	long-cupped	♃	[△]	or	1	au	F	C. G. H.	1817.	C	s.l	Bot. reg. 256
6174 **rígidus** *Bieb.*	rigid	♃	△	or	¾	jn.o	R	Casp. Sea	1802.	C	s.l	
6175 **clavátus** *Spr.*	clavate	♃	△	or	1	jn.o	F	......	...	C	s.l	
6176 **suàvis** *W.*	sweet	♃	△	or	1	jn.o	Pa.pk	......	...	C	s.l	
6177 **cæ̀sius** *Sm.*	mountain	♃	△	or	¼	jn.jl	F	Britain	rocks.	C	s.l	Eng. bot. 62
6178 **alpìnus** *L.*	alpine	♃	△	or	¼	jn.jl	R	Austria	1759.	C	s.l	Bot. mag. 1205
6179 **Hornemánni** *Ser.*	Hornemann's	♃	△	or	1	jn.jl	R	Italy	...	C	s.l	
6180 **Sternbérgii** *Sibth.*	Sternberg's	♃	△	or	1½	jn.jl	R	......	...	C	s.l	
6181 **petræ̀us** *W. & K.*	rock	♃	△	or	½	jl.au	Pk	Hungary	1804.	C	s.l	Bot. mag. 1204
6182 **gállicus** *Pers.*	French	♃	△	or	¾	jn.au	Pu	S. France	...	C	s.l	
6183 **álbens** *H. K.*	Cape	♃	[△]	or	¾	au	W	C. G. H.	1787.	C	p.l	
6184 **plumárius** *L.*	feathered	♃	△	or	½	jn.au	W.pu	Europe	1629.	C	s.l	
6185 **horténsis** *W.*	garden	♃	△	or	1	jl.au	St	Hungary	1805.	C	r.m	
6186 **caucásicus** *Sims.*	Caucasian	♃	△	or	1	jn.s	Pu	Caucasus	1803.	C	s.l	Bot. mag. 795
6187 **frágrans** *Bieb.*	fragrant	♃	△	or	1	jn	Pu	Austria	1804.	C	r.m	Bot. mag. 2067
6188 **punctátus** *Spr.*	dotted	♃	△	or	1	jn	PaLi	......		C	r.m	Bot. cab. 896
6189 **serotìnus** *W. & K.*	late-flowering	♃	△	or	1	jl.s	Pu	Hungary	1804.	C	s.l	Pl. rar. h. 2.t.172
6190 **arenárius** *L.*	sand	♃	△	or	½	my	Pu	Europe	...	C	s.l	
6191 **fimbriátus** *Bieb.*	fringed	♃	△	or	1½	jn.au	Li	Iberia	1815.	C	s.l	Bot. mag. 1069
D. orientalis Sims.												
6192 **plumòsus** *Spr.*	feathered	♃	△	or	1½	jl.s	W.Li	M. Bald.	...	C	s.l	
6193 **monspessulánus** *L.*	Montpelier	♃	△	or	1	jl.au	R	Montpel.	1764.	C	p.l	
6194 **supérbus** *L.*	superb	♃	△	or	2	jl.s	W	Europe	1596.	C	s.l	Bot. mag. 1148

TRIGYNIA.

1047. **CUCU'BALUS.** *L.*	CAMPION.					*Caryophylleæ.*		*Sp.* 1.				
6195 **báccifer** *H. K.*	berry-bearing	♃	△	w	1½	jn.jl	W	England	hed.	D	co	Eng. bot. 1577



History, Use, Propagation, Culture,

each class there are numerous varieties, arranged under the farther subdivisions of scarlet flake, pink flake, purple flake, yellow flake, &c.; scarlet bizarre, crimson bizarre, &c.; and purple picotee, yellow picotee, &c.

Picotees are rather smaller flowers than carnations, and are distinguished by the serrated margins of their petals; the colors are principally yellow and white spotted, and the plants are considered hardier than the other sorts. Whatever colors the flower may be possessed of, they should be perfectly distinct, and disposed in long regular stripes, broadest at the edge of the lamina, and gradually becoming narrower as they approach the unguis, or base of the petal, there terminating in a fine point. Each petal should have a due proportion of white, *i. e.* one half, or nearly so, which should be perfectly clear and free from spots. Bizarres, or such as contain two colors upon a white ground, are esteemed rather preferable to flakes, which have but one, especially when their colors are remarkably rich, and very regularly distributed. Scarlet, purple, and pink are the three colors most predominant in the carnation; the two first are seldom to be met with in the same flower, but the two last are very frequently.

New varieties are procured from seeds, and thousands of seedlings are annually blown by florists and amateurs, sometimes without one being found worth keeping. Established or approved varieties are continued by layering and cuttings, or, as they are commonly called, pipings. The soil in which the carnation thrives best is a rich loam rather sandy than otherwise; the climate should be free from extremes of every kind, for which reason they are commonly grown in pots, and protected by a frame during winter, and covered by an awning while in bloom. Carnations grow exceedingly well in beds of properly prepared soil, over which frames are placed in winter, and an awning of canvass or bunting when the plants are in blossom. Those who are curious in blowing their carnations have a great many nice and curious operations to perform when they come into flower. Such petals as are plain, or run from the proper colors of the variety, are extracted by a particular instrument; the remaining petals are next arranged so as to form a convex imbricated surface; the calyx being slit down or tied up as may be necessary to aid this end. Then the flowerstalks are neatly tied to sticks, and the flower supported in a pendant attitude by means of properly formed brass wires.

6163 Stem branch. upw. closely dichotom. Fl. sol. Bract. with a spread. leafy point, Lvs lin. subul. 3-nerv. hairy
6164 Stem branched, Fl. sol. Scales very short ovate, Petals very broad beardless, Lvs. lin. sub. channelled glauc.

6165 Stem branched or simple, Fl. sol. Scales very short 4 ovate, Pet. broad beardless toothed

6166 Stem dichotomous panicled many-fl. glaucous, Fl. sol. Scales 4 pungent spreading shorter than tube

6167 Fl. sol. subcorymb. Scales ov. lanc. short. than tube, Lvs. lin. lanc. obsol. 3-nerv. smooth, Pet. twice toothed
6168 Fl. sol. Scales ovate acute very short, Petals emarginate or nearly entire
6169 Stem branched, Fl. sol. Scales ovate acute very short awned, Pet. lanc. narrow, Leaves subul. roughish
6170 Stem few-fl. Fl. sol. Scales very short mucron. spreading, Tube gibbous, Pet. entire, Lvs. cæspitose subul.
6171 Stem decumb branched, Fl. sol. Scales ovate lanc acute twin, Upper leaves narr. acute: lower oblong obt.
6172 Like the last, but flowers white, Leaves and stem glaucous
6173 Stem branched, Fl. sol. Scales 6 lanc. appressed, Pet. smooth cuneate obovate, Lvs lin. acum. channelled
6174 Stems tufted few-fl. Fl. sol. Scales ovate acute short, Leaves subul. spreading downy rough
6175 Stem 1-fl Scales 2 ovate acute short spreading, Cal. contracted in middle, Lvs. lin. chann. roughish at edge
6176 Stem 1-fl. Scales 4 acute short, Petals bearded doubly serrated, Leaves lin. spreading
6177 Stems tufted about 1-fl. Scales roundish short, Pet. crenate downy, Leaves bluntish rough at edge
6178 Stem 1-fl. Outer scales as long as tube: inner much shorter, Pet. crenate, Leaves obl. obtuse
6179 Pedunc. bifid term Scales lanc. cusp erect short than tube, Pet. cut, Lvs. lin. nerved serrul. rough at edge
6180 Stems about 2-fl. Scales 4 ovate acute twice as short as tube, Petals serrate downy, Leaves linear
6181 Stem about 1-fl. Scales obovate mucronate, Pet. beardless many-cut, Leaves subul. entire smooth nerved

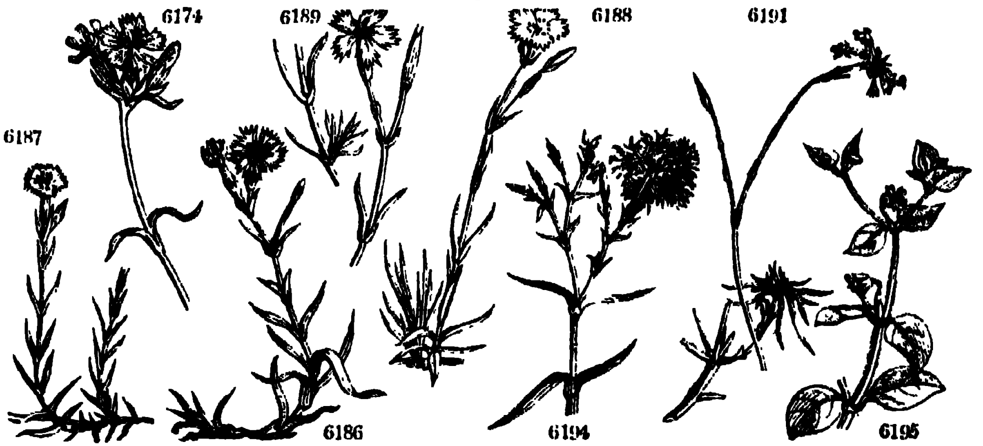
** *Petals fringed.*

6182 Stems ascending about 1-fl. Scales short ovate, Pet. toothed many-cut, Leaves lin. ciliated
6183 Fl. sol. Scales 4 lanc. short, Petals emarginate at the end fringed toothed
6184 Glaucous, Stems 2-3-fl. Teeth blunt, Bractes ovate very short pointed, Leaves lin. rough at edge
6185 Like the last, but the petals bearded at their orifice
6186 Stem pan. few-fl. Fl. sol. Scales ovate acum. Petals equally cut crenate, Leaves glaucous rough at edge
6187 Stems 1-fl. Scales ovate lanceolate acuminate shorter than tube, Pet. beardless, Lvs. subul. rough at edge
6188 Stem branched few-fl. Scales 4 blunt short, Petals beardless dotted, Leaves glaucous linear flaccid
6189 Stems 1-fl. Scales ovate obtuse four times as short as calyxes, Pet. naked, Leaves subul glauc. ciliated
6190 Stems 1-fl. Scales ovate obtuse, Leaves linear
6191 Stem half-shrubby branched at base 2-fl. Scales 6 lanc. shorter than cal. Leaves subul. rough

6192 Fl. scattered solitary, Scales lanc. lin. spreading a little shorter than tube, Leaves lin. nerved flaccid
6193 Stem panicled few-fl. Fl. sol. Scales subul. straight twice as short as tube, Petals digitate, Lvs. lin. serrul.
6194 Stem panic. many-fl. Fl. fastigiate, Scales short ov. mucron. Pet. beyond the middle pinn. many-cut hairy [at orifice

TRIGYNIA.

6195 Branches divaricating, Leaves ovate, Cal. campanulate, Pet distant



and Miscellaneous Particulars.

Behind the petals a circle of card paper is sometimes fixed to keep them in position, and the pot in which the plant grows is placed on a particular description of saucer, by which it is surrounded by water, in order to prevent the approach of ground insects, and especially of the earwig. These and a number of other operations will be found described at length in Maddock's Florist's Directory, and in the Encyclopædia of Gardening. (Sec. 6406.)

The pink, as a florist's flower, is of much less antiquity than the carnation: it is scarcely mentioned by Gerarde, and Parkinson has given very few varieties. It was chiefly grown as a border flower till within the last fifty years, since which it has been greatly improved and many fine varieties originated. Being one of the hardiest and least expensive of fine flowers, it is much cultivated by operative mechanics and manufacturers round large towns, and no where to such an extent as about Paisley, by the muslin weavers there.

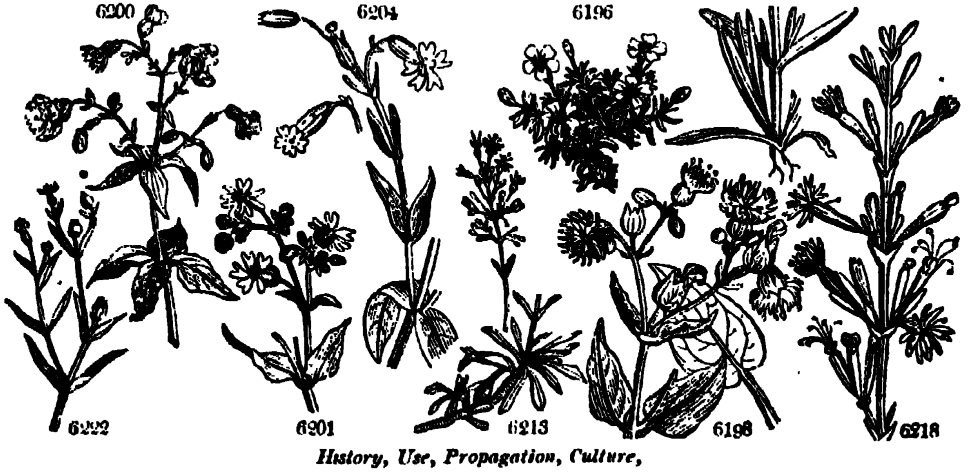
The varieties of pink most cultivated are chiefly those called pheasant's eyes, which seem to have sprung from D. plumarius. Cob pinks are a large sort seemingly intermediate between pinks and picotee carnations; red early pinks are smaller plants than cobs, but larger than pheasant's eyes, and seem to have sprung from cobs and D. armerius or deltoides. The Paisley growers reckon above three hundred varieties of the pheasant's eyes. To garden pinks in general Wildenow gives the appellation of D hortensis.

The propagation and culture of the pink is the same as that of the carnation, excepting that it is less frequently kept in pots or frames, but planted in beds of fresh loamy soil, and the small side shoots reduced in the autumn in order to throw more strength into those intended to produce flowers the following season. Some cover their pink bed with an awning. Not more than eight or ten flowers are ever allowed to expand on one plant, and these, if they shew a tendency to bursting at the calyx, are to be tied as in carnation culture.

1047. *Cucubalus.* A name signifying a bad subject; an evil weed According to Miller, the berries of this plant are no less deadly than those of Nightshade.

1048. **SILE'NE.** *L.* CATCHFLY. *Caryophylleæ.* *Sp.* 107—217.

6196 acaulis *L.*	stemless	♃	△	pr	½	jn.au	Pk	Britain	sc.alp.	D	p.l	Eng. bot. 1081
6197 pumilio *Sturm.*	dwarf	♃	△	pr	½	jn.au	Pu	Germany	1823.	D	co	Stur. d. f. 1. t. 11
6198 fimbriáta *Sims.*	fringed-flower.	♃	△	pr	1½	my.au	W	Caucasus	1803.	D	s.l	Bot. mag. 908
6199 lácera *Sims.*	torn	♃	△	pr	1½	my.au	W	Caucasus	1818.	D	co	Bot. mag. 2255
6200 stelláta *H. K.*	four-leaved	♃	△	pr	1	jn.au	W	N. Amer.	1696.	D	co	Bot. mag. 1107
6201 infláta *Sm.*	inflated	♃	△	cu	1	my.s	W	Britain	co fl.	C	co	Eng. bot. 164
6202 marítima *W.*	sea	♃	△	cu	¾	au.s	W	Britain	sea sh.	D	s.l	Eng. bot. 957
6203 fabária *H. K.*	thick-leaved	♃	△]	cu	¾	jn.au	W	Sicily	1731.	S	co	Boc. m. 133. t. 92
6204 Béhen *L.*	bladder		○	w	2	jn.jl	W	Crete	1713.	S	co	Di. el. t.317. f.409
6205 índica *Roxb*	Nepal	♄	△]	w	2	jn.jl	Pu	Nepal	1823.	C	co	
6206 viscaginoides *Horn*	simple	♃	△	cu	¾	jn.jl	Pk	Dauria	1824.	D	co	
6207 procúmbens *Murr.*	procumbent	♃	△	cu	¾	jn.jl	Pk	Siberia	1823.	D	co	
6208 rubélla *L.*	small-red		○	pr	½	my.jn	F	Portugal	1732.	S	co	Di. el. t.314. f.406
6209 apétala *W.*	petalless		○	cu	1	jn.jl	Ap	......	1801.	S	co	
6210 spergulifólia *Bieb.*	spurrey-like	♃	△	pr	½	jn.jl	W	Armenia	1824.	D	co	
6211 Gypsóphila *Desf.*	little	♃	△	pr	½	jn.jl	W	......	1822.	D	co	
6212 carnósa *Monch.*	fleshy		○	w	1	jn.jl	Pu	......	1823.	S	co	
6213 Otites *Pers.*	Spanish	♃	△	cu	2	jl.au	Y	England	gra so.	D	co	Eng. bot. 85
6214 volgénsis *Otth.*	Volga	♃	△	pr	1	jl.au	Pk	Volga	1824.	D	co	
6215 parviflóra *Pers.*	small-flowered	♃	△	pr	1	jl.au	Pk	Hungary	1796.	D	co	
6216 effúsa *Otth.*	effuse	♃	△	pr	1	jl.au	Pk	Volga	1823.	D	co	
6217 sibírica *Pers*	Siberian	♃	△	cu	1½	jn.au	Pk	Siberia	1773.	D	co	H. go. 1 p.150. ic.
6218 multiflóra *Pers*	many-flowered	♃	♂	cu	1	jn.au	R	Hungary	1794.	S	co	Pl. rar. h. 1. t. 56
6219 tatárica *Pers.*	Hyssop-leaved	♃	△	pr	2	jn.au	Pk	Russia	1769.	D	co	
6220 gigantéa *L.*	gigantic	♄	[♂]	pr	3	jn.jl	R	Africa	1738.	C	s.l	Walt. ho. t. 11
6221 viscósa *Pers.*	clammy	♃	♂	or	2	jl	R	Levant	1739.	D	co	Tour. it. 2. p. 361
6222 cónica *L.*	corn		○	w	1	jn.jl	Pu	England	san fl.	S	s.l	Eng. bot. 922
6223 conoidea *L.*	conoid		○	pr	1	jn.jl	Pu	S. Europe	1683.	S	s.l	Mor. s.5. t. 36. f.6
6224 unduláta *H. K*	wave-leaved	♄	[♂]	cu	1½	au	R	C. G. H.	1775.	S	p.l	
6225 ánglica *L.*	English		○	w	¾	jn.jl	W	Britain	san fl.	S	co	Eng. bot. 1178
6226 lusitánica *L.*	Portugal		○	pr	1	jn.jl	Pk	Portugal	1732.	S	co	Di. el. t.311. f.401
6227 tridentáta *Desf.*	three-toothed		○	pr	¾	my.jn	Pk	Barbary	1823.	S	s.l	
6228 gállica *L.*	French		○	pr	1	my.jn	Pk	France	1683.	S	s.l	Di. el. t.310. f.399
6229 ocymoides *Desf.*	Basil-like		○	pr	1	my.jn	Pu	......	1823.	S	co	
6230 dísticha *W.*	two-ranked		○	pr	1½	jn.jl	R	......	1817.	S	s.l	Schra. pl. r. t. 39
6231 cerastoides *L.*	Cerastium-lvd.		○	cu	¾	jl.au	W	S. Europe	1732.	S	s.l	Di. el. t.309. f.397
6232 quinquevúlnera *L.*	variegated		○	or	1	jn.au	Bd	England	san. fl.	S	co	Eng. bot. 86
6233 noctúrna *L.*	spiked		○	cu	2	jn.au	Br	S. Europe	1683.	S	s.l	Di. el. t.310. f.400
6234 refléxa *L.*	reflexed	♃	△	cu	1	jl.au	Br	S. Europe	1726.	D	co	Mag. mo. 171. ic.
6235 micropétala *Dec*	small-petaled		○	un	½	jn.jl	R	......	1821	S	co	
6236 micrántha *Lk.*	minute-flower'd		○	un	¾	jn.jl	R	Portugal	1823.	S	co	
6237 canéscens *Ten.*	hoary	♃	△	un	1	jn.jl	R	Naples	1822.	D	co	
6238 dichótoma *Ehr.*	dichotomous		○	un	1½	jn.jl	Pk	Hungary	1791.	S	s.l	Pl. rar. h. t. 29
6239 nyctántha *W.*	various-leaved		○	cu	1½	jn.au	Br	......	1815.	S	co	
6240 bellidifólia *Jacq.*	Daisy-leaved		○	pr	1	jn.jl	Pk	......	1794.	S	s.l	Jac. vind. 3. t. 81
6241 vespertína *Retz.*	evening		○	cu	2	jl.au	Br	Barbary	1796.	S	co	Bot. mag. 677
6242 crassifólia *L.*	thick-leaved	♄	[♂]	cu	1	jl.au	Br	C. G. H.	1774.	R	p.l	
6243 grácilis *Dec.*	slender		○	pr	1	jl.au	W	......	1823.	S	co	
6244 jeniseensis *W.*	two-colored	♃	△	pr	1½	jn.jl	Pk	Siberia	1817.	D	s.l	
6245 ciliáta *Pourr.*	ciliated		○	cu	¾	jn.au	Pu	Crete	1804.	S	s.l	
6246 péndula *L.*	pendulous		○	or	1	my.jl	R	Sicily	1731.	S	s.l	Bot. mag. 114
6247 quadridentáta *Dec.*	four-toothed	♃	△	pr	¾	my.jl	W	Alps	1822.	D	co	
6248 pusilla *W. & K*	dwarf	♃	△	un	½	jn.jl	Pk	Hungary	1804.	D	s.l	Pl. rar. h. 3. t.212
6249 alpéstris *Jacq.*	Austrian	♃	△	un	½	my.jl	R	Austria	1774.	D	s.l	Jac. aus. 1. t. 96
6250 rupéstris *L.*	rock	♃	♂	un	½	my.jl	R	Switzerl.	1774.	D	s.l	Fl. dan. 4



History, Use, Propagation, Culture,

1048. *Silene.* A poetical name, after the God Silenus, who is represented as always drunk and covered with slaver, as the species of this genus usually are with a viscid secretion. This is a large family of small plants, neither remarkable for use, beauty, or as bad weeds. S. inflata, the Cucubalus Behen *L.*, may be used as a substitute for asparagus or green pease, the young shoots having the flavor of both. They ought to be gathered

§ 1. *Tufted, Stems scarcely any, Calyx somewhat inflated, Peduncles 1-flowered.*
6196 Smooth, Stems dense, Leaves lin. lanc. Flowers diœcious, Calyx campanulate
6197 Stems less dense, Leaves lin. spatulate pubescent, Cal. inflated hairy

§ 2. *Caulescent, Flowers solitary or panicled, Calyx bladdery inflated.*
6198 Pubescent, Leaves large ovate-lanc. Fl. in large panicles, Cal. much inflated, Petals fringed
6199 Hispid, Leaves ovate-lanc. on long stalks wavy, Cal. much inflated, Pet. lacerated crowned
6200 Stems erect branched pubescent, Leaves 4 whorled lanc. with long points smooth, Fl. pan. Cal. bladdery
6201 Stems branched, Fl. pan. Cal. bladdery ovate, Pet. bifid naked, Styles very long
6202 Like the last, but hairy with ovate lanc. leaves
6203 Like the last, but creeping with smaller nearly spatulate leaves
6204 Smooth branch. Lvs. lanc.: the lower stalk. Fl. pan. Cal. ovate veiny, Pet. with 2 very short lobes crowned
6205 Pubescent, Stems very tall branch. Lvs. large lanc. Fl. pan. Cal. ov. netted, Pet. with a claw hairy at base
6206 Smooth, Stem erect simple rather leafy, Lvs. lin. scarcely ciliat. Fl. in pan. spikes, Claws of pet. not ciliated
6207 Smooth with very leafy branched procumbent stems, Leaves lanc. Fl. axill opp. and terminal, Petals bifid
6208 Nearly smooth, Stems little branched, Leaves obovate serrulate-ciliated, Fl. pan. Pet. obcordate crowned
6209 Hoary, Stem erect branched, Leaves lanc.: the upper linear, Fl. few term. Petals O
6210 Stems procumb. diffuse 2-3-chotomous branched, Lvs. small lin. Petals half-bifid with an obcord. crown
6211 Nearly smooth, Stems wavy branched leafy, Leaves lin. lanceolate, Petals 2-lobed
6212 Smooth, Stem erect, Leaves acute glaucous, Fl. solitary, Pet. lanceolate with a 2-lobed crown

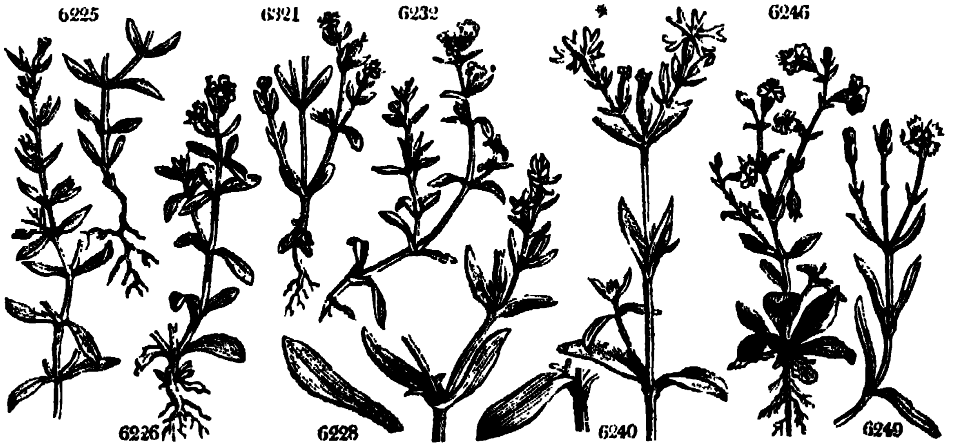
§ 3. *Caulescent, Flowers spiked in whorls.* [Fl. small diœcious
6213 Leaves erect, with a few branches, which are scarcely pubesc. or leafy, Lower lvs. numerous spatul. fleshy,
6214 Stem pubesc. branched, Lower leaves large lanc. spatulate: upper lin. long, Fl. panicled with linear petals
6215 Hoary, Stems assurgent nearly simple, Leaves spatulate lanc. Cal. spherical 10-striped
6216 Stems erect nearly simple, Lvs. lin.: lower obt. Fl. very numerous and small, Cal. obov. clavate 10-striped
6217 Half-shrubby smooth, Stems much branch. Lvs. lin. lanc. shortly ciliat numerous, Cal. infl clav. 10-striped
6218 Stem simple, Lvs. lin. lanc.: lower broader stalk. Cal. clavate cylindr. 10-strip. Pet. 2-part. Stam. very long
6219 Smooth, Stems erect simple very leafy, Lvs lanc. small, Spike dense, Cal. clavate netted, Stam. very long
6220 Velvety, Radical leaves cochleate smooth, Cal. tubular 10-striped, Pet. 2-fid, Stamens very long
6221 Pubescent very viscid, Stem simple thick leafy, Leaves large lin. lanc. wavy, Fl. large nodding

§ 4. *Caulescent, Calyx conoid, at the bottom retracted, with very long teeth.*
6222 Pubescent, Leaves linear soft, Cal. short conical
6223 Stems pubescent, Leaves lanc. lin. nearly smooth, Cal. long conical
6224 Pubescent, Leaves lanceolate wavy: the lower stalked, Fl. large in loose dichotomous panicles

§ 5. *Caulescent, Flowers spiked, axillary, not opposite, Calyx with* 10 *stripes.*
* *Calyx cylindrical.*
6225 Hairy, Stems branched, Leaves lanc. acute, Cal. ventricose with very long teeth, Petals small crowned
6226 Very hairy, Stems much branched, Lower leaves obovate spat.: upper lanc. obtuse, Petals undivided
6227 Stems branched, Leaves lin. lanc. Spike 1-sided, Cal. cylindrical with 10 ribs, Teeth long, Pet. 3-toothed
6228 Hairy, Stems branched, Lower lvs spatulate: upper lanc. obtuse, Cal.-teeth short, Pet. obov. crowned
6229 Hairy, Stems branched, Leaves spatulate, Spike 1-sided few-fl. Cal. very hairy, Pet. obovate crowned
6230 Hairy, Stem much branched, Leaves lanc. cusp. Spikes twin dense, Pet small bifid
6231 Stems simple vill. Leaves pub.: lower spatul.; upper lanc. Spike 2-ranked few-fl. Pet. obov. retuse crowned
6232 Pubesc. Stems branch. Lvs. lanc: lower obt. Spike 1-sid. Cal vill. with short teeth, Pet. roundish crowned
6233 Stem branch. hairy below, Lvs pubesc. with a long fringe at base, Cal. cyl. nearly smooth ribbed and netted
6234 Like the last, but flowers few distant, Petals smaller
6235 Hairy, Stem branched leafy, Leaves lin. lanc Flowers terminal, Cal. cylindr. Pet. bifid
6236 Hairy, Fl. sessile 1-sided, Cal. cylindr. appressed, Petals small deeply emarginate

** *Calyx clavate.*
6237 Hoary, Stems prostrate branched, Lvs. obovate spatulate ciliated at base, Fl. 1-sided erect, Pet. bifid
6238 Stems branch pubesc Lvs. scabrous cil. at base: lower spatul.; upper lanc. Fl. sess. nodding, Pet 2-parted
6239 Pubescent, Lvs somewhat fleshy: lower spatulate; upper lanceolate, Cal long clavate, Petals 2-fid
6240 Hairy, Stem erect slender branched, Lvs lanc. Spikes twin 2-sided, Cal. cylindr. clavate, Pet bifid
6241 Pubesc Stems branch. Lvs. spatul. obt. Spikes twin 1-sided, Cal. bladdery, Pet 2-parted with ov. lobes
6242 Velvety, Stem procum. branch. leafy, Lvs ov. spatul fleshy, Bract. very small, Pet with long claws emarg.
6243 Smth. Stem erect slend. branch. Lvs lin. scarcely ciliat.: low. ov. Fl. on long stks. Pet 2-part. with lin. lobes
6244 Smooth, Stems usually simple, Lvs. somewhat fleshy lin lanc. Cal. ov ventric. Pet. bifid with 4-lob. append.
6245 Pubesc. Stems numerous prostrate very leafy at base, Lvs. lin setaceous ciliated, Recesses of calyx deflexed
6246 Pubescent branched supine, Leaves ovate lanc Fl axillary pendulous, Petals bifid crowned

§ 6 *Caulescent, Stems upright, Peduncles filiform, Calyx campanulate or cylindrical.*
6247 Tufted, Stems erect slender branched, Lvs. small linear very narrow, Fl. small, Petals short 4-toothed
6248 Like the last, but the radical leaves broader, Peduncles long upright
6249 Root branched, Stems simple leafy, Lvs lanc. lin obt Fl. large panicled, Petals broad 4-cleft, Seed ciliated
6250 Smooth, Stems erect branched, Leaves ovate lanc. Fl. panicled very small, Petals obcordate

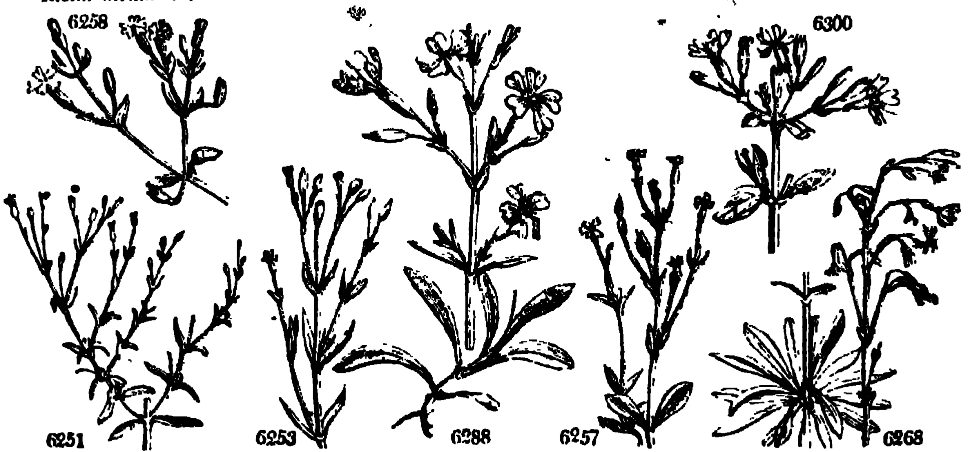


and Miscellaneous Particulars.

when about two inches long, and the more they are blanched the better Bryant (*Flora Dietetica*) says, its culture would well reward the gardener's trouble. S. viscosa is a popular border flower, especially the double variety.

S. quinquevulnera was formerly in culture as a border flower, but is now seldom used for that purpose:

6251 inapérta *L.*	unopen-flower.		○	un	2	jn.jl	Br	Madeira	1732.	S	s.l	Di. el. t.315.f.407
6252 clandestina *Jacq.*	hidden-flower.		○	un	1	jn.jl	R	C. G. H.	1801.	S	co	Jac. col. s. t. 3.f.3
6253 antirrhina *L.*	Snap-dragon		○	un	1	jn.jl	R	N. Amer.	1732.	S	p.l	Di. el. t.313.f.403
6254 geminiflóra *W.*	twin-flowered		○	cu	1	jn.jl	Pu	......	1816.	S	co	
6255 flavéscens *W. & K.*	yellowish	Ψ	△	pr	1	jn.jl	Y	Hungary	1804.	D	p.l	Pl. rar. h. 2.t.175
6256 linifólia *W.*	Flax-leaved		○	pr	1	jl.au	G.y	......	1817.	S	s.l	
6257 crética *L.*	Cretan		○	pr	¾	my.au	G.w	Candia	1732.	S	s.l	D.e. t.314.f.404,5
6258 sedoides *Jacq.*	Sedum-like		○	pr	¼	jl	G.w	Crete	1804.	S	co	Jac. co. s. t.14.f.1
6259 saxífraga *L.*	Saxifrage	Ψ	△	cu	¼	jn.au	F	France	1640.	D	s.l	Bot. cab. 454
6260 petræ'a *W. & K.*	rock	Ψ	△	pr	¼	jn.au	W	Hungary	1822.	D	co	
6261 campánula *Pers.*	Bell-flowered	Ψ	△	pr	¾	jn.au	G.w	Piedmont	1823.	D	co	
6262 longipétala *Vent.*	long-petaled		○	pr	1	jn.au	G.w	Barbary	1822.	S	co	Vent. cels. 83
6263 nútans *L.*	Nottingham	Ψ	△	w	2	jn.jl	W	Britain	cal. ro.	D	co	Eng. bot. 465
6264 saxátilis *Sims.*	stone	Ψ	△	cu	¼	jn.jl	G	Siberia	1800.	D	s.l	Bot. mag. 685
6265 livida *W.*	livid	Ψ	△	pr	1	jn.jl	W	Carniola	1816.	D	s.l	
6266 ténuis *W.*	slender	Ψ	△	pr	¾	jl	G.w	Baical	1816.	D	p.l	
6267 viridiflóra *L.*	green-flowered	Ψ	◑	cu	2	jn.jl	G.w	Spain	1739.	S	p.l	Herm par. 199
6268 chlorántha *W.*	pale-flowered	Ψ	△	cu	1½	jn.au	G.w	Germany	1732.	D	s.l	Di. el. t.316.f.408
6269 cathólica *Otth.*	panicled	Ψ	△	cu	1½	jl.s	G.w	Italy	1711.	D	co	Jac. vind. 1. t. 59
6270 élegans *Brot.*	elegant		○	pr	1½	jl.s	W	Portugal	1819.	S	co	
6271 répens *Dec.*	creeping	Ψ	△	pr	1	jl.s	Pk	Siberia	1822.	D	co	
6272 virgínica *L.*	Virginian	Ψ	△	or	1	my au	Pu	N. Amer.	1783.	D	p.l	Pl. alm. t.203. f.1
6273 stricta *L.*	upright		○	pr	1	jn jl	Pu	Spain	1802.	S	co	
6274 muscipula *L.*	Spanish		○	or	1½	jl.au	R	Spain	1596.	S	p.l	
6275 noctiflóra *L.*	night-flowering		○	cu	2	jl	Pk	England	san fi.	S	s.l	Eng. bot. 291
6276 ornáta *H. K.*	dark-colored	Ψ	[◑]	cu	1	my s	Pu	C. G. H.	1775.	S	p.l	Bot. mag. 382
6277 ægyptiaca *L.*	Egyptian		○	cu	1	jl.au	Pk	Egypt	1800.	S	s.l	
6278 sericea *All.*	silky		○	cu	1½	jn.au	Pk	S. Europe	1801.	S	s.l	All. ped. t.79. f.3
6279 picta *Pers.*	painted		○	pr	1	jn.au	Pk	......	1822.	S	co	
6280 porténsis *Bon.*	Oporto		○	cu	1	jl.au	Pk	Portugal	1759.	S	s.l	
6281 reticuláta *Desf.*	netted		○	cu	1	jl au	Pk	Barbary	1804.	S	p.l	Desf. atl. 1. t. 99
6282 pennsylvánica *Mich.*	Pennsylvanian	Ψ	△	or	1	jn.jl	R	N. Amer.	1806.	D	p.l	Bot. reg. 247
6283 vallésia *L.*	Woolly-leaved	Ψ	△	cu	½	jn au	F	Switzerl.	1765.	D	s.l	Boc. mus. t 54
6284 fruticósa *L.*	shrubby	Ψ	⌋	pr	1½	jn jl	Pk	Sicily	1629.	C	p.l	Com. hort. t. 33
6285 cas'pica *Pers.*	Caspian	Ψ	△	pr	¾	jn.jl	Pk	Caucasus	1823.	D	co	
6286 amœ'na *L.*	Tartarian	Ψ	△	pr	1	jl	W	Tartary	1779.	D	p.l	
6287 supina *Bieb.*	trailing	Ψ	△	pr	¾	jn.au	Pk	Caucasus	1804.	D	s.l	Bot. mag 1997
6288 paradóxa *L.*	Dover	Ψ	△	cu	1	jl	Pk	Europe	...	D	p.l	Jac. vind. 3. t. 84
6289 chloræfólia *Sm.*	Armenian	Ψ	△	cu	1	au s	L. Y	Armenia	1796.	D	p.l	Bot. mag 807
6290 itálica *Dec.*	Italian	Ψ	◑	cu	1½	my jn	W	Italy	1759.	S	co	Jac. obs. 4. t. 79
6291 patula *Desf.*	spreading	Ψ	△	pr	1	my jn	Pk	Barbary	1823.	D	co	
6292 polyphýlla *L.*	many-leaved	Ψ	△	pr	1	jn jl	R	Germany	...	D	p.l	Cl. hist. 1. t. 290
6293 nemorális *W & K.*	grove	Ψ	◑	pr	1	jn.jl	R	Hungary	1822.	S	co	
6294 longiflóra *Ehr.*	long-flowered	Ψ	△	or	1½	jl.s	L Pu	Hungary	1793.	D	p.l	Pl rar. h. 1. t. 8
6295 bupleuroides *L.*	spear-leaved	Ψ	◑	cu	2	jn.jl	W.pu	Persia	180[illegible]	C	p.l	Tourn. it. t. 154
6296 mollissima *Pers.*	velvet	Ψ	△	cu	1	jl.s	Pk	Italy	1739.	D	co	
6297 régia *Sims.*	splendid	Ψ	△	or	1½	my.au	Cr	N. Amer.	1811.	D	p.l	Bot. mag. 1724
6298 ascéndens *Lag.*	ascending		○	cu	¾	my.au	Pk	Spain	1822.	S	co	
6299 cæspitósa *Stev.*	tufted	Ψ	△	pr	½	my.au	Pk	Caucasus	1824.	D	co	
6300 atócion *Murr.*	orchis-flowered		○	pr	⅔	my.jl	Pk	Levant	1781.	S	s.l	Jac. vind. 3. t.32
orchidea L. f.												
6301 arméria *L.*	Lobel's		○	or	1½	jl.s	Pk	England	cor.fi.	S	s.l	Eng. bot. 1398
β *alba*	*white-flowered*											
6302 compácta *Fisch.*	compact		○	or	1½	jl.s	Pk	Caucasus	1823.	S	co	Bot. cab. 1638
1049. STELLA'RIA. *W.*	STITCH-WORT.					*Caryophylleæ.*		*Sp.* 18—56.				
6303 némorum *W.*	wood	Ψ	△	w	1	ap jn	W	Britain	moi.wo.	D	co	Eng. bot. 92
6304 latifólia *P. S.*	broad-leaved	Ψ	△	w	1½	jn.au	W	Germany	1816.	D	co	
6305 média *E. B.*	chickweed		○	w	¾	ja.d	W	England	rubb.	S	co	Eng. bot. 537
Alsine média W.												



History, Use, Propagation, Culture,

being very low and prolific in flowers, it is well adapted for sowing in pots. S. Armeria is one of the annual border flowers of the seed shops.

1049 *Stellaria.* The parts of the flower are stellate. The species are grassy-looking plants of the easiest

6251 Smooth, Stems erect branched, Lvs. lanc. acute : lower obt. Petals not opening obcordate, Stam. usually 5
6252 Pubesc. Stem erect much branched slender, Lower lvs. obl. obt. : upper lanc. narrow, Pet. short erect bifid
6253 Nearly smooth, Stem erect branched somewhat leafy, Leaves lanc. acute ciliated, Fl. small panicled
6254 Pubescent, Stems branched, Lower leaves ellipt. spatulate : upper lanc. Fl. term. twin, Petals bifid
6255 Pubescent, Stems erect branch. straight, Low. lvs. lanc. spat. : up. linear, Fl. loosely panicled, Pet. 2-lobed
6256 Stems branched, Leaves lin. spatulate, Fl. term. Cal. cylindr. clavate, Petals 2-fid
6257 Smooth, Stems erect branched, Low. lvs. ov. stalked obt. : up. lin. acute, Fl. loosely panic. Cal ov. clavate
6258 Viscid pubesc. Stems erect much branch. Lvs. fleshy : low. spatul. ; up. ov. Fl. small, Pet. obcord. crowned
6259 Tufted, Stems assurgent, Lvs. lin. acute, Peduncles very long, Cal. long clavate, Petals 2-parted crowned
6260 Tufted shortly bristly, Stems assurgent, Leaves lin. with bristly teeth, Fl. small, Petals 2-fid crowned
6261 Smth. Stems erect or assurg. somew. branch. leafy at base, Lvs. lanc. lin. acute : low. spat. Pet. 2-part. naked

§ 7. *Caulescent, Flowers panicled, rarely solitary, Pedicels opposite short, Calyx tubular.*
** Flowers nodding, Calyxes cylindrical.* [reflexed
6262 Smooth viscid, Stems erect, Lvs. somewhat fleshy lin.-lanc. fringed with fine bristles, Pet. very long 2-part.
6263 Pubesc. Stems leafy at base, Radical lvs. spatul. : upper lanc. lin. Pet. 2-parted reflexed with a long crown
6264 Like the last, but smooth, less branched, and less leafy, Leaves linear, Petals often green
6265 Like the last, but stems flexuose broken down, Petals white above beneath livid green
6266 Smooth, Leaves lin. lanc. ciliated at base, Fl. pan. erect, Cal. ventricose cylindr. Petals 2-parted
6267 Hairy soft, Stem branch. leafy, Lvs. large ov. acum. Fl. in large nodding panicles, Pet. with very long claws
6268 Smooth, Stems erect simple scarcely leafy, Petals 2 parted with filiform lobes [crowned

*** Flowers erect, Calyxes clavate.*
6269 Velvety glutinous upwards, Stem erect branched leafy, Fl. small loosely panicled, Stamens very long
6270 Stem short about 2-flowered pubescent, Radic. leaves lanc. lin. acute, Cauline very short, Pet. bifid
6271 Scarcely pubesc. Root long creeping, Stem erect almost simple, Lvs. lin. grassy acute, Fl. few erect panic.
6272 Viscid pubesc. Stem procumb. assurgent branch Fl. large panic. Cal. large clavate, Pet. broad bifid crowned
6273 Scarcely pubesc. Stem upright branched, Lvs. lin. lanc. Fl. panicled erect, Cal. netted, Pet. small emarginate
6274 Smoothish viscid, Stem erect, Alternate branches long, Cal. large clavate netted, Petals bifid
6275 Visc. pubes. Stems erect branch Lvs. large, Fl. large panic. : every other stripe of cal veiny, Teeth very long
6276 Pubes. Stems erect branch Lvs lanc. obt. Fl. panic. : every other stripe of cal. veiny, Pet. with broad toothl.
6277 Subtomentose, Stems branch. Lvs. obov. stalked, Fl. term. erect, Pet. obcord. 2-toothed at base [lobes
6278 Silky, Stems branched, Lvs. with a long fringe at base, Fl. large term Pet. 2-parted crowned
6279 Stems much branch. scarcely pubesc. Lower lvs. obov. spatul. Lvs. lin. acute, Cal. clavate striped with red
6280 Tufted smooth subviscid, Stems branched at base, Lvs. lin. Fl. panic. Cal. netted, Pet. bifid with lanc. lobes

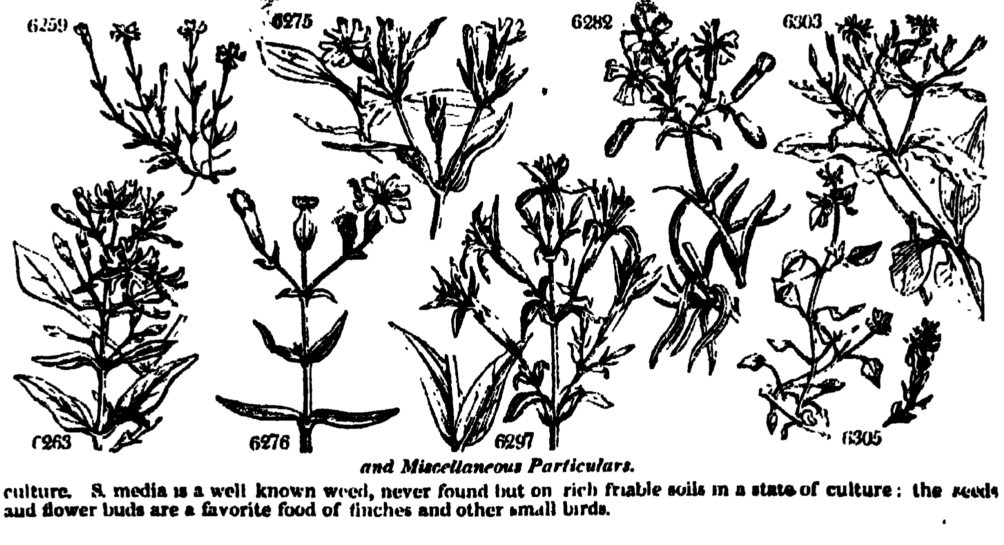
**** Flowers erect, Calyxes long clavate.* [at base
6281 Smooth visc. Stems branch. Lvs. lanc. lin. Cal. very long clav. nett. Pet. obcord. with a tooth on each side
6282 Viscid pubescent, Stems procumbent, Leaves lin. long, Cal. long tubular, Petals slightly emarg. crenate
6283 Tufted viscid pubesc. Root woody, Stems low assurgent little branched, Cal long netted, Petals bifid
6284 Suffruticose, Stems suberect smooth branched at base, Cal. long cylindr. viscid-villous, Petals 2-lobed
6285 Scabrous, Stems bran. Fl. term. in the dichotomies, Cal. long cylin. Pet 2-part tooth on each side at base
6286 Pubescent, Root woody, Stems diffuse branched, Leaves soft numerous below, Petals half bifid
6287 Tufted viscid pubescent, Stems woody supine branched, Lvs. lin. acute, Petals with narrow diverging lobes
6288 Stems erect pub. Lvs. roughish scarcely ciliat. Fl large pan. Pet. with broad obov. lobes & 2-part. append.
6289 Very smooth glaucous, Stems branched, Leaves roundish acuminate, Fl. large, Cal. not striped
6290 Pilose pubesc Stems much branch Lower lvs. ovate-spatul : up. lin. Fl. in large panic. Pet. 2-lob. naked
6291 Pubesc visc. Stems erect branch. Branch. spread. Low. lvs. ov. spatul Cal. long narrow, Pet ½ bifid crowned
6292 Pubescent, Stems assurgent much branched leafy, Leaves linear acute, Cal clavate, Petals bifid
6293 Stem simple pubescent, Leaves pubescent : lower large rounded stalked, Petals 2-parted crowned
6294 Smooth, Stem twiggy, Leaves lin. lanc. radical very long, Cal very long, Petals 2-parted crowned
6295 Smooth clammy, Stem assurgent branch. Lvs. lin. lanc. acute . lower very long, Upper bractes with a broad
6296 Silky, Stems erect branch. Lvs. wavy, Calyxes long clavate, Pet. 2-part. crowned [membranous margin
6297 Viscid pubescent, Lvs. lanceol. Cal. long tubular, Petals lanceolate crowned, Stamens very long
6298 Villous viscid, Lvs. lin. lanceol. obt. ciliated, Peduncle 1-fl. spreading in seed, Cal. circularly reflexed at base

§ 8. *Caulescent, Flowers corymbose, Cal clavate, 10-striped.*
6299 Tufted roughish, Root thick woody branch Stems simple slender very leafy at base, Lvs. small lin. acute
6300 Viscid, Stem much branch. pubesc. Lvs. round subciliated : the lower on long stalks, Fl. loosely corymb.

6301 Very smooth glaucous viscid, Leaves ovate-lanc. Fl. in panicled corymbs, Petals obcordate crowned

6302 Smooth, Stems erect branched, Upper leaves lanceolate : lower linear lanc. Umbel dense, Petals obovate

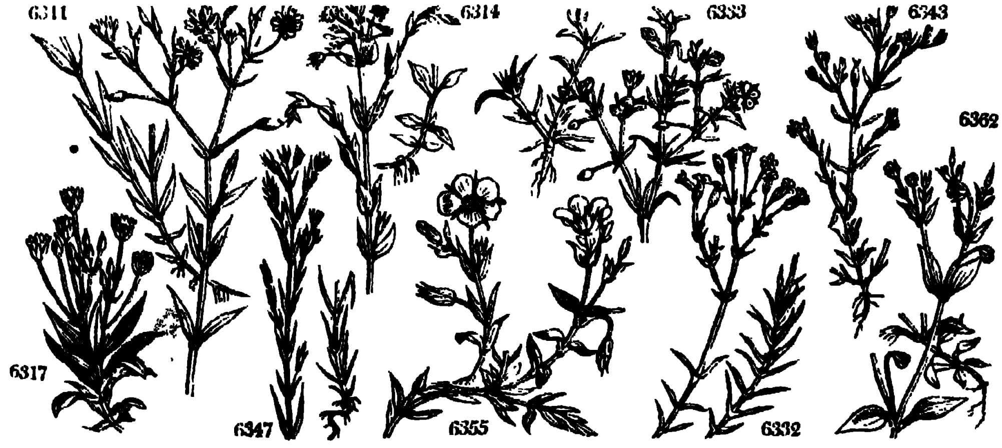
6303 Lower leaves cordate stalked : upper lanc. sessile, Petals twice as long as calyx
6304 Stems diffuse dichotomous rooting at base, Lower lvs. ovate stalked cord. : upper sess. Pet. shorter than cal.
6305 Stems procumbent with a lateral 1-sided hairy line, Leaves lanc. very tender, Fruit deflexed



and Miscellaneous Particulars.

culture. S. media is a well known weed, never found but on rich friable soils in a state of culture : the seeds and flower buds are a favorite food of finches and other small birds.

6306	dichótoma *W.*	forked	♃	△	w	1½	ja.d	W	Britain	cit. gr.	S	co	
6307	bulbósa *Wulf.*	bulbous	♃	△	w	1	ja.d	W	Carinthia	1823.	S	co	Jacq. icon. t. 468
6308	vis'cida *Bieb.*	clammy		○	w	1	ja.d	W	Hungary	1820.	S	co	Wal. & Kit. t. 22
6309	Holóstea *W.*	greater	♃	△	w	1	ap jn	W	Britain	woods.	D	co	Eng. bot. 511
6310	Laxmánni *Fisch.*	Laxmann's		○	w	1	ap.jn	W	Siberia	1823.	S	co	
6311	graminea *W.*	lesser	♃	△	w	1	ap.jn	W	Britain	hed. b.	D	co	Eng. bot. 803
6312	glaúca *H. K.*	glaucous marsh	♃	△	w	¼	my.au	W	Britain	moi.m.	D	p.l	Eng. bot. 825
6313	crassifólia *Ehr.*	thick-leaved	♃	△	w	1	my.au	W	Germany	...	D	co	
6314	uliginósa *H. K.*	bog		○	w	1	jn.jl	W	Britain	rivul.	S	co	Eng. bot. 1074
6315	cerastoídes *W.*	Alpine	♃	△	w	½	jn.jl	W	Scotland	sc. alp.	D	co	Eng. bot. 911
6316	Arenária *W.*	sand		○	w	½	jn	W	Spain	1799.	S	co	
6317	scapígera *W.*	naked-stalked	♃	△	w	¼	jn.jl	W	Scotland	sc. rivu.	D	co	Eng. bot. 1269
6318	dahúrica *W.*	daurian	£	◑	w	1	jn jl	W	Dahuria	1818.	S	co	
6319	murális *Link.*	wall		○	w	½	jn.jl	W	Candia	1824.	S	co	
6320	longipes *Hook.*	long-stalked	♃	◑	w	¼	jn.jl	W	N. Amer.	1820.	S	p.l	
1050.	ARENA'RIA. *W.*	SANDWORT.					*Caryophylleæ.*		*Sp.* 45—140.				
6321	segetális *Lam.*	corn		○	w	¾	jn.o	W	France	1805.	S	co	Vail. par. t. 3. f. 3
	Alsine segetális W.												
6322	purpúrea *Pers.*	purple		○	cu	¼	jl	Pu	Spain	1823	S	s.l	
6323	rúbra *L.*	red		○	cu	½	jn.au	Pu	Britain	san. fi.	S	s.l	Eng. bot. 852
6324	marina *Roth.*	marine	♃	△	cu	½	jn.jl	Pu	Britain	sea co.	D	s.l	Eng. bot. 958
6325	média *L.*	downy		○	w	¼	jl	W	France	1795.	S	co	
6326	canadénsis *Pers.*	Canada		○	w	¾	jn.jl	W	N. Amer.	1812.	S	p.l	
6327	graminifólia *Schr.*	grass-leaved	£	△	pr	½	jn.jl	W	Siberia	1815.	D	co	Sch. gott. t. 5
6328	longifólia *Bieb.*	long-leaved	£	△	pr	½	jn jl	W	Siberia	1823.	D	co	Gmel. si. t. 63. f. 2
6329	rígida *Bieb.*	stiff	£	△	pr	½	jn jl	W	Siberia	1823.	D	co	
6330	pinifólia *Bieb.*	pine-leaved	£	△	cu	½	jl.au	W	Caucasus	1823.	D	s p	
6331	subuláta *Ser.*	subulate	£	△	pr	¼	jl.au	W	Caucasus	1822.	D	s.p	
6332	juniperína *L.*	Juniper-leaved	£	△	pr	⅓	jn.jl	W	Armenia	1800.	D	s p	Sm. ined. 1. t. 35
6333	stricta *Mich.*	upright	£	△	pr	½	my.jn	W	N. Amer.	1812.	D	s.p	
6334	laricifólia *L.*	Larch-leaved	£	△	pr	¼	au	W	Britain	...	D	s.p	Jac. aus. 3. t. 272
	rostráta W. & K.												
6335	striáta *Vill*	striated	£	△	pr	½	jn.au	W	Switzerl.	1683	D	s.p	All. pe. 2. t. 26 f. 4
6336	Austriaca *Jacq.*	Austrian	£	△	pr	⅙	jn.s	W	Austria	1793.	D	s.p	Jac. aus. 3 t 270
6337	triflóra *L.*	three-flowered	£	△	pr	½	ap jl	W	S. Europe	1816	D	s p	C. ic 3. t. 249. f. 2
6338	grandiflóra *L.*	great-flowered	£	△	pr	¼	jn s	W	Switzerl.	1783.	D	s.p	All ped. 10 f. 1
6339	vérna *L.*	vernal	£	△	w	⅓	my au	W	Britain	mount.	D	s.p	Eng. bot. 512
6340	Gerárdi *W.*	Gerard's	£	△	pr	⅙	my au	W	France	1822.	D	s.p	
6341	saxátilis *L.*	rock	£	△	pr	¼	jl.au	W	Germany	1732.	D	s p	Gm. si. 4. t. 63. f. 2
6342	péndula *W & K.*	pendulous	£	△	pr	⅓	jn jl	W	Hungary	1816.	D	co	Pl. rar. h. 2 t. 87
6343	tenuifólia *L.*	fine-leaved		○	pr	½	jn jl	W	England	san fi.	S	co	Eng. bot. 219
6344	mediterránea *Lk.*	Mediterranean		○	cu	½	jn.jl	W	Mediterr.	1823.	S	co	
6345	recúrva *All.*	recurved	♃	△	pr	¼	jn.jl	W	Alps	1822.	D	co	Jac. col. t. 16
6346	setácea *Thuill.*	setaceous	♃	△	w	½	jn jl	W	France	...	S	co	
6347	fasciculáta *Gouan.*	level-topped		○	w	⅙	jn	W	Scotland	sc. mo.	S	s p	Eng. bot. 1744
6348	filifólia *Forsk*	thread-leaved	♃	△	cu	⅛	jn.jl	W	Arabia	...	D	s.p	Vah. sym. 1. t. 12
6349	mucronáta *Dec.*	bristly	♃	◑	pr	¼	jn	W	S Europe	1777.	S	co	Hall. hist. 1. t. 17
	Alsine mucronata W.												
6350	polygonoídes *Jacq.*	knotgrass-like	♃	△	cu	¼	jl.au	W	Switzerl.	1822.	S	co	Al. ped. t. 64. f. 4
6351	verticilláta *W.*	whorled	⌣	⌋	pr	½	jl	W	Armenia	1823.	C	s.p	
6352	tetráquetra *L.*	square	♃	△	pr	½	au	W	Pyrenees	1731.	D	s.p	All p. 2. t. 89. f. 1
6353	lanceoláta *All.*	lanceolate	♃	△	cu	¼	au	W	Switzerl.	1823.	D	s.l	Al. ped. t. 26. f. 5
6354	cherlerioídes *Vill.*	cherleria-leaved	♃	△	pr	¼	jl.au	W	France	...	D	s p	
6355	montána *L.*	mountain	♃	△	cu	¼	ap jl	W	France	1800.	D	s.p	Bot. mag 1118
6356	serpyllifólia *L.*	thyme-leaved		○	w	½	jn jl	W	Britain	walls.	S	co	Eng. bot. 923
6357	pubéscens *Dec.*	pubescent	♃	○	pr	½	jl	W	......	...	S	co	
6358	brevicaúlis *Stern.*	short-stalked	♃	△	pr	¼	jn jl	W	Alps	1823.	D	co	
6359	scábra *Poir.*	rough	♃	△	cu	¼	jn jl	W	Alps	1822.	D	co	
6360	ciliáta *L.*	fringed	♃	△	pr	¼	mr.au	W	Ireland	ir. mou.	S	s.p	Eng. bot. 1745
6361	multicaúlis *Jacq.*	many-stalked	♃	△	pr	½	jl au	W	Europe	1794.	D	s.p	J. co. 1. t. 17. f. 1
6362	trinérvis *L.*	Plantain-leaved		○	w	¾	my.jn	W	Britain	woods.	S	s.p	Eng. bot. 1483



History, Use, Propagation, Culture,

1050. *Arenaria.* From *arena,* sand, in which most of the species are found. They are of most difficult discrimination, and are chiefly diminutive weeds found almost exclusively on sandy soils. The flowers vary

6306 Hairy, Lvs. cord. ovate stem-clasping, Stem dichotomous, Fl. solitary, Sepals lanc. ac. longer than petals
6307 Leaves ovate lanceol. nearly veinless, Pedunc. 1-fl. Sepals lanc. acute twice as short as petals
6308 Villous viscid, Leaves lin. lanc. Stems dichotomous diffuse, Petals and capsule longer than calyx
6309 Lvs. lanc. acum. serrulate roughish : the upper broader and shorter, Pedunc. filiform very long, Pet. 2-fid
6310 Stem erect few-fl. Lvs. linear acute entire smoothish, Pedunc. filiform very long, Petals 2-parted
6311 Leaves linear smooth at edge, Stems diffuse, Fl. panicled divaricating, Petals the length of calyx
6312 Glaucous, Leaves lin. lanc. smooth at edge, Floral scarious, Petals twice as long as cal. Stem erect weak
6313 Leaves ovate-lanceol. entire smooth thick, Sepals ovate-lanceol. much shorter than petals
6314 Leaves ovate-obl. Pet. deeply divided shorter than calyx, Caps. ovate oblong longer than calyx
6315 Leaves obl. pubescent, Pedunc. 1-fl. twin, Pet. larger than cal. Caps. obl. nearly twice as long as sepals
6316 Leaves spatulate, Stem erect bifid viscid, Branches alternate, Petals emarginate
6317 Leaves linear lanc. obtuse very dense, Pedunc. 1-fl. and umbelled, Pet. scarcely longer than calyx
6318 Leaves lanc. entire sessile acute, Base and stem pubescent, Fl. axill. solitary
6319 Glandular pubescent, Stem procumbent, Leaves ovate fleshy, Petals scarcely longer than calyx cut
6320 Very smooth, Leaves linear-lanc. Pedunc. terminal dichotomous bracted, Pet. broad obovate 2-parted

§ 1. *Caps. 3-valved, Leaves linear, with scarious stipules at base.*

6321 Smooth, Stem erect, Leaves subulate 1-sided, Petals shorter than calyx
6322 Hispid, Stem erect, Branches divaricating, Lvs. setaceous twice as short as joints, Pet. obt. shorter than [calyx
6323 Stems prostrate hairy, Leaves filiform shorter than the joint, Sepals lanceolate obtuse scarious at edge
6324 Like the last, but nearly smooth
6325 Stems prostrate, Leaves half cylindrical fleshy as long as joints, Seeds with a membranous wing
6326 Pilose subhispid, Leaves filiform longer than joint, Stamens 5, Seeds obcord. compressed, Caps. globose

§ 2. *Leaves grassy, linear, lanceolate or rounded, without stipules, Caps. 3-valved.*

* *Leaves grassy.*

6327 Stems erect simple, Lvs. subul. filiform rough, Panic. trichotomous pubescent lax, Calyxes very obtuse
6328 Leaves subulate-filiform serrulate, Stems erect simple, Panicle trichotomous smooth compact
6329 Leaves lin. setaceous ciliated rough, Stems erect rigid simple, Sepals acute scarcely longer than corolla
6330 Stems ascending few-fl. pubescent, Lvs. setaceous rigid, Cauline straight, Sepals obtuse striated villous
6331 Leaves setaceous rigid mucronate striated, Stems panicled few-fl. Sepals lanc. much shorter than corolla

** *Leaves subulate or linear.*

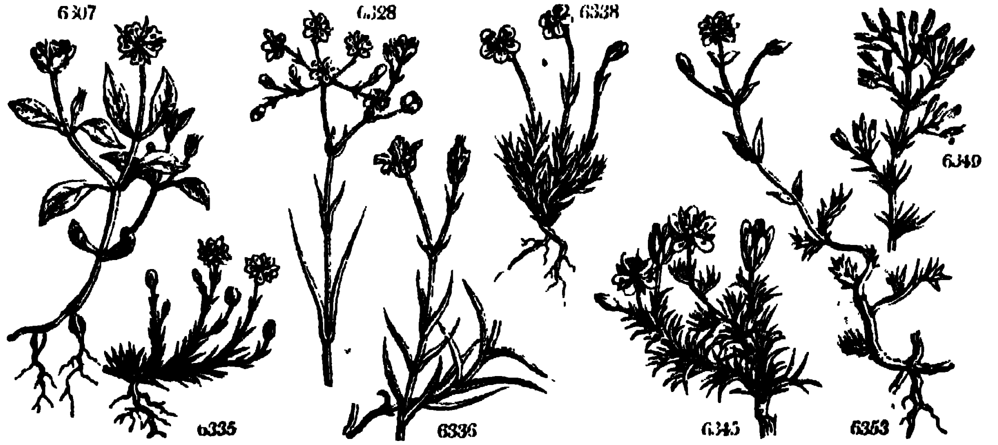
6332 Lvs. subulate rigid spiny : lower fascicled ; upper distant, Stems erect firm, Pet. obov. twice as long as cal.
6333 Erect smooth many-stemmed, Leaves subulate linear erect, Pan. few-fl. Petals conspicuously striated
6334 Leaves subulate tooth-ciliated, Stems ascending 3-6-fl. roughish, Cal. cylindrical, Sepals 3-nerved hairy

6335 Like the last, but stems rigid few-fl. Leaves long straight, Pedunc. and calyx viscid hairy
6336 Lvs. lin. subul. 3-nerved, Stem panicled, Pedunc. terminal very long twin downy, Pet. obt. emarginate
6337 Like the last, but stems 2-4-fl. Leaves narrow recurved
6338 Lvs. subulate broadish flat 3-nerved ciliated, Radical clustered, Stems 1-fl. Pedunc. very long pubescent
6339 Tufted many-stemmed, Leaves subulate obtuse nerved, Stems panicled elongated
6340 Erect branched, Leaves linear subulate 3-nerved, Pedunc. twin terminal 1-flowered
6341 Leaves subulate, Stems panicled, Sepals ovate
6342 Stems filiform rooting very long diffuse, Flowering branches erect few-fl. Lvs. lin. flat acute fascicled
6343 Leaves subulate setaceous, Stem branched dichotomous, Sepals subulate striated much longer than petals
6344 Stem much branched, Leaves lin recurved, Sepals with a long point and membranous edge
6345 Radical lvs. clustered recurved subul. 1-sided, Stems tufted simple 3-fl. Sepals and peduncles hairy gland.
6346 Stem much branched, Fl. panicled fastigiate, Leaves setaceous fascicled 1-sided ciliated at base
6347 Leaves subulate fascicled setaceous, Stems erect straight simple, Sepals acuminate with 2 lines
6348 Leaves setaceous fascicled with 2 stripes, Stems suffruticose dichotomous, Pedunc. term. 1-2-flowered
6349 Lvs. setaceous not ciliated at base, Stems tufted prostrate at base, Pedunc. longer than leaf, Sepals awned

6350 Procumbent, Leaves linear obt. Peduncles 2 or 3 1-flowered with 2 bractes at base, Sepals without nerves
6351 Leaves subulate rigid spiny and flowers whorled, Pedunc. 4-fl. capitate

*** *Leaves lanceolate, oval or rounded.*

6352 Leaves ovate carinate recurved edged imbricated 4 ways, Stems straight downy, Sepals rigid acute keeled
6353 Tufted villous, Branches ascending, Leaves lanceolate narrow acute rigid nerved
6354 Like the last, but smaller, with creeping and tufted stems, and imbricated leaves
6355 Pubescent, Leaves lanc. linear, Barren stems very long procumbent, Pedunc. terminal long 1-flowered
6356 Leaves ovate acute sessile regular ciliated and smooth, Sepals lanceolate 3-nerved acute green opaque
6357 Pubescent, Lvs. ovate acute stalked, Stems spreading branched elongated, Sepals acute shorter than cor.
6358 Leaves oblong acute 3-nerved ciliated imbricated, Stem prostrate, Sepals lanceolate acuminate striped
6359 Leaves lanc. acute spreading hard rough, Stem simple short, Sepals ovate acuminate striped
6360 Leaves ovate and obovate blistered rugose more or less nerved and ciliated, Stems procumbent
6361 Like the last, but leaves pulpy thick and sepals scarcely nerved
6362 Stem slender branched, Lvs ovate acute stalked ciliated nerved, Pedunc. long bent down after flowering



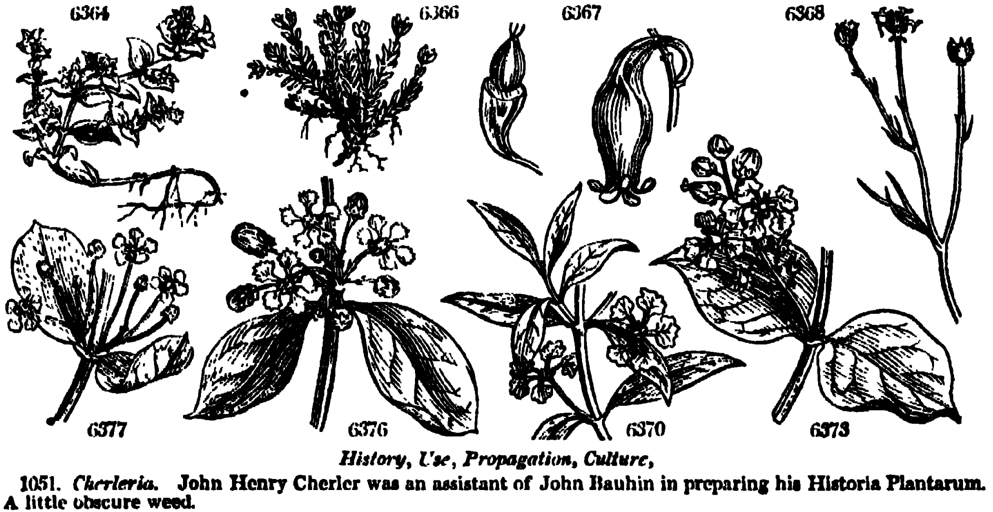
and Miscellaneous Particulars.

considerably in the number of their stamens, more generally falling short of than exceeding the regular number.

6363	baleárica *L.*	Majórca	⚘	△	pr	¼	mr.au	W	Majorca	1787.	D	s.p	L. h. stir. 1. t. 15
6364	peploides *L.*	Sea-chickweed	⚘	△	pr	¼	my.jl	W	Britain	sea sh.	D	s.p	Eng. bot. 189
6365	procúmbens *Vahl.*	procumbent	⚘	(△)	pr	¼	jl.au	R	Egypt	1801.	D	s.p	Vahl. sy. 2. t. 33
1051.	CHERLE'RIA. *W.*	Cherleria.					*Caryophylleæ.*		*Sp.* 1—2.				
6366	sedoides *W.*	dwarf	⚘	△	or	¼	jl.au	Y.w	Scotland	sc. alp.	D	s.l	Eng. bot. 1212
1052.	BRUNNI'CHIA. *W.*	Brunnichia.					*Polygoneæ.*		*Sp.* 1.				
6367	cirrhósa *W*	Carolina	⅃	⊔	or	6	...	Pk	Carolina	1787.	C	l.p	Gær. s. l. t. 45. f. 2
1053.	GARIDEL'LA. *W.*	Garidella.					*Ranunculaceæ.*		*Sp.* 1—2.				
6368	Nigellástrum *W.*	Nigella-leaved		○	or	1½	jn jl	B.G	France	1736.	S	co	Bot. mag 1266
1054.	MALPI'GHIA. *W.*	Barbadoes Cherry.					*Malpighiaceæ.*		*Sp.* 18—70.				
6369	glábra *W.*	smooth-leaved	♀	□	fr	16	mr.jl	R	W. Indies	1757.	C	p.l	Bot. mag. 813
6370	punicifólia *W.*	Pomegran.-lvd.	♣	□	or	12	...	Pk	W. Indies	1690.	C	p.l	Plum. ic. t. 166. f. 2
6371	polystáchia *H. K.*	many-spiked	♣	□	or	10	mr.my	Y	W. Indies	1806.	C	p.l	Bot. rep. 604
6372	média *H. K.*	intermediate	♣	□	or	10	mr my	Y	W. Indies	1790.	C	p.l	
6373	glandulífera *Jacq*	quadriglandular	♣	□	or	10	mr.my	Y	W. Indies	1806.	C	p.l	Jac. ic. 3. t. 469
6374	glandulósa *W.*	biglandular	♣	□	or	10	...	Y	W. Indies	1804.	C	p.l	Ca. dis. 8. t. 239. f. 2
6375	nítida *W.*	glossy-leaved	♣	□	or	6	mr.au	Pk	W. Indies	1733.	C	p.l	Ca. dis. 8. t. 239. f. 1
6376	fucáta *B. Reg.*	painted	♣	□	or	8	mr.au	R	......	1814.	C	p.l	Bot. reg. 189
	M. macrophylla Desf.												
6377	urens *W.*	stinging	♣	□	fr	3	jl.o	Pk	S. Amer.	1737.	C	p.l	Bot. reg. 96
6378	angustifólia *W.*	narrow-leaved	♣	□	or	7	jl.au	Pk	W. Indies	1737.	C	p.l	Bot. cab. 321
6379	canéscens *W.*	downy-leaved	♀	□	or	20	...	...	W. Indies	1742.	C	p.l	
6380	crassifólia *W.*	thick-leaved	♀	□	or	20	au	Y	S. Amer.	1793.	C	p.l	Aub. gu. 1. t. 182
6381	Mouréila *Aubl.*	yellow-spiked	♀	□	or	20	au	Y	S. Amer.	1823.	C	p.l	Aub. gu. 1. t. 183
6382	lúcida *W.*	wedge-leaved	♣	□	or	6	my.au	Pk	W. Indies	1759.	C	p.l	Bot. mag. 2462
6383	coriácea *W.*	leathery-leaved	♀	□	or	30	my.au	Pk	Jamaica	1814.	C	p.l	Slo. h. 2. t. 161. f. 1
6384	volúbilis *Sims.*	twining	⅃	□	or	10	au.s	Y	W. Indies	1793.	C	p.l	Bot. mag. 809
6385	aquifólium *W.*	Holly-leaved	♣	□	or	7	au.s	Pk	S. Amer.	1759.	C	p.l	C. di. 8. t. 236. f. 2
6386	coccífera *W.*	Kermes'Oak-lv.	♣	□	or	2	...	Pk	W. Indies	1733.	C	p.l	Bot. reg. 508
1055.	BANISTERIA. *W.*	Banisteria.					*Malpighiaceæ.*		*Sp.* 9—60.				
6387	ciliáta *W.*	ciliated	⅃	□	or	10	...	Y	Brazil	1796.	C	s.l	Cav. dis. 9. t. 254
6388	purpúrea *W.*	purple	⅃	□	or	10	...	Pu	W. Indies	1759.	C	s.l	C. di. 9. t. 246. f. 1
6389	chrysophýlla *W.*	Star-apple-lvd.	⅃	□	or	10	...	Y	Brazil	1793.	C	r.m	Jac. sch. 1. t. 105
6390	laurifólia *W.*	Bay-leaved	⅃	□	or	10	jl.au	Y	Jamaica	1733.	C	s.l	
6391	nítida *W.*	glossy	♣	□	or	10	...	...	S. Amer.	1809.	C	s.l	Cav. diss. t. 244
6392	serícea *P. S.*	silky	♣	□	or	10	...	Y	Brazil	1810.	C	s.l	Cav. dis. 9. t. 258
6393	fúlgens *W.*	shining-fruited	⅃	□	or	6	...	Y	W. Indies	1759.	C	r.m	
6394	heterophýlla *W.*	various-leaved	⅃	□	or	10	...	Y	S. Amer.	1812.	C	s.l	Cav. dis. t. 253
6395	brachiáta *W.*	cross-branched	⅃	□	or	10	...	Y	W. Indies	1759.	C	s.l	
1056.	HIRÆ'A. *W.*	Hiræa.					*Malpighiaceæ.*		*Sp.* 1—19.				
6396	reclináta *W.*	reclined	♣	□	or	10	...	Y	W. Indies	...	C	s.l	Jac. am. t. 176
1057.	CNES'TIS. *Lam.*	Cnestis.					*Connaraceæ.*		*Sp.* 1—9.				
6397	glábra *Lam.*	smooth	♣	□	or	10	...	W.G	Mauritius	1823.	C	s.l	Lam. il. t. 387. 1

PENTAGYNIA.

1058.	AVERRHO'A. *W.*	Averrhoa.					*Terebintaceæ.*		*Sp.* 2—3.				
6398	Bilimbi *W.*	Bilimbi-tree	♣	□	fr	8	au.s	R.Y	E. Indies	1791.	C	s.l	Cav. dis. 7. t. 219
6399	Carambóla *W.*	Carambola-tree	♣	□	fr	14	...	G.R	E. Indies	1793.	C	s.l	Cav. dis. 7. t. 220



History, Use, Propagation, Culture,

1051. *Cherleria.* John Henry Cherler was an assistant of John Bauhin in preparing his Historia Plantarum. A little obscure weed.

1052 *Brunnichia.* A catalogue of the books upon natural history was published by one Mr. F. Brunnich, a Danish naturalist, in 1793.

1053. *Garidella.* So named by Tournefort, in honor of Pierre Garidel, M. D., physician at Aix in Provence, author of Histoire des Plantes qui naissent en Provence, 1719, with many figures. A plant of little curiosity or beauty. Small inconspicuous plants of the easiest management.

1054. *Malpighia.* So named by Plumier in honor of Marcello Malpighi, professor of medicine at Bologna, author of Anatome Plantarum, 1765 and 1769; a celebrated work, the best of its time on the structure of vegetables. The species are handsome evergreen trees and shrubs, some of them fruit-bearing and others climbers. M. glabra is grown for its fruit in the West Indies, and the fruit of M. urens is also eaten under the name of Barbadoes cherry, but that of both species is much inferior to European cherries. All the species have the under sides of their leaves covered with prickly bristles which when handled run into the fingers. Ripened cuttings root freely in sand under cover.

1055 *Banisteria.* So named by Dr. Houstoun, in memory of the Rev. John Banister, a curious botanist, who lost his life in search after plants in Virginia. The species are chiefly evergreen climbers and twiners; some of them, as B. fulgens and chrysophylla, have fine shewy foliage as well as beautiful flowers.

6363 Tufted creeping, Leaves ovate shining fleshy ciliated, Pedunc. long 1-fl. Flowers cernuous
6364 Leaves ovate acute fleshy approximated, Fl. solitary on short stalks, Sepals obl. acute as long as cor.
6365 All over pubescent, Leaves lin. lanceol. Stems prostrate much branched, Seeds very minute

6366 Leaves spreading

6367 Leaves cordate sagittate

6368 Petals sessile spreading, Stamens 10-12

6369 Leaves ovate entire smooth, Peduncles umbelled
6370 Leaves ovate entire smooth, Peduncles 1-flowered
6371 Leaves entire oblong acute smooth shining with 2 glands beneath at the base
6372 Leaves entire oblong lanceolate acute smooth with 2 glands at a distance from the base
6373 Leaves ovate nearly entire with hairs on both sides, Fl.-stalks with a truncate gland at top
6374 Leaves ovate elliptical acuminate entire smooth with 2 glands at base
6375 Leaves oblong acuminate entire smooth, Racemes axillary, Fl. monogynous
6376 Leaves elliptical shining hairy beneath, Fl. axillary corymbose

6377 Leaves obl. ovate with decumbent stiff bristles, Peduncles 1-fl. aggregate
6378 Leaves lin. lanceol. with decumbent bristles on each side, Peduncles umbelled
6379 Leaves obl. obtuse pubescent, Racemes axillary compound
6380 Leaves ovate entire obtuse downy beneath, Racemes terminal
6381 Leaves ovate downy beneath acute, Flowers yellow spiked
6382 Leaves obovate wedge-shaped entire veinless shining, Raceme terminal
6383 Leaves ovate acute entire smooth on each side, Racemes terminal spiked
6384 Leaves oval acuminate shining, Racemes corymbose terminal
6385 Leaves lanceol. toothed-spiny hispid beneath
6386 Leaves subovate toothed spiny

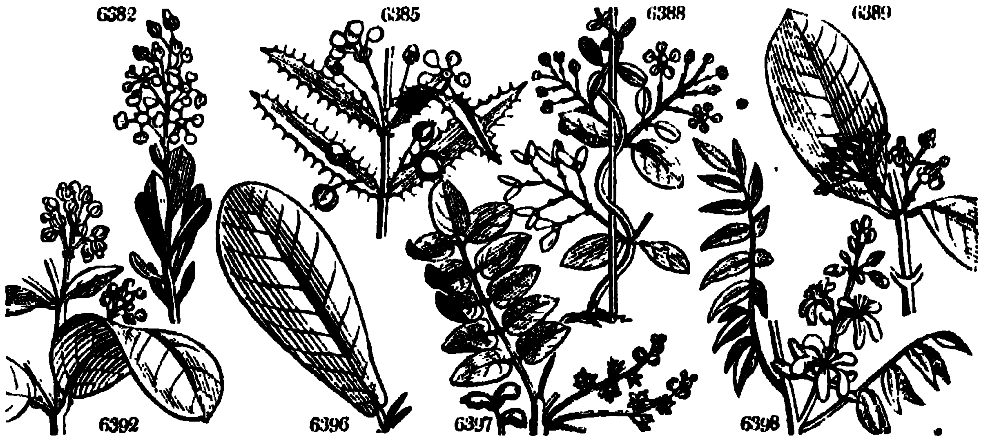
6387 Leaves orbicular cordate ciliate toothletted smooth, Petioles with 2 glands
6388 Leaves roundish ovate obtuse smooth, Racemes axillary and terminal, Seeds erect
6389 Leaves ovate oblong acutish towards the end obsoletely ciliated beneath shining gold-colored
6390 Leaves ovate-oblong rigid, Racemes terminal
6391 Leaves ovate oblong entire beneath shining, Panicle terminal leafy
6392 Branches 2-edged, Leaves ovate downy beneath, Petioles with 2 glands
6393 Leaves subovate downy beneath, Racemes brachiate, Peduncles umbelled
6394 Leaves downy beneath orbicular cordate, Branches divaricating roundish, Petioles with 2 glands
6395 Leaves subovate, Branches brachiate, Seeds narrower inwards

6396 Leaves simple obovate obtuse pubescent above smooth beneath

6397 Leaves pinnated, Leaflets ovate stalked smooth on each side, Racemes fascicled

PENTAGYNIA.

6398 Leaves pinnated, Leaflets ovate-lanceolate, Fruit oblong with obtuse angles
6399 Leaflets ovate unequal acuminate, Fruit obl. acute-angled



and Miscellaneous Particulars.

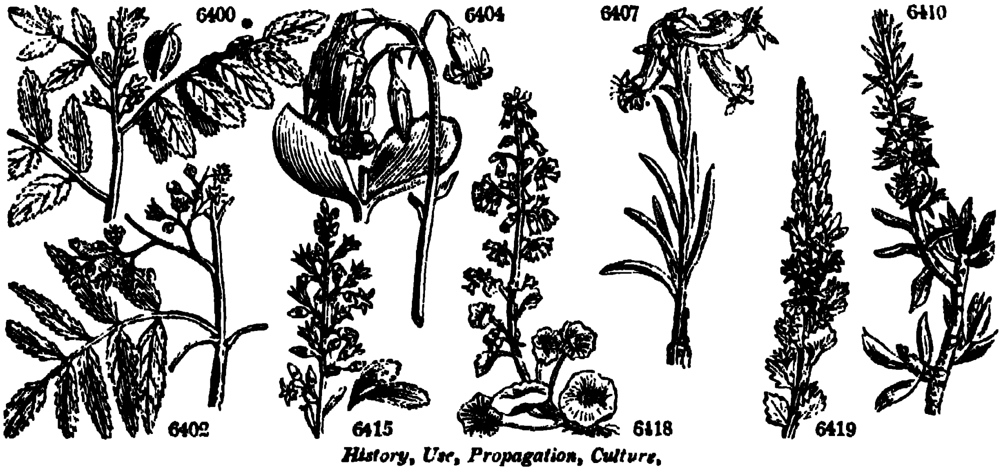
All of them root freely in ripened wood in sand under a hand-glass. In most respects they resemble the last genus.

1056. *Hiræa.* Named after John Nicholas de la Hire, a French physician, who died in 1727. Plants with the appearance of Banisteria.

1057. *Cnestis.* From κνηθω, to scratch. The capsules, covered with hairs, excite a troublesome itching. Fine evergreen stove shrubs.

1058. *Averrhoa.* So named in honor of Ebn Elvelid Ebn Rushad, commonly called Averrhoes, of Corduba in Spain, a famous commentator on Aristotle and Avicenna. He also published Calliget, or the plants used in food, &c. He died at the beginning of the thirteenth century. The specific names are vernacular appellations. The species are evergreen trees, singular for the fruit growing frequently on the trunk itself, below the leaves: the flowers grow in racemes; the fruit is a five-celled pome. A. Bilimbi is a beautiful tree with a green fleshy oblong fruit the thickness of the finger, filled with a grateful acid juice; the substance and seeds not unlike those of cucumber. They make a syrup of the juice, and a conserve of the flowers, which are esteemed excellent in fevers and bilious disorders. A. carambola bears a fruit the size of a hen's egg, with a pulpy subacid juice, used ripe and also pickled green, and, employed also in dying, and other economical purposes. The petioles and branches of this tree are said to have a peculiar sensitive quality, of which an account is given by Dr. Bruce in the Philosophical Transactions,

1059.	SPON'DIAS. *W.*	HOG PLUM.					*Terebintaceæ.*		*Sp.* 3—7.				
6400	Mómbin *W.*	flat-stemmed	₮	□	pr	10	...	Y.G	W. Indies	1817.	C	s.p	Slo. his. 2. t. 219
6401	Myrobálanus *W.*	yellow	₮	□	pr	30	...	Y G	W. Indies	1739.	C	s.p	Mer. sur. t. 13
6402	dúlcis *W.*	Otaheite-apple	₮	□	pr	50	...	Y G	Society Is.	1793.	C	s.p	Lam. ill. t. 384
1060.	COTYLE'DON. *W.*	NAVEL-WORT.					*Sempervivæ.*		*Sp.* 17—20.				
6403	orbiculáta *Haw.*	round-leaved	ɱ	⊔	cu	2	jl.au	R	C. G. H.	1789.	C	s.l	
6404	ováta *Haw.*	ovate-leaved	ɱ	⊔	cu	2	jl.o	R	C. G. H.	1789.	C	s.l	Bot. mag. 321
6405	papilláris *L.*	conical	ɱ	⊔	cu	1½	au	R	C. G. H.	1822.	C	s.l	Bot. mag.
6406	oblónga *Haw.*	oblong-leaved	ɱ	⊔	cu	2	jl.s	R	C. G. H.	1690.	C	s.l	
6407	curviflóra	curve-flowered	ɱ	⊔	cu	1½	o	Or	C. G. H.	1818.	C	s.l	Bot. mag. 2044
6408	ramosíssima *Mill.*	many-branched	ɱ	⊔	cu	2	...	...	C. G. H.	1768.	C	s.l	
6409	fasciculáris *W.*	cluster-leaved	ɱ	⊔	cu	1	jl.s	R	C. G. H.	1759.	C	s.l	Burm. afr. t. 18
6410	coccínea *W.*	scarlet	ɱ	⊔	cu	2	o	Sc	C. G. H.	1816.	C	s.l	Bot. cab. 832
6411	decussata *Sims.*	cross-leaved	ɱ	⊔	cu	1½	au	Sc	C. G. H.	1819.	C	s.l	Bot. mag. 2518
6412	hemisphæ'rica *W.*	thick-leaved	ɱ	⊔	cu	1	jn jl	...	C. G. H.	1731.	C	s.l	Plant. grass. 87
6413	spúria *W.*	narrow-leaved	ɱ	⊔	cu	1	jl.au	...	C. G. H.	1731.	C	s.l	Com. rar. t. 23
6414	cæspitósa *Haw.* *linguæfórmis* H. K.	tongue-leaved	¥	⌊△⌋	cu	1	jn.au	Y	California	1796.	C	s.l	
6415	serráta *W.*	notch-leaved	¥	△	cu	1	jn.jl	Y	Siberia	1732.	C	s.l	Di. el. t. 95. f 112
6416	hispánica *W.*	Spanish	¥	◐	pr	½	jn jl	Y	Spain	1796.	C	s.l	Plant. grass. 122
6417	Malacophýllum *W.*	annual		○	pr	½	jn.jl	P.Y	Davuria	1815.	C	s.l	P.it. 3.ap.t.G. f.1
6418	umbilicus *W.*	Penny-wort	¥	△	pr	½	jn.jl	Y	Britain	sha.roc	C	s.l	Eng. bot. 325
	β *Mucizóni* Brot.	*Portuguese*	¥	△	pr	½	jn.jl	Y	Portugal	1823.	S	s.l	
6419	lútea *W.*	yellow	¥	△	pr	½	jn.jl	Y	England	moi.ro.	C	s.l	Eng. bot. 1522
1061.	SE'DUM. *W.*	STONE-CROP.					*Sempervivæ.*		*Sp.* 41—60.				
6420	verticillátum *W.* *S. triphyllum* Haw.	whorl-leaved	¥	△	or	1	jl.s	Pk	S. Europe	...	D	s.l	Am. ac. 2. t. 4. f. 14
6421	máximum *Haw.*	great-purple	¥	△	or	2	jl.s	W	Spain	1794.	D	s.l	
6422	álbicans *Haw.*	great-white	¥	△	or	2	jl.s	W	Europe	1794.	D	s.l	
6423	Teléphium *E. B.*	common Orpine	¥	△	or	2	jl s	Pu	Britain	bor.fi.	D	s.l	Eng. bot. 1319
6424	Telephioides *Mich.*	Rhodiola-lvd.	¥	△	or	1	jl.s	Pu	N. Amer.	1810.	D	s.l	
6425	Anacámpseros *W.*	evergreen	¥	△	or	½	jl.au	Pu	France	1596.	D	s.l	Bot. mag. 118
6426	divaricátum *W.*	spreading	¥	⊔	or	½	jn jl	Pk	Madeira	1777.	R	s.l	
6427	Aizóon *W.*	yellow	¥	△	or	1	jl s	Y	Siberia	1757.	D	s.l	Plant grass 101
6428	spúrium *W. en.*	fringed	¥	△	or	½	jl.s	Pk	Caucasus	1816.	D	s.l	Bot mag. 2370
6429	oppositifólium *B M.*	opposite-leaved	¥	△	or	½	jl.s	W	Caucasus	...	D	s.l	Bot. mag. 1807
6430	hýbridum *W.*	Germander-lvd.	¥	△	or	½	my jl	Pu	Iberia	1766.	D	s.l	Mur. c. go. 6. t 5
6431	populifólium *W.*	Poplar-leaved	¥	△	or	1	jl au	W	Iberia	1780.	D	s.l	Bot. mag. 211
6432	ternátum *Ph.*	Purslane-leaved	¥	△	or	½	jl au	W	N. Amer.	1789.	D	s.l	Bot. reg. 142
6433	stellátum *W.*	starry		○	or	½	jn.jl	W	S Europe	1640.	S	s.l	Cam. ho. 7. ic. 2
6434	spathulátum *W. en.*	spathulate	¥	◐	or	½	jn jl	W	Hungary	1815.	S	s.l	Pl. ra. h. 2. t. 104
6435	Cepæa *W.*	panicled		○	or	1	jl.au	W	France	1640.	S	s.l	
6436	spinósum *W en.* *Crássula spinósa* W.	spiny	¥	⌊△⌋	or	½	au	W	Siberia	1790.	D	s.l	Gm. sib. t. 67. f. 2
6437	dasyphýllum *W.*	thick-leaved	¥	△	pr	¼	jn.jl	W	England	walls.	D	s.l	Eng. bot. 656
6438	refléxum *E. B.*	reflex-leaved	¥	△	or	1	jn jl	Y	Britain	walls.	D	s.l	Eng. bot. 695
6439	glaúcum *E. B.*	glaucous	¥	△	or	¼	jl au	Y	England	bar.sa.	D	s.l	Eng bot 2477
6440	collinum *W. en.*	hill	¥	△	or	1	jn.au	Y	......	1815.	D	s.l	Plant. grass. 115
6441	viréscens *W. en.*	greenish-flower.	¥	△	or	1	jn au	G.Y	......	1815.	D	s.l	
6442	septanguláre *Haw.*	seven-rowed	¥	△	or	½	jn jl	Y	......	1795.	D	s.l	
6443	virens *W.*	green	¥	△	or	½	jn jl	Y	Portugal	1774.	D	s.l	
6444	rupestre *W.*	rock	¥	△	pr	¼	jl.au	Y	England	rocks.	D	s.l	Eng. bot. 170
6445	Forsteriánum *H. K.*	Forster's	¥	△	or	¼	jl.au	Y	Wales	w roc.	D	s.l	Eng. bot. 1802
6446	cærúleum *Vahl.*	pale-blue	¥	△	or	¼	jl au	P.B	Africa	1822.	D	s.l	Bot. reg. 520
6447	sempervivoides *Bieb.*	Semperviv.-like	¥	△	or	½	jl.au	R	Iberia	1823.	D	s.l	Bot. mag. 2474



History, Use, Propagation, Culture,

Both species form handsome plants in our stoves; they grow freely, and ripened cuttings root readily in sand under a hand glass.

1059. *Spondias.* One of the Greek names of the plum. The plants of this genus bear fruit like plums, which are also called hog plums in the West Indies. These are deciduous fruit-bearing trees, natives or cultivated in both Indies. S. Mombin (the South American name) flowers from the sides of the branches, and is known by its oblong or ovate fruit like a plum, having a luscious thin pulp covering a large fibrous stone. The skin is yellow, purple, or variegated; the pulp is yellow and thin, having a singular but not unpleasant taste, and a sweet smell. The seed scarcely ever ripens, but it is so easily increased by cuttings, that if a branch laden with young fruit be set in the ground, it will grow, and the fruit will soon come to maturity. In St. Domingo they make hedges of the boughs, which flower and bear fruit in a few months. It is also cultivated for the sake of the fruit, though it is not in much esteem in Jamaica.

The flowers of S. Myrobalanus (the Myrobalanus of Dioscorides was an Egyptian or Arabian tree, which

6400 Common petiole compressed
6401 Common petiole round, Leaves shining acuminate
6402 Common petiole round with 6 pairs of leaflets which are serrated and ribbed

6403 Leaves orbicular spatulate powdery obtuse with a point, Fl panicled, Stem erect branched
6404 Leaves ovate spatulate obtuse powdery with a point edged with red, Fl. panicled, Stem erect branched
6405 Leaves opp. rounded ovate, Flowers corymbose
6406 Leaves obl. spatulate obtuse smooth with a point, Fl. panicled, Stem erect branched
6407 Leaves semicylindrical scattered, Fl. panicled nodding, Tube curved
6408 Leaves ovate spatulate obtuse with a point powdery, Fl. panicled, Stem much branched divaricating
6409 Leaves wedge-shaped fascicled, Stem thickened, Branches fleshy conical
6410 Leaves obovate acute fleshy, Spike leafy terminal
6411 Leaves crossing rounded mucronate glaucous, Fl. panicled pendulous
6412 Leaves half orbicular scurfy dotted flat above, Fl. few small sessile
6413 Leaves spatulate obtuse naked with a point
6414 Leaves glaucous narrow tongue-shaped at the end obcuneate mucronate, Fl. cymose, Stem leafy

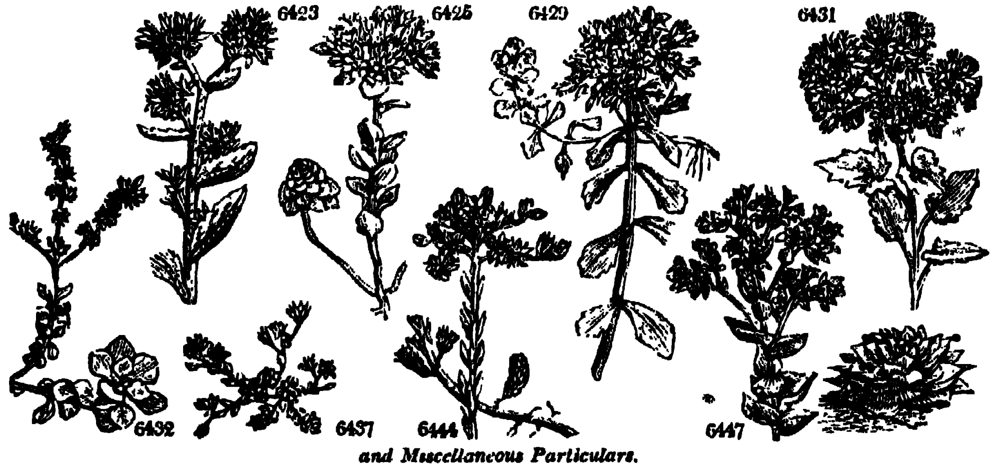
6415 Leaves oval crenate, Stem spiked
6416 Leaves oblong nearly round, Flowers fascicled
6417 Leaves lanceolate acute fleshy, Spike cylindrical terminal leafless
6418 Leaves peltate crenate, Stem nearly simple, Fl. pendulous, Bractes entire

6419 Leaves peltate crenate, Stem nearly simple, Flowers erect, Bractes toothed

6420 Leaves whorled 4

6421 Leaves amplexicaul. cordate ovate obtuse unequally and deeply serrated
6422 Leaves amplexicaul. cordate oblong obtusely serrated whitish
6423 Leaves flattish serrated, Corymb leafy, Stem erect
6424 Leaves flat ovate acute at each end toothed, Flowers in corymbose fascicles
6425 Leaves wedge-shaped narrowed at the base subsessile, Stems decumbent, Fl. corymbose
6426 Leaves wedge-shaped rhomboid emarginate stalked, Stems branched, Pan. term. divaricating
6427 Leaves lanceolate serrated flat, Stem erect, Cyme sessile terminal
6428 Leaves roundish obovate flat crenated at end with a cartilaginous muricated edge
6429 Leaves flat opposite spatulate toothed
6430 Leaves wedge-shaped concave somewhat toothed aggregate, Branches creeping, Cyme terminal
6431 Leaves flat cordate toothed stalked, Corymbs terminal
6432 Leaves whorled obovate entire smooth, Cyme in three divisions
6433 Leaves flattish angular, Fl. lateral subsessile solitary
6434 Stems branched, Leaves entire: lower spatulate, Stigmas acute
6435 Leaves flat lanceolate, Stem branched, Flowers panicled, Petals acute awned
6436 Radical leaves obovate with a long mucronate point, Stem simple, Spike term. long

6437 Leaves opposite ovate obtuse fleshy, Stem weak, Fl. scattered
6438 Leaves subulate scattered separate at base: the lower recurved
6439 Leaves glaucous subulate scattered separate at base, Fl. cymose, Cal. lanceolate
6440 Lvs. rounded subulate acute: those of the barren branches glaucous spreading, Branches of cyme recurved
6441 Lvs. rounded subulate acute: those of the barren branches glaucous spreading, Branches of cyme compact
6442 Leaves subulate in 7 rows glaucous very close distinct at base [erect
6443 Leaves subulate scattered separate at base, Fl. in cymes, Petals half as long as lanceolate calyx
6444 Leaves subulate scattered separate at base glaucous, Fl. in cymes, Petals twice as long as calyx
6445 Leaves subulate spreading in many rows close, Cal short obtuse
6446 Leaves oblong alternate obtuse separate at base, Cyme bifid smooth
6447 Leaves flat spatulate ovate acute entire pubescent, Corymb hemispherical



and Miscellaneous Particulars.

bore a perfumed fleshy fruit. Jacquin applied the name to this South American plant, which is nearly similar in properties) come out before the leaves make their appearance, and are succeeded by yellow plums the size of a pigeon's egg, which are eaten by children, and considered excellent food for hogs. It grows by large cuttings as freely as the other. S. dulcis is a handsome tree; the pulp of the fruit is firmer than that of the others, and tastes like a Reinette apple. It is cultivated in the Society and Friendly islands, especially in Otaheite; the fruit is of a gold color, hangs in little nodding bunches, and is esteemed both tasteful and wholesome: its flavor resembles that of the pine-apple.

1060. *Cotyledon.* From *κοτυλη*, a vessel or cup. Many of the species of this genus have cup-shaped leaves. The species are succulents of little beauty, and of the easiest culture in light earth and lime rubbish, or in sand and loam.

1061. *Sedum.* From *sedere*, to sit: these plants growing upon the bare rock, look as if sitting upon it. The species are low succulents, some of them pretty, others curious; but none of them remarkable in any way.

6448	altissimum *P. S.* *Sempervivum sediforme* W.	tall	£	△	or		jl.au	P.Y	S. Europe	1769.	D	s.l	Jac. vind. 1. t.81
6449	quadrifidum *W.*	four-cleft	£	△	or	¼	jl	Y	N. Asia	1800.	D	s.l	Pa. it. 3.a.t.P.f 1
6450	hispánicum *W.*	Spanish	£	△	or	½	jn.jl	P.Y	Spain	1732.	D	s.l	Jac. au. 5. t. a 47
6451	álbum *W.*	white	£	△	pr	¼	jn.jl	W	England	rocks.	D	s.l	Eng. bot. 1578
6452	ácre *W.*	biting	£	△	pr	¼	jn	Y	Britain	walls.	D	s.l	Eng. bot. 839
6453	sexanguláre *W.*	insipid	£	△	pr	½	jn.jl	Y	England	walls.	D	s.l	Eng. bot. 1946
6454	ánglicum *W.*	English	£	△	pr	¼	jl.au	W	Britain	rocks.	D	s.l	Eng. bot. 171
6455	ánnuum *W.*	annual		○	pr	½	au	W	N. Europe	1739.	S	s.l	
6456	villósum *W.*	hairy	£	△	pr	½	jn.jl	Pk	Britain	m.al.p.	D	s.l	Eng. bot. 394
6457	monregalénse *P. S.*	clammy	£	△	pr	½	jn jl	W	S. Europe	1816.	D	s.l	Bot. cab 464
6458	atrátum *W.*	dark-annual		○	pr	½	au	Pu	Italy	1795.	S	s.l	Jac. aus. 1. t. 8
6459	núdum *W.*	naked-branch.	♄.	⊔	pr	¾	jl.au	W	Madeira	1777.	R	s.l	
1062.	PENTHO'RUM. *W.*	PENTHORUM.					*Semperviveæ.*		*Sp.* 1.				
6460	sedoides *W.*	American	£	△	cu	1	jl.au	G.Y	Virginia	1768.	D	s.l	Lam. ill. t. 390
1063.	GRIE'LUM. *W.*	GRIELUM.					*Rosaceæ.*		*Sp.* 1.				
6461	tenuifólium *W.*	slender-leaved	£	⌊△⌋	un	2	ap.my	Y	C. G. H.	1790.	R	p.l	Sw. ger. 2. t. 171
1064.	BIO'PHYTUM. *D. C.*	BIOPHYTUM.					*Oxalideæ.*		*Sp.* 1—2.				
6462	sensitivum *D. C.* *Oxalis sensitiva* L.	sensitive		[○]	pr	½	jl.s	Y	China	1823.	S	s.l	Jac. ox. t. 78. f. 4
1065.	OX'ALIS. *W.*	OXALIS.					*Oxalideæ.*		*Sp.* 72—154.				
6463	Plumiéri *Jacq.*	Plumier's	♄.	▭	or	2	ja.d	Y	S. Amer.	1823.	C	p.l	Bot. reg. 810
6464	perénnans *Haw.*	perennial	♉	⌊△⌋	or	2	my.s	Y	N. S. W.	...	O	s.p	
6465	Dilléni *Jacq.*	annual		○	pr	2	my.au	Y	America	1798.	S	s.p	Dill. elt. t. 221
	β flórida Salisb.	*free-flowering*		○	pr	2	my.au	Y	America	1798.	S	s.p	
6466	stricta *L.*	upright	♉	△	pr	1½	jn.o	Y	N. Amer.	1658.	O	s.p	Jac. ox. t. 4
6467	corniculáta *L.*	procumbent	♉	△	pr	¼	my.o	Y	Britain	sh. roc.	O	s.p	Eng. bot. 1726
6468	microphýlla *Poir.* ● *rúbens* Haw.	red-flowered		⌊○⌋	pr	¼	...	Y	N. S. W.	...	S	s.p	
6469	répens *Thunb.*	creeping-stalk.	♉	⌊△⌋	pr	1	mr.ap	Y	C. G. H.	1793.	O	s.p	Jac. ox. t 78 f 1
6470	rósea *Jacq.*	rosy	♉	⌊△⌋	pr	½	mr ap	R	Chili	1823.	O	s.p	Bot. mag. 2415
6471	lateriflóra *Jacq.*	lateral	♉	⌊△⌋	pr	½	mr.ap	Pu	C. G. H.	1824.	O	s.p	Jac. sch. t. 204
6472	macróstylis *Jacq.*	long-styled	♉	⌊△⌋	or	½	o.n	Pu	G. H.	1793.	O	s.p	Jac. ox. t. 9
6473	tubiflóra *Jacq.*	tube-flowered	♉	⌊△⌋	or	1	o.n	Pk	G. H.	1790.	O	s.p	Jac. ox. t. 10
6474	secúnda *Jacq.*	side-flowering	♉	⌊△⌋	or	½	o.n	Li	C. G. H.	1790.	O	s.p	Jac. ox. t 12
6475	hirta *L.*	hairy-stalked	♉	⌊△⌋	or	¾	o.n	Li	C. G. H.	1787.	O	s.p	Jac. ox. t 13
6476	multiflóra *Jacq.*	many-flowered	♉	⌊△⌋	or	¼	f.mr	Li	C. G. H.	1789.	O	s.p	Jac. ox. t. 15
6477	rubélla *Jacq.*	branching-red	♉	⌊△⌋	or	½	s.n	Pk	C. G. H.	1791.	O	s.p	Bot. mag. 1031
6478	rosácea *Jacq.*	rose-colored	♉	⌊△⌋	pr	½	s.n	Pk	C. G. H.	1793.	O	s.p	Bot. mag. 1698
6479	reptátrix *Jacq.*	creeping-rooted	♉	⌊△⌋	pr	¼	n.d	F	C. G. H.	1795.	O	s.p	Jac. ox. t. 20
6480	incarnáta *L.*	flesh-colored	♉	⌊△⌋	pr	½	ap.jn	F	C. G. H.	1739.	O	s.p	Jac. ox. t. 71
6481	serícea *L.*	silky	♉	⌊△⌋	or	¼	ap.my	Y	C. G. H.	1794.	O	s.p	Jac. ox. t. 77. f. 1
6482	violácea *L.*	violet-colored	♉	△	or	¼	my jn	L.Pu	N. Amer.	1772.	O	s.p	Jac. ox. t. 80. f.2
6483	caprina *L.*	Goat's-foot	♉	⌊△⌋	or	¼	mr.jn	F	C. G H.	1757	O	s.p	Jac. ox. t. 76. f.1
6484	cérnua *Thunb.*	drooping	♉	⌊△⌋	or	¼	f.my	Y	C. G. H.	1757.	O	s.p	Jac. ox. t. 6
6485	compréssa *Jacq.*	compressed	♉	⌊△⌋	or	¼	ja.d	Y	C. G. H.	1794.	O	s.p	Jac. ox. t. 78. f.3
6486	dentáta *Jacq.*	toothed	♉	⌊△⌋	or	¼	n.d	F	C. G. H.	1793.	O	s.p	Jac. ox. t. 7
6487	lívida *Jacq.*	livid	♉	⌊△⌋	or	½	o.n	F	C. G. H.	1793.	O	s.p	Jac. ox. t. 8
6488	lobáta *Sims.*	lobed	♉	⌊△⌋	pr	¼	o.n	Y	C. G. H.	1823.	O	s.p	Bot. mag. 2386

History, Use, Propagation, Culture,

They seem destined by nature to clothe rocks and dry arid places, after a certain portion of vegetable soil has been generated by lichens and mosses.

Orpine is the French name of two or three species. S. album is said to have the same virtues as used to be attributed to the houseleek, Sempervivum tectorum: it is pickled by some in the manner of samphire. S. acre is considered antiscorbutic; its juice applied to the skin blisters it, taken inwardly it vomits, and applied externally to gangrenes promotes suppuration

1062. *Penthorum.* From πεντε, five, in allusion to the five-marked angles of the capsules. Succulent North American plants of no beauty whatever.

1063. *Grielum.* A small uninteresting Cape plant, with yellow flowers and hoary leaves like southernwood. Derived from γεήιος, old, in allusion to its hoary aspect.

1064. *Biophytum.* Βιω φυτον, plant of life, in allusion to the lively irritable nature of the foliage. This genus, the Oxalis sensitiva of Jacquin, has been lately divided by M. De Candolle from Oxalis, chiefly on

6448 Petals 8, Leaves scattered: the lower rounded, upper depressed

6449 Leaves scattered rounded obtuse, Stem simple, Fl. in umbels with 4 petals
6450 Leaves linear rounded depressed scattered, Cyme open, Petals 4
6451 Leaves oblong obtuse roundish sessile spreading, Cyme branched
6452 Leaves subovate adnate-sessile gibbous nearly erect alternate, Cyme trifid
6453 Leaves subovate adnate-sessile gibbous nearly erect imbricated six ways
6454 Leaves subovate adnate-sessile gibbous alternate, Cyme branched bifid
6455 Stem erect solitary annual, Leaves ovate sessile gibbous alternate, Cyme recurved
6456 Leaves oblong flattish above and peduncles axillary about 1-fl. pubescent, Petals ovate obtuse
6457 Leaves whorled linear, Stem procumbent panicled, Peduncles villous viscid
6458 Stem erect, Flowers corymbose fastigiate
6459 Leaves scattered oblong-cylindrical obtuse, Stems shrubby much branched, Cymes terminal

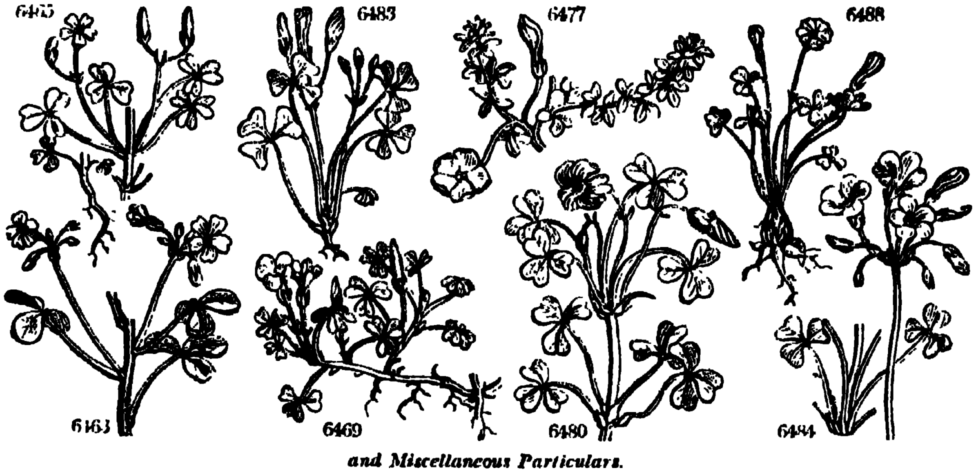
6460 The only species

6461 Peduncles simple 1-fl. Leaves tripartite multifid linear downy

6462 Peduncles many-fl at end

§ 1 *Peduncles many-flowered, Stems suffruticose, Cells of ovary usually 1 seeded.*
6463 Stem erect leafy, Umbel 4-fl. the length of leaves, Leaflets entire ovate obtuse
§ 2. *Caulescent, Leaves palmate 3-foliate, Leaflets all sessile, obcordate*
6464 Pedunc. 2-3-fl somewhat longer than leaf-st. Lvs 2-lobed obcord. ciliated, Styles a little longer than inner
6465 Stem hairy, Umb. 5-6-fl. longer than leaves, Lvs. obcordate, Styles longer than both stamens [stamens
β Stem decumbent, Peduncles 2 or 3-flowered
6466 Stem erect, Umbels 2-6-fl. about as long as leaves, Leafl obcord. Styles the length of inner stamens
6467 Stem rooting, Peduncles shorter than leafst Leafl obcordate, Styles the length of inner stamens
6468 Smoothish, Pedunc 2-fl. longer than leafst Leafl. 2-lobed, Styles the length of inner stamens

6469 Stem rooting, Pedunc 2-fl the length of leafst. Leaflets obcordate, Styles middling
6470 Stem erect, Pedunc. axill. four times as long as leaf at the end corymbose racemose, Leafl. obcordate
6471 Stem naked at base, Pedunc. lateral umbell. at end, Leafl. cun. emarg Styles shorter than outer stamens
§ 3. *Caulescent, Leaves sessile, 3-leaved, villous, not glandular, Pedunc axillary, 1-flowered.*
6472 Stem branch. Ped much long than lvs. Bractes next cal. Leafl lin emarg. Styles long. than inner stam.
6473 Ped 4 times as long as lvs Bractes appressed to cal. Leafl. lin cun obt Styles shorter than outer stamens
6474 Stem declined, Branches 1-sided, Leafl lin -cuneiform, Peduncles scarcely longer than leaves
6475 Leafl. lin cun ret. Ped. much long than lvs. Bractes remote from cal Stam with neither teeth nor glands
6476 Stem much branched, Leafl lin. cuneate obt. Pedunc. much shorter than lvs Bractes remote from cal.
6477 Leafl lin. cuneate, Pedunc much longer than leaves, Bractes remote from cal Styles intermediate
6478 Leafl. obl cuneiform, Pedunc. much longer than leaves, Bractes remote from cal Styles intermediate
§ 4 *Caulescent, sparingly leafy, Leaves stalked, 3-5-leaved, Pedunc axill 1-flowered.*
6479 Stem short, Leaves on long stalks, Leafl 3 ovate-rounded, Styles very short
6480 Stem branched, Leaves stalked in fascicled whorls with 3 obcordate leaflets, Styles very long
§ 5 *Stemless, Pedunc 1-2 or many-flowered, Leaves radical, many-leaved, usually 3-leaved.*
6481 Leafl. 3 obcordate silky, Umbel longer than leaves, Fl nodding, Styles intermediate
6482 Leafl 3 obcordate smooth, Umb 3-9. fl. Styles very short, Fl. nodding
6483 Leafl 3 obcordate 2-lobed smooth, Umb 2-4-fl Flowers erect, Styles very short
6484 Leafl 3 obcordate 2-lobed smooth subciliated, Umb many-fl Fl drooping, Styles very short
6485 Petiole flattish, Leafl. 3 obcordate pubescent, Umb 2-fl Sepals entire, Styles very long
6486 Leafl 3 obcordate smooth subciliate, Umb. 2-5-fl. Sepals 3-toothed at end, Styles very long
6487 Leafl. 3 obcordate 2-parted beneath violet, Umbel 2-fl. Styles middling
6488 Smooth, Pedunc 1-fl longer than leaf, Leaflets obcordate, Root tuberous



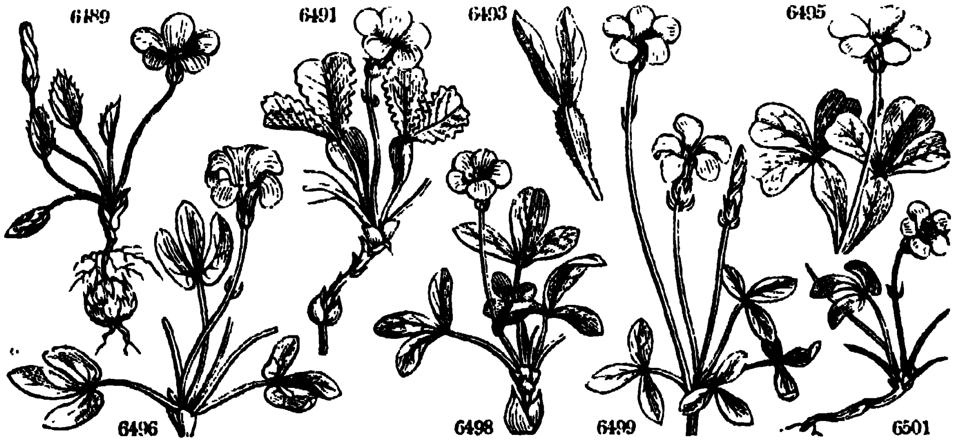
and Miscellaneous Particulars.

account of its irritable pinnated foliage, and its stamens being distinct, and five of them only being perfect. It is a very pretty annual, and if well managed so as to acquire, as in China, a stem six or nine inches high, is quite a remarkable object. Cultivated in common earth, and propagated by seeds, which it produces in abundance.

1065. *Oxalis.* The Oxalis of the ancients, which was named from ὀξὺς, sharp, or sour, was a very different plant from this, which is thought to have been the Oxys of Pliny. The name employed by Linnæus has, however, been adopted by his followers, although Clusius, Ray, Plumier, Tournefort, Haller, and others, called the genus Oxys.

This is a tribe of pretty little plants, of which most of the species flower freely, but all of them are without their leaves half the year. The root is commonly bulbous, in some species only thick and fleshy, in a few branched: the bulbs consist of fleshy scales, sometimes closely imbricate, sometimes loose and diverging. In a few the subterraneous stipe and the terminating fibre of the bulb produce little dog-toothed bulbs, in such

6489 monophýlla *L.*	simple-leaved	♉	⌊△⌋	pr	¼	o.n	Y	C. G. H.	1774.	O	s.p	Jac. ox. t. 79. f 3
6490 rostráta *Jacq.*	beaked	♉	⌊△⌋	pr	¼	o.n	P.v	C. G. H.	1795.	O	s.p	Jac. ox. t. 22
6491 crispa *Jacq*	curled	♉	⌊△⌋	pr	¼	o.n	W	C. G. H.	1793.	O	s.p	Jac. ox. t. 23
6492 leporina *Jacq.*	hare's-eared	♉	⌊△⌋	pr	¼	o.n	W	C. G. H.	1795.	O	s.p	Jac. ox. t. 25
6493 asinina *Jacq*	ass's-eared	♉	⌊△⌋	pr	¼	n.d	Y	C. G. H.	1792.	O	s p	Jac. ox. t. 24
6494 lanceæfólia *Jacq*	spear-leaved	♉	⌊△⌋	pr	¼	o.n	Y	C. G. H.	1795.	O	s.p	Jac. ox. t. 26
6495 fabæfólia *Jacq.*	Bean-leaved	♉	⌊△⌋	pr	¼	o.n	Y	C. G. H.	1794.	O	s.p	Jac. ox. t. 27
6496 laburnifólia *Jacq.*	Laburnum-lvd.	♉	⌊△⌋	pr	¼	s.o	Pu	C. G. H.	1793.	O	s.p	Jac. ox. t. 28
6497 sanguínea *Jacq.*	bloody-leaved	♉	⌊△⌋	pr	¼	o.d	Y	C. G. H.	1795.	O	s.p	Jac. ox. t. 29
6498 tricolor *Jacq.*	three-colored	♉	⌊△⌋	pr	¼	o.d	W.R	C. G. H.	1794.	O	s p	Jac. ox. t. 47
6499 ciliáris *Jacq*	ciliate-leaved	♉	⌊△⌋	or	¼	o n	Pu	C G. H.	1793.	O	s.p	Jac. ox. t. 30
6500 arcuáta *Jacq.*	bowed	♉	⌊△⌋	or	¼	o n	V	C. G. H.	1795.	O	s p	Jac ox t. 31
6501 fláccida *Jacq.*	flaccid	♉	⌊△⌋	pr	¼	o.n	W.R	C. G H.	1812.	O	s.p	Jac. ox. t. 51
6502 ambigua *Jacq.*	ambiguous	♉	⌊△⌋	pr	¼	s.d	W	C. G. H.	1790.	O	s.p	Jac. ox. t. 43
6503 unduláta *Jacq.*	wave-leaved	♉	⌊△⌋	pr	¼	o n	W	C. G. H.	1795.	O	s p	Jac. ox. t. 44
6504 fuscáta *Jacq*	brown-spotted	♉	⌊△⌋	pr	¼	my.jn	Y	C. G. H.	1795.	O	s p	Jac. ox. t 45
6505 sulphúrea *Jacq.*	sulphur-color.	♉	⌊△⌋	pr	¼	o n	P v	C. G. H.	1795.	O	s p	Jac. ox. t. 63
6506 speciósa *W.*	specious	♉	⌊△⌋	pr	¼	s.n	Pu	C. G. H.	1690.	O	s p	Jac. ox. t. 60
6507 variábilis *Jacq.*	variable	♉	⌊△⌋	or	¼	o d	W.R	C. G. H	1795.	O	s p	Jac. ox. t. 52
β *grandiflóra* Jacq.	*great-flowered*	♉	⌊△⌋	or	¼	o.d	W	C. G. H	1790.	O	s.p	Jac. ox. t. 54
γ *Simsii* D. C.	*Sims's*	♉	⌊△⌋	or	¼	o d	W	C. G. H.	1790.	O	s.p	Bot. mag. 1683
6508 purpúrea *W.*	purple	♉	⌊△⌋	pr	¼	o.n	Pu	C. G. H.	1812.	O	s.p	Jac. ox. t. 56
6509 convéxula *Jacq.*	convex-leaved	♉	⌊△⌋	or	¼	n.ja	Pk	C. G. H.	1789.	O	s.p	Jac. ox. t. 55
6510 margináta *Jacq.*	green-edged	♉	⌊△⌋	pr	¼	s.d	W	C. G. H	1812.	O	co	Jac. ox. t. 68
6511 pulchélla *Jacq*	beautiful	♉	⌊_⌋	cl	¼	o.n	W	C. G. H.	1795.	O	co	Jac. ox. t. 69
6512 obtúsa *Jacq.*	blunt-leaved	♉	⌊△⌋	or	¼	o n	R	C. G. H.	1812.	O	s.p	Jac. ox. t 79. f.1
6513 lanáta *L.*	woolly-leaved	♉	⌊△⌋	or	¼	o n	W	C. G. H.	1791.	O	s p	Jac. ox. t. 77. f.2
6514 acetosélla *L.*	common	♉	△	cul	¼	ap my	F	Britain	grov.	O	co	Eng. bot. 762
6515 americána *Dec*	American	♉	△	pr	¼	ap.my	W	N. Amer.	...	O	co	
6516 tenélla *Jacq.*	slender	♉	⌊△⌋	or	¼	ap my	Li	C. G. H.	1793.	O	s p	Jac ox t 19
6517 nátans *L.*	floating	≚	⌊△⌋	or	¼	s.d	W	C. G. H.	1795.*	O	s p	Jac. ox. t. 76. f.2
6518 filicaúlis *Jacq*	bilobed-leaved	♉	⌊△⌋	or	¼	s.o	V	C. G. H	1815.	O	s p	Jac sch. 2 t.205
6519 bifida *Thunb*	cloven-leaved	♉	⌊△⌋	or	¼	s.o	V	C G. H.	1791	O	s p	Jac. ox. t. 79. f 4
6520 cuneifólia *Jacq.*	wedge-shaped	♉	⌊△⌋	or	¼	ap my	W	C. G. H.	1793.	O	s p	Jac ox. t. 41
6521 lineáris *Jacq.*	linear-shaped	♉	⌊△⌋	or	¼	s.n	V	C. G. H	1795.	O	s p	Jac. ox. t. 32
6522 reclináta *Jacq*	reclining	♉	⌊△⌋	or	¼	s.n	Pk	C. G. H.	1795.	O	s p	Jac ox. t. 34
6523 glábra *Thunb.*	smooth	♉	⌊△⌋	or	¼	my jn	Pu	C. G H.	1795.	O	s p	Jac. ox. t. 76 f.3
6524 versicolor *L.*	striped-flower.	♉	⌊△⌋	or	¼	ja.mr	Cr	C. G H.	1774.	O	s p	Bot. mag. 155
6525 elongáta *Jacq.*	elongated	♉	⌊△⌋	or	¼	s o	W	C. G. H	1791.	O	s.p	Jac. ox. t. 37
6526 tenuifólia *Jacq.*	fine-leaved	♉	⌊△⌋	or	¼	o.n	W.R	C G. H.	1790.	O	s p	Jac. ox. t. 38
6527 polyphýlla *Jacq.*	many-leaved	♉	⌊△⌋	or	¼	ja s	Pa.pu	C G. H.	1791.	O	s p	Jac. ox. t 39
6528 filifólia *Jacq*	thread-leaved	♉	⌊△⌋	or	¼	ja s	Pk	C. G. H.	1822.	O	s.p	Jac. sch t. 273
6529 pentaphýlla *Sims.*	five-leaved	♉	⌊△⌋	pr	¼	f.n	Pk	C. G. H.	1800.	O	s.p	Bot. mag 1549
6530 lupinifólia *Jacq.*	Lupine-leaved	♉	⌊△⌋	pr	¼	o.n	Y	C. G. H.	1791.	O	s.p	Jac. ox. t. 72
6531 fláva *L*	narrow-leaved	♉	⌊△⌋	pr	¼	mr ap	Y	C. G. H.	1775.	O	s.p	Bot. reg. 117
6532 pectináta *Jacq.*	pectinated	♉	⌊△⌋	pr	¼	s n	Y	C. G. H.	1790.	O	s p	Jac. ox t 75
6533 flabellifólia *Jacq.*	fan-leaved	♉	⌊△⌋	pr	¼	s.n	Y.R	C G H.	1789.	O	s.p	Jac ox. t. 74
6534 tomentósa *L.*	downy-leaved	♉	⌊△⌋	pr	¼	ap.my	W	C. G. H.	1791.	O	s p	Jac. ox. t. 81



History, Use, Propagation, Culture,

abundance as to fill the whole pot to the very bottom, as in purpurea, cernua, reptatrix. Sometimes the bulb strikes very deep, as in tomentosa; the original bulb near the surface striking a radical fibre downright from its base, which puts out from its side a new bulb, producing the next year's plant, whilst the former perishes. Sometimes fusiform, thick and long fibres spring in a monstrous form from the bulbs, as in glandulosa and some others. Some of the species have a proper stem (*Caulis*), when it bears all the leaves and peduncles alternately, and not in a terminating umbel: this is either branched or quite simple, and that for the most part inconstantly. Others have a stipe; the leaves and flowers being aggregate together at the end of the stalk; this bears none or very few leaves along it, seldom many. In some species the stipe is always subterraneous, as in breviscapa, purpurea, &c.; in others it is always above ground, as in gracilis, versicolor, tenuifolia. Stipes are commonly quite simple; some, however, are branched, the branches terminating in umbels, as in incarnata and polyphylla. Hence the division of the species into caulescent and stipitate. The leaves are not, perhaps, truly sessile in any of the species; they are subsessile in a few, but in most are petioled. They are simple in three species, binate in four, digitate in six, in the rest ternate: almost all of them have an acid

§ 6. *Stemless, Leaves simple.*

6489 Leaves ellipt obtuse, Scape 1-fl. Filam. smooth, Styles middling covered with glandular hairs
6490 Leaves obovate retuse, Scape 1-fl. Styles very short, Filaments glandular

§ 7. *Stemless, Leaves 2 or 3-leaved, Stalks winged.*

6491 Leafl. 2 roundish obovate emarginate wavy at edge, Styles very long and filaments glandular
6492 Leafl. 2 ellipt. emarg. with a cartilaginous toothletted edge, Filam. glandular
6493 Leafl. 2 lanceolate with a cartilaginous toothletted edge, Filam. glandular
6494 Leafl. 2-3 with a cartilaginous scabrous edge, Filam. smooth
6495 Leafl. 3 obovate emarg. mucronate, Styles and filaments glandular

§ 8. *Stemless, Leaves stalked, 3-leaved, Stalks not winged*

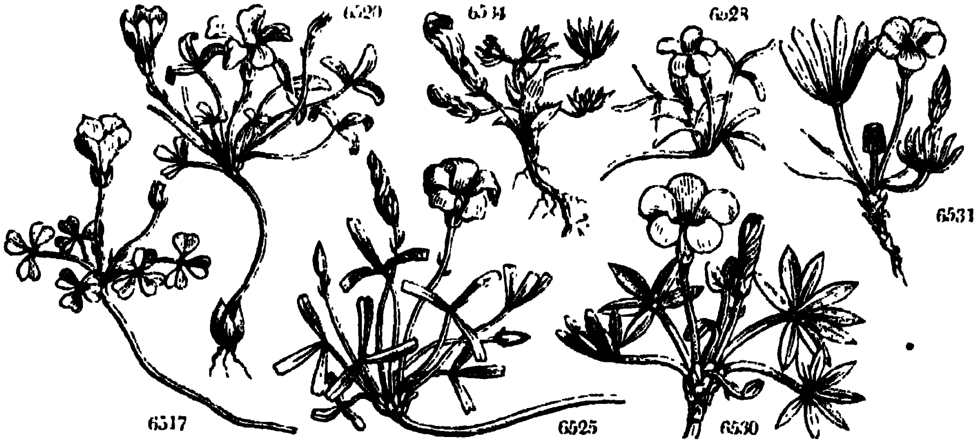
6496 Pubescent, Lateral leaflets obliquely oblong: middle lanceolate, Scapes higher than petioles
6497 Pubescent, Leafl. obl. obt.: middle cuneate at base, Scapes length of petiole
6498 Pubescent, Leafl. obl. obt.: middle subcuneate, Scapes longer than petiole
6499 Pubesc. Leafl. obl. obt. subemarg. Pedunc. longer than petiole with 2 bractes immediately below the cal.
6500 Pubescent, Leafl. obl. emarg. Pedunc. length of petiole with 2 bractes immediately below the cal.
6501 Pubescent, Leafl. obl. retuse: middle cuneate, Peduncles twice as long as leaves with 2 bractes in middle
6502 Subhirsute, Leafl. obov. obl. obt. Pedunc. equal to petiole with 2 bractes in their middle, Styles glandular
6503 Subhirsute, Leafl. obov. obl. obt. Ped. longer than petioles with 2 bractes below their middle, Styles hairy
6504 Pubesc. Leafl. obt. lateral ovate: midd. cuneate, Pedunc. twice as long as petiole with 2 bractes in midd.
6505 Pubesc. Leafl. roundish, Pedunc. as long as pet. with 2 bractes at base, Calyx with clavate hairs at edges
6506 Pub. Leafl. roundish, Ped. as long as pet. with 2 bractes below mid. Cal. with simple and glan. hairs mixed
6507 Pub. Leafl. round.: mid. cun. at base, Ped. as long as lvs. or long. with 2 bractes below mid. Styles very short
β Flowers large, Leaves red beneath
γ Flowers large, Leaves green on both sides
6508 Pubesc. Leafl. roundish, Scapes longer than leaf with 2 bractes below the middle
6509 Smooth, Leafl. roundish dotted, Stipules dilated acuminate, Bractes alternate
6510 Pub. Leafl. obcor. roundish, Scapes nearly twice as short as pet. with 2 bractes in mid. Styles intermediate
6511 Pub. Leafl. obcor. roundish, Scapes thrice as short as petiole with 2 bractes in midd. Styles very long
6512 Densely pubesc. Leafl. obcordate, Scape longer than leaves with 2 bractes above middle, Cal. obtuse
6513 Woolly, Leafl. obcordate, Cal. acute
6514 Root toothed creeping, Leafl. obcord. downy, Scape longer than leaves, Petals oval obtuse
6515 Root toothed creeping, Leafl. obcord. downy, Scape longer than leaves, Pet. obl. unequally emarginate
6516 Smoothish, Leaflets obcordate, Scape longer than the leaves, Styles very short
6517 Leaflets obcordate smooth, Pedunc. the length of leaves, Styles very short
6518 Leafl. obcord. 2-lobed, smooth, Pedunc. longer than leaf, Styles intermediate
6519 Leafl. obcord. 2-lobed smooth, Pedunc. longer than leaf, Styles very long
6520 Leafl. cuneate emarg. hairy, Pedunc. the length of petiole, Styles very short, Filam. glandular
6521 Leafl. lin. emarg. downy, Pedunc. shorter than petiole with 2 bractes at summit, Styles very long
6522 Leaflets linear subcuneate emarginate, Pedunc. as long as petiole, Style intermediate

§ 9. *Leaves 3 or 5-leaved, glandular at end*

6523 Leaflets 3 linear cuneiform emarginate ciliated with many glands beneath
6524 Leaflets 3 linear emarginate with 2 glands beneath, Styles and filaments glandular
6525 Leaflets 3 linear emarginate with 2 calli at end, Styles very short
6526 Leaflets 3 linear emarginate with many glands beneath, Styles very short, Inner filaments glandular
6527 Leaflets 3 linear emarginate with 2 glands beneath, Styles intermediate and filaments glandular
6528 Leaflets 3 linear entire at end and glandular, Styles very long and inner filaments glandular
6529 Leaflets 5 linear at the end nearly entire with 2 callous glands, Styles intermediate

§ 10. *Leaves palmate or peltate, many-leaved, not glandular at end*

6530 Leaflets 7 lanceolate acutish smooth spotted at base, Petioles compressed, Styles very short
6531 Leaflets 6-7 smooth linear channelled acute, Styles very short, Filam. glandular
6532 Leaflets 7 smooth lin.-lanc. obtuse, Cal. appressed, Styles very long and filaments glandular
6533 Leaflets 7-9 smooth lin. emarg. Cal. reflexed at end, Styles intermediate
6534 Leaflets 9-19 all over downy lanceolate cuneate emarginate

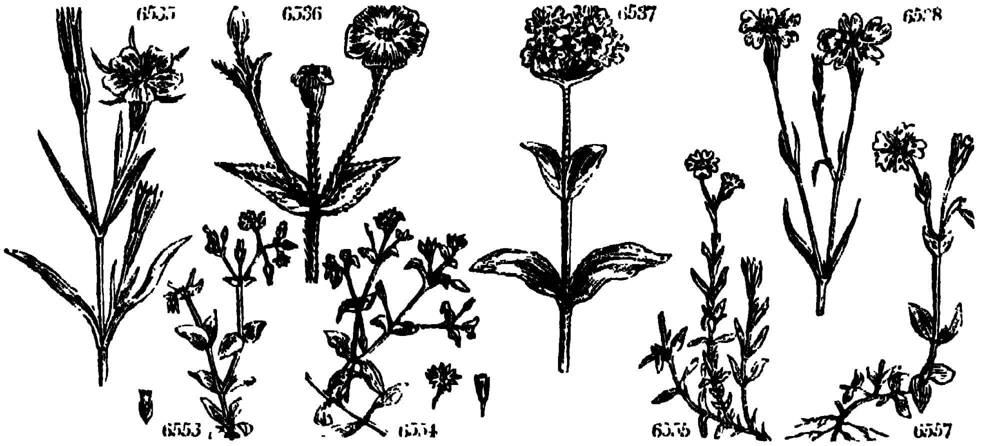


and Miscellaneous Particulars

taste; whence their names of Oxalis or Oxys, wood Sorrel, &c. The partial stem bearing the flower is a peduncle in the caulescent, a scape in the stipitate species.

Many of the species ripen seeds, from which, or from offsets, they are readily propagated, and grown in light sandy soil: care being taken to give the pots little or no water when the plants are in a dormant state. An excellent work has been written on the genus by Jacquin, in which ninety-six species are described. All that were known in Europe at that time, were cultivated in the Imperial gardens of Schonbrunn with great success, under the immediate inspection of Jacquin, by whom the following directions are given for their management. They are best kept in pots which will hold a good many roots. The earth should be so light and sandy as never to become hard, but always to be soft enough not to resist the point of the finger when pressed upon it; when the flowering time is passed, the pots should be placed aside, where they require neither care nor water; but are well protected from mice. In the beginning of August they should be placed in the open air and moderately watered. About the end of that month, or a little later, the leaves should appear. About the middle of September, earlier or later, according to the weather, they should be placed in a very sunny, airy greenhouse,

1066. AGROSTEM'MA. *W.*	Rose-Campion.					*Caryophylleæ.*	*Sp.* 4.					
6535 Githago *W.*	Corn-cockle		○	w	3	jn.jl	Pu	Britain	cor. fi.	S	co	Eng. bot. 741
β nicæen'sis W	*Italian*		○	or	3	jn.jl	W	Italy	1794.	S	co	
6536 coronária *W.*	common	¥	△	or	3	jn.s	R	Italy	1596.	S	co	Bot. mag. 24
β alba	*white-flowered*	¥	△	or	3	jn.s	W	......	...	S	co	
γ plena	*double-flowered*	¥	△	or	1½	jn.s	R	......	...	C	r.m	
6537 Flos-jóvis	umbelled	¥	△	or	1½	jl	R	Germany	1726.	S	co	Bot. mag. 398
6538 Cœli-rósa	smooth-leaved		○	or	1	jl.au	F	Levant	1713.	D	s.l	Bot. mag. 295
1067. LYCH'NIS *W.*	Lychnis.					*Caryophylleæ.*	*Sp.* 9—12.					
6539 chalcedónica *W.*	scarlet	⚘	△	or	2	jn.jl	R	Russia	1596.	D	p.l	Bot. mag. 257
β alba	*white-flowered*	⚘	△	or	2	jn.jl	W	Russia	...	C	p.l	
γ plena	*double-flowered*	⚘	△	or	2	jn.jl	B	Russia	...	C	p.l	
6540 Flos-cúculi *W.*	Ragged-Robin	⚘	△	or	1½	jn.s	Pk	Britain	m. me.	D	co	Eng. bot. 573
6541 coronáta *W.*	Chinese	¥	[△]	or	1½	jn.s	R	China	1774.	C	p.l	Bot. mag. 223
6542 fúlgens *Fisch.*	splendid	⚘	△	or	1½	jn.jl	Sc	Siberia	1822.	C	p.l	Bot. mag. 478
6543 viscária *W.*	viscid	¥	△	or	1	my.jn	Pk	Britain	rocks.	D	co	Eng. bot. 788
β plena	*double*											
6544 alpína *W.*	Alpine	¥	△	or	½	ap.my	Pk	Scotland	sc.roc.	D	p.l	Eng. bot. 2254
6545 læ'ta *W.*	small		○	or	½	jl	F	Portugal	1778.	C	s.l	
6546 diúrna *With.* *sylvestris* W. en.	red-flowered	⚘	△	or	2	jn.jl	Pu	Britain	...	D	co	Eng. bot. 1579
6547 vespertína *With.* *dioica* W. en.	white-flowered	⚘	△	or	2	jn.jl	W	Britain	wa.&fi.	D	co	Eng. bot. 1580
1068. CERAS'TIUM *W.*	Mouse-ear Chickweed.					*Caryophylleæ.*	*Sp* 18—60.					
6548 perfoliátum *W.*	perfoliate		○	w	2	jn.jl	W	Greece	1725.	S	co	Di. el. t.217.f.284
6549 vulgátum *W.*	common		○	w	½	ap.jn	W	Britain	san.pl.	S	co	Eng. bot. 789
6550 viscósum *W.*	narrow-leaved	¥	△	w	½	ap.s	W	Britain	pas.	D	co	Eng. bot. 790
6551 diffúsum *P. S.*	spreading	¥	△	w	½	ap.s	W	......	...	D	co	
6552 brachypétalum *P.S.*	small-flowered	¥	△	w	½	ap.my	W	......	1816.	D	co	
6553 semidecándrum *W.*	least		○	w	¼	mr.ap	W	Britain	walls	S	co	Eng. bot. 1630
6554 tetrándrum *H. K.*	tetrandrous		○	w	½	my.jn	W	Scotland	san.sh.	S	co	Eng. bot. 166
6555 arvénse *W.*	field	¥	△	w	½	my.au	W	Britain	cor. fi.	D	co	Eng. bot. 93
6556 dichótomum *W.*	forked		○	w	¾	jn.jl	W	Spain	1725.	S	co	
6557 alpínum *W.*	Alpine	¥	△	w	½	jn.jl	W	Britain	w. alp.	D	co	Eng. bot. 472
6558 ovátum *W. en.*	oval-leaved	¥	△	w	½	jn.jl	W	Carinthia	1816.	D	co	
6559 strictum *W.*	upright	¥	△	w	1	my.jl	W	Austria	1793.	D	co	Sc. car. t. 19. f. 1
β suffruticosum W.	*suffruticose*	¥	△	w	1	my.jl	W	[illegible]	1796.	D	co	
6560 máximum *W.*	greatest		○	w	2	jn.jl	W	Siberia	1792.	S	co	Gm. si. 4. t.62. f.2
6561 dahúricum *Fisch* *amplexicáule* B. M.	glaucous	¥	△	w	1½	my.s	W	Siberia	1817.	D	co	Bot. mag. 1789
6562 dioicum *W.*	Spanish	¥	△	w	½	jn.jl	W	Spain	1766.	D	co	
6563 latifólium *W.*	broad-leaved	¥	△	w	½	jn.jl	W	Britain	w. alp.	D	co	Eng. bot. 473
6564 tomentósum *W.*	white	¥	△	w	¼	jn.jl	W	S. Europe	1648.	D	co	
6565 mánticum *W.*	long-peduncled		○	w	½	jn.jl	W	Hungary	1801.	S	co	Pl. rar. h. t. 96
1069. LARBRE'A *St. Hil.*	Larbrea.					*Caryophylleæ.*	*Sp.* 1.					
6566 aquática *St. Hil.*	water	¥	△	w	1	jl	W	Britain	wat. pl.	D	co	Eng. bot. 538



History, Use, Propagation, Culture,

when they will flower well. Oxalis monophylla and rostrata will not, however, blossom unless placed in a very hot stove.

O. Acetosella, *la petite oseille* or *surelle*, Fr., is used as a salad plant, and is more delicate than the Rumex salads: its acid approaches nearly to that of the juice of lemons, or the acid of tartar, with which it also corresponds in its medical effects, being esteemed refrigerant, antiscorbutic, and diuretic. An infusion of the leaves, or a whey made by boiling the plant in milk, given in ardent fevers, is said to allay inordinate heat, and to quench thirst.

The expressed juice depurated, properly evaporated, and set in a cool place, affords a crystalline acid salt in considerable quantity, which may be used whenever vegetable acids are wanted. It is employed to take iron moulds and ink stains out of linen, and is sold under the name of essential salt of lemons. (*Withering.*) This salt when genuine, which it seldom is, consists of the vegetable alkali and a peculiar acid, which, according to Bergman, seems more allied to the acid of sugar than that of tartar. What is sold for it in this country, appears sometimes to consist of C. Tart., with the addition of a small quantity of vitriolic acid. For taking out spots in linen, the stained part is dipped in water, sprinkled with a little of the salt powdered, then rubbed on a pewter plate, after which the spot is washed out with warm water. (*Curtis, from Newm. Chem. by Lewis.*) Twenty pounds of leaves fresh yield six pounds of juice, from which two ounces, two drachms, and one scruple of salt have been obtained. (*Lewis.*)

1066. *Agrostemma.* *Αγρȣ ϛεμμα*, crown of the field. The beauty of the flowers of the common cockle weed well entitles it to such a distinction. The foreign species are very pretty annuals. A. Githago (*git* or *gith* was the name of certain black and aromatic grains, supposed to have been of Nigella sativa, which were employed by the Romans in cookery. The seeds of the plant Githago are externally similar) is an ornamental weed, and along with corn poppy and blue bottle makes a fine appearance in the fields of the slovenly husbandman, where the soil is dry and gravelly

6535 Hairy, Stem dichotomous, Flowers on long stalks, Leaves linear
β A slight variety, with longer divisions to the calyx
6536 Downy, Stem dichotomous, Peduncles long 1-fl. Cal. campanulate ribbed

6537 Downy, Flowers in umbellate heads, Cal. cylindr. clavate ribbed
6538 Smooth, Stem dichotomous panicled erect, Flowers terminal solitary

6539 Smoothish, Flowers fascicled, Cal. cylindr. clavate ribbed, Petals 2-lobed

6540 Stems ascending smoothish, Fl. dichotomous fascicled, Cal. camp. 10-ribbed, Pet. torn with an appendage
6541 Smooth, Flowers terminal and axillary 1-3, Cal. rounded clavate ribbed, Petals torn
6542 Hairy, Fl. 2-3 fastigiate, Cal. rounded clavate woolly, Petals 4-cleft
6543 Stem viscid about the joints, Limb of petals nearly entire, Leaves linear spatulate

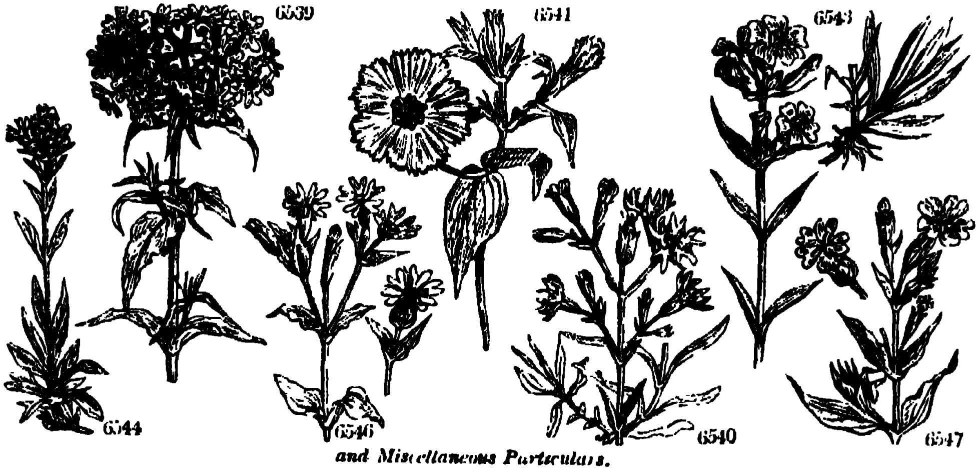
6544 Smooth, Stems tufted upright, Fl. in dense capitate umbels, Cal. camp. Petals bifid
6545 Fl. solitary, Cal. with ten keels, Petals bifid, linear-lanc. subciliated
6546 Fl. dichotomous panicled diœcious, Petals ½-bifid, Lobes narrow diverg. Caps. round

6547 Fl. dichotomous panicled diœcious, Petals ½-bifid, Lobes broad approximating, Caps. conical

6548 Smooth glaucous, Stem erect branched or simple, Leaves lanceolate connate obtuse
6549 Hairy pale green viscid, Leaves ovate, Petals length of calyx, Fl. longer than fl.-stalk
6550 Hairy viscid diffuse, Leaves lanceolate oblong
6551 Stem much branched villous, Leaves ovate-lanc. hispid, Flowers numerous in dichotomous panicles
6552 Leaves ovate, Flowers panicled, Cal. villous longer than petals, Caps. scarcely longer than sepals
6553 Hairy viscid, Flowers pentandrous, Petals emarginate
6554 Hairy subviscid, Flower 4-fid 4-androus, Pet. bifid shorter than calyx
6555 Leaves linear lanceolate obtuse ciliated at base, Pet. twice as long as calyx
6556 Glutinous hairy, Fl. solitary in the dichotomies, Sepals lanc. acute the length of petals, Leaves lanc.
6557 Leaves ellipt. naked or hairy, Pan. dichotomous few-fl. with bractes, Caps. oblong recurved
6558 Stems prostrate, Leaves ovate acute subciliated smooth, Flowers terminal subcorymbose
6559 Leaves sublinear acuminate smooth, Peduncles glandular, Pet. twice as large as calyx
β Leaves very narrow and smooth
6560 Downy, Leaves lanc.-lin. acute, Flowers very large in dichotomous umbels, Pet. crenate and 2-lobed
6561 Leaves cordate ovate, Stem clasping, Peduncles in fruit very long deflexed

6562 Hairy viscid, Leaves lanceolate, Fl. diœcious, Petals thrice as long as calyx
6563 Leaves elliptical scabrous, Pedunc. terminal simple subsolitary, Capsule ovate
6564 Leaves oblong spatulate hoary, Sepals hoary scarious at edge, Caps. cylindr. longer than calyx
6565 Very smooth, Leaves lanc. linear, Pedunc. very long, Caps. acute shorter than corolla

6566 This is the Cerastium aquaticum of English botany



and Miscellaneous Particulars.

A. coronaria and flos-jovis are shewy border flowers, the first generally increased by seeds, and the other by cuttings or division of the plant.

1067. *Lychnis.* From λυχνος, a lamp, in allusion to the cottony leaves of some species, which have been used as wicks to lamps. L. chalcedonica, *Croix de Malthe*, Fr. and Portug., *Croce de Cavaliere*, Ital., and *C. de Jerusalem*, Span., is an old and much esteemed border flower, the double varieties of which require some care in cultivation, to prevent their returning to the single state, and to propagate them by cuttings. L. fulgens and coronata are also very handsome species. "They do best in a light rich loamy soil, but they must be often taken up and divided, or they dwindle away; the best time of doing this is early in spring. L. coronata thrives and flowers abundantly if planted out in the open ground in spring; but it requires to be taken up in autumn and potted, or the severe frosts in winter will kill it, or injure it very much. All may be raised by cuttings planted under hand-glasses, or by seeds, which often ripen in abundance." (*Bot. Cult.* 89.)

L. viscaria and floscuculi are more hardy, and grow in common garden soil, and increase abundantly by division: they are both old inhabitants of the flower garden. L. diurna and vespertina are also border flowers in their double varieties.

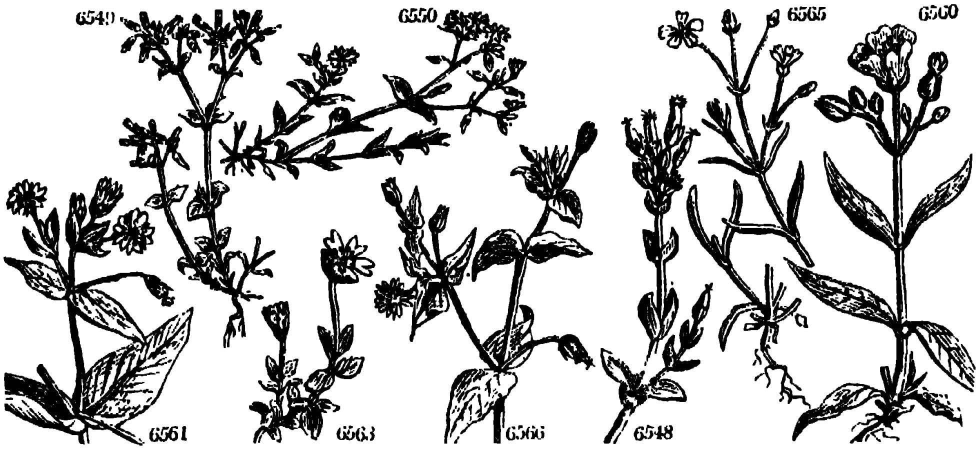
1068. *Cerastium.* Derived from κερας, a horn, in allusion to the cornute form of the capsule of many species. Most of the annual species, and some of the others, are weeds; a few may be grown in pots or on rock-work, for both of which they seem well adapted. They are very prolific in seeds, and contribute materially to the support of small birds.

1069. *Larbrea.* A genus founded by Aug. St. Hilaire, in the second volume of Mémoires du Muséum, upon the Cerastium aquaticum of Linnæus. He named it after the Abbé de Larbre, who at the age of 80, published a Flora of Auvergne.

1070.	SPER'GULA. *W.*	SPURREY.					*Caryophylleæ.*	*Sp.* 5—14.				
6567	arvénsis *W.*	rough-seeded		○	w	½	jl.au	W	Britain	san. fl.	S	co	Eng. bot. 1535
6568	pentándra *W.*	smooth-seeded		○	w	½	jn.jl	W	England	san. fl.	S	co	Eng. bot. 1536
6569	nodósa *W.*	knotted	♃	△	w	½	jl.au	W	Britain	san.he.	D	co	Eng. bot. 694
6570	saginoídes *W.*	smooth-awl-sh.	♃	△	w	¼	jn.au	W	Scotland	sc.alp.	D	co	Eng. bot. 2105
6571	subuláta *W.*	ciliated-awl-sh.	♃	△	w	¼	jn jl	W	Britain	san.he.	D	co	Eng. bot. 1082

DECAGYNIA

1071.	PHYTOLAC'CA. *W.*	PHYTOLACCA.					*Chenopodeæ.*	*Sp.* 6.					
6572	octándra *W*	white-flowered	♃	△⃞	or	6	jl n	W.G	Mexico	1732.	C	s.l	Di. el. t.239.f.308
6573	abyssínica *W.*	African	ħ	□	or	6	my.jn	W.G	Africa	1775.	R	s.l	Hoff. c. goet. t.2
6574	dodecándra *W. en.*	recurved-leaved	♃	△⃞	or	6	my jn	R	......	...	C	s l	
6575	decándra *W.*	Virginian Poke	♃	△	cul	5	au.s	L.Pu	Virginia	1615.	C	s.p	Bot. mag. 931
6576	icosándra *W.*	red	♃	△⃞	or	3	jl.n	W	E. Indies	1758.	C	s.p	Mill. ic. t. 207
6577	dioíca *W.*	tree	ħ	□	or	8	...	W.G	S. Amer.	1768.	C	s.p	L'her. st. no.t.70



History, Use, Propagation, Culture,

1070 *Spergula.* From *spargere*, to scatter, because it scatters its seeds abroad, to the great profit of the farmer in Holland, who obtains from it meadows affording the most delicious butter. S. arvensis is a common weed in sandy soils, in Scotland called yarr, and in Norfolk pickpurse In the Netherlands and in Germany it is sown on corn stubbles, to supply a bite for sheep during winter. It may be sown and reaped in eight weeks, either in autumn or spring. It is said to enrich the milk of cows, so as to make it afford excellent butter; and the mutton fed on it is preferable to that fed on turnips. Hens eat spurry greedily, and it is supposed to make them lay a great number of eggs, whether in hay, or cut green, or pasture. Von Thaer observes, it is the most nourishing, in proportion of its bulk, of all forage, and gives the best flavored milk and butter. It has been recommended to be cultivated in England; but it is not likely that such a plant can ever pay the expense of seed and labour in this country, even on the poorest soil; or at all events, as Professor Martyn observes, we have many better plants for such soils.

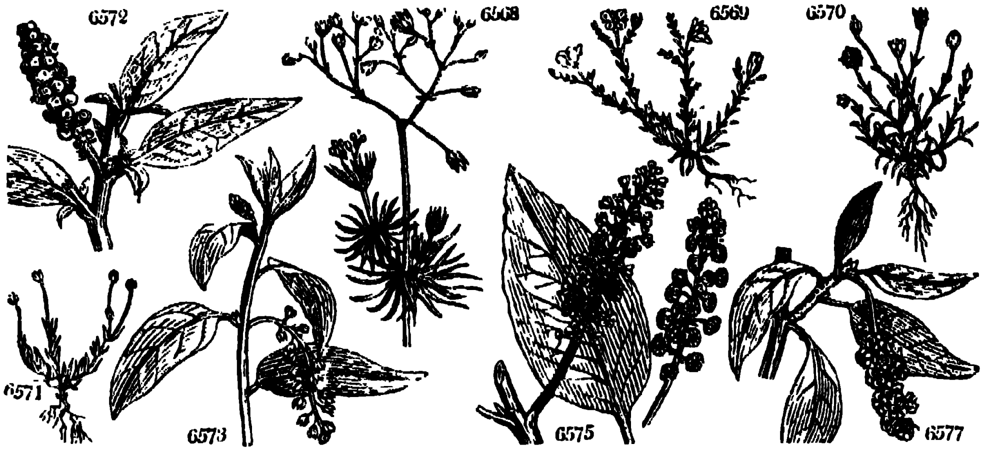
1071. *Phytolacca.* From φυτον, a plant, and *lacca,* lac; that is to say, a plant whose fruit gives out a fine red color like lac. The English-American name Poke, applied to one species, is a corruption of Pocan, the name by which it was formerly known in Virginia.

P. decandra has large ramose roots, shoots half an inch in diameter, and five or six feet high, the leaves five inches long, and two and a half inches broad, smooth and of a deep green. It grows vigorously in a good deep soil, and furnishes ample supplies of young shoots, which in America and the West Indies are boiled and eaten as spinage. (*Correa de Serra, in Hort. Trans.* iv. 446)

6567 Leaves whorled, Pedunc. in fruit reflexed, Seeds reniform angular rough
6568 Leaves whorled, Flowers pentandrous, Seeds depressed winged smooth
6569 Leaves opposite subulate smooth: upper fascicled, Cal. not nerved
6570 Leaves opposite subulate blunt naked, Pedunc. solitary very long smooth
6571 Leaves opposite subulate awned ciliated, Pedunc. very long solitary hairy

DECAGYNIA.

6572 Flowers octandrous octogynous
6573 Flowers decandrous pentagynous
6574 Flowers dodecandrous octogynous, Leaves ovate obl. with a recurved point
6575 Flowers decandrous decagynous
6576 Flowers icosandrous decagynous
6577 Flowers diœcious



and Miscellaneous Particulars.

An ounce of the dried root, infused in a pint of wine, and given to the quantity of two spoonfuls, operates kindly as an emetic, and is preferable to most others, as it hardly alters the taste of the wine. In its medicinal properties, the Phytolacca approaches nearer to Ipecacuanha than to any other vegetable, but it is slower in its effects, and it remains longer in action, although it may be checked by an opiate. Sometimes its operation produces vertigo and stupor. The powder of the leaves possesses the same virtues as the root, but in a weaker degree. It is one of the plants which have had a temporary reputation for the cure of cancer, and some sensible men have been converts to its efficacy. The fermented berries give out a liquor which yields alcohol by distillation. From half a bushel of the berries, six pints of spirits were obtained, sufficiently strong to take fire and burn with readiness. Two ounces of this given to a dog occasioned nausea and drowsiness, with slight spasmodic motions, but no vomiting. Poultry are fond of the berries, but if eaten in large quantities, they give the flesh a disagreeable flavor. The juice stains paper and linen of a beautiful purple color, but it will not last long; if a method could be found of fixing the dye, it might be very useful. The vignerons in Portugal for many years used the juice of the berries of the elder-bush to give a deep color to the Port wines, to which it was thought to communicate a disagreeable taste when mixed in too great a quantity. Complaint of this practice having been made to government, orders were given that the stems of that plant should be cut down and destroyed before they produced berries: but they forgot to include the Phytolacca in the proscription, so that the berries of that plant supply the same purpose in a much worse manner.

Class XI. — DODECANDRIA. 12 Stamens.

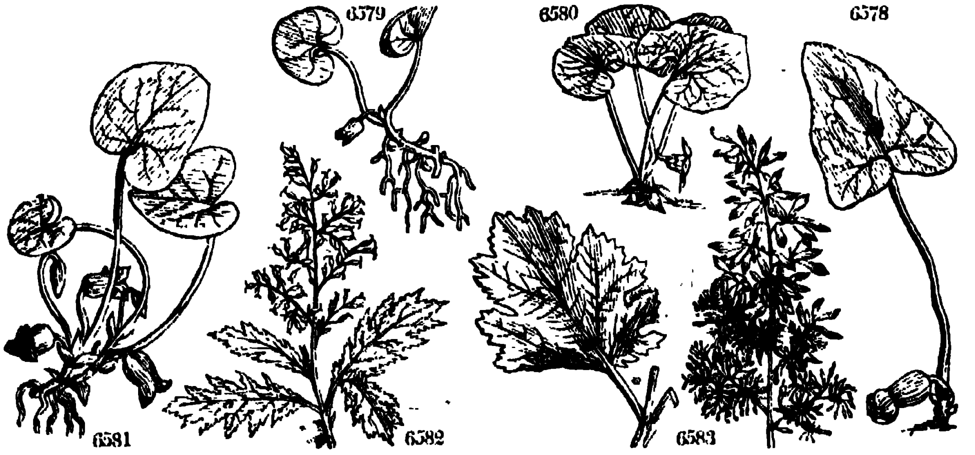
This is a small incongruous class, containing no extensive genus of importance except Euphorbia. Some botanists have been of opinion that it ought to be cancelled, but it is probable that Linnæus understood the application of his own principles as well as some of his more pretending followers, and it is certain that if the Linnean plan can be made to act successfully, its artificial arrangement must be rigorously observed. Euphorbia and Reseda, which are usually referred hither, should more properly be referred, the former to Monœcia, and the latter to Polygamia.

Order 1. MONOGYNIA. 12 Stamens. 1 Style.

1072 ***Asarum.*** Cal. 3-4-cleft, superior. Cor. O. Capsule coriaceous, crowned.
1073. ***Bocconia.*** Cal 2-leaved. Cor. O. Style bifid. Caps. 2-valved, 1-seeded.
1074. ***Bassia.*** Sepals 4. Cor. 8-cleft, with an inflated tube. Stamens 16. Drupe 5-seeded.
1075. ***Blakea.*** Sepals 6, inferior, with a superior entire calyx. Petals 6. Caps. 6-celled, many seeded.
1076. ***Bejaria.*** Cal. 7-cleft. Petals 7. Stamens 14. Berry 7-celled, many-seeded.
1077. ***Agathophyllum.*** Petals 6. Calyx truncate. Drupe 1-seeded.
1078. ***Rhizophora.*** Cal. 4-parted. Cor. 4-parted Stigmas 2. Seed 1 very long, fleshy at base.
1079. ***Garcinia.*** Sepals 4, inferior. Petals 4. Berry 8-seeded, crowned by the peltate stigma.
1080. ***Grangeria.*** Cal. 5-cleft. Petals 5. Stamens 15. Drupe 3-cornered. Nut 3-cornered, bony, 1-seeded.
1081. ***Halesia.*** Cal. 4-toothed, superior. Cor. 4-cleft. Nut quadrangular, 2-seeded.
1082. ***Decumaria.*** Sepals 8-12, superior. Petals 8-12. Caps. 8-celled, many-seeded
1083. ***Eurya.*** Cal. 5-leaved, with 2 bractes at base. Petals 5. Caps 5-celled, many-seeded.
1084 ***Aristotelia.*** Sepals 5. Petals 5. Style trifid. Berry 3-celled. Seeds twin.
1085. ***Canella.*** Cal. 3-lobed. Petals 5. Anthers 16, united to an urceolate nectary Berry 1-celled, 2-4-seeded.
1086. ***Cratæva.*** Petals 4. Cal. 4-cleft. Berry 1-celled, many-seeded.
1087. ***Triumfetta.*** Petals 5. Sepals 5. Capsule hispid, opening in fou
1088. ***Peganum.*** Petals 5. Sepals 5, or O Capsules 5-celled, 3-valve , many-seeded.
1089. ***Hudsonia.*** Petals 5. Sepals 3, tubular. Stamens 15. Capsules 1-celled, 3-valved, 3-seeded.
1090. ***Nitraria.*** Petals 5, vaulted at end Cal 5-cleft. Stamens 15. Drupe 1-seeded.
1091. ***Portulaca.*** Petals 5. Cal. 2-fid. Capsule 1-celled, cut across
1092. ***Talinum.*** Petals 5. Sepals 2. Capsule 3-6-valved, many-seeded Leaves without stipules. Seeds not winged.
1093 ***Anacampseros.*** Like Talinum, but having stipules and winged seeds.
1094 ***Lythrum.*** Cal. 12-toothed, tubular, unequal at base. Petals 6, inserted in calyx. Caps 2-celled, many-seeded.
1095. ***Nesæa.*** Like Lythrum, but calyx campanulate.
1096. ***Heimia.*** Cal. 12-toothed. Petals 6. Capsule 4-celled.

MONOGYNIA.

1072. A'SARUM *W.*		Asarabacca.					*Aristolochiæ.*	*Sp.* 4—5.				
6578 arifólium *Mich.*		arum-leaved	¥	△	cu	½	jn	Br	N. Amer. 1823.	D	p.l	Hook. ex. fl. 40
6579 europæ'um *W*		common	¥	△	m	½	my	P	England woods.	D	p l	Eng. bot 1083
6580 canadénse *W.*		Canadian	¥	△	cu	½	ap.jl	Br	Canada 1713.	D	p.l	Bot. cab. 889
6581 virgínicum *W.*		sweet-scented	¥	△	cu	½	ap my	Br	Virginia 1759.	D	p.l	Sweet fl. gard. 18
1073. BOCCO'NIA *W.*		Bocconia.					*Papaveraceæ*	*Sp.* 2—3				
6582 frutéscens *W.*		Tree Celandine	■	▭	or	10	ja.ap	W.y	W. Indies 1739.	S	r.m	Bot. cab 83
6583 cordáta *W.*		heart-leaved	Ψ	△	or	6	my au	W.y	China 1795.	C	s.l	Bot. mag. 1905



History, Use, Propagation, Culture,

1072 ***Asarum.*** An ancient name, said to have been formed from *α*, privative, and *σειρα*, bandage, because it was not used in garlands of which the ancients were so fond; in that case it should be *Asărum*. The common name, *Asarabacca*, is Latin, *qu.:* the berry of Asarum? Little inconspicuous herbaceous plants. The leaves of A. europæum are emetic, cathartic, and diuretic; and, perhaps, as Dr. Cullen has remarked, they form the most useful species of errhine stimulants A proper dose snuffed up the nose for a few successive evenings at

1097. *Cuphea.* Cal. 6-12-toothed, occasionally gibbous at base. Pet. 6, inserted in calyx, or O. Caps. 1-celled, opening on one side longitudinally along with the calyx.

1098. *Kleinhovia.* Sepals 5. Petals 5. Nect. campanulate, 5-toothed, staminiferous, united to the column of ovary. Ovary stalked. Caps. with 5-angles and 5-cells inflated, cells 1-seeded.

Order 2. DIGYNIA 12 Stamens. 2 Styles.

1099. *Callicoma.* Flowers in round heads. Calyx 4-5-leaved. Corolla O.

1100. *Heliocarpus.* Sepals 4. Petals 4. Styles simple. Caps. 2-celled, compressed, radiating on each side longitudinally.

1101. *Agrimonia.* Cal. 5-toothed, surrounded by another. Petals 5. Grains 2, in the bottom of the calyx.

Order 3 TRIGYNIA. 12 Stamens. 3 Styles.

1102. *Reseda.* Involucre many-leaved spreading. Hermaphrodite flower central, apetalous, surrounded by several fringed petaloid barren flowers.

1103. *Euphorbia.* Involucre 1-leaved, ventricose, regular Flowers naked, aggregate. Female floret surrounded by many monandrous male florets.

1104 *Pedilanthus* Like Euphorbia, but involucre calceiform.

1105. *Visnea.* Cal. 5-leaved, inferior. Petals 5. Stigmas 3. Nut 2-3-celled, half inferior

Order 4. TETRAGYNIA. 12 Stamens. 4 Styles.

1106 *Calligonum.* Cal. 5-parted. Corolla O. Filaments about 16, united at base. Ovary superior, 4-cornered. Styles 4. Nut with a many winged crust, 1-celled.

Order 5 PENTAGYNIA. 12 Stamens. 5 Styles

1107. *Glinus.* Sepals 5. Cor. O. Nectary with bifid bristles. Caps. 5-angular, 5-celled, 5-valved, many-seeded.

1108 *Blackwellia* Cal ½ superior, persistent, at the base turbinate, many-parted; with villous ciliated segments. Petals 15. Capsule 1-celled, many-seeded

1109. *Gastonia.* Cal entire Petals 5-6. Stam 10-12: two opposite each petal. Styles 10-12, very small, united at base. Capsules 10-12-celled.

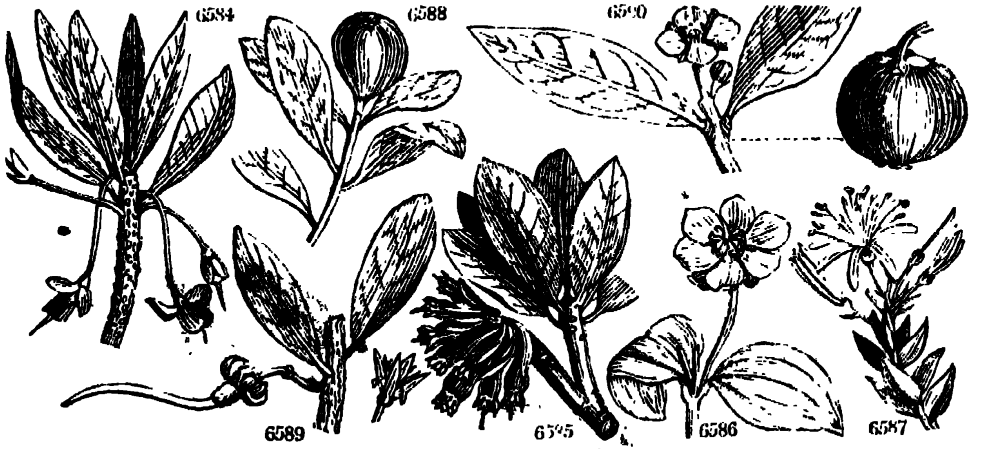
Order 6. DODECAGYNIA. 12 Stamens. 12 Styles.

1110. *Sempervivum.* Cal. 12-parted. Petals 12. Caps. 12, many-seeded.

MONOGYNIA.

6578 Leaves subhastate cordate, Calyx tubular shortly trifid
6579 Leaves reniform obtuse twin
6580 Leaves reniform mucronate
6581 Leaves cordate obtuse smooth stalked

6582 Leaves oblong sinuated
6583 Leaves cordate somewhat lobed

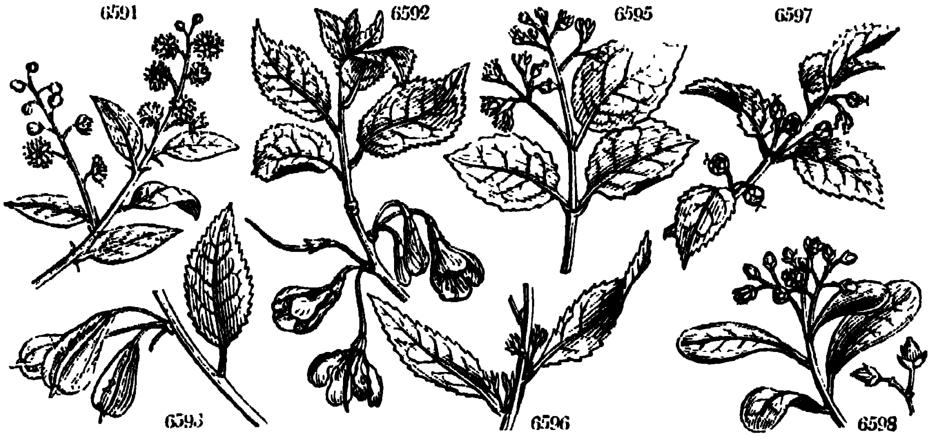


and Miscellaneous Particulars.

bed time occasions a copious discharge from the nostrils, which continues to flow for several days (*London Dispensatory*, 185.) The herb was formerly employed to correct the effects of excessive drinking, whence in French it is still called *cabaret.*

1073. *Bocconia.* In memory of Paolo Boccone, M. D., a Sicilian, and Cistercian monk under the name of Sylvius; author of Icones et Descriptiones rariorum Plantarum Siciliæ, Melitæ, Galliæ, et Italiæ; pub-

1074.	BAS'SIA. *W.*	BASSIA.					*Sapoteæ.*		*Sp.* 2—4.				
6584	longifólia *W.*	long-leaved	♀	□	or	40	...	...	E. Indies	1811.	C	p.l	Lam. ill. t. 398
6585	latifólia *W.*	broad-leaved	♀	□	or	40	...	Y	E. Indies	1799.	C	p l	Rox. cor. 1. t 19
1075	BLA'KEA *W.*	BLAKEA.					*Melastomeæ.*		*Sp.* 1—4.				
6586	trinérvia *W.*	three-ribbed	♀	□	or	14	jn jl	W	Jamaica	1789.	L	s.p	Bot. mag. 451
1076.	BEJA'RIA. *Ph.*	BEJARIA.					*Rhodoraceæ.*		*Sp.* 1—3.				
6587	racemósa *Ph.*	sweet-scented	♣	⊔	or	4	jn.jl	Pu	Florida	1810.	C	l.p	Vent. cels. t. 52
1077.	AGATHOPHYL'LUM. *W.*	MADAGASCAR-NUTMEG.					....		*Sp.* 1				
6588	aromáticum *W.*	aromatic	♀	□	or	30	...	W	Madagasc	1823.	C	p.l	Sonn. it. t. 127
1078.	RHIZO'PHORA. *W*	MANGROVE.					*Rhizophoreæ*		*Sp* 1—9.				
6589	Man'gle *W.*	common	♀	□	cu	10	...	...	E. Indies	1820.	C	p l	Jacq. am. t. 89
1079.	GARCI'NIA *W.*	MANGOSTEEN.					*Guttiferæ*		*Sp.* 1—8.				
6590	Mangostána *W.*	common	♀	□	fr	20	...	Pu	Java	1789.	C	r.m	Bot. cab. 845
1080.	GRANGE'RIA *Lam*	GRANGERIA.					....		*Sp.* 1.				
6591	borbónica *Lam.*	Bourbon	♀	□	or	40	...	W	Bourbon	1823.	C	p l	Lam. ill. t. 427
1081.	HALE'SIA *W*	SNOWDROP-TREE.					*Ebenaceæ.*		*Sp* 2—4.				
6592	tetráptera *W.*	four-winged	♣		or	6	ap.my	W	Carolina	1756.	C	p l	Bot. mag. 910
6593	díptera *W.*	two-winged	♣		or	6	ap.my	W	N. Amer.	1758.	C	p.l	Cav. dis. 6. t. 187
1082.	DECUMA'RIA. *W.*	DECUMARIA.					*Myrtaceæ.*		*Sp.* 2.				
6594	bárbara *Ph.*	smaller	⚲		or	4	jl.au	W	Carolina	1785.	L	p.l	
6595	sarmentósa *Ph.*	larger	⚲		or	30	jl.au	W	Carolina	1758.	L	p l	Act par. 1. t. 13
1083.	EU'RYA. *Thunb.*	EURYA.					*Ternströmeaceæ.*		*Sp.* 1—4.				
6596	chinénsis *Abel.*	Chinese	♣	⊔	pr	2	f.d	W	China	1823.	C	p.l	Abel. China, c. fig
1084.	ARISTOTE'LIA. *W.*	ARISTOTELIA.					*Rhamneæ?*		*Sp* 1.				
6597	Mácqui *W.*	shining-leaved	♣		or	4	ap.my	W.G	Chili	1733.	C	l.p	Dend. brit. 44
1085.	CANEL'LA. *W.*	CANELLA.					*Guttiferæ*		*Sp.* 1.				
6598	álba *W.*	Laurel-leaved	♀	□	or	40	...	W	W. Indies	1735.	L	r l	Linn. trans 1. t. 8



History, Use, Propagation, Culture,

lished by Morrison at Oxford, 1764, quarto, and other works. B. frutescens is very ornamental in its foliage. The Indian kings, Hernandez tells us, planted it in their gardens, which must have been for its beauty, as it is neither culinary nor medicinal, though the juice is acrid, and used in the West Indies to take off warts.

1074. *Bassia.* So named by Koenig, in honor of Ferdinando Bassi, curator of the botanic garden at Bologna. Tall trees, natives of the hottest parts of the East Indies, with tufted alternate leaves growing only at the end of the shoots Ripened cuttings root freely in sand

1075. *Blakea* So named by Dr Patrick Browne, after Mr. Martin Blake of Antigua, a great promoter of useful knowledge, and a patron of the doctor's Natural History of Jamaica. This is one of the most beautiful plants of the West Indies. It supports itself for a time by the help of some neighboring shrub or tree, but it grows gradually more robust, and at length acquires a pretty moderate stem, which divides into a thousand weakly declining branches, well supplied with beautiful rosy blossoms on all sides. It cannot display itself to so great advantage in our stoves; but it flowers freely, and thrives well in loam and peat, well supplied with water Ripe cuttings root in sand in moist heat and covered.

1076. *Bejaria.* So named by Mutis, in honor of Bejar, a Spanish botanist. The original species are natives of New Grenada. That in gardens, which is a native of the southern states of North America, is a beautiful shrub from three to four feet high, with pink flowers of an agreeable scent. It is found upon the banks of swamps and ponds, and requires the protection of a frame or greenhouse

1077. *Agathophyllum.* From αγαθος, good, and φυλλον, a leaf. The leaf has a pleasant smell like cloves. In Madagascar, where it is called *Ravendsara*, it forms a large tree with a rufous aromatic bark, and a heavy insipid wood. The leaves are alternate and coriaceous. The dried fruit is very aromatic.

1078. *Rhizophora.* From ῥιζα, a root, and φερω, to bear, in allusion to the numerous roots which are emitted by the seeds, which vegetate among the branches of the tree while yet adhering to their footstalk. This is the common Mangrove, which covers immense tracts of coast within the tropics, rooting and vegetating even as far as low water mark.

1079. *Garcinia.* So named in honor of Laurent Garcin, M. D, F. R. S., who travelled into the East Indies. *Mangostana* is the Malayan name. This tree bears a fruit, which in the East Indies ranks with that of the pine-apple. It rises with a taper stem, sending out many branches, not unlike a fir-tree, with oval leaves, seven or eight inches long. The flower is like that of a single rose; the fruit round, the size of a middling orange; the shell is like that of the pomegranate, the inside of a rose color, divided by thin partitions, as in oranges, in which the seeds are lodged, surrounded by a soft juicy pulp, of a delicious flavor, partaking of the strawberry and the grape, and is esteemed one of the richest fruits in the world. It is a native of the Molucca islands, whence it has been transplanted to Java and Malacca. The head of the tree is in the form of a parabola, so fine and regular, and the leaves so beautiful, that it is looked upon in Batavia as the tree most proper for adorning a garden, and affording an agreeable shade. It was introduced to England in 1789. According to Dr. Garcin, (*Phil. Trans*) " it is esteemed the most delicious of the East Indian fruits, and a

6584 Leaves lanceolate, Peduncles 1-flowered very long horizontal axillary
6585 Leaves elliptical acute, Peduncles 1-flowered nodding terminal

6586 Calyxes two, Leaves with three nerves finely striated across beneath

6587 Leaves ovate-lanceolate smooth, Flowers terminal in panicled racemes

6588 Leaves stalked alternate obovate obtuse coriaceous entire smooth

6589 Leaves acute, Fruit subulate-clavate

6590 Leaves ovate, Peduncles 1-flowered

6591 Leaves alternate stalked ovate entire smooth veiny

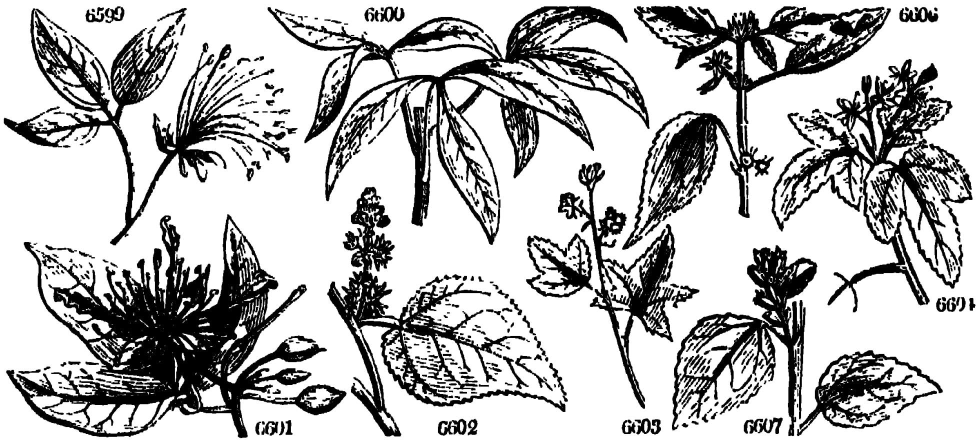
6592 Leaves ovate acuminate, Veins hairy beneath, Wings of the fruit equal
6593 Lvs. obl. ovate obtusely pointed green on both sides very soft beneath, Wings of fruit alternately larger

6594 Leaves all ovate, Stem climbing
6595 Lower leaves rounded: upper ovate-lanceolate, Stem sarmentose

6596 Branches at end pubescent, Leaves cuneate oval, Flowers axillary

6597 Leaves opposite evergreen ovate shining serrated

6598 Leaves oblong obtuse shining, Racemes terminal



and Miscellaneous Particulars.

great deal of it may be eaten without any inconvenience; it is the only fruit which sick people are allowed to eat without scruple. It is given with safety in almost every disorder; and we are told that Dr. Solander, in the last stage of a putrid fever in Batavia, found himself insensibly recovering by sucking this delicious and refreshing fruit. The pulp has a most happy mixture of the tart and sweet, and is no less salutary than pleasant. It is propagated by ripe cuttings in sand in moist heat. But the plant rarely survives long after its importation.

1080. *Grangeria.* Named after N. Granger, a traveller in Egypt, Persia, &c. who died at Bassora in 1733. His voyage into Egypt was published in 1745 This is a tree the size of an oak, with alternate ovate entire leaves. The flowers are small, in small terminal and axillary racemes.

1081. *Halesia.* So named by Ellis, in honor of the learned and venerable Stephen Hales, D. D., F. R. S., author of Vegetable Staticks, 1727. The species are very ornamental shrubs, valuable for blossoming early in the season. The flowers hang in small bunches all along the branches, each bud producing from four to eight or nine; they appear before the leaves, are of a pure snowy whiteness, and last for two or three weeks, they are succeeded by pretty large winged juiceless drupes, hanging likewise in bunches. The leaves of H. diptera are six times the size of those of H. tetraptera, and the fruit has two large wings and two minute ones They are propagated by cuttings of the roots

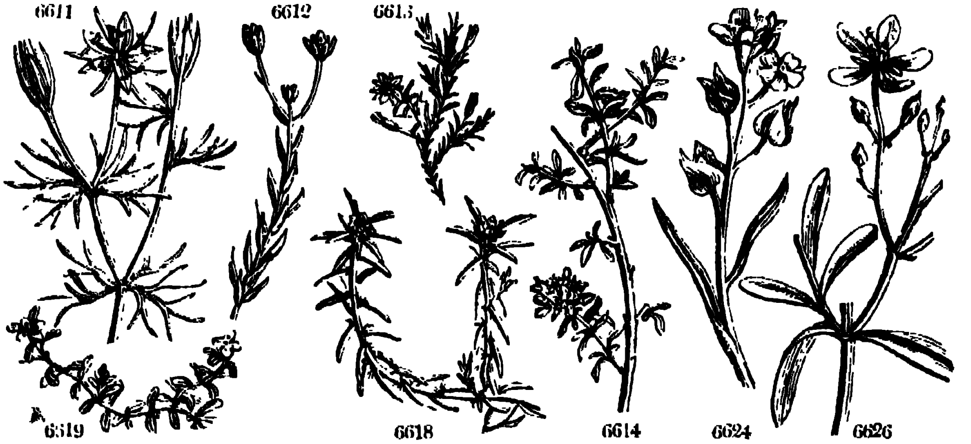
1082. *Decumaria.* Derived from *decem*, ten, all the parts of fructification answering to the number 10. It is commonly propagated by layers, but will grow by cuttings in sand under a hand-glass.

1083. *Eurya.* A name of Thunberg's, supposed to have been formed from *ευρυς*, broad; its application no one has been able to discover. The Eurya chinensis is a little evergreen bush, bearing many whitish flowers on the under side of the branches and hidden by the leaves. It is easily propagated by cuttings.

1084. *Aristotelia.* After the celebrated ancient philosopher and naturalist Aristotle. *Macqui* is the name of this shrub in Chili. It grows freely in a sheltered situation; but its flowers are of little beauty. They are succeeded by small berries of a purple or black color, slightly acid and eatable: the inhabitants of Chili make a wine from them, which they give in fevers, and for curing the plague. It is increased by layers or ripened cuttings.

1085. *Canella.* A name given by Murray, on account of the resemblance between its wood and the aromatic flavor of *Canella*, Cinnamon. This tree rises very straight, from ten to fifty feet in height The branches are erect, not spreading, and only at the top of the tree; furnished with petiolated leaves of a dark green color, thick, and shining like those of the laurel, and emitting a similar odor. The flowers, which exhale a powerful aromatic perfume, are small, seldom open, and in bunches. The inner bark of the branches is freed from the cuticle, and dried in the shade. This bark is stimulant, and slightly tonic It is a useful adjunct to bitters in some cases of dyspepsia and atonic gout; but it is employed chiefly on account of its flavor, and to correct the griping quality of the resinous cathartics. It is said to prove useful in scurvy (*London Dispensatory*, 207.)

1086. **CRATÆ'VA** *W.*	GARLICK-PEAR.					*Cappar ideæ.*		*Sp.* 3—12.				
6599 gynándra *W.*	thin-leaved	🌳	□	or	12	...	W.pu	Jamaica	1789.	C	r.m	Plu.alm.t.147.f.6
6600 Tápia *W.*	smooth	🌳	□	or	30	...	W	India	1752.	C	r.m	Com.hort.1.t.67
6601 frágrans *H. K.*	sweet-scented	🌳	□	or	6	jn.jl	W	S. Leone	1795.	C	r.m	Bot. mag. 596
1087. **TRIUMFET'TA** *W.*	TRIUMFETTA.					*Tiliaceæ.*		*Sp* 9—29				
6602 Láppula *W.*	prickly-seeded	♣	□	un	6	jl.au	Y.o	Jamaica	1739.	C	l.p	Plum. ic. t. 255
6603 Bartrámia *W.*	Currant-leav'd	♣	□	un	3	jn.jl	Y.o	E. Indies	1739.	C	l.p	Ru. am.6.t.25.f.2
6604 semitríloba *W.*	mallow-leaved	♣	□	un	6	jl	Y	W. Indies	1773.	C	co	Jac. vind. 3. t.76
6605 grandiflóra *W.*	large-flowered	♣	□	un	3	...	Y	W. Indies	1810.	C	co	
6606 an'nua *W.*	annual		⊡	un	2	au.s	Y	E. Indies	1760.	C	co	Bot. mag. 2296
6607 rhomboídea *Jacq.*	rhomboidal	♣	□	un	3	au.s	Y	Peru	1818.	C	co	Lind. coll. 29
6608 macrophýlla *Vahl.*	large-leaved	♣	□	un	3	au.s	Y		1820.	S	co	
6609 trichocláda *Link.*	hairy-branched		⊡	un	3	au.s	Y	Nepal	1823.	S	co	
6610 oblongáta *Wall.*	oblong		⊡	un	2	au.s	Y	Nepal	1823	S	co	
1088. **PE'GANUM.** *W.*	PEGANUM.					*Rutaceæ.*		*Sp.* 2.				
6611 Hármala *W.*	Syrian-Rue	⚘	△	cu	1	jl.au	W	Spain	1570.	C	co	Lam. ill. 401
6612 daúricum *W.*	Milkwort-lvd.	⚘	△	cu	1	jl.au	W	Siberia	1816.	C	s.l	Gm. sib. 4. t. 68
1089. **HUDSO'NIA.** *W.*	HUDSONIA.					*Cistineæ.*		*Sp.* 1.				
6613 ericoídes *W.*	Heath-leaved	∽	⌴	pr	¾	my.jl	Y	N. Amer.	1805.	L	s.p	Bot. cab. 192
1090. **NITRA'RIA.** *W.*	NITRARIA.					*Ficoideæ.*		*Sp.* 1—3				
6614 Schobéri *W.*	thick-leaved	♣		cu	1½	my.au	P.B	Siberia	1778.	C	s.l	Dend. brit. 1C
1091. **PORTULA'CA** *W.*	PURSLANE.					*Portulaceæ.*		*Sp.* 8—12.				
6615 satíva *H. S.*	garden		○	cul	1½	au.s	Y	S. Amer.	1652.	S	co	
6616 oleràcea *H. S.*	small		○	cul	¾	jn.jl	Y	Europe	1582.	S	r.m	Plant. grass. 123
6617 parvifólia *H. S.*	small-leaved		⊡	cu	⅓	au	Y	Jamaica	1799.	S	s.l	
6618 pilósa *W.*	hairy		⊡	cu	⅓	jn	Pk	W. Indies	1690	S	s.l	Bot. reg. 792
6619 quadrífida *W.*	creeping		⊡	cu	⅓	au.s	Y	E. Indies	1773	S	s.l	Jac. col.2 t. 17 f.4
6620 Meridiàna *W.*	noonday		○	pr	¼	my.jn	Y	E. Indies	1791.	S	s.l	
6621 foliósa *Lindl.*	Guinea		○	pr	½	jn	Y	Guinea	1822.	S	s.l	Bot. reg. 793
6622 mucronàta *Link.*	mucronate		○	pr	½	jn	Y	......	1822.	S	s.l	
1092. **TALI'NUM** *Haw.*	TALINUM.					*Portulaceæ.*		*Sp.* —18.				
6623 teretifólium *Psh.*	round-leaved	¥	△	pr	1	au	Pu	N. Amer.	1823	D	s.l	Bot. cab. 819
6624 ciliàtum *R. & P.*	ciliated	¥	△	pr	1	au	Pu	Chili	1825.	S	s.p	Hook. ex. fl. 82
6625 triangulàre *W.*	triangular	¥	□	pr	¾	au.s	W	W. Indies	1739	C	p.l	Jac. obs. 1. t. 23
6626 crassifólium *W.*	thick-leaved	¥	□	pr	1	au.s	R	......	1800.	C	p.l	Jac. vind. 3 t. 52
6627 pàtens *W.*	spreading-flow	¥	⊡	pr	1	au.o	R	S. Amer.	1776.	C	p.l	Bot. rep. 253
6628 refléxum *H. S.*	yellow-flower.	¥	⊡	pr	1	au.o	Y	S. Amer.	1800.	C	p.l	Bot. mag. 1543
1093. **ANACAMP'SEROS** *L.*	ANACAMPSEROS.					*Portulaceæ.*		*Sp.* 5—7				
6629 rotundifólia *B. M.* *Talinum Anacampseros* W.	round-leaved	∽	⌴	cu	¾	jl.s	Pk	C. G. H.	1732.	C	s.l	Bot. cab. 591
6630 arachnoídes *B. M.*	cobweb	∽	⌴	cu	⅝	jl.s	Pk	C. G. H.	1790.	C	s.l	Bot. mag. 1368
6631 rùbens *Haw.*	red-leaved	∽	⌴	cu	¾	jl.s	R	C. G. H.	1796.	C	s.l	
6632 filamentósa *B. M.*	thready	∽	⌴	cu	1	au.s	Pk	C. G. H.	1795.	C	s.l	Bot. mag. 1367
6633 lanceolàta *Haw.*	spear-leaved	¥	△	cu	1	au.s	Pk	C. G. H.	1796.	C	s.l	



History, Use, Propagation, Culture,

1086. *Cratæva.* In honor of Cratævus, a Greek botanist and contemporary of Hippocrates. C. Tapia, an American name, produces a fruit about the size of an orange, with a mealy pulp and a strong smell of garlic, which is communicated to the animals that feed on it. All the species prefer a rich loamy soil, and may be increased by cuttings in sand under a hand-glass.

1087. *Triumfetta.* So named by Plumier, in memory of Giov. Battista Triumfetti, prefect of the botanic garden at Rome, author of Hortus Romanus, 1681, and other works. T. semitriloba has a tough strong bark which serves for ropes and other conveniences of that kind in the inland parts of the West Indies. The whole plant is mucilaginous and emollient. Cuttings root in sand under a hand-glass. All the species are uninteresting weed-like shrubs of tropical countries.

1088. *Peganum.* Πηγανον was the Greek name of the rue, which the modern plant resembles. Harmala is the Arabic name (*hharmel*) of the species so called. The species are of easy culture and propagation in any light soil.

1089. *Hudsonia.* So named by Linnæus, in honor of William Hudson, apothecary of London, F. R. S., and author of Flora Anglica, 1762 and 1778, octavo. It is a heath-like plant which grows in peat soil, and young cuttings are rooted in sand under a bell-glass. It is extremely rare in gardens.

1090. *Nitraria.* So named by Schreber, who first found it in Siberia near the nitre works, with other saline vegetables. This is a curious thorny shrub, peculiar to the salt deserts of Siberia. Pallas informs us, that the berries, though saltish and insipid, are eaten in the Caspian desert, but in that arid soil they are almost the only luxury. Camels feed on the twigs. Linnæus had the shrub twenty years before it flowered in Sweden;

6599 Unarmed, Leaves entire, Flowers gynandrous
6600 Leaflets ovate acuminate, Petals ovate roundish obtuse with globose ovaries
6601 Stem twining, Cor. regular, Petals very long wavy, Peduncles capitate-racemose

6602 Leaves emarginate at base, Flowers without calyx
6603 Leaves entire at base undivided
6604 Leaves half three lobed, Flowers complete
6605 Leaves subcordate ovate entire serrated rather hairy: the floral ones lanceolate, Branches hairy
6606 Leaves ovate undivided rarely lobed
6607 Leaves rhomboid: the upper lanceolate ovate, Flowers complete
6608 Leaves ovate cordate entire unequally serrated acuminate downy glandular at base, Fl. complete
6609 Leaves ovate cordate 7-nerved acuminate serrate hairy, Flowers clustered
6610 Leaves oblong serrate 5-nerved softly hairy, Fl. terminal clustered

6611 Leaves multifid, Stem herbaceous
6612 Leaves oblong acute, Stem herbaceous

6613 Leaves subulate acerose hairy, Calyx erect pubescent

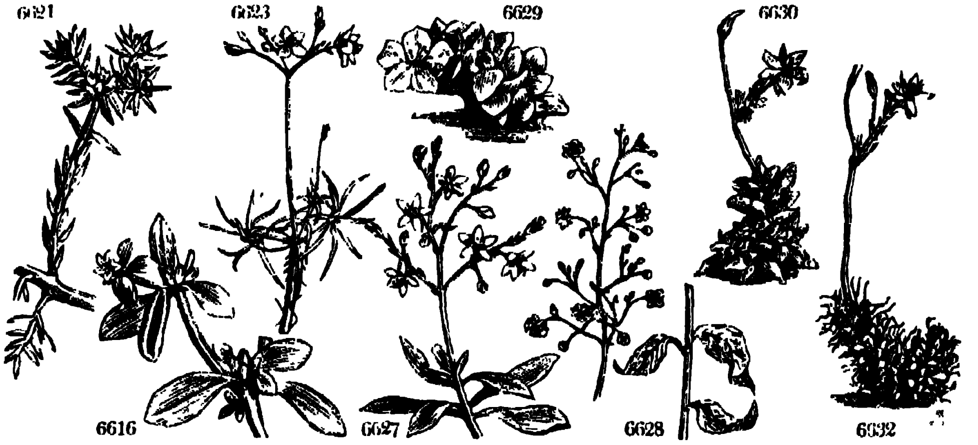
6614 Leaves entire obtuse

6615 Leaves wedge-shaped fleshy, Fl. sessile, Stem and branches nearly erect
6616 Leaves wedge-shaped fleshy, Fl. sessile, Branches prostrate
6617 Much branched prostrate, Leaves wedge-shaped minute fleshy, Fl. on long stalks and sessile
6618 Leaves subulate alternate hairy at the axillæ, Flowers sessile terminal
6619 Bractes 4, Flowers 1-3d, Joints of the stem hairy
6620 Leaves elliptical fleshy flat, Joints hairy, Flowers sessile terminal
6621 Leaves subulate, Cal. hairy, Involucre many-leaved, Flowers about 3, Petals retuse
6622 Axils hairy, Leaves obversely oblong, Involucre 8-leaved

6623 Leaves cylindrical fleshy, Corymbs terminal stalked
6624 Leaves linear oblong ciliated, Flowers solitary
6625 Leaves flat chann wedge-shaped emarg. mucronate, Raceme simple with a 3-cornered peduncle
6626 Leaves flat obovate mucronate, Corymb long, Peduncle 3-cornered
6627 Leaves ovate flat, Panicle terminal, Peduncle dichotomous
6628 Leaves lanc. ovate sessile opposite, Panicle branched

6629 Leaves ovate difform smooth green, Peduncles round long panicled

6630 Leaves ovate acuminate difform green shining cobwebbed, Raceme simple, Peduncles round long
6631 Leaves ovate acuminate difform shining cobwebbed dark-red, Rac. simple, Pedunc. very long
6632 Leaves imbricated expanded dark-green cobwebbed rugose above, Threads axillary longer than leaves
6633 Leaves lanceolate fleshy convex beneath, Scape leafy short 1-flowered



and Miscellaneous Particulars.

and during ten years having in vain tried to make it flower in the garden at Upsal, he at length succeeded by watering the plant with salt water; it flowered, however, at Gottingen without this assistance. Murray expresses a surprise that it has not been used in its native soil for making soda: but perhaps it does not grow in sufficient quantity, or there may be an ample harvest in that salt region of plants that answer the same purpose.

In this country it thrives in sandy loam with a little salt put round it, and is increased by layers, or cuttings in sand under a hand glass.

1091. *Portulaca.* An ancient name of unknown origin. The species are succulents of the easiest culture. P sativa and oleracea were formerly cultivated as potherbs, salads, for garnishings and pickling, though now little used for any of these purposes.

1092. *Talinum.* One of those names invented by Adanson, which probably were the mere creations of that botanist's erratic brain. This is a succulent genus allied in habits to Portulaca, and of the easiest culture.

1093. *Anacampseros.* Ανακαμψερως was the name of a plant, to which the ancients attributed the quality of restoring the passion of love, for which purpose it was used in philtres and incantations: from *ανακαμπτω*, to return, and ερως, love The species are succulents, and grow freely in a sandy loam mixed with a little lime rubbish, and require but little water. Cuttings root readily, but should be laid to dry a few days before being planted. Leaves taken off close to the plants, and laid to dry a few days, and then planted, will root, and shoot out young plants at their base.

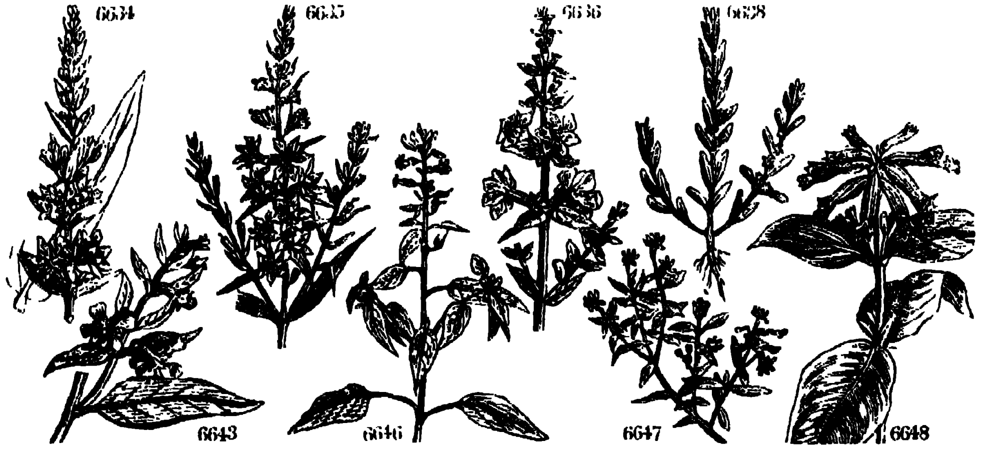
1094. LYTH'RUM. *W*	LYTHRUM					*Salicariæ.*	*Sp* 5—10.					
6634 Salicária *W.*	common	♃	△	or	4	jl au	Pu	Britain	riv. ba.	D	co	Eng. bot. 1061
6635 virgátum *W.*	fine-branched	♃	△	or	3	jn s	Pu	Austria	1776.	D	co	Bot. mag. 1008
6636 alátum *Ph.*	winged-stalked	£	[△]	or	3	my.n	Pu	N. Amer.	1812.	D	s.l	Bot. mag. 1812
6637 lineáre *W.*	white-flowered	♃	△	or	1¼	jl.au	W	N. Amer	1812.	D	s.l	
6638 hyssopifólium *W.*	Hyssop-leaved		○	or	1	au	Pu	England	wat.pl.	S	s.l	Eng. bot. 292
1095. NESÆ'A. *Kunth.*						*Salicariæ.*	*Sp.* 2—3.					
6639 triflóra *Kunth.*	three-flowered	♃	△	or	2	au	B	America	1802.	D	p.l	
Lythrum triflorum W.												
6640 verticilláta *Kunth*	whorl-flowered	♃	△	or	2	jl s	Pu	N. Amer.	1759.	D	p.l	
1096. HEI'MIA. *Link*	HEIMIA.					*Salicariæ.*	*Sp.* 1.					
6641 salicifólia *Link.*	willow-leaved	♣	□	or	5	au s	Y	Mexico	1821.	C	p.l	
1097. CU'PHEA. *Jacq.*	CUPHEA					*Salicariæ.*	*Sp.* 7—19.					
6642 viscosissima *W.*	clammy	£	⊡	or	1	jl.au	Pu	America	1776.	C	s.l	Sw. fl. gard. 60
6643 procúmbens *Cav*	procumbent		⊡	or	1	jl.s	Pa.pu	Mexico	1816.	S	s.l	Bot. reg. 182
6644 lanceoláta *H K*	smooth-styled	£	⊡	or	1¼	...	Pu	Mexico	1796.	C	s.l	
6645 decándra *H K.*	decandrous	⚘	□	or	1½	jn o	Pu	Jamaica	1789.	C	s.l	
6646 circæoìdes *Sims*	Circæa-like		⊡	or	½	s	Pu	S. Amer.	1821.	C	s.l	Bot mag 2201
6647 multiflóra *Lodd.*	many-flowered	⚘	□	pr	1½	s	Pu	Trinidad	1820	C	p.l	Bot cab. 808
6648 Melvilla *Lindl*	scarlet & green	♣	□	or	2	au	Sc	Guiana	1823.	C	p.l	Bot. reg 852
1098 KLEINHO'FIA *W*	KLEINHOFIA.					*Malvaceæ.*	*Sp* 1.					
6649 Hóspita *W.*	heart-leaved	♀	□	or	20	...	Pu	E. Indies	1800.	C	p.l	Cav. dis. 5. t. 146

DIGYNIA.

1099 CALLI'COMA *B R*	CALLICOMA.					*Cunoniaceæ.*	*Sp.* 1.					
6650 serratifólia *B. R*	saw-leaved	♣	⊔	or	4	my.au	Y	N. S. W.	1793.	C	s.p	Bot. rep. 566
1100. HELIOCAR'PUS. *W.*	HELIOCARPUS.					*Tiliaceæ.*	*Sp.* 1—2.					
6651 americánus *W.*	American	♣	□	or	16	...	Pu	Vera Cruz	1733.	C	p.l	Lam. ill. t 409
1101. AGRIMO'NIA. *W.*	AGRIMONY.					*Rosaceæ.*	*Sp* 6—9.					
6652 Eupatória *W.*	common	♃	△	m	3	jn.jl	Y	Britain	bor. fl.	D	co	Eng bot. 1335
6653 odoráta *W*	sweet-scented	♃	△	or	4	jl	Y	Italy	1640	D	co	
6654 répens *W.*	creeping	♃	△	or	2	jl s	Y	Levant	17[illegible]7	D	co	
6655 parviflóra *W.*	small-flowered	♃	△	or	2	jl	Y	N. Amer.	1766	D	co	
6656 striáta *Ph.*	white-flowered	♃	△	or	2	jn au	W	N. Amer.	1812.	D	co	
6657 Agrimonoìdes *W.*	three-leaved	♃	△	or	1½	jn au	Y	Italy	1739	D	co	Col. ecp 1 t.144

TRIGYNIA.

1102. RE'SEDA *W.*	RESEDA.					*Resedaceæ.*	*Sp* 19—23.					
6658 Lutéola *W*	Dyer's-weed		○	ag	2	jn jl	Ap	Britain	wa gr	S	s.l	Eng bot. 320
6659 crispáta *Link*	curled		○	un	2	jn jl	Ap	Portugal	1823.	S	co	



History, Use, Propagation, Culture,

1094. *Lythrum.* From λυθρον, black blood, in allusion to the color of the flowers. L. Salicaria (willow-like, from *Salix*) although a common British plant, is considered a handsome border flower, and several varieties, differing chiefly in size, are in cultivation The whole plant is astringent, and has been used in medicine and tanning.

1095 *Nesæa.* Plants formerly referred to Lythrum, from which they seem to be satisfactorily distinguished.

1096. *Heimia.* Named by Link, in honor of Dr. Heim, a celebrated Berlin physician A beautiful stove shrub with fine spikes of yellow flowers.

1097. *Cuphea.* From κυφος, curved, in reference to the form of its capsule. Pretty herbaceous or shrubby plants, resembling Lythrum in aspect. C. Melvilla is a very handsome stove shrub resembling Bouvardia coccinea.

1098 *Kleinhofia.* So named by Linnæus, after Kleinhoff, formerly director of the botanic garden in Java. The leaves when bruised smell like violets ; the flowers appear the greater part of the year, and the tree is seldom without fruit in all its different stages. Cuttings root in sand under a hand-glass.

1099. *Callicoma.* From καλος, beautiful, and κομη, hair, in allusion to the tufted yellow heads of flowers, for which the plant is remarkable. Ripened cuttings root in sand under a hand-glass.

1100 *Heliocarpus.* From ἡλιος, the sun, and καρπος, fruit. The valves of its round and elegantly ciliated capsule resemble a little sun surrounded by its rays. Cuttings root in sand under a hand-glass ; and Miller found the seeds to vegetate after being kept ten years.

1101 *Agrimonia.* A corruption of the word *Argemone*, by which name the ancients distinguished a plant reputed useful in cataract of the eye, which in Greek was termed *argema*. A. Eupatoria was formerly regarded as a remedy of much importance as a tonic and deobstruent ; but though still retained in the London Materia Medica, is seldom or never prescribed. The root in spring is sweet scented, and the flowers fresh

6634 Leaves opp. cordate lanceolate, Flowers spiked 12-androus
6635 Leaves opp. lanc. Panicle virgate, Flowers 12-androus 3 together
6636 Leaves opp ovate obl. acute cordate at base closely sessile, Branches 4-winged, Fl. axil. sol. 6-androus
6637 Leaves opposite linear, Flowers opp. hexandrous
6638 Leaves alternate linear, Flowers hexandrous

6639 Smooth, Leaves opp. subsessile lanceolate entire, Pedunc axill. opposite, Head 3-flowered

6640 Leaves opp. somewhat downy stalked, Flowers whorled linear

6641 Leaves linear-lanceolate acute, Flowers axillary

6642 Fl. axill. solitary, Leaves ovate-lanceolate scabrous above, Stem erect hispid, Style hairy
6643 Branches decumbent viscous, Leaves ovate lanceolate hispid on short stalks
6644 Fl axill. sol. Lvs. lanc. hairy, Stem erect hairy, Style smooth, The 2 long filam. having a tuft of wool longer [than anthers
6645 Raceme term. Leaves ellipt and branches pubesc Stem shrubby, Fl. decandrous
6646 Raceme term. Pedicels scattered, Bractes linear, Leaves ovate stalked pubescent
6647 Leaves small lanceolate, Flowers small solitary terminal, Bush compact
6648 Leaves lanceolate scabrous narrowed at each end, Racemes term. Cal. long bowed, Petals O

6649 A smooth tree, with broad cordate acuminate entire leaves

DIGYNIA.

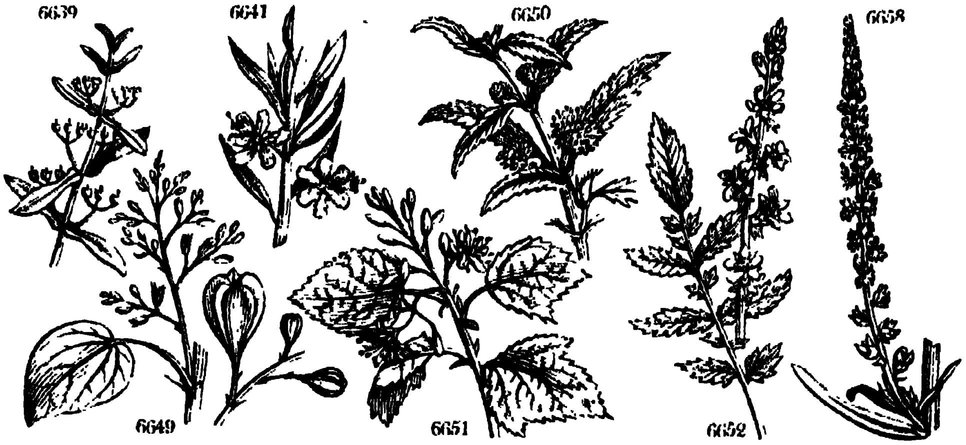
6650 The only species

6651 The only species

6652 Fruit hispid, Cauline leaves pinn. with obl ovate leaflets, Spikes elevated, Pet. twice as long as calyx
6653 Fruit hispid, Leaves pinnate with obl. leaflets the lower very short, Pet twice as long as calyx
6654 Fruit hispid, Cauline leaves pinnate with obl. leaflets, Spikes subsessile, Petals 3 times as long as calyx
6655 Fruit hispid, Cauline leaves pinnate with many lanceol leaflets, Petals half as long again as calyx
6656 Spikes virgate, Fruit reflexed turbinate furrowed crowned with hairs
6657 Fruit smooth, Cauline leaves ternate, Stamens usually 8

TRIGYNIA.

6658 Leaves lanc. entire with a tooth on each side at base, Cal. 4-fid
6659 Leaves lanceolate wavy entire with two glands at base



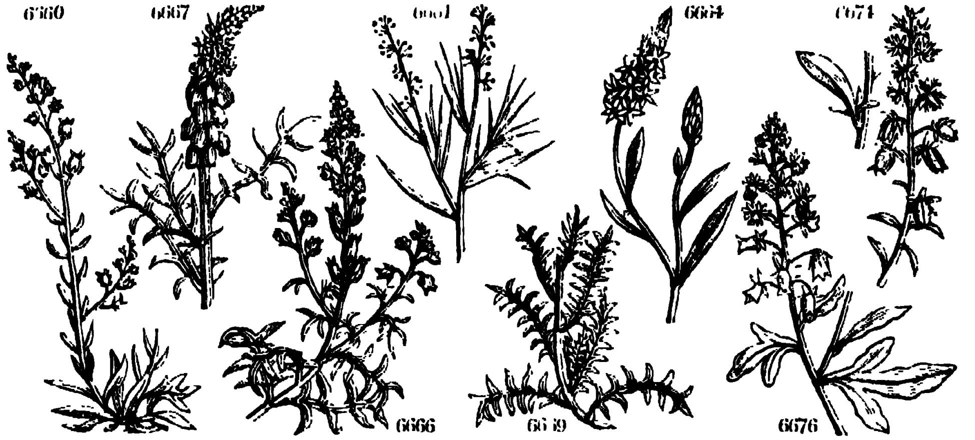
and Miscellaneous Particulars.

gathered smell like apricots. When the plant is coming into flower it will dye wool a full nankeen color, and gathered in September a darker yellow. It has been used for dressing leather Sheep and goats eat it, but kine, horses, and swine refuse it.

1102. *Reseda.* From *resedo*, to calm, to appease. The Latins thought it useful as a topical application in external bruises. R. Luteola, a diminutive of *lutea*, yellow, is used by dyers, especially in France. (Chaptal's Chimie appliqué à l'Agriculture, &c.) It affords a most beautiful yellow dye for cotton, woollen, mohair, silk and linen. Blue cloths are dipped in a decoction of it, in order to become green. The yellow color of the paint called Dutch Pink, is obtained from this plant. The entire plant, when it is about flowering, is pulled up and employed both fresh and dried. Mr. Swayne observes, that it is one of the first plants which grow on the rubbish thrown out of coal pits. It flowers in June and July. The root and bottom leaves are formed from the fallen seeds before winter; and thus it happens in this, as in many other cases, that the wild plant is biennial, whilst the cultivated plant, growing from seeds sown in the spring, is annual. It is an observation of Linnæus's, that the nodding spike of flowers follows the course of the sun, even when the sky is covered; pointing towards the east in a morning, to the south at noon, westward in the afternoon, and to the north at night.

R. odorata is a well known and universal favorite. The flowers are highly odoriferous, and there are very few to whom this odor is offensive. The plant is in great demand in London for rooms and placing in balconies, and forms for these purposes an extensive article of culture among the florists and market gardeners. The plants are in many cases sown and transplanted into pots, three or four plants to a pot four inches in diameter. To obtain plants for blowing from December to February, a sowing should be made in July in the open ground, and the plants potted in September. The crop for March, April, and May, should be sown not later than the twenty-fifth of August, the plants from this sowing will not suffer by exposure to rain, whilst they are young; they must, however, be protected from early frosts, like the winter crop; they are to

6660 **canéscens** *W.*	hoary	♃	△	un	1	my.jl	Ap	Spain	1597.	D	s.l	Cl. his. 1. t. 295
6661 **glaúca** *W.*	glaucous	♂	[△]	un	1	my.jl	Ap	S. Europe	1700	D	s.l	Pl. alm. t.107. f.2
6662 **dipétala** *W.*	Flax-leaved	♂	[◎]	un	1½	au	Ap	C. G H.	1774.	C	s.l	
6663 **scopária** *Brouss.*	Broom-like	♄	⊔	un	¾	au.s	Ap	Teneriffe	18.5	C	s.l	
6664 **sesamoídes** *W.*	spear-leaved		○	un	1	jl.au	Ap	France	1787.	S	s.l	All. p. 2. t. 88. f.3
6665 **viréscens** *Horn.*	green		○	un	1½	jl.au	Ap	Spain	1820.	S	co	
6666 **fruticulósa** *W.*	shrubby	♄	⊔	un	1	s	Ap	Spain	1794.	C	s.l	Jac. ic. 3. t 474
6667 **álba** *W.*	upright-white	♃	◎	un	3	my o	Ap	S. Europe	1596.	C	s.l	Lob. ic. 222
6668 **pruinósa** *Delisle.*	frosted	♃	△	cu	1	jn	Ap	Egypt	1824.	C	s l	
6669 **undáta** *W.*	wave-leaved	♃	△	un	1	jn au	Ap	Spain	1739.	D	s.l	Bar. rar. t. 587
6670 **bipinnáta** *W.*	bipinnate-leav.	♄	⊔	un	2	jn au	Ap	Spain	1816.	C	s.l	
6671 **saxátilis** *Pourr*	rock	♃	△	un	1½	jn.au	Ap	Spain	1816.	D	s.l	
6672 **ramosíssima** *W.*	branching	♃	△	un	2	jn.au	Ap	Spain	1816.	D	s.l	
6673 **lútea** *W.*	Base-rocket	♃	◎	un	3	jl.au	Ap	Britain	cli. so	C	s.l	Eng. bot. 321
6674 **Phyteúma** *W.*	trifid		○	un	1½	jn.s	Ap	S. Europe	1752.	S	s.l	Jac. aust. 2 t.132
6675 **mediterránea** *W.*	Mediterranean		○	un	1½	jn.s	Ap	Palestine	1791.	S	s.l	Lind. coll. 22
6676 **odoráta** *W.*	Mignonette		○	ft	1	jn o	Ap	Egypt	1752.	S	r.m	Bot. mag. 29
β frutéscens	*tree-mignonette*	♄	⊔	or	2	jn.o	Ap	Egypt	1752	S	r.m	Bot. reg. 227
1103. **EUPHOR'BIA.** *W*	Spurge.					*Euphorbiaceæ.*	*Sp.* 135—160.					
6677 **uncináta** *Dec.*	twin-spined	♄	⊐	gr	¾	jn au	Ap	C. G. H.	1794.	C	s.l	Plant. grass. 151
6678 **trigóna** *Haw.*	upright-triang.	♣	⊐	gr	9	jl.au	Ap	E. Indies	1768.	C	s.l	
6679 **antiquórum** *Haw.*	spreading-trian.	♣	⊐	gr	9	jl.au	Ap	E. Indies	1688.	C	s p	Rh. mal. 2. t 42
6680 **láctea** *Haw*	marbled	♣	⊐	gr	4	jl.au	Ap	E. Indies	1804.	C	s.p	
6681 **canariénsis** *W.*	Canary	♣	⊐	gr	20	mr.ap	Ap	Canaries	1697.	C	s.p	Plant. grass. 140
6682 **heptagóna** *W.*	seven-angled	♣	⊐	gr	3	jl n	Ap	C. G. H.	1731.	C	s.p	Brad. suc. 2. 13
6683 **enneagóna** *Haw.*	nine-angled	♣	⊐	gr	3	jl.o	Ap	C. G. H.	1790.	C	s.p	
6684 **mammilláris** *W*	warty-angled	♄	⊐	gr	2	jl au	Ap	C G. H.	1759.	C	s.p	Com. præl. t. 9
6685 **cereifórmis** *W.*	naked	♄	⊐	cu	2	jn jl	Ap	C. G. H.	1731.	C	s.p	Bur. afr t. 9. f 3
6686 **officinárum** *W.*	officinal	♣	⊐	m	6	jn jl	Ap	Africa	1597.	C	s.p	Plant. grass 77
6687 **polygóna** *Haw.*	many-angled	♣	⊐	gr	3	jl s	Ap	C. G H.	1790.	C	s p	Bot. cab. 1344
6688 **neriifólia** *W.*	Oleander-lvd.	♣	⊐	gr	3	jn.jl	Ap	India	1690.	C	s.p	Plant. grass. 46
6689 **Hystrix** *W.*	Porcupine	♄	⊐	gr	6	jn.au	Ap	C. G H.	1695.	S	s.p	Jac. sch. 2. t. 207
6690 **várians** *Haw*	variable-stem'd	♄	⊐	gr	4	...	Ap	E. Indies	1800.	C	s.p	
6691 **grandifólia** *Haw*	great-leaved	♣	⊐	cu	6	...	Ap	S. Leone	1798	C	s p	



History, Use, Propagation, Culture,

be thinned in November, leaving not more than eight or ten plants in each pot; and at the same time, the pots being sunk about three or four inches in some old tan or coal ashes, should be covered with a frame, which it is best to place fronting the west: for then the lights may be left open in the evening, to catch the sun whenever it sets clear. The third, or spring crop, should be sown in pots, not later than the twenty-fifth of February; these must be placed in a frame, on a gentle heat, and as the heat declines the pots must be let down three or four inches into the dung-bed, which will keep the roots moist, and prevent their leaves turning brown, from the heat of the sun, in April and May The plants thus obtained, will be in perfection by the end of May, and be ready to succeed those raised by the autumnal sowing. (*Rishon in Hort. Trans.* ii. 372.)

R. odorata frutescens, if left to itself, hardly appears a distinct variety, but trained against a wall or to a stick it, and also the common mignonette, may be made to assume a frutescent character. According to Sabine, the tree mignonette is to be propagated from seeds sown in spring; it may also be increased by cuttings, which will readily strike. The young plants should be put singly into small pots, and brought forward by heat, that of a gentle hot-bed being preferable, but they will grow well without artificial heat. As they advance, they must be tied to a stick; taking care to prevent the growth of the smaller side shoots, by pinching them off, but allowing the leaves of the main stem to remain on for a time to support and strengthen it. When they have attained the height of about ten inches or more, according to the fancy of the cultivator, the shoots must be suffered to extend themselves from the top, but must be occasionally stopped at the ends, to force them to form a bushy head, which by the autumn will be eight or nine inches in diameter, and covered with bloom. Whilst the plants are attaining their proper size, they should be shifted progressively into larger pots, and may ultimately be left in those of about six inches in diameter at top. (*Hort. Trans.* iii. 181.)

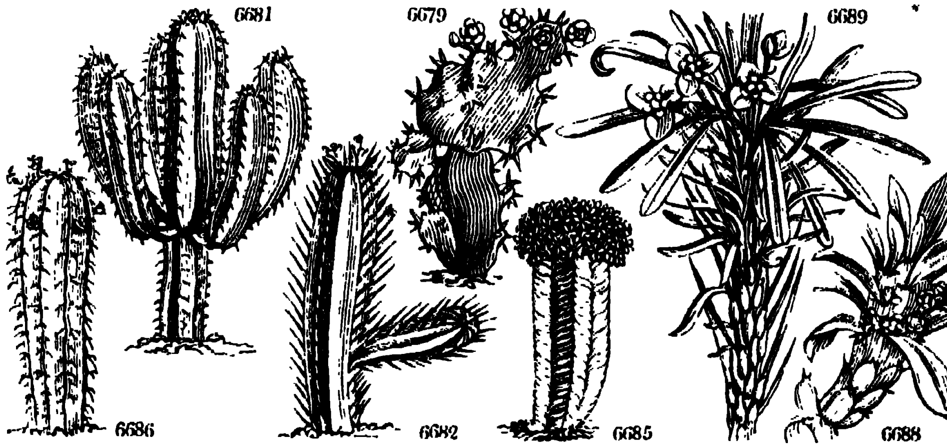
Mr. Lindley's theory of the nature of the inflorescence of this genus being remarkable, and only explained in his Collectanea Botanica, which is in few hands, it is here transcribed entire. "The usual idea of the flower of Reseda has been, that it is furnished with a calyx of a variable number of divisions, with as many petals, producing from their surface certain anomalous appendages, and with an ovary and stamens inserted on a great fleshy body, called nectary by Linnæan botanists, squama by others, and raised to the rank of a distinct organ by M. Mirbel, under the name of Gynophore. To us, however, it has always appeared, that this could by no means be the real structure of the plant, and that by a slight alteration of terms it not only might be much more satisfactorily explained, but its real affinity ascertained with some degree of probability. For even allowing for a moment an analogy between the nectary of this plant and the discus of others, particularly of some Tiliaceæ, there is still a great difficulty remaining to be overcome in the anomalous structure of the supposed petals, of which we can imagine no probable explanation. We are therefore of opinion, that a much more natural mode of understanding Reseda is to consider it as having compound flowers; taking the calyx of authors for an involucrum, their petals for neutral florets, and their nectary for the calyx of a fertile

6660 Leaves lanceolate wavy hairy
6661 Leaves linear toothed at base, Styles 4
6662 Leaves linear entire, Styles 4, Barren florets 2
6663 Leaves linear entire, Fl. trigynous, Fruit clavate, Stem twiggy
6664 Leaves lanceolate entire, Fruit stellate
6665 Nearly related to R. luteola, but the leaves are not toothed at base
6666 Leaves pinnate recurved at end, Styles 4, Involucre 5-parted-spreading, Stem half shrubby
6667 Leaves pinnate, Styles 4, Involucres 6-parted
6668 Branches above and younger leaves covered with large distinct blisters
6669 Leaves pinnate wavy, Styles 3 or 4
6670 Leaves bipinnatifid very rough, Flowers spiked
6671 Leaves all trifid: segments of the upper leaves linear flat; of the lower lanceol wavy, Stem quite simple
6672 Leaves linear simple or trifid, Stem erect branched, Fruit obovate
6673 Leaves all trifid: the lower pinnate
6674 Leaves entire and 3-lobed, Involucres 6-parted very large
6675 Leaves entire and 3-lobed, Involucres shorter than florets
6676 Leaves entire and 3-lobed, Involucres as long as florets

§ 1. *Stem thick, fleshy, naked, or with a few leaves, Flowers dispersed.*

* *Prickly.*

6677 Fleshy prickly compressed channelled inflexed at end, Prickles twin diverging
6678 Naked erect prickly triangular jointed, Branches erect somewhat channelled
6679 Prickly nearly naked triangular jointed, Branches spreading
6680 Naked prickly jointed with 3-cornered expanded branches obsoletely marbled with white
6681 Prickly naked nearly quadrangular, Prickles twin hooked, Fl. subsessile
6682 Prickly naked with 7 angles, Prickles solitary subulate flower-bearing
6683 Prickly naked erect with 9 angles, Prickles solitary flower-bear. ascending fuscous, Branches pendulous
6684 Prickly half naked, Angles warted with spines between, The young warts leafy
6685 Prickly naked with many angles, Prickles solitary subulate
6686 Prickly naked with many angles, Prickles twin
6687 Prickly naked with numerous simple erect 10-13-angled stems, Prickles dark
6688 Prickly half naked, Prickles twin, Angles obliquely warted leafy upwards, Leaves oblong
6689 Stem round half naked leafy upwards, Leaves lanc. linear, Peduncle 1-fl. at length spiny
6690 Prickles twin, Stem rounded or angular, Angles obliquely warted, Leaves nearly oblong
6691 Prickles twin horizontal, Stem rounded simple, Leaves oblong spatulate very large


6681 6679 6689
6686 6682 6685 6688

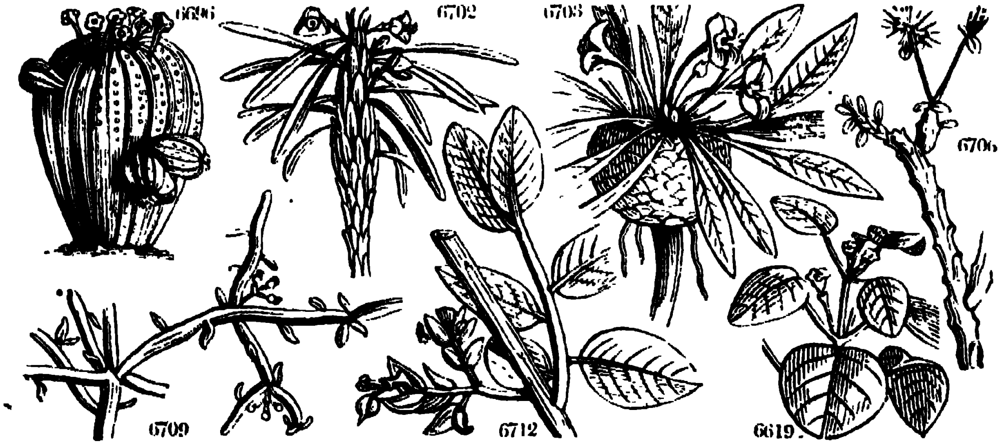
and Miscellaneous Particulars.

floret in the middle. In support of this opinion, we may observe, firstly, that there is a difference in the time of expansion of the neutral florets, and of the stamens of the fertile one; the former being quite open, in very many capituli, before one anther of the latter has burst in a single flower. Secondly, that there is an evident analogy between the appendages of the neutral florets, and the stamens of the perfect florets; inasmuch as in Reseda odorata those of the upper sterile florets are of nearly the same number as the real stamens; because in Reseda alba, and some others, in which a union of filaments takes place in the perfect floret, there is a corresponding but more complete union of the sterile appendages; and because occasionally, in Reseda odorata, stamens are changed into bodies altogether similar to the sterile appendages, and in Reseda Phyteuma the same appearance is always assumed by the perfect stamens after the anthers have performed their functions. Thirdly, that there is an equal analogy between the calyx of the neutral florets, and that of the perfect floret; because both have a peculiar glandular margin; the same form; both produce their stamens from their surface; and because the upper edge of the calyx in sterile florets has the same relation to the axis of each particular head, as that of the perfect floret has to the axis of the whole inflorescence. In Reseda Phyteuma, which has the margin of its neutral florets rolled back, the same thing occurs in the perfect floret. Fourthly, that there is no instance of the same analogy existing between the discus and petals of other plants. We may also observe, that in Reseda Phyteuma, there is a campanulate tube to the calyx, into the upper edge of which the stamens are inserted.

" To determine the affinity of Reseda to other orders, will not be so easy as to explain its structure. One cannot avoid remarking the resemblance between its calyx and the squama of *Amentaceæ* and *Ulmaceæ*. Ficoideæ, Grossulaceæ and Cacti, on account of placentation and structure of seed, may be supposed to have a certain relation to it: as may Chenopodeæ with regard to inflorescence, absence of petals, and habit. But we are disposed to believe its real place in the system is in the neighbourhood of Euphorbiaceæ, where we have placed it in Flora Scotica. They agree with it in having the same sort of aggregation of flowers, similar habit, no corolla, and ternary division of ovarium. The insertion of their ovula is the same, as is also the direction of the radicle. They differ, however, firstly, in the presence of albumen; which yet is not entirely absorbed in Reseda till the seed is perfectly ripe, and which exists even after that time in the seed of R. alba, where it is fleshy as in Euphorbiaceæ. Secondly, in their solitary seeds; in which respect Resedaceæ may be supposed to bear the same relation to Euphorbiaceæ as Campanulaceæ do to Compositæ; or as some sections of Rubiaceæ to the others. In R. suffruticulosa the ovules appeared to be reduced to a single row, and the same is said to obtain in Ochradenus. Thirdly, in elastic dehiscence of capsule; but as this is not universal in Euphorbiaceæ, it is not, strictly speaking, an objection of importance." (*Lindley's Coll. Bot.*)

1103. *Euphorbia.* Euphorbus was physician to Juba, king of Mauritania, and first used this plant in medicine. This is a genus of grotesque and curious plants, few of them of either beauty or use, and most of

6692 cucumerina *W.*	Cucumber-like	♄	⊐	gr	¼	...	Ap	C. G. H.	...	C	s.p	Vail. it. t. 5
6693 magnimamma *Haw.*	large-warted	♄	⊐	gr	3	...	Ap	Mexico	1823.	C	s p	
6694 lanífera *Haw.*	wool-bearing	♄	⊐	gr	3	...	Ap	Mexico	1823.	C	s p	
6695 geminispina *Haw.*	double-spined	♄	⊐	gr	3	...	Ap	Mexico	1823.	C	s.p	
6696 melofórmis *W.*	Melon-like	♄	⊐	gr	¾	my.s	Ap	C. G. H.	1774.	C	s p	Bot. rep 617
6697 Caput-medúsæ *W.*	gr. Med. Head	♄	⊔	gr	2	au	Ap	Africa	1731.	C	s.p	Com. præl. t. 7
6698 tessellàta *Haw.*	chequer'd M.H.	♄	⊔	gr	1	au	Ap	......	1788.	C	s.p	
6699 fructuspina *Haw*	small Med Hd.	♄	⊔	gr	¾	au	Ap	C. G. H.	1731.	C	s.p	Plant. grass. 150
6700 procúmbens *Haw.*	least M Hd.	♄	⊔	gr	½	au	Ap	C. G. H.	1708.	C	s.p	Bur. afr. t 10. f. 1
6701 anacántha *W.*	scaly	♄	⊔	gr	1	s o	Ap	C. G. H.	1727.	C	s.p	Plant. grass. 144
6702 cláva *W.*	club	♄	⊔	gr	1	mr.au	Ap	C. G. H.	1774.	C	s.p	Jac. ic. 1. t. 85
6703 bupleurifólia *W.*	cone-shaped	♄	⊐	gr	1½	jn jl	Ap	C. G. H.	1791.	C	s.p	Jac. sch. 1. t. 106
6704 mauritánica *W.*	Barbary	♄	⊔	cu	1½	jn.au	Ap	Africa	1732.	C	s.p	Di el. t.289.f.373
6705 hamáta *Haw.*	hooked	♄	⊔	cu	1½	...	Ap	C. G H.	1795.	C	s p	Bur. afr t 6. f. 3
6706 Ornithópus *Jacq.*	Bird's-foot	♄	⊔	gr	1	jn au	Ap	C. G. H	1816.	C	s p	Jac. frag. t. 120
6707 aphýlla *Brouss.*	leafless	♄	⊔	cu	1½	jn.au	Ap	Teneriffe	1815.	C	s.p	
6708 balsamifera *W.*	Balsam	♄	⊔	cu	1	...	Ap	Canaries	1779.	C	s p	
6709 Tirucálli *W.*	Indian-Tree	♄	⊐	gr	3	...	Ap	India	1690.	C	s.p	Rh. mal. 2. t. 44
6710 atropurpúrea *W. en.*	dark-purple	♄	⊔	cu	3	...	Ap	Teneriffe	1815.	C	s p	Bot. mag. 3321
6711 piscatória *W.*	smth. spear-lvd.	♄	⊔	cu	3	...	Ap	Canaries	1777.	C	s.p	
6712 bracteata *Jacq.*	bracteated	♄	☐	cu	1½	...	Ap	......	1809.	C	s.p	Jac. sch. 2. t. 276
6713 péndula *Haw.*	pendulous	♄	⊐	cu	1	...	Ap	......	1808.	C	s.p	
6714 dendroides *W.*	tree-like	♄		cu	1½	...	Ap	Italy	1768.	C	s.p	Mo. 10. t. 1. f. 11. 12
6715 cyathóphora *W.*	colored	♃	⊔	pr	1½	jl.au	Ap	S. Amer.	1806.	C	s.p	Bot. reg. 765
6716 repánda *Haw.*	waved	♃	[○]	cu	2	au	Ap	E. Indies	1808.	C	s.p	
6717 biglandulósa *Haw.*	twin-glanded	♄	☐	cu	3	s	Ap	Bourbon	1808.	C	s.p	
6718 nudiflóra *Jac.*	naked-flowered	♄	☐	cu	6	au	Ap	......	1800.	C	s l	Jac. ic. 3. t. 470
6719 cotinifólia *W.*	Cotinus-leaved	♄	☐	or	10	jl au	Ap	S. Amer.	1690.	C	s.p	Hook. ex fl. 59
6720 petioláris *Sims*	long-stalked	♄	⊐	cu	3	my jn	Ap	W. Indies	1800	C	s p	Bot. mag 883
6721 mellífera *W.*	honey-bearing	♄	⊔	pr	6	ap my	Ap	Madeira	1784	C	s l	Bot. mag. 1905
6722 linarifólia *W.*	Toad-flax-lvd	♄	☐	cu	3	...	Ap	......	1794	C	s.l	Jac. ic. 1 t. 86
6723 variegáta *B M.*	pie-bald		○	cu		s	Ap	Louisiana	1811	S	s.l	Bot. mag. 1747
6724 prunifolia *Jacq.*	Plum-leaved	♃	(○)	cu	2	jn.jl	Ap	......	1799.	S	s.l	Jac. sch. 3. t. 277
6725 ocymoídea *W.*	Basil-leaved		[○]	w	1	jn.au	Ap	Amer	1733	S	s l	
6726 dentáta *Mich.*	toothed		○	w	1	jn jl	Ap	N. Amer.	1806.	S	s.l	
6727 hypericifólia *W.*	Hypericum-lv.		○	w	1½	jn.s	Ap	America	1727.	S	s !	Hook. ex. fl. 36
6728 Humbóldtii *W. en.*	Humboldt's	♃	[△]	w	1	jl.o	Ap	S. Amer	1809.	C	s.l	
6729 prostráta *W.*	trailing red		[○]	w	½	jl.o	Ap	W Indies	1758.	S	s.l	
6730 rósea *W.*	rosy		[○]	w	½	au	Ap	E Indies	1808.	S	s.l	
6731 maculáta *W.*	spotted		○	w	1½	jl	Ap	S Amer	1690.	S	s.l	Jac. vin. 2. t. 186
6732 picta *W.*	painted	♃	[△]	w	1	my.jl	Ap	S. Amer.	1789.	S	s.l	Jac. ic 3. t. 477
6733 pilulifera *W.*	globular	♃	[△]	w	½	jn.au	Ap	E. Indies	1800.	C	s.l	Jac. ic. 3. t. 478
6734 hyssopifólia *W.*	Hyssop-leaved	♃	[○]	w	1	au.s	Ap	W. Indies	1787.	C	s.l	
6735 thymifólia *W.*	thyme-leaved		[○]	w	¼	jl au	Ap	India	1699.	S	s.l	Pl. alm. t. 113. f 2
6736 chamæsýce *W.*	scollop-leaved		○	w	½	jl.au	Ap	S. Europe	1752.	S	s.l	Mo. h 10 t 2 f. 19
6737 Péplis *W.*	purple		○	w	1	jl.au	Ap	England	sea.sh.	S	s.l	Eng. bot. 2002
6738 polygonifólia *W.*	knot-grass-lvd.		○	w	¼	jn.jl	Ap	N. Amer.	1704.	S	s l	Jac. co. s. t. 13. f 3
6739 Ipecacuánhæ *W.*	Ipecacuanha	♃	△	w	2	jn.jl	Ap	N. Amer.	1812.	D	s.l	Bot. mag. 1494
6740 canaliculáta *Pers*	channelled		○	w	1	jn.jl	Ap	Carthagin.	1819.	S	co	Bot. cab. 727
6741 Péplus *W.*	petty		○	w	¾	jl.au	Ap	Britain	clt. gr.	C	s.l	Eng. bot 959
6742 falcáta *W.*	sickle-leaved		○	w	1	jn.au	Ap	S. Europe	1699.	C	s.l	Jac. aus. 2. t. 121
6743 exigua *W.*	dwarf		○	w	½	jl	Ap	Britain	cor. fl.	C	s.l	Eng. bot. 1336



History, Use, Propagation, Culture,

the annuals poisonous weeds. One species (E. edulis), not yet introduced, is said to be used as a pot-herb in Cochin China; one (E. punicea) is a very splendid plant, and the E. officinarum, and one or two other species gathered along with it, are used in medicine. They are all milky, mostly herbaceous, several however shrubby, upright for the most part, very few of them creeping; some are leafless, but most of them are leafy. Stems angular or tubercled, or more frequently cylindric or columnar; unarmed, or in the angular sorts resembling the upright Cactuses, and armed with prickles, which are either solitary or in pairs, placed in a single row on the top of the ridges. Such as have leaves have them simple, most frequently alternate and naked; in some sorts, however, they are opposite, and are then commonly attended with stipules, and in a few they are placed by threes in whorls. Peduncles in the leafless sorts naked, bearing from one to three flowers; in the leafy ones axillary, but more frequently from two to five or more in a terminating umbel; each some-

6692 Prickly elliptical obtuse furrowed, Prickles subsolitary, Peduncles 3-flowered
6693 Warts very large green downy at end, Spines about 4 strong black at end
6694 Simple rounded obovate with warts woolly at end [than the rest
6695 Columnar, Warts small numerous with many small spines between, Two spines in each cluster longer

*** Unarmed.*

6696 Unarmed globose with many angles
6697 Unarmed imbricated, Warts with one leaf, Flowers somewhat stalked, Divisions palmate
6698 Stem closely tessellated with warts upwards thickly branched
6699 Unarmed imbricated with warts bearing a linear leaf
6700 Unarmed with round procumbent branches, Warts 4-cornered
6701 Unarmed imbricated, Warts with a roundish leaflet, Fl. term. solitary sessile with palmate segments
6702 Unarmed imbricated, Warts with a lanceolate leaflet, Fl. stalked with entire segments
6703 Unarmed imbricated capitate, Warts rhomboid with lanceolate stalked leaves, Segm. of flower entire
6704 Unarmed half naked shrubby filiform flaccid, Leaves alternate
6705 Warts large imbricated hooked at end : the upper having an oval leaflet at length withering
6706 Unarmed warted, Warts with a deciduous leaf, Pedunc solitary or 3 terminal 1-flowered
6707 Unarmed naked leafless branched, Branches square, Fl. solitary terminal
6708 Unarmed shrubby upright, Head terminal, Leaves lanceolate smooth glaucous
6709 Unarmed half naked shrubby filiform erect, Branches spreading regularly clustered

§ 2. Stem uniform, shrubby, upright, Flowers scattered or aggregate, not in umbels.

6710 Unarmed, Leaves lanceolate clustered entire, Umbel terminal sessile, Invol. connate colored
6711 Unarmed shrubby upright, Umbel 5-fid term. Invol. oblong, Leaves lanc smooth
6712 Unarmed shrubby, Leaves oblong alternate distichous, Bractes persistent
6713 Unarmed shrubby naked, Branches rounded effuse dependent jointed
6714 Umbel multifid dichotomous, Invol. subcordate : the first 3-leaved
6715 Unarmed, Leaves panduriform ovate, Fl. term suberect, Invol. colored
6716 Villous, Leaves with long stalks alternate broadly ovate repand-toothed, Stem erect striated
6717 Leaves opp. minute stalked obovate entire, Two glands on the stem at the base of petioles
6718 Unarmed shrubby, Leaves ovate entire, Cyme axillary naked
6719 Leaves opp. subcordate stalked emarginate entire, Stem shrubby
6720 Stalks whorled longer than the orbicular leaf, Fl. solitary, Stem unarmed naked
6721 Leaves scattered lanceolate acute smooth, Pedunc. dichotomous, Caps. muricate
6722 Unarmed shrubby, Leaves scattered lanc. mucron. Fl solitary term. with a 3-leaved invol. Caps. muricate
6723 Leaves oval entire wavy edged with white, Caps. smooth, Stem hairy
6724 Dichotomous, Leaves ovate serrate acute villous, Fl. solitary, Upper dichotomies cymose

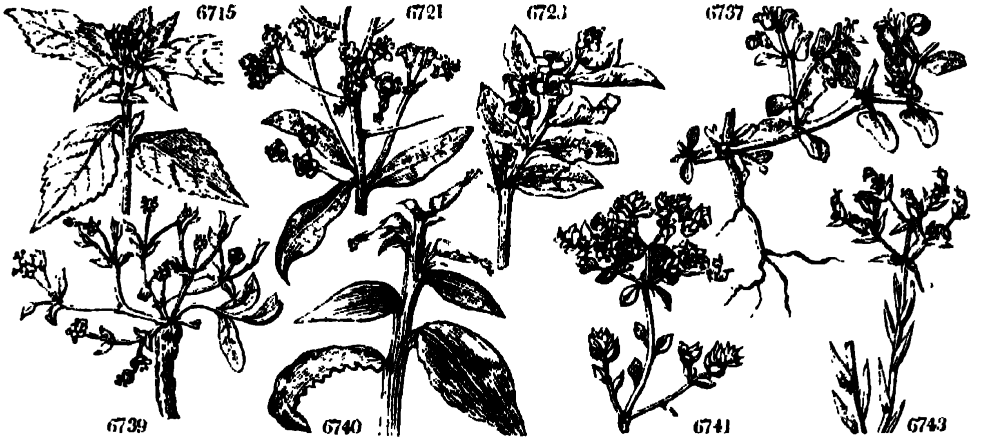
§ 3. Dichotomous, herbaceous, Flowers solitary or aggregate, not umbelled.

6725 Unarmed branched, Leaves subcordate entire shorter than their stalk, Fl. solitary
6726 Dwarf hairy, Leaves opp. oval tooth[illegible], Flowers clustered at the end of branches
6727 Dichotomous, Leaves serrate oval-obl smooth, Corymbs terminal, Branches divaricate
6728 Dichotomous, Leaves ovate obl. acute at each end smooth stalked entire, Capsules smooth
6729 Dichotomous, Leaves oval obsol. serrated, Pedunc. axill 3-flowered, Stems diffuse smooth
6730 Dichotomous diffuse, Lvs obov. oblique somewhat cord. at base toothletted at end, Pedunc. 1-fl. axillary
6731 Dichotomous, Leaves serrate oblong hairy, Fl. axill. solitary, Branches spreading
6732 Dichotomous, Leaves ovate hairy stalked entire, Pedunc axill. 1-fl Caps. smooth
6733 Dichotomous, Leaves serrate oval oblong, Pedunc. 2-headed axillary, Stem erect
6734 Dichotomous, Leaves subcrenate linear, Fl. fascicled term. Stem erect
6735 Dichotomous, Leaves serrate oval-obl. Heads axill clustered subsessile, Stems procumbent
6736 Dichotomous, Leaves crenulate roundish smooth, Fl solitary axill. Stems procumbent
6737 Dichotomous, Leaves entire half cordate, Fl. solitary axillary, Stems procumbent
6738 Leaves opp. entire lanceolate obtuse, Fl. solitary axillary, Stems procumbent
6739 Dichotomous, Leaves entire lanceolate, Peduncles axillary 1-fl. as long as leaves, Stem erect
6740 Branches alternate dichotomous channelled filiform, Leaves ovate stalked pubescent

§ 4 Flowers umbelled with an involucre

** Umbel trifid.*

6741 Dichotomous, Invol ovate, Leaves entire obovate stalked
6742 Dichotomous, Invol subcordate mucronate, Leaves lanceol obtuse
6743 Dichotomous, Invol lanceolate, Leaves linear



and Miscellaneous Particulars.

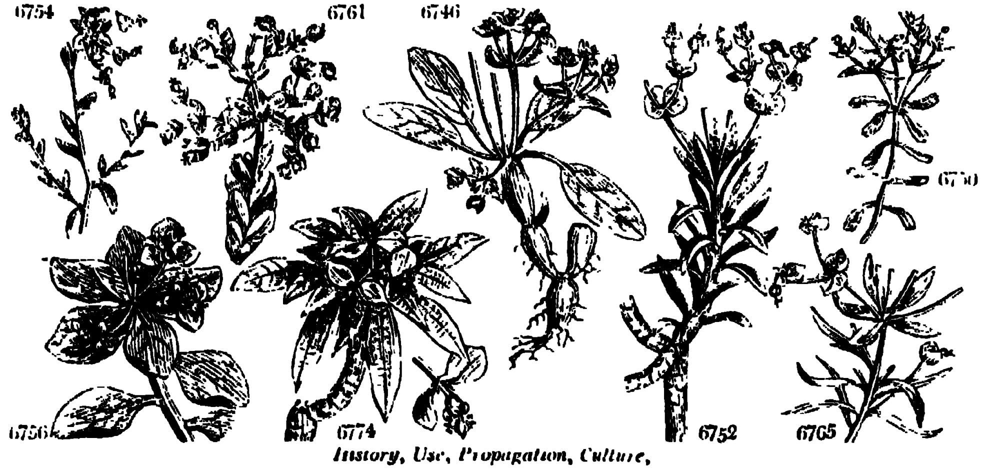
times in a many-flowered head, but more often dichotomous, trichotomous, or even tetrachotomous, with single flowers between the divisions at the base and in the forkings; having bractes in number the same with the peduncles, forming a sort of involucre. The juice of every species of Spurge is so acrid that it corrodes and ulcerates the body wherever it is applied; so that it is seldom used internally. Externally it is dropped on warts or corns to remove them, and in the hollow of a decayed tooth, to remove the pain by destroying the nerve, or it is rubbed behind the ears to give relief in the tooth-ache by blistering.

E officinarum, and also antiquorum and canariensis, furnish the Euphorbium of the Materia Medica. In the lower regions of Mount Atlas, the inhabitants collect the concreted gum resin, which they call *Jurbiune*, in September. It is obtained by making slight incisions in the branches of the plant with a knife, from which a milk-like juice exudes, and forms into tears of an oblong or roundish form. The quantity yielded is so

6744	mínima *Haw.*	least		○	w	½	jl.s	Ap	......	1800.	C	s.l	
6745	micrántha *W.*	small-flowered		○	w	1	jl.s	Ap	Persia	1803.	C	s.l	
6746	tuberósa *W.*	tuberous	♄	⊔	cu	¾	o.d	Ap	Ethiopia	1800.	C	s.l	Bur. afr. 9. t. 4
6747	acumináta *Bieb.*	pointed		○	w	1	o.d	Ap	Albania	1820.	S	co	Boc. sic. t. 13. f. 1

6748	Láthyris *W.*	Caper	♃	⊙	w	3	my.o	Ap	England	d.st. pl.	S	co	Eng. bot. 2255
6749	valentína *Pers.*	Spanish		○	w	1½	jl au	Ap	Spain	1804.	S	s.l	
6750	diffúsa *W.*	diffuse		○	w	½	jl au	Ap	Austria	1798.	S	s.l	Jac. ic. 1. t. 88
6751	A'pios *W.*	Pear-rooted	♃	△	w	½	jn.jl	Ap	Candia	1596.	D	s.l	
6752	læ'ta *W.*	Mezereon-lvd.	♄	⊔	cu	1	jn.jl	Ap	......	1758.	C	s.l	Jac. ic. 1. t. 87
6753	genistoídes *W.*	Genista-like	♄	⊔	cu	1	jl au	Ap	C. G. H.	1808.	C	s.l	
6754	spinósa *W.*	prickly	♄	⊔	cu	2	my.s	Ap	Levant	1710.	C	s.l	Dend. brit. 45
6755	nummulariæfólia *W. en.*	Moneyw. lvd.	♄	⊔	cu	½	jl	Ap	......	1800.	C	co	
6756	epithymoídes *W*	broad-leaved	♃	△	cu	1	my.jn	Ap	Austria	1805.	D	co	Bot. rep. 616
6757	dúlcis *W.*	sweet	♃	△	cu	1	my.jn	Ap	S. Europe	1759.	D	co	Jac. aus. 3. t. 213
6758	carniólica *W.*	Carniolian	♃	△	cu	1	au	Ap	Carniola	1795.	D	co	Scop. carn. t. 21
6759	Pithyúsa *W.*	Juniper-lvd.	♄	⊔	cu	1	jn.jl	Ap	S. Europe	1741.	C	s.l	Boc. sic. t. 5
6760	portlándica *W.*	Portland	♃	△	pr	½	my.s	Ap	Britain	sea.sh.	D	s.l	Eng. bot. 441
6761	Parálias *W*	sea	♃	⌊△⌋	pr	1	jl.s	Ap	England	sea sh.	C	s.l	Eng. bot. 195
	β *suffruticósa*	*shrubby-sea*	♄	⊔	cu	1	jl s	Ap	......	...	C	s.l	
6762	rígida *Haw*	rigid	♄		cu	2	jl.au	Ap	......	1795.	C	s.l	
6763	júncea *W.*	rushy	♃	⌊△⌋	cu	1	jl au	Ap	Madeira	1779.	D	s.l	Jac. sch. 1. t. 107
6764	aléppica *W.*	Aleppo	♃	⌊△⌋	cu	1	jl.au	Ap	Crete	1739.	D	s.l	Alp. exot. t. 64
6765	segetális *W*	corn		○	w	½	jl.au	Ap	S. Europe	1699.	D	s.l	Jac. aus. 5. t. 450
6766	biumbelláta *Pers.*	double-umbell.	♃	△	cu	1	au	Ap	Barbary	1780.	D	s.l	Po. it. ed. ger. t. 1
6767	angustifólia *Haw*	narrow-leaved	♃	△	cu	1	jl	Ap	......	1780.	D	s.l	
6768	multicorymbósa *Ha.*	many-flowered	♃	△	cu	1	jl	Ap	......	1805.	D	s.l	
6769	provinciális *W.*	linear-leaved		○	w	1½	au.n	Ap	S. Europe	1800.	S	s.l	
6770	juncoídes *Haw.*	Rush-like		[○]	w	1	jl	Ap	......	1800.	S	s.l	
6771	helioscópia *W.*	Wart-wort		○	w	¾	jl au	Ap	Britain	cor fi.	S	s.l	Eng. bot. 883
6772	serráta *W.*	narr. notch-lvd	♃	⌊△⌋	cu	1	jl	Ap	S. Europe	1710.	D	s.l	Jac. ic. 3. t. 483
6773	crética *Haw.*	Cretan hoary	♃	△	un	3	...	Ap	Levant	1768.	C	r.m	
6774	puníceа *W*	scarlet-flowered	✱	⊔	spl	6	ja.s	Ap	Jamaica	1778.	C	s.l	Bot. reg. 190
6775	verrucósa *W.*	warted	♃	△	un	½	jn	Ap	France	1800.	C	s.l	Mor. s. 10. t. 3. f. 3
6776	corolláta *W.*	great-flowered	♃	△	un	1½	jl.s	Ap	N. Amer.	1803.	D	s.l	Bot. cab. 390
6777	spathulæfólia *Haw.*	spatula-leaved	♄	⊔	cu	2	au	Ap	......	1800.	C	s.l	
6778	coralloídes *W.*	Coral-stalked	♃	△	un	1	jn.s	Ap	S. Europe	1752.	D	s.l	
6779	androsæmifolia *Donn.*	Tutsan-leaved	♃	△	un	2	jl.s	Ap	Hungary	1804.	D	s.l	
6780	pilósa *W.*	hairy	♃	△	un	1½	my.au	Ap	Siberia	1758.	D	s.l	Gm. sib. 2. t. 93
6781	orientális *W.*	oriental	♃	△	un	1	jn.jl	Ap	Levant	1739.	D	s.l	
6782	platyphyllos *W.*	annual-warty		○	w	1	jl.au	Ap	England	cor fi.	S	co	Jac. aust. t. 376
	β *stricta* E. B.	*upright-warty*		○	w	1½	jl.au	Ap	England	...	S	co	Eng. bot. 333
6783	literáta *W.*	blotch-leaved		○	w	1	au	Ap	......	1790.	S	co	Jac. ic. 3. t. 482
6784	E'sula *W*	leafy-branched	♃	△	cu	½	my.jl	Ap	Britain	woods	S	co	Eng. bot. 1399
6785	sylvática *W*	wood	♄	⊔	un	2	jl.s	Ap	S. Europe	1768.	D	co	
6786	Erythrína *Link.*	fleshy	♃	⌊△⌋	cu	1	jl.s	Ap	C. G. H.	1823.	D	co	
6787	glareósa *Bieb.*	sandy	♃	△	w	1	jl.s	Ap	Tauria	1822.	D	co	
6788	bialáta *Link.*	two-winged		○	w	¾	jl.s	Ap	......	1823.	S	co	
6789	uralénsis *Fisch.*	Ural	♃	△	w	3	jl.s	Ap	Ural	1821.	D	co	
6790	micrántha *Bieb.*	small-flowered		○	un	½	my	Ap	Tauria	1822.	S	co	Bux. cen. 2. t. 25
6791	crispáta *Horn.*	crisp	♃	△	un	3	my	Ap	......	1821.	D	co	
6792	condylocárpa *Bieb.*	Heart-leaved	♃	△	un	½	my	Ap	Caucasus	1823.	D	co	
6793	fragífera *Link.*	berry-bearing	♃	⌊△⌋	un	2	my	Ap	Italy	1820.	D	co	

6794	Gerardiána *W.*	Gerard's	♃	△	un	1	jl	Ap	Germany	1801.	C	co	Jac. aust. t. 436
6795	Cyparíssias *W*	Cypress	♃	△	pr	2	my.s	Ap	England	woods.	D	co	Eng. bot. 840
6796	virgáta *W. & K.*	twiggy	♃	△	un	1	jl	Ap	Hungary	1807.	D	co	Pl. rar. h. t. 162
6797	myrsinítes *W.*	glaucous	♃	△	un	1	ap.jn	Ap	S. Europe	1570.	D	s.l	Lobel. ic. t. 355. f. 1
6798	imbricáta *P. S.*	imbricated	♄	⊔	cu	1	au.s	Ap	Portugal	1804.	C	s.l	
6799	nicæénsis *W.*	sharp-leaved	♃	⌊△⌋	un	1½	...	Ap	Spain	1800.	D	s.l	Jac. ic. 3. t. 485



History, Use, Propagation, Culture,

considerable, that the plants are cut once only in four years; the supply then obtained being sufficient for that space of time for all Europe. The recent juice is so corrosive as to erode the skin wherever it touches; and the people who gather the gum are obliged to tie a cloth over their mouth and nostrils, to protect them from the acrid dust of the withered branches, which induces the most violent sneezing. It is inodorous; and, when first chewed, has little taste, but it soon gives a very acrid burning impression to the tongue, palate, and throat, which is very permanent, and almost insupportable. Euphorbium possesses powerful cathartic, emetic, errhine, and rubefacient properties. It has been given as a hydragogue in dropsies; but, owing to the violence of its effects, its internal use is now exploded: neither as an errhine can it be used alone, for it occasions so

6744 Dichotomous, Umbel trifid, Invol. broad obovate, Leaves entire obovate spatulate on long stalks
6745 Dichotomous, Leaves lanceolate obovate serrate, Invol. cordate, Caps. warted
6746 Invol. 4-leaved, Stem naked, Leaves oblong emarginate
6747 Umbel subtrifid, Leaves mucronate, Cauline spatulate lanc. Invol. ovate, Caps. smooth

** *Umbel 4 or 5-fid.*

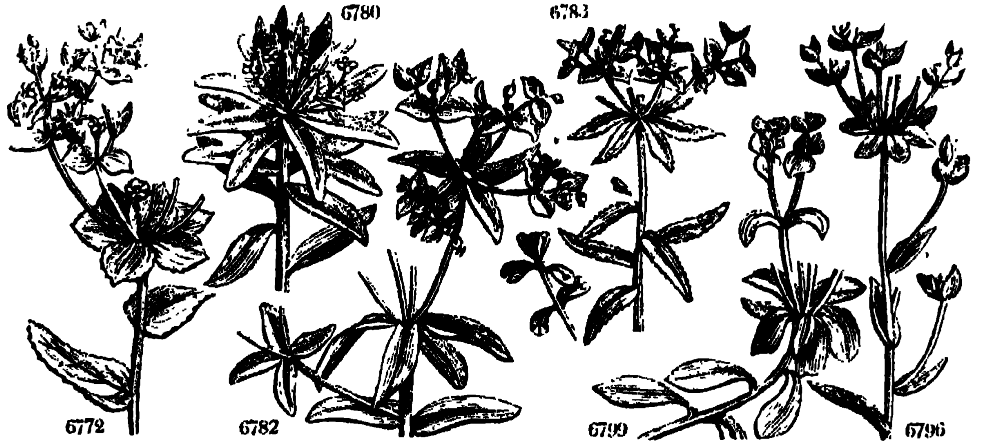
6748 Umbel 4-fid dichotomous, Leaves opposite entire
6749 Umbel 4-fid trifid, Invol. ovate acute, Leaves lanc.: lower spatulate
6750 Umbel 4-fid dichotomous, Invol. obtuse, Leaves altern. lin. cuneate emarginate mucron. Stem diffuse
6751 Umbel 4-fid bifid, Invol. reniform: the first obcordate
6752 Umbel 4 or 5-fid twice dichotomous, First invol. oblong: upper rhomboid-roundish, Leaves lin. lanceol.
6753 Umbel 5-cleft bifid, Invol. ovate, Leaves linear erect
6754 Umbel 5-cleft simple, Invol. ovate: first 5-leaved, Leaves oblong entire
6755 Umbel 5-cleft bifid, Upper leaves rounded obovate serrulate mucronate: lower lanc. reflexed
6756 Umbel 5-cleft bifid, Invol. ovate toothletted, Leaves entire lanc. oblong villous beneath
6757 Umbel 5-cleft bifid, Invol. subovate toothletted, Leaves lanc obtuse, Caps. warted hairy
6758 Umbel 5-cleft bifid, Rays nodding, Invol. ovate entire, Leaves lanc. acute, Caps. warted smooth
6759 Umbel 5-cleft bifid, Invol. ovate mucronate, Leaves lanc.: the lower involute imbricated downwards
6760 Umbel 5-cleft dichotomous, Invol. subcordate concave, Leaves lin. lanc. acute smooth spreading
6761 Umbel 5-cleft bifid, Invol. cordate reniform, Leaves imbricated upwards

6762 Branches filiform, Leaves numerous linear oblong retuse Rib mucronate, Fl. solitary terminal
6763 Umbel 5-cleft dichotomous, Leaves and invol linear lanceolate acute
6764 Umbel 5-cleft dichotomous, Invol. ovate lanceolate mucronate, Lower leaves setaceous
6765 Umbel 5-cleft dichotomous, Invol. cordate acute, Leaves lin. lanceolate: the upper broadest
6766 Umbel multifid double, Invol. subcordate, Leaves linear
6767 Umbel multifid clustered, Invol. subcordate, Leaves numerous close very narrow
6768 Umbel multifid dichotomous, Invol half orbicular cordate, Sterile branches many, Lvs. lin. lanc. obtuse
6769 Umbel 5-cleft bifid, Invol. cordate mucronate, Leaves oblong
6770 Umbel 5-cleft bifid, Invol. half orbic. cordate submucronate, Leaves linear imbricated backwards
6771 Umbel 5-cleft bifid dichotomous, Invol obovate, Leaves cuneiform serrate smooth, Caps smooth
6772 Umbel 5-cleft trifid dichotomous, Inv l. 2-leaved reniform, Leaves amplexicaul cordate serrate
6773 Umbel multifid bifid, Invol. orbicular, Leaves linear lanc. villous
6774 Umbel 5-cleft trifid, Invol oval acuminate colored, Caps. smooth, Leaves glaucous beneath
6775 Umbel 5-cleft trifid, Invol ovate, Leaves lanc serrulate villous, Caps. warted
6776 Umbel 5-cleft trifid dichotomous, Invol and leaves oblong obtuse, Divisions of invol white
6777 Umbel 4-fid bifid, Invol obovate, Leaves spatulate lanc entire reflexed, Stem half shrubby branched
6778 Umbel 5-cleft trifid dichotomous, Invol. ovate, Leaves lanceolate, Caps. woolly
6779 Naked smooth, Umbel 5-cleft bifid, Leaves sessile lanceolate veiny on each side
6780 Umbel 5-cleft trifid bifid, Invol. ovate entire, Leaves lanc. hairy subserrulate at end
6781 Umbel 5-cleft 4-fid dichotomous, Invol roundish acute, Leaves lanceolate
6782 Umbel 5-cleft 3-fid dichotomous, Invol. with a hairy keel, Leaves serrate lanceolate, Caps. warted

6783 Umbel 5-cleft 3-fid dichotomous, Invol. lanceolate, Leaves lanc. toothed pubescent, Caps. smooth warted
6784 Umbel multifid bifid, Invol subcordate 2-horned, Barren branches with 1-shaped leaves
6785 Umbel 5-fid bifid, Invol perfoliate cordate acute, Leaves lanc. entire
6786 Leaves lanc obtuse, Umbel 5-fid dichotomous, Invol. ovate obtuse 2-horned
6787 Umbel 5-fid bifid, Leaves spatulate lanc. mucronate coriaceous serrulate, Invol. ovate, Caps. smooth
6788 Leaves obversely obl. Invol. oblong and ovate serrulate at end, Umbel 5-fid dichotom. Caps. keeled twice
6789 Leaves linear with long points entire smooth, Umbel 5-fid bifid, Invol lanceolate, Leaves 2-horned
6790 Umbel trifid dichotomous, Leaves serrate somewhat hairy: lower spatulate; upper and invol. spatulate
6791 Upper branches hairy, Leaves smooth lanceolate, Caps warted, Invol cordate
6792 Umbel sub-5-fid bifid, Caul leaves and invol. cordate lanceolate obtuse toothletted, Invol. reniform
6793 Leaves lanceolate, Umbel 5-fid, Invol. oval obtuse, Caps ramentaceous hairy

*** *Umbel 6-many-fid*

6794 Umbel multifid dichotomous, Invol roundish entire, Branches none
6795 Umbel multifid dichotomous, Invol subcordate, Branches sterile, Leaves setaceous, Cauline lanceolate
6796 Umbel multifid bifid, Invol subtriangular, Leaves sessile erect, Caps rough
6797 Umbel 8-fid bifid, Invol. subovate, Leaves spatulate spreading fleshy mucronate rough at edge
6798 Umbel dichotomous bifid, Invol roundish mucronate, Leaves obovate imbricate serrulate
6799 Umbel 5-fid bifid, Invol. cordate roundish entire, Leaves lanceolate mucronate coriaceous



and Miscellaneous Particulars.

much inflammation as to produce hæmorrhage from the nostrils, and swells the integuments of the head. When properly diluted, however, with starch or any other inert powder, and cautiously used, it is an effectual and excellent errhine in lethargy, deafness, palsy, amaurosis, and similar cases. (*London Dispensatory*, 298.)

E. Lathyris has seeds about the size and color of caper buds, and in Paris is sometimes substituted for that pickle. Eaten in any quantity they must prove highly deleterious.

E. helioscopia has a peculiarly acrid milky juice, which is often applied by country people to eat off warts; but should be used with caution where the parts are tender. According to Linnæus, sheep eat it, and are purged by it, and their flesh acquires a bad taste; but this is not the case with cows

6800	palústris *W.*	marsh	♃	△	un	4	my au	Ap	Sweden	1570.	D	s.l	Fl. dan. 866
6801	emarginàta *W.*	freckled	♃	△	un	2	jl.au	Ap	Italy	1758	D	co	
6802	hibérnica *W.*	Irish	♃	△	cu	1	my.jn	Ap	Britain	fields.	D	co	Eng. bot. 1337
6803	salicifólia *W*	willow-leaved	♃	△	w	2	my.jn	Ap	Hungary	1804.	D	co	Pl rar. h. t. 55
6804	amygdaloides *W.*	Almond-leav.	♄		or	2	mr.jn	Ap	England	woods.	D	co	Eng bot. 256
6805	charàcias *W.*	upright-red	♄		pr	4	mr.jn	Ap	England	mo. pl.	C	co	Eng. bot. 442
6806	glaucéscens *W.*	glaucous	♃	△	un	1	mr.jn	Ap	......	1823.	D	co	
6807	agrària *Bieb.*	field	♃	⊙	w	1	jn	Ap	Crimea	1821.	S	co	
6808	pállida *W.*	pale	♃	△	un	1½	jn	Ap	Hungary	1822.	D	co	
6809	prócera *Bieb.*	tall	♃	△	un	2	au	Ap	Crimea	1819.	D	co	Gmel. sib. t 94
6810	ceratocar'pa *Ten.*	horn-fruited	♃	△	un	1	jl.au	Ap	Naples	1823.	D	co	Ten. neap. t. 63
6811	salicifólia *Hort.*	willow-leaved	♃	△	un	1½	jn	Ap	Hungary	1820.	D	co	
1104	**PEDILAN'THUS.** *Neck.*	**Slipper Plant.**					*Euphorbiaceæ.*	*Sp.* 1—3.					
6812	tithymaloides *Kunth.*	Myrtle-leaved	♄	⊐	cu	1½	jl.au	Ap	S. Amer.	1820.	C	co	Bot. reg. 837
6813	carinatus *Donn.*	keeled	♄	⊐	cu	1½	jl.au	Ap	......	1817.	C	co	Bot. mag. 2514
1105.	**VIS'NEA.** *W.*	**Visnea.**					*Ebenaceæ.*	*Sp* 1.					
6814	Mocanéra *W.*	Canary	♣	⊔	or	5	...	W	Canaries	1815.	C	l p	

TETRAGYNIA.

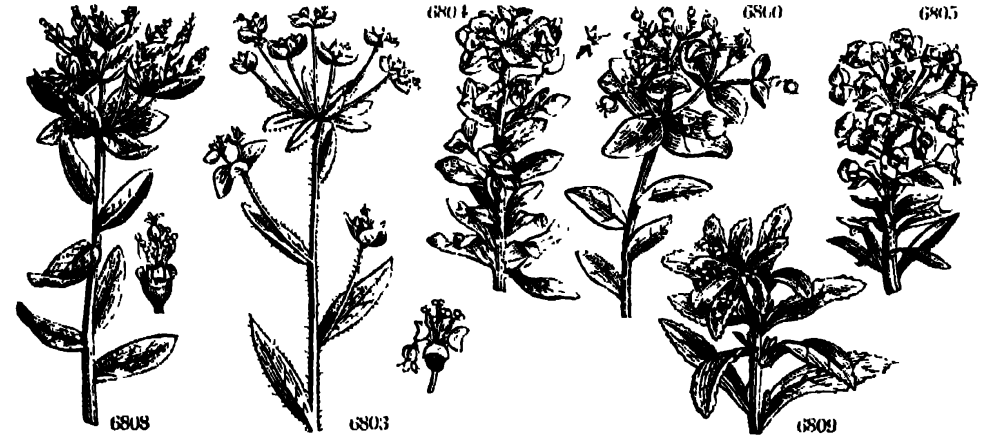
1106.	**CALLI'GONUM.** *W.*	**Calligonum.**					*Polygoneæ.*	*Sp.* 1—5.					
6815	Pallásia *W.*	Caspian	♄		or	4	au	G.w	Casp. Sea	1780.	C	l.p	Pall. ros. 2. t. 77, 78

PENTAGYNIA.

1107.	**GLI'NUS.** *W.*	**Glinus.**					*Ficoideæ.*	*Sp.* 1—3.					
6816	lotoides *W.*	hairy		[○]	un	1½	jl	Y	S. Europe	1788.	S	s.l	Boc. sic. 21 t. 11
1108.	**BLACKWEL'LIA.** *Juss.*	**Blackwellia.**					*Homalineæ.*	*Sp* 1—6					
6817	integrifolia *Lam*	entire-leaved	♣	□	or	6	...	W	Madagasc.	1823	C	s p	Lam. ill. t. 412. f 2
1109.	**GASTO'NIA.** *Juss*	**Gastonia.**					*Araliaceæ.*	*Sp.* 1—2.					
6818	palmata *Wall.*	palmate	♣	□	or	4	f mr	W G	......	1818.	C	p l	Bot. reg. 894

DODECAGYNIA.

1110.	**SEMPERVI'VUM.** *W.*	**Houseleek.**					*Sempervivæ.*	*Sp.* 20.					
6819	arbóreum *W.*	tree	♄	⊔	or	9	mr.d	Y	Levant	1640.	C	s.l	Bot. reg 99
	β *variegátum*	*striped-leaved*											
6820	canariénse *W*	Canary	♄	⊔	or	1½	jn.jl	Y	Canaries	1699.	R	s.l	Plant. grass. 141
6821	glutinósum *W.*	clammy	♄	⊔	or	1½	jl.au	Y	Madeira	1777.	C	s.l	Bot. mag. 1963
6822	glandulósum *W*	glandulous-lvd.	♄	⊔	or	1	mr.my	Y	Madeira	1777	C	s.l	
6823	ciliátum *W. en.*	white-flowered	♄	⊔	or	1½	...	W	Teneriffe	1815.	C	s l	Bot mag. 1978
6824	Smithii *Sims*	Smith's	♄	⊔	or	1	jl au	Y	Teneriffe	1815.	C	s.l	Bot. mag. 1980
6825	tabulæfórme *Haw.*	table-shaped	♄	⊔	or	1½	jl au	Pa.Y	Teneriffe	1817	C	s.l	Bot. cab. 1328
6826	flagellifórme *Fisch.*	running	♃	△	or	¾	jl.au	R	Siberia	1823	C	s.l	
6827	tortuósum *W*	gouty	♄	⊔	or	½	jl.au	Y	Canaries	1779.	C	s.l	Bot. mag 296
6828	villósum *W.*	villous		○	or	½	jn jl	Y	Madeira	1777	D	s l	Bot. mag 1809
6829	stellàtum *Sm.*	starry		[○]	or	¼	jl au	Y	M. Baldo	1790.	D	s l	Seg. veron 2 t 17
6830	tectórum *W.*	common	♃	△	or	1	jn s	F	Britain	roofs.	D	s p	Eng. bot 1320
6831	africánum *Haw.*	African	♃	[△]	or	1	...	...	C. G. H	1768.	D	s l	
6832	dodrantàle *W. en*	smth.-lvd.-ann		[○]	or	1	jl.au	Pk	Teneriffe	1815	S	s l	
6833	hirtum *L.*	hairy	♃	△	or	1	jn jl	W	Italy	1804.	D	s p	Schmidt ic t 17
6834	sobolíferum *B M*	Hen & Chicken	♃	△	or	½	jn jl	Pa.Y	Germany	...	D	s.p	Bot. mag. 1457



History, Use, Propagation, Culture,

Many of the stove species of this genus are succulents, and will thrive the better if a little lime rubbish be added to their sandy loam. They are somewhat difficult to strike. Sweet says, " The way I have succeeded best, is to stick them in the tan amongst the pots in a good heat, and not cover them with any glass." (*Bot. Cult.* 55.)

The inflorescence of this genus is not now considered to consist of twelve stamens surrounding an ovary; but almost as in Reseda, of a number of monandrous naked male florets surrounding a naked female floret. This manner of understanding Euphorbia was first indicated by Jussieu, and afterwards correctly explained by Mr. Brown.

1104. *Pedilanthus.* From πέδιλον, a slipper, and ανθος, a flower, in allusion to the form of the involucre. A genus resembling Euphorbia in properties and appearance

1105. *Visnea* This seems to be a blunder of the younger Linnæus for *Visnea*, which now is the name of a distinct genus, which see. - Ripened cuttings root freely in sand.

6800 Umbel multifid 3-fid bifid, Invol. ovate, Leaves lanceolate, Branches barren
6801 Umbel multifid bifid, Invol. broadly cord. Leaves obl. emarg. smooth, Stem branched, Capsules warted
6802 Umbel 6-fid dichotomous, Invol oval, Leaves entire, Branches none, Capsules warted
6803 Umbel multifid dichotomous, Invol. reniform cordate, Leaves lanceolate villous
6804 Umbel multifid dichotomous, Invol. perfoliate orbiculate, Leaves obtuse
6805 Umbel multifid bifid, Invol. perfoliate emarginate, Leaves lanceolate entire
6806 Leaves linear lanceolate entire close together, Capsules smooth
6807 Umbel multifid bifid, Cauline leaves and involucres cordate oblong rough at edge subserrulate
6808 Umbel multifid trifid, Invol. roundish, Leaves lanc. attenuated, Stem simple, Caps. smooth
6809 Umb. 5-fid 3-fid dichotomous, Leaves lanceolate hairy serrulate at end, Capsules smooth
6810 Leaves lanceolate entire smooth, Caps. warted smooth, otherwise like E. palustris
6811 Leaves entire lanceolate villous, Umb. multifid, Inv. reniform cordate

6812 Leaves ovate acuminate
6813 Leaves ovate acuminate keeled beneath

6814 The only species

TETRAGYNIA.

6815 Fruit winged, Wings membranous crisp toothed

PENTAGYNIA.

6816 Stem hairy, Leaves obovate

6817 Leaves ovate obtuse usually entire, Fl terminal panicled

6818 Leaves palmate, Stem aculeate

DODECAGYNIA.

6819 Stem arborescent smooth branched, Leaves cuneiform smoothish ciliated, Ciliæ spreading smooth

6820 Stem shrubby, Leaves orbicular-spatulate villous, Nectaries nearly square truncate
6821 Stem shrubby, Leaves cuneiform viscid ciliated, Ciliæ cartilaginous appressed
6822 Stem shrubby, Leaves orbicular-spatul. glutinous at edge with globose glands and cuneiform trunc. nects.
6823 Leaves obovate acute smooth with a cartilaginous edge, Cymes clustered
6824 Stem with dense spreading bristles, Leaves curved with longitudinal green spots beneath
6825 Leaves closely packed together in a broad flat disk
6826 Suckers spreading lateral, Leaves ovate mucronate warted, Branches of cyme bifid
6827 Leaves obovate gibbous beneath villous, Nects. 2-lobed
6828 Leaves spatulate cuneiform obtuse villous, Nects. palmate
6829 Stem pubescent, Leaves spatulate scattered
6830 Leaves ciliated, Suckers spreading, Nects. cuneiform with a swelling
6831 Margins of leaves serrate toothed, Offsets spreading
6832 Leaves entire oblong ovate smooth stalked, Cymes spreading, Pedunc and calyx hairy
6833 Leaves stem and petals hairy at end
6834 Leaves ciliated, Offsets short round nearly sessile, Petals 6 fringed

and Miscellaneous Particulars.

1106. ***Calligonum.*** From *καλος*, beautiful, and *γονυ*, a knee or joint. This plant produces, instead of leaves, curious greenish excrescences disposed in joints, which give it a remarkable appearance.

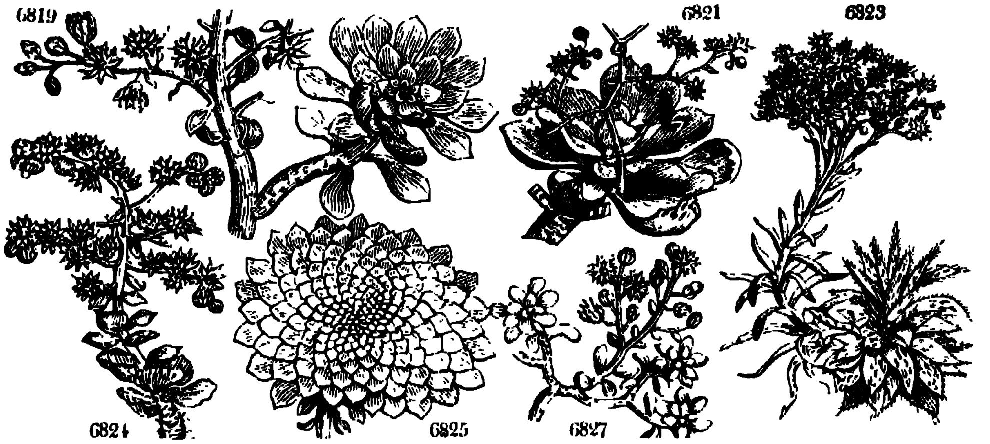
1107. ***Glinus.*** A name employed by Theophrastus to designate a kind of maple. This plant is, however, more like a purslane.

1108. ***Blackwellia.*** Named after Elizabeth Blackwell, who published an Herbal in 1735, containing figures of between two and three hundred plants, drawn and engraved by herself. Curious stove plants with pretty foliage, but inconspicuous spikes of whitish green flowers.

1109. ***Gastonia.*** Named by Commerson after Gaston de Bourbon, son of Henry IV. In the Isle de Bourbon it is called *Bois d'éponge.*

1110. ***Sempervivum.*** From *semper vivere*, to live for ever, in allusion to the tenacity of life common to plants of the genus. This is a succulent genus, some species of which are ornamental or singular, and others

6835 globiferum *W.*	globiferous	£	△	or	¼	jn.jl	Y	Germany	1731.	D	s.p	Bot. mag. 507
6836 montánum *W*	mountain	£	△	or	¼	jn.jl	R	Switzerl.	1752.	D	s.l	Plant grass. 105
6837 arachnoideum *W.*	cobweb	£	△	or	¼	jn.jl	R	Italy	1699.	D	s.p	Bot. mag. 68
6838 monánthos *W.*	one-flowered	£	[△]	cu	¼	jl.s	R	Canaries	1777.	D	s.l	Bot. mag. 93



History, Use, Propagation, Culture,

curious S tectorum, common on the roofs of buildings, is used by country people as an application to burns, inflammations, and ulcers, alone, in a bruised state, or mixed with cream. Linnæus informs us, that house-

CLASS XII. — ICOSANDRIA. STAMENS many, perigynous, or inserted into the Calyx.

To gardeners this is one of the most interesting of the Linnean classes, containing a greater proportion than any other of objects which come within their observation and management It also consists of genera for the most part naturally allied; and comprises not only the most remarkable portion of Ficoideæ, all Cacti, and the chief of the Myrtaceæ, but almost every genus of the beautiful and hardy tribes of Rosaceæ Its characters are well defined, and depend upon the insertion of a number of distinct stamens, exceeding twenty, into the inner surface of the calyx; modifications of which organ are here found to be of more than ordinary importance in characterising the genera.

The genera are extremely natural, and have been all studied with unusual attention. Some difference of opinion exists among botanists as to the limits which ought to be assigned to them, and great diversity of nomenclature has thence arisen "But," as has been observed by a modern author, "in a class so strictly natural as this is, greater difficulty is always to be expected in finding characters for genera, than in those of which our knowledge is more imperfect, and whose series of individuals may therefore be considered less complete." In the apple and pear tribe, Pomaceæ, where the greatest difficulty is thought to exist, we adopt Mr. Lindley's arrangement, as published in the Transactions of the Linnean Society, which we find admitted by all botanists of authority.

But if it is difficult to ascertain the definite limits of the genera of Icosandria, it is yet more perplexing to arrive at a satisfactory conclusion respecting the species of which the genera are constituted Having all been, as long as gardens have existed, the objects of cultivation, it has happened that many individuals have, under the action of domestication, wandered so far from their original types, as to have acquired new characters for themselves, of so peculiar a kind as to have rendered it impossible at the present day to refer them with certainty to the source from which they originally sprung. To remedy this confusion, which has been thus increasing for ages, some persons have thought it necessary to distinguish the species by such artificial characters as they are now found to possess, without reference to any changes the genera may have undergone; but it has been found that no facilities of discrimination have been gained by multiplying distinctions in consideration of differences which are neither permanent or remarkable, nor connected with natural habit, but purely artificial. To others it has appeared proper to endeavour to reduce the aberrant forms which now exist to those from which, upon mature consideration, they may be presumed to have been derived, and to simplify the arrangement and discrimination of the species by confining them within their primitive limits. As we think the latter to be the most simple principles of arrangement, and as they are certainly the most philosophical, we shall here follow those authors who have adopted them.

It is usual in this class to distinguish the orders with two and three styles from that with five: but the different species vary so much in the same genus in this respect, that we have only separated the genera into those with one style, Monogynia; with two, three, or five styles, Di-Pentagynia; and with many styles, Polygynia.

Order 1. MONOGYNIA. Many perigynous Stamens. 1 Style.

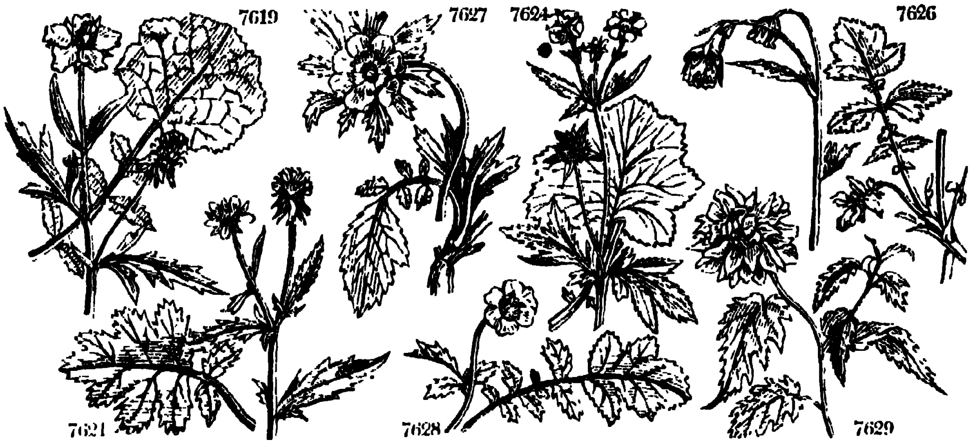
§ 1. *Ovary inferior.*

1111 *Cactus.* Cal. imbricated. Petals numerous, in many rows: the inner the largest. Stigma many-cleft. Berry many-seeded.

1112. *Rhipsalis.* Cal. 3-4-parted, very short. Teeth acuminate, membranous, very fine. Berry 1-celled, pellucid. Seeds 12, in the centre.

1113. *Bartonia.* Cal 5-cleft. Petals many Caps. cylindrical, 1-celled at the end with 3-5 lid-like valves. Placentas 3-5, parietal, bearing seeds in a double row.

1160. **COLU'RIA** *R. Br*	COLURIA.			*Rosaceæ.*	*Sp.* 1—3.					
7635 potentilloides *R. Br.*	Siberian	♃ △ pr	½	jn	O	Siberia	1780.	D	p.l	Jac. vin. 3. t. 68
1161 **SIEVER'SIA** *Willd.*	SIEVERSIA.			*Rosaceæ.*	*Sp.* 2—4.			*		
7636 montána *R. Br.*	mountain	♃ △ pr	½	my.s	Y	Austria	1597.	D	co	Jac. aus. 4. t. 373
7637 réptans *R. Br.*	creeping	♃ △ pr	½	jn.au	Y	Switzerl.	1775.	D	p.l	Jac. au. 5.t.ap.22



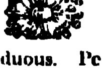
History, Use, Propagation, Culture,

1160 *Coluria.* From κολουρος, deprived of the tail; or, as we usually say in English, bob-tailed. Distinguished by Mr. Brown from Geum, principally on account of the deciduous nature of the style or tail of the grains.

CLASS XIII.—POLYANDRIA. STAMENS many, hypogynous, or inserted under the Ovary.

This class agrees with the last in having hermaphrodite flowers, with an indefinite number of stamens, which neither cohere in any part of their length, nor are distributed in distinct parcels; but it is distinguished by the stamens being inserted distinctly from the floral envelopes, immediately under the ovary, into what has been called the *receptacle* by Linnæus and his followers; *torus*, by Mr. Salisbury; and *thalamus*, by some other botanists The class consists of the greater part of several extensive natural orders, such as Ranunculaceæ, Magnoliaceæ, Cistineæ, &c.; and, like the last, is replete with subjects of interest to gardeners and florists. The various kinds of Clematis form the most valuable portion of the hardy climbing plants of the verandah. The brilliant varieties of the ranunculus and anemone constitute the most attractive part of the flower garden. Pæonia, well known for the richness of its coloring, and the robustness of its constitution, is the ornament of every cottage; and the noble varieties of Magnolia, the pride of the North American forest, are the finest exotics of the shrubbery. Nymphæa and Nelumbium are beautiful genera of aquatic plants. Annona, or the custard apple, is one of the most important of the fruit trees of tropical countries; and the celebrated water vine of Sierra Leone is a species of Tetracera. Nor must Sarracenia, with its curious pitcher-like leaves; Papaver, from which opium is extracted; Cimicifuga, whence is obtained the antidote to the dangerous bite of the rattle-snake; Bixa, or the arnotta tree, from the fruit of which the coloring matter for the red cheese of England is procured, nor Hepatica, with its modest beauties, be omitted.

The commencement of M Decandolle's laborious Systema Vegetabilium has included nearly every thing contained in the class, and is followed in the discrimination of the species, as being the best authority which can be taken.

Order 1. MONOGYNIA  Stamens many, hypogynous. Style 1.

1162 *Capparis.* Cal. 4-leaved, coriaceous, deciduous. Petals 4. Stamens long. Stigma capitate. Berry with a rind, 1-celled, stalked, subglobose, or like a pod.

1163. *Marcgraavia.* Cal. 6-leaved, imbricated. Corolla monopetalous, calyptriformis. Berry many-celled, many-seeded. Style O.

1164. *Actæa.* Cal. 4-leaved, deciduous. Petals 4. Berry 1-celled. Seeds half orbicular.

1165. *Sanguinaria.* Cal. 2-leaved. Petals 8. Pod ovate, 1-celled.

1166. *Podophyllum.* Cal. 3-leaved. Petals 9. Berry 1-celled, crowned with the stigma.

1167. *Chelidonium.* Cal. 2-leaved. Petals 4. Pod 1-celled, linear. Dissepiment O. Seeds several, crested.

1168. *Romeria.* Petals 4. Caps. long, 2-3-4-valved; the valves opening from the vertex to the base. Seeds reniform, scurfy, without a glandular crest.

1169. *Glaucium.* Cal. 2-leaved. Petals 4. Pod 2-celled, linear, 2-3-valved. Seeds several, dotted.

1170. *Papaver.* Cal. 2-leaved. Petals 4. Capsule 1-celled, opening by pores under the persistent stigma.

1171. *Meconopsis.* Petals 4. Style short. Stigmas 4-6, radiating, convex, distinct Capsule opening with 4-6 valves.

1172. *Argemone.* Cal. 3-leaved. Petals 6. Capsule half valved.

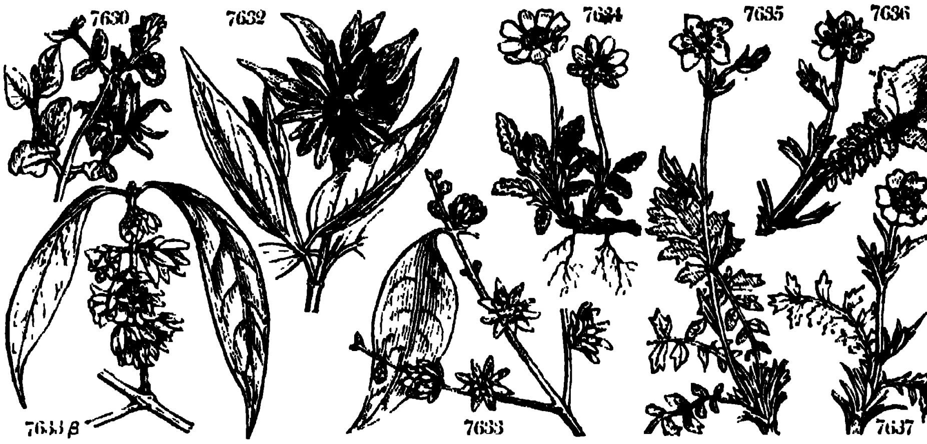
1173. *Sarracenia.* Cal. double, 3-5-leaved. Petals 5. Caps. 5-celled. Style with a clypeate stigma.

1174. *Nymphæa.* Sepals at the base of the discus. Petals and stamens connected with the whole of the discus, which covers the carpella.

1175. *Limnocharis.* Sepals 3. Petals 3, very delicate, withering. Plant monocotyledonous.

7635 Stem about 2-flowered, Awns straight naked, Cal. of fruit erect, Lvs. pinnate toothed

7636 Leaves pinnate: the outer leaflet very large round, lower smaller by degrees
7637 Leaves pinnate cut, Runners creeping



and Miscellaneous Particulars.

1161. *Sieversia.* Named by Willdenow, after M. Sievers, a well known Russian botanical collector. Plants resembling Geum in habit

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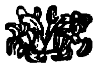
1176. *Nuphar.* Sepals, petals, and stamens inserted at the base of the discus.
1177. *Euryale.* Sepals, petals, and stamens united with the discus, which covers the carpella.
1178 *Bixa.* Cal. 5-toothed. Petals 10. Capsule hispid, 2-valved.
1179. *Prockia* Cal 3-leaved, besides two extra leaves at base. Cor. O. Berry 5-angled, many-seeded.
1180. *Sloanea.* Cal. 1-leaved, 5-9-fid. Cor. O. Anthers united to filaments beneath the end. Caps. echinate, 5-6-celled, 3-6-valved. Seeds 2, with a berried arillus.
1181. *Apeiba.* Cal. 5-leaved Petals 5 Caps. echinate, many-celled
1182. *Sparmannia* Cal 4-leaved. Petals 4. Filaments cohering at base, torulose. Capsule echinate, 5-angled, 5-celled Cells 2-seeded
1183. *Entelea* Sepals 4-5 Petals 4. Stamens indefinite, uniform. Anthers roundish, incumbent. Stigma denticulate. Caps. roundish, echinate, 6-celled, half 6-valved, many-seeded.
1184. *Muntingia.* Cal. 5-parted. Petals 5. Berry 5-celled, 1-5-many-seeded.
1185. *Grewia* Cal 5-leaved, coriaceous, colored inside. *Petals 5. Scales 5.* Ovary usually stalked. Drupe 4-lobed, 4-celled. Nut 1-2-seeded.
1186. *Tilia.* Cal. 5-parted. Petals 5. Capsule coriaceous, globose, 5-celled, 4-valved, opening at base, 1-seeded.
1187. *Corchorus.* Cal 5-leaved, deciduous. Petals 5. Style scarcely any. Stigma 1-3. Capsule pod-shaped, 2-celled, 2-5-valved, many-seeded
1188. *Grias.* Cal 4-cleft Petals 4. Stigma sessile, cruciate. Drupe with an 8-furrowed nut
1189 *Calophyllum* Cal. 4-leaved, colored. Petals 4. Drupe globose.
1190. *Mammea.* Cal. 2-leaved. Petals 4. Berry very large, 4-seeded.
1191. *Ochna.* Cal. 5-leaved. Petals 5 Berries 1-seeded, with a large roundish receptacle.
1192. *Elæocarpus.* Cal 5-leaved. Petals 5, torn. Anthers 2-valved at end. Drupe with a curly nut.
1193. *Alangium.* Cal 6-10-toothed, superior. Petals 6-10, linear. Berry coated, 1-3-seeded.
1194. *Mentzelia.* Cal. 5-leaved Petals 5. Capsule inferior, cylindrical, many-seeded.
1195. *Lagerstromia.* Cal. 6-cleft, campanulate Petals 6. Stamens many, of which the six outer are thickest Caps 4-6-celled, many-seeded.
1196. *Ægle* Cal. 1-leaved, 5-lobed. Petals 5, spreading. Style short, thick. Berry coated, turbinate, globose, finally woody, with 12-16 cells.
1197. *Cistus.* Cal. 5-leaved, with two small leaflets. Petal 5. Caps 5-celled; the valves bearing the dissepiments in the middle.
1198 *Helianthemum.* Divisions of the calyx often unequal: the two outer the smallest. Caps. 1-celled, 3-valved, with the dissepiment in the middle of the valves.

Order 2. DI-TRIGYNIA.  Stamens many, hypogynous. Styles 2-3.

1199. *Bauera.* Cal. 7-9-leaved, persistent. Petals 7-9, deciduous Caps. inflated, 2-celled, many-seeded.
1200. *Fothergilla.* Cal. truncate, entire. Cor. O. Filaments very long, clavate. Ovary bifid. Caps. 2-celled, 2-horned. Seeds solitary, bony.
1201. *Curatella.* Cal. 5-leaved. Petals 4. Styles 2. Caps. 2-parted. Cells 2-seeded.
1202. *Pæonia.* Cal. 5-leaved. Petals 5. Style O. Caps. many-seeded, like a pod.
1203. *Hibbertia.* Stamens distinct, filiform, equal. Anthers oval, oblong. Ovaries 1-15. Styles filiform, inflexed. Carpella membranous, generally 1-2-seeded.
1204. *Delphinium.* Cal. O. Petals 5. Nectary bifid, cornute behind. Siliques 3-1.
1205. *Aconitum.* Cal. O. Petals 5; the upper vaulted. Nectaries 2, hooded, stalked, recurved. Siliques 3-5.
1206. *Trachytella.* Carpella 1-2, berried, many-seeded; otherwise Tetracera.

Order 3. PENTAGYNIA. Stamens many, hypogynous. Styles 5.

1207. *Cimicifuga.* Cal. 4-leaved. Cor. with four urceolate nectaries. Caps. 4 Seeds scaly.
1208. *Aquilegia.* Cal. O. Petals 5. Nectaries 5, horned between the petals. Caps. 5, distinct.

1209. *Nigella.* Cal. O Petals 5. Nectaries 5, trifid between the corolla.
1210. *Reaumuria.* Cal. 5-leaved. Petals reflexed, 5. Caps. 5-celled, 5-valved, many-seeded. Seeds woolly.
1211. *Colbertia.* Ten stamens much longer than the others. Carpella 5, united? Stigma capitate. Seeds several in each cell, reniform, inclosed in a pellucid pulp.
1212. *Tetracera.* Flowers often diœcious or polygamous. Carpella 3-5, capsular, surrounded by the imbricated sepals. Seeds 1-2, shining, ovate, with an arillus.

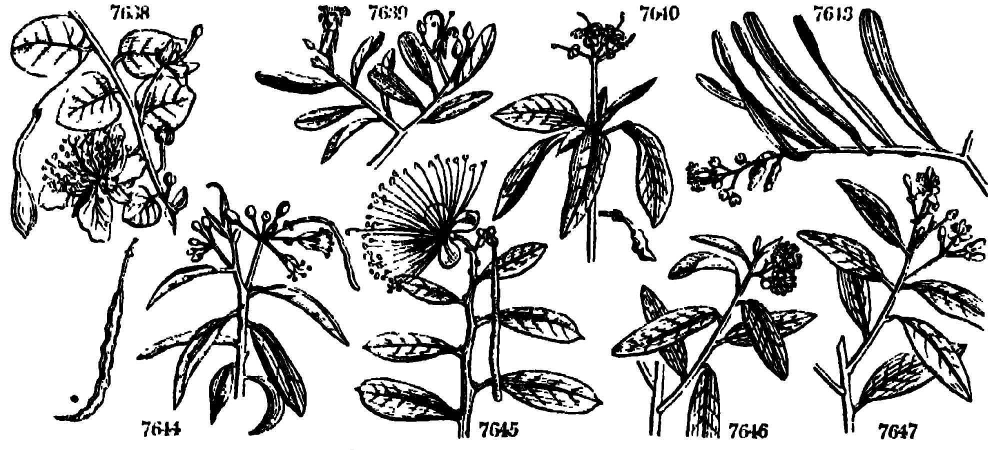
Order 4. POLYGYNIA.

Styles many. Stamens many, hypogynous.

1213. *Nelumbium.* Cal. 4-5-leaved. Petals many. Fruit turbinate, in a truncate discus, with several 1-seeded hollows. Nuts ovate, crowned with the persistent style.
1214. *Dillenia.* Cal. 5-leaved Petals 5. Capsules many-seeded, connate, replete with pulp.
1215. *Illicium* Cal. 6-leaved. Petals 27. Caps. many, placed in a circle, 2-valved, 1-seeded.
1216. *Liriodendron.* Cal. 3-leaved. Petals 6. Samaræ imbricated in a cone. Caps. 1-2-seeded, not opening, attenuated
1217. *Magnolia* Cal. 5-leaved. Petals 6-9. Caps. 2-valved, 1-seeded, imbricated in a cone. Seeds pendulous.
1218. *Michelia.* Cal. 3-leaved. Petals 15. Berries many, 4-seeded.
1219. *Uvaria* Cal. 3-leaved Petals 6. Berries numerous, pendulous, 4-seeded.
1220. *Annona* Sepals 3, united at base, concave, cordate, acute. Petals 6, thick ; the interior thicker or none. Anthers subsessile, with a dilated angular end. Berry pulpy, many-celled towards the outside.
1221. *Artabotrys.* Cal 3-parted Petals 6. Stamens hypogynous. Ovaries distinct, 2-seeded. Berries 2-seeded. Seeds collateral erect, without arillus.
1222. *Guatteria.* Sepals 3, united at base, ovate, subcordate, acute. Petals 6, ovate or obovate. Berries dry, coriaceous, ovate or subglobose, stalked, 1-seeded.
1223. *Asimina.* Cal. 3-parted. Petals 6, spreading, ovate-oblong ; the inner smallest. Anthers subsessile. Berries usually 3, sessile. Seeds several.

MONOGYNIA.

1162. CAP'PARIS. *W.*	Caper-Tree.				*Capparideæ.*		*Sp* 10—116.				
7638 spinósa *W.*	common	♧	⊔	cul	3	my.au	W	S. Europe 1596.	C	s.l	Bot. mag 291
7639 jamaicénsis *W.*	Jamaica	♣	□	or	4	...	W	Jamaica 1793.	C	r.m	Jac.am. c.p.t 101
7640 frondósa *W.*	large-leaved	♣	□	or	7	...	G	Carthag. 1800.	C	s.l	Jac. amer. t 103
7641 ováta *W.*	acute-leaved	♧	⊔	or	3	my.au	W	S. Europe ...	C	s.l	Boc. sic. t. 42. f.3
7642 salig'na *P. S.*	Willow-leaved	♣	□	or	8	...	W	Sant.Cruz 1807.	C	r m	
7643 linearis *W.*	linear-leaved	♣	□	or	15	...	W	W. Indies 1793.	C	r.m	Jac. amer. t. 102
7644 Bréynia *W.*	Oleaster-leav'd	♣	⊔	or	11	...	W	W. Indies 1752.	L	l.p	Jac. amer. t. 103
7645 cynophallóphora *W.*	Bay-leaved	♣	□	or	8	...	G.w	W. Indies 1752.	C	r.m	Jac. amer. t. 98
7646 odoratíssima *W.*	sweet-scented	♣	□	or	6	...	W	Caraccas 1814	C	r.m	Jac.schœ 1 t.110
7647 ferruginea *W.*	ferrugineous	♣	□	or	4	...	W	Jamaica ...	C	s.l	Bro. jam.t.28.f.1
1163 MARCGRAA'VIA. *W.*	Marcgraavia.				*Capparideæ.*		*Sp.* 1—2.				
7648 umbellàta *W.*	umbelled	♠	□	cu	20	...	W	W. Indies 1792.	C	s.l.p	Jac. amer. t. 96



History, Use, Propagation, Culture,

1162. *Capparis.* From its Arabic name *Kabar*, from which the Greeks made *καππαρις*. *Caprier*, Fr., *Capriolo*, Ital. and *Kapernstrauch*, Ger. This is a genus of low shrubs, some of which produce berries and others pods. C. spinosa has the habit of the common bramble; it grows in similar situations in the south of Europe, and especially on rocks and ruins. The chief supply of caper buds is from Sicily; but the plant is cultivated in the neighbourhood of Toulon in orchards, in the intervals between fig and olive trees, and in the neighbourhood of Paris, where it is trained on low walls, and the shoots during winter laid down and covered with soil to protect them from the frost. In this country it is generally treated as a stove plant; though it has stood the winter in the open air in some situations, and by raising from the seed for several generations might probably be naturalized. A plant stood near a century against the wall of the garden of Camden House, Kensington; it produced many flowers annually, though the young shoots were frequently killed to the stump during winter.

As a pickle, the flower buds of the caper are in great esteem throughout Europe. In Italy, the unripe fruit is prepared in the same way as the flower buds; both are highly acrid and burning to the taste. In the isles of the Mediterranean, and near Toulon, the flower buds of the caper are gathered just before they begin to expand, which forms a daily occupation during six months, when the plants are in a flowering state. As the buds are gathered they are thrown into a cask among as much salt and vinegar as is sufficient to cover

1224. *Xylopia.* Cal. 3-5-lobed. Petals 6; the exterior largest. Stamens usually inserted in a globose receptacle. Berries 2-15, on short stalks, compressed, frequently dry and opening. Seeds shining.

1225. *Hepatica.* Invol 3-leaved, 1-flowered, resembling a calyx, entire. Sepals petaloid, 6-9, arranged in 2 or 3 rows. Ovaries many. Grains without an awn.

1226. *Anemone.* Invol 3-leaved, distant from the flower, cut. Sepals 5-15, petaloid. Petals O.

1227. *Clematis.* Invol O, or like a calyx under the flower. Sepals 4-8, colored. Petals O, or shorter than the sepals. Grains terminating in a feathery awn.

1228. *Naravelia.* Petals 6-12, longer than calyx. Grains seated on a thick hollow stalk.

1229. *Thalictrum.* Invol. O. Petals O. Grains dry, not awned, sometimes stalked, sometimes with a longitudinal furrow.

1230. *Adonis.* Sepals 5, appressed. Petals 5-15, with a naked claw. Grains many, 1-seeded, spiked, ovate, pointed with the persistent hardened style

1231. *Knowltonia.* Sepals 5. Petals 5-15, with a naked claw. Ovaries upon a globose receptacle. Grains 1-seeded, berried, with a deciduous style.

1232. *Ficaria.* Sepals 3, deciduous. Petals 9, with a honey-pore at base. Grains obtuse.

1233. *Ranunculus.* Sepals 5, not deciduous. Petals 5, rarely 10, with a honey-scale at base. Grains pointed.

1234. *Trollius.* Sepals colored, 5-10-15, deciduous, petaloid. Capsules many, subcylindrical, many-seeded.

1235. *Isopyrum.* Sepals 5, deciduous. Petals 5, equal, tubular, 2-lipped. Ovaries 2-20. Capsules compressed, membranous, many-seeded. Seeds minute, dotted.

1236. *Eranthis.* Involucre under the flower, cut into many divisions. Sepals 5-8, colored, oblong, deciduous. Petals 6-8, tubular. Capsules stalked. Seeds globose.

1237. *Helleborus.* Sepals 5, persistent, roundish, obtuse, large, usually green. Petals 8-10, tubular, nectariferous. Stigmas orbicular. Capsules coriaceous.

1238. *Coptis.* Sepals 5-6, colored, petaloid, deciduous. Petals small, cucullate. Stamens 20-25 Caps. 6-10, on long stalks, membranous, 4-6-seeded.

1239. *Caltha.* Sepals 5, colored, round. Petals O. Stamens many. Capsule spreading, 1-celled, many-seeded.

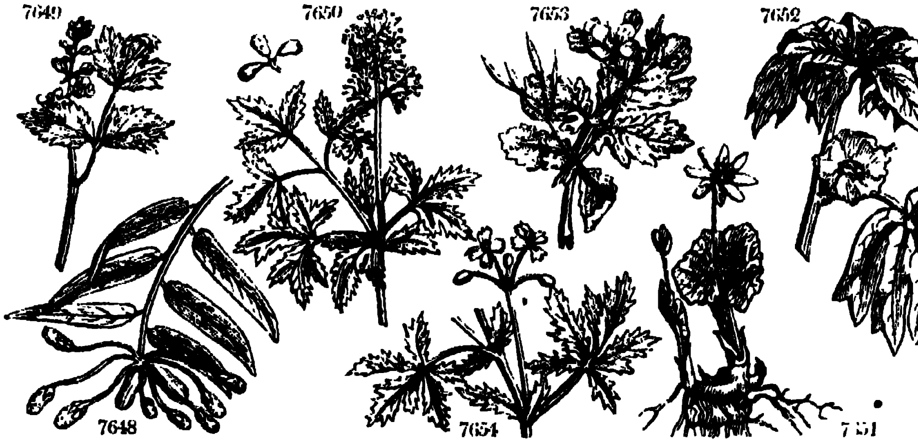
1240. *Hydropeltis.* Sepals 3-4 Petals 3-4. Ovaries 6-18 Seeds in a pendulous ovate globose capsule.

1241. *Hydrastis.* Sepals 3, ovate. Petals O. Caryopsides berried, many in a head, terminated by the style, 1-celled, 1-2-seeded.

MONOGYNIA.

7638 Pedunc 1-fl. solitary, Stipules spiny, Leaves roundish obtuse smooth, Caps. oval
7639 Pedunc. many-fl. Leaves obl obt emarginate downy beneath, Cor. campanulate
7640 Pedunc umbelled, Leaves clustered in parcels
7641 Pedunc 1-fl. solitary, Stipules spiny, Leaves roundish ovate acute smooth, Capsules oval
7642 Leaves linear lanceolate dilated downwards obtuse at each end smooth, Fruit round torulose
7643 Pedunc racemose, Leaves linear
7644 Pedunc. racemose, Leaves perennial oblong, Cal. and pedunc. downy, Fl octandrous
7645 Pedunc many-fl terminal, Leaves elliptical blunt smooth, Glands axillary, Fruit cylindrical torulose
7646 Pedunc. many-fl Leaves obl lanceolate acute dotted with scales beneath
7647 Pedunc. umbelled, Leaves persistent lanceolate downy beneath, Flowers octandrous

7648 Leaves ovate-oblong acuminate veiny



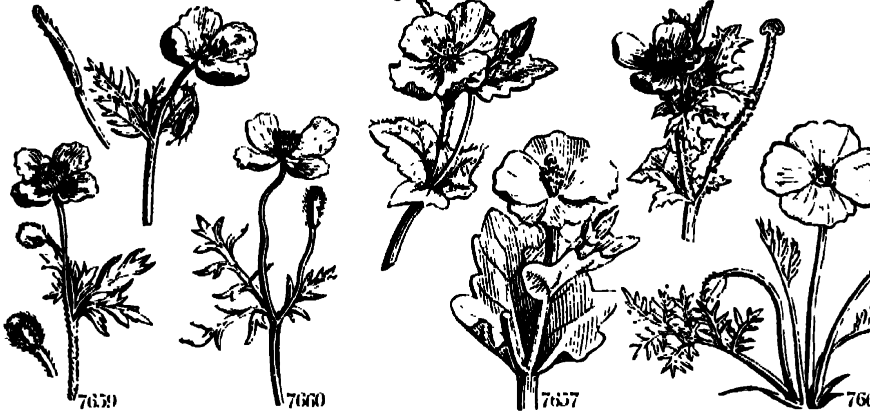
and Miscellaneous Particulars.

them, and as the supply of capers is increased more vinegar is added. When the caper season closes, the casks are emptied, and the buds sorted according to their size and color, the smallest and greenest being reckoned the best, and put into small casks of fresh vinegar for commerce. They will in this state keep fit for use for five or six years. It is said to be a common practice to put filings of copper in the first pickle to save vinegar, and give the buds a green color. The best capers are called nonpareilles, and the second best capucines. (*N. Cours complet d' Agr.*; art. *Caprier.*)

Most of the species are very shewy when in flower: C. cynophallophora has large petals, and stamens upwards of four inches long. Ripe cuttings of all the species grow readily in sand.

1163. *Marcgraavia.* In memory of George Marcgraaf, of Leibstadt, author of a voyage to Brazil in 1648 A sub-parasitical creeping shrub: at first it is radicant like some ferns, but as it advances, the stem becomes shrubby, adhering still by its fibres to the trunk of some tree, to the top of which it frequently runs, at length dividing into several subdivided loose pendulous branches, commonly terminated by flowering umbels. It is frequent in the cool wooded mountains of Jamaica, and, according to Browne, appears in such various forms, that it has been mistaken for different plants in the different stages of its growth. It grows freely in British stoves, and cuttings root in sand under a glass. The genus is remarkable for the transformation of part of the bracteæ into fistular bodies, resembling the pitchers of some other plants.

1164. ACTÆ'A. *Ph.*	Actæa.					*Ranunculaceæ.* *Sp.* 2.						
7649 spicáta *W. en.*	Bane-berry	♃	△	or	3	ap jn	W	Britain	m. wo.	R	s.l	Eng. bot. 918
7650 americána *Ph.*	American	♃	△	or	3	ap jn	W	N. Amer.	...	R	p l	Corn.canad. t.77
α álba	*white-berried*	♃	△	or	3	ap jn	W	N. Amer.	...	R	p.l	
β rúbra	*red-berried*	♃	△	or	3	ap.jn	R	N. Amer.	...	R	p.l	
1165. SANGUINA'RIA. *W.*	Puccoon.					*Papaveraceæ.* *Sp* 1.						
7651 canadénsis *W.*	Bloodwort	♃	△	pr	½	mr.ap	W	N. Amer.	1680.	R	s.p	Bot. mag. 162
1166. PODOPHYL'LUM. *W.*	Duck's-foot.					*Podophyllaceæ.* *Sp.* 1—2.						
7652 peltátum *W.*	May-Apple	♃	△	cu	½	my	W	N. Amer.	1664.	D	s.p	Bot. mag. 1819
1167. CHELIDO'NIUM. *W.*	Celandine.					*Papaveraceæ.* *Sp.* 2—5.						
7653 május *W.*	common	♃	△	w	2	ap.o	Y	Britain	sha.ba.	D	co	Eng. bot. 1581
7654 laciniátum *W. en*	jagged	♃	△	or	2	ap.o	Y	S. Europe	...	D	co	Mill.ic.1. t.92. f.2
1168. RÖME'RIA. *Med.*	Romeria					*Papaveraceæ.* *Sp.* 1—3.						
7655 hýbrida *Dec* *Chelidonium hybridum* L.	hybrid		○	or	2	my.jn	Pu	Britain	hed.	S	co	Eng. bot. t. 201
1169. GLAU'CIUM. *J*	Horn-Poppy.					*Papaveraceæ.* *Sp.* 3—5.						
7656 lúteum *H. K.*	yellow		○	or	2	jn o	Y	Britain	san.sh.	S	co	Eng. bot. 8
7657 fúlvum *H. K*	orange		⚭	or	2	au.s	Or	S. Europe	1802.	S	co	Sweet fl. gard.35
7658 phœníceum *H. K.*	red		○	or	2	jn.jl	R	England	san. fi.	S	co	Eng. bot. 1433
1170. PAPA'VER. *W.*	Poppy.					*Papaveraceæ.* *Sp.* 11—26.						
7659 hýbridum *W.*	mongrel		○	or	1½	jn.jl	S	England	chal.fi.	S	co	Eng. bot. 43
7660 Argemóne *W.*	rough		○	or	1½	jn.jl	S	Britain	corn fi.	R	co	Eng. bot. 643
7661 alpínum *W.*	Alpine	♃	△	or	½	jn.jl	Y	Austria	1759.	S	co	Jac. aus. 1. t. 83
7662 nudicaúle *W.*	naked-stalked		⚭	or	1½	jn.au	Or	Siberia	1730.	S	s.l	Bot. mag. 2344
β lúteum	*yellow-flowered*		⚭	or	1½	jn.au	Y	Siberia	1730.	S	s.l	Bot. mag. 1633



History, Use, Propagation, Culture,

1164 *Actæa.* Ακτη was the Greek name of the elder, which this plant resembles in foliage and fruit. Weed-like plants seldom seen in gardens. The berries of A. spicata are poisonous, and with alum yield a black dye. The tubers of A. racemosa are called snake root, and much used in North America by self-practitioners, and as an antidote against poison and the bite of the rattle snake.

1165. *Sanguinaria.* From *sanguis*, blood. All parts of the plant on being wounded discharge a blood-colored fluid. This is a singular and very delicate looking plant. It has a tuberous fleshy root with red fibres and a reddish juice: from each bud of the root there springs only a single fig-like glaucous leaf, with a one-flowered scape; the flower has no smell, and is very fugacious. It abounds in the woods of Canada, and in the back settlements, where the Indians stain themselves with its red juice.

1166. *Podophyllum.* From πες ποδος, a foot, and φυλλον, a leaf; in allusion to the long firm stalk on which the leaves are placed. Low neat herbaceous plants, with white flowers hidden by the overshadowing broad leaves.

1167. *Chelidonium* From χελιδων, the swallow, because it was thought to flower with the arrival of that bird, and to perish with its departure. The English word celandine appears to be a corruption of chelidonium. The juice of C. majus is of an orange color and very acrimonious. It cures tetters and ringworms. Diluted with milk it consumes white opake spots on the eyes. It destroys warts, and cures the itch. There is no doubt but a medicine of such activity will one day be converted to more important purposes (*Withering.*) The root, according to Loureiro, is extremely bitter, and greatly esteemed among the natives of Cochin-China, for a variety of uses in medicine.

1168. *Romeria.* Named after J. J. Römer, professor of botany at Landshut, and the collaborator of Schultz in an edition of the Species Plantarum of Willdenow. He died in 1820. A genus intermediate between Chelidonium, Glaucium, and Papaver.

1169. *Glaucium.* All the parts of the species appear covered with a *glaucous* bloom. Handsome sea-coast plants. G. luteum has large and numerous flowers, which, although of short duration, succeed one another in great abundance during most part of the summer, make a fine contrast with the sea-green dew-bespangled leaves, and are a great ornament to our sandy shores. The whole plant abounds in a yellow juice, is fœtid, and of a poisonous quality, and said to occasion madness.

1170. *Papaver.* Said by De Theis to have been so called from the Celtic *papa*, which signifies *pap*, or the soft food given to children, in which the seeds were formerly boiled to make the infants sleep. Opium is derived from οπος, juice; it is supposed to have been the Nepenthes of Homer. Rhœas, the name of one of the species, is from ρεω, to flow or fall, in allusion to the quickly perishable nature of the flowers. The poppy produces a great quantity of seeds, for which reason Cybele, the mother of the gods, is represented crowned with poppy-heads as a symbol of fecundity.

The species of this genus are all shewy, with large, brilliant, but fugacious flowers. They are all easy of culture in almost any soil; and one species affords that singular medicine opium. P. Rhœas is one of the commonest weeds among corn on gravelly soils; but in its double and semidouble variegated varieties, it is also one of the handsomest of garden annuals. The capsules, as in P. somniferum, contain a milky juice of a narcotic quality: an extract from them has been successfully employed as a sedative; and some foreign practitioners are said to prefer this extract to opium.

P. somniferum, although it is found growing wild in the southern parts of Europe, and even in England, yet there is every reason for thinking that its seed must have been carried to these parts from Asia. It was very early cultivated in Greece, perhaps at first solely for the sake of its seed, which was used as food. It is extensively cultivated in most of the states of Europe in the present age, not only on account of the opium,

7649 Berries roundish, Petals length of stamens, Raceme ovate, Leaves 2-3 ternate
7650 Berries ovate-oblong, Petals shorter than stamens, Raceme ovate, Leaves bi-triternate

7651 The only species

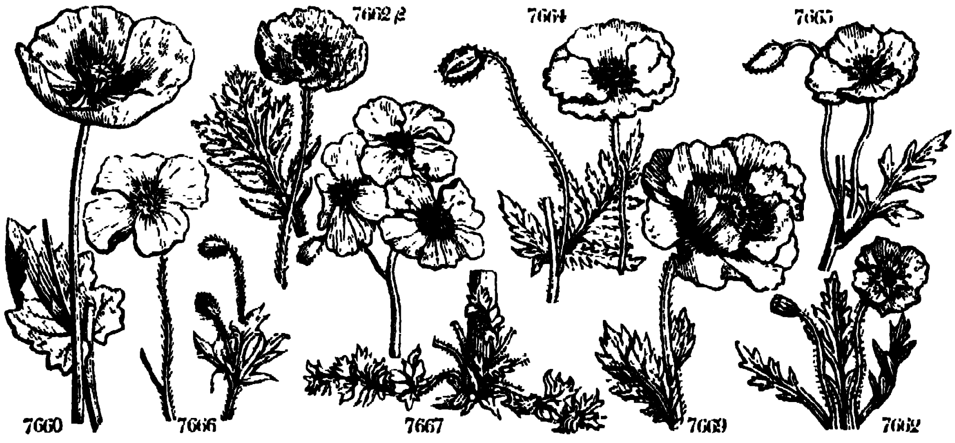
7652 Stem erect 2-leaved 1-flowered, Fruit ovate

7653 Peduncles umbelled, Leaves pinnated with roundish toothed lobed segments, Petals elliptical entire
7654 Peduncles umbelled, Leaves pinnated with finely cut segments, Petals serrated or cut

7655 Pods 3-4-valved erect with rigid bristles at end

7656 Stem smooth, Cauline leaves repand, Pod warted roughish
7657 Stem smooth, Cauline leaves roundish sinuated, Pods rough, Flowers subsessile
7658 Stem hairy, Cauline leaves pinnatifid cut, Pod bristly

7659 Caps. subglobose torose hispid, Stem leafy many-flowered
7660 Caps. clavate hispid, Stem leafy many-flowered
7661 Caps. hispid, Scape 1-fl. naked hispid, Leaves bipinnate
7662 Caps. hispid, Scape 1-fl. naked hispid, Leaves simple pinnate sinuated



and Miscellaneous Particulars.

for which it is reared in Turkey, Persia, and India, but also on account of the capsules, and of the bland oil obtained from the seeds. All the parts of the poppy contain a white, opaque, narcotic juice; but it abounds more in the capsules: hence these are the only officinal parts of the plant, and for them chiefly is the plant cultivated in this country They are gathered as they ripen; and as this happens at different times, there are annually three or four gatherings. They are brought to market in bags, each containing about 3000 capsules, and sold to the druggists The London market is chiefly supplied from Mitcham in Surrey.

The milky juice of the poppy, in its more perfect state, which is the case in warm climates only, is extracted by incisions made in the capsules, and inspissated; and in this state forms the opium of commerce. The mode of obtaining it appears to have been nearly the same in the time of Dioscorides as is at this day adopted. The plants, during their growth, are carefully watered and manured, the watering being more profuse as the period of flowering approaches, and until the capsules are half grown, when it is discontinued, and the collection of the opium commences. At sunset, longitudinal incisions are made upon each half-ripe capsule, passing from below upwards, and not penetrating to the internal cavity. The night dews favor the exudation of the juice, which is collected in the morning by women and children, who scrape it from off the wounds with a small iron scoop, and deposit the whole in an earthen pot, where it is worked by wooden spatules in the sunshine, until it attains a considerable degree of thickness. It is then formed by the hand into cakes, which are laid in earthen basins to be further exsiccated, when it is covered over with poppy or tobacco leaves Such is the mode followed in India, and according to Kampfer's account, nearly the same is practised in Persia; and when the juice is drawn in a similar manner in this country and inspissated, it has all the characters of pure opium.

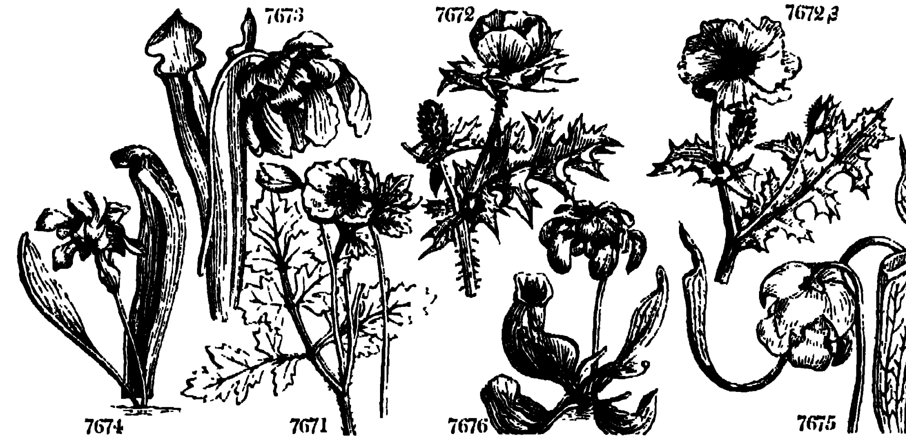
Opium is brought to this country in chests from Turkey and India. The Turkey opium is in flat pieces, covered with leaves. East Indian opium is in round masses, covered with the petals of the poppy in successive layers, to the thickness nearly of one-fourth of an inch. Mr. Kerr relates, that at Bahar, it is frequently adulterated with cow-dung, the extract of the poppy procured by boiling, and various other substances. In Malava it is mixed with oil of sesamum, which is often one half of the mass; ashes and the dried leaves of the plant are also used It is also adulterated with the aqueous extract of the capsules, the extracts of Chelidonium glaucum, Lactuca virosa, and Glycyrrhiza glabra, and sometimes with gum arabic, tragacanth, aloes, and many other articles.

Poppy heads or capsules possess anodyne properties; they are chiefly employed, boiled in water, as fomentations to inflamed and ulcerated surfaces; and a syrup, prepared with the inspissated decoction, is used as an anodyne for children, and to allay the tickling cough in chronic catarrh and phthisis.

Opium operates as a powerful and very diffusible stimulus, but its primary operation is followed by narcotic and sedative effects in a degree much greater than could be expected from the previous excitement it induces. It acts directly on the nervous system, and when taken into the stomach destroys irritability, and allays pain in the most distant parts of the body, independent of the circulation, and without inducing any change on the composition of the blood. As the principle, therefore, on which opium acts is the same over all the body, the topical application of it is capable of producing similar effects, only in a diminished degree, to those resulting from it when it is taken into the stomach.

In moderate doses, opium increases the fulness, the force, and the frequency of the pulse, augments the heat of the body, quickens respiration, and invigorates both the corporeal and mental functions, exhilarating even to intoxication; but by degrees these effects are succeeded by langour, lassitude, and sleep; and in many instances headach, sickness, thirst, tremors, and other symptoms of debility such as follow the excessive use

7663	armeniacum *Lam.*	Armenian		○ or	1½	jn.s	Y	Armenia	1815.	S	s.p	
7664	Rhœ́as *W.*	common-corn		○ or	2	jn.jl	Sc	Britain	corn fi.	S	co	Eng. bot. 645
7665	dúbium *W.*	smooth		○ or	2	jn.jl	Sc	Britain	san. fi.	S	co	Eng. bot 644
7666	caucásicum *M. B.*	Caucasian		○ or	1½	jn.jl	Y	Caucasus	1813.	S	co	Bot. mag. 1675
7667	floribúndum *Desf.*	many-flowered	⚘	⊙ or	1½	jn.jl	Sc	Levant	1815.	S	co	Bot. reg. 134
7668	somníferum *W.*	garden		○ m	4	jl.au	W	England	corn fi.	R	co	Eng. bot. 2145
7669	orientále *W.*	oriental	⚘	△ or	3	my.jn	R	Levant	1714.	R	co	Bot. mag. 57
7670	bracteátum *Lindl.*	bracted	⚘	△ or	3	my.jn	R	Siberia	1818	R	co	Lindl. coll. 23
1171.	MECONOP'SIS. *Vig.*	MECONOPSIS.				*Papaveraceæ.*		*Sp.* 1—4.		*		
7671	cámbrica *Vig.*	Welsh	⚘	△ or	1	my.au	Y	England	al.roc.	R	s.p	Eng. bot. 66
1172.	ARGEMO'NE. *W.*	ARGEMONE.				*Papaveraceæ.*		*Sp.* 1.				
7672	mexicána *W.*	Mexican		○ or	2	jl.au	Y	Mexico	1592.	S	s.p	Bot. mag. 243
	β *albiflóra* Sims.	*white-flowered*		○ or	2	jl.au	W	Mexico	1821.	S	s.p	Bot. mag. 2342
1173.	SARRACE'NIA. *W*	SIDE-SADDLE-FLOWER.				*Papaveraceis affinis.*		*Sp.* 4—6.				
7673	fláva *W.*	yellow	≛	△| cu	2	jn.jl	Y	N. Amer.	1752.	R	m.s	Bot mag 780
7674	varioláris *Ph* *adúnca* Ex. bot. t 53	hook-leaved	≛	△| cu	1	jn.jl	Y	N. Amer.	1803.	R	m.s	Bot. mag. 1710
7675	rúbra *W.* *psittacina* Ph.	red	≛	△| cu	1	jn.jl	Pu	N. Amer.	1786.	R	m.s	Hook. ex. fl. 13
7676	purpúrea *W.*	purple	≛	△| cu	1	jn.jl	Pu	N. Amer.	1640.	R	m.s	Bot. mag. 849
1174	NYMPHÆ'A. *W.*	WATER-LILY.				*Nymphæaceæ.*		*Sp.* 10—20.				
7677	álba *W.*	white	≛	△ or		jn.jl	W	Britain	riv.,&c.	R	m.s	Eng bot. 160
7678	odoráta *W.*	sweet-scented	≛	△ or		jl	W	N. Amer.	1786.	R	m.s	Bot. mag. 819
	β *minor*	*small sweet-sc.*	≛	△ or		jl	W	N. Amer.	1812.	R	m.s	Bot. mag. 1652
7679	nítida *B M.*	cup-flowered	≛	△ or		jl.au	W	Siberia	1809.	R	m.s	Bot. mag. 1359
7680	pygmæ'a *H. K*	pigmy	≛	△ or		my.s	W	China	1805.	R	m.s	Bot mag. 1525
7681	Lótus *W.*	Egyptian Lotus	≛	[△] or		jn.s	Pk	Egypt	1802.	R	m.s	Bot. mag. 797
7682	pubéscens *W.*	Indian Lotus	≛	[△] or		my.au	Pk	E. Indies	1803.	R	m.s	Bot. rep. 391
7683	rúbra *B. M*	red-flowered	≛	[△] or		jl.au	R	E. Indies	1803.	R	m.s	Bot. mag. 1280
	β *rósea* B. M	*rose-colored*	≛	[△] or		jl.au	Pk	E. Indies	1803.	R	m.s	Bot mag 1364



History, Use, Propagation, Culture,

of ardent spirits, supervene. In very large doses the primary excitement is scarcely apparent, but the pulse seems to be at once diminished, drowsiness and stupor immediately come on, and are followed by delirium, sighing, deep and stertorous breathing, cold sweats, convulsions, apoplexy, and death. The appearances on dissection are those which indicate the previous existence of violent inflammation of the stomach and bowels; but notwithstanding the symptoms of apoplexy which an overdose, when it proves fatal, occasions, no particular appearance of an inflammatory state or fulness of the vessels of the brain are perceived.

The Turks call opium *afiom*; and in the *teriakihana*, or opium shops of Constantinople, they take it in graduated doses from ten grains to one hundred grains in a day. It is mixed with rich syrup and the inspissated juices of fruit, to render it more palatable and less intoxicating; and is taken with a spoon, or made up into small lozenges stamped with the words, Mash Allah, literally, "The work of God." The Tartar couriers, who travel great distances, and with astonishing rapidity, take nothing else to support them during their journeys. (*Dallaway's Constantinople*, quarto, 78.) There is, however, some reason for supposing that the Mash Allah, or Maslach of the Turks, contains other narcotics, as those of hemp and of lolium, as well as opium.

The use of opium for the purpose of exhilarating the spirits has long been known in Turkey, Syria, and China; and of late years it has been unfortunately adopted by many, particularly females, in this country. Russell says, that in Syria, when combined with spices and aromatics, he has known it taken to the amount of three drachms in twenty-four hours. Its habitual use cannot be too much reprobated. It impairs the digestive organs, consequently the vigour of the whole body, and destroys also gradually the mental energies The effects of opium on those addicted to its use, says Russell, are at first obstinate costiveness, succeeded by diarrhœa and flatulence, with the loss of appetite and a sottish appearance The memories of those who take it soon fail, they become prematurely old, and then sink into the grave, objects of scorn and pity. Mustapha Shatoor, an opium eater in Smyrna, took daily three drachms of crude opium. The visible effects at the time, were the sparkling of his eyes, and great exhilaration of spirits. He found the desire of increasing his dose growing upon him. He seemed twenty years older than he really was; his complexion was very sallow, his legs small, his gums eaten away, and the teeth laid bare to the sockets He could not rise without first swallowing half a drachm of opium. (*Phil. Trans.* xix. 289.)

When opium has been taken in an overdose, the first thing to be done for counteracting its bad effect, is the exhibition of a powerful emetic; and for this purpose sulphate of zinc, or sulphate of copper dissolved in water, should be immediately swallowed, and the vomiting kept up for a considerable time, and urged by irritation of the fauces. Large draughts of vinegar and water, or other acidulated fluids, should afterwards be frequently taken; and the powers of the habit supported by brandy, coffee, and cordials. The sufferer should be kept awake, and, if possible, in continued gentle motion. Currie recommends the affusion of warm water at 106 degrees or 108 degrees for removing the drowsiness. (*London Dispensatory*, 426.)

Medical men have of late sought to discover the sedative principle of opium, and have found it in the extractive, from which a crystallized salt called morphia is obtained. Some foreign physicians, and Mr.

7663 Caps. ellipt. obl. and calyxes smooth, Stem much branch. smoothish, Lvs. pinnated, Lobes lin. terminated
7664 Caps. smooth globose, Stem hairy many-fl. Leaves pinnatifid cut [by a bristle
7665 Caps. oblong smooth, Stem many-fl. with appressed bristles, Leaves pinnatifid cut
7666 Caps. ov.-obl. smooth, Stem much branched and pedunc. covered with decid. setæ, Lvs glauc. pinnatifid
7667 Caps. smooth obl. Sepals hairy, Stem many-fl. hispid, Leaves pilose: the lower pinnate
7668 Calyxes and caps. smooth, Leaves stem-clasping cut
7669 Caps. smooth, Stems 1-fl. rough, Leaves scabrous pinnate serrate
7670 Caps. smooth, Stems 1-fl. rough, Leaves scabrous pinnate serrate, Flowers subtended by leafy bractes

7671 Caps. smooth obl. Stem many-fl. smooth, Leaves pinnate cut

7672 Caps. 6-valved, Leaves spiny

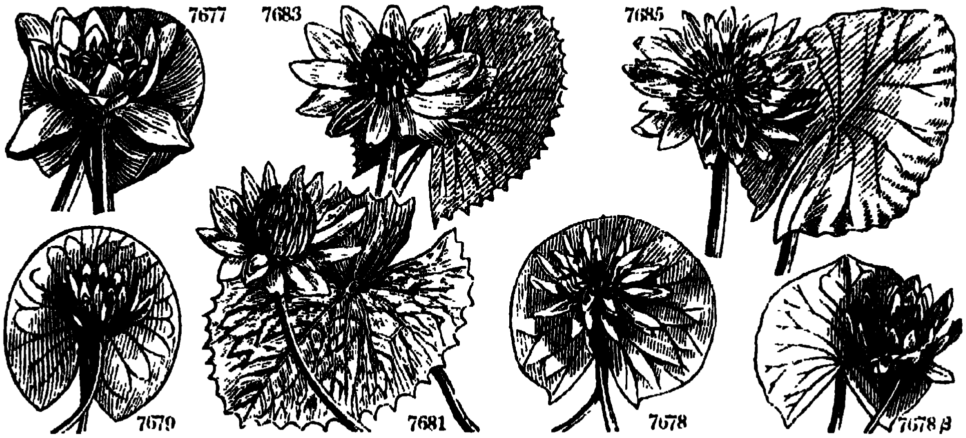
7673 Leaves erect tubular, Valve with a contracted neck, at the end flat erect
7674 Leaves long, their tube dotted at back, Appendage short vaulted incurved

7675 Lvs. short colored upwards with netted veins, Tube of leaf ending in a recurv. vaulted mucron. appendix

7676 Leaves cucullate ventricose spreading arcuate

7677 Leaves cordate entire, Lobes imbricated round, Calyx 4-leaved
7678 Leaves cordate entire emarginate, Lobes divaricating, Point obtuse, Calyx 4-leaved

7679 Leaves cordate entire, Lateral nerves beneath level, Petioles smooth, Pet acute, Rays of stigma 12-20
7680 Leaves cordate entire, Lateral nerves beneath level, Petioles smooth, Pet. acute, Rays of stigma 8
7681 Leaves cordate toothed very smooth, Lobes approximating, Calyx 4-leaved
7682 Leaves reniform toothed downy beneath, Lobes round, Calyx 4-leaved
7683 Leaves peltate finely toothed, beneath downy without spots



and Miscellaneous Particulars.

Thomson, the author of The London Dispensatory, have found that a quarter of a grain of the acetate of morphia produces the most beneficial effects that can be expected from an anodyne, allaying pain, and procuring sleep without in any degree affecting the central functions. (*London Dispensatory*, 420.)

A variety of P. somniferum, known as the black poppy, from the color of its seeds, is cultivated for these to some extent; they are called maw seed, and generally stained of a light blue color.

P. Rhœas (*œillette*, Fr.) and also somniferum are cultivated in Flanders and Germany for their seeds, which are bruised for an oil used in cookery as a substitute for that of olives. In Poland and some parts of Russia, the seeds are used as a seasoning to soups, gruels, and porridge.

Professor Martyn, in his edition of Miller's Dictionary, has collected a body of facts, which clearly prove that opium may be produced to any extent in Britain, and of equal quality to that procured from abroad; the value of labor in this country, however, does not admit of such a thing. We have seen samples of opium made in the south of England quite equal to that of foreign growth, but we understood that the labor of collecting it was greater than could be afforded for its market price.

P. cambricum is admired for its yellow petals, and orientale and bracteatum are very splendid plants.

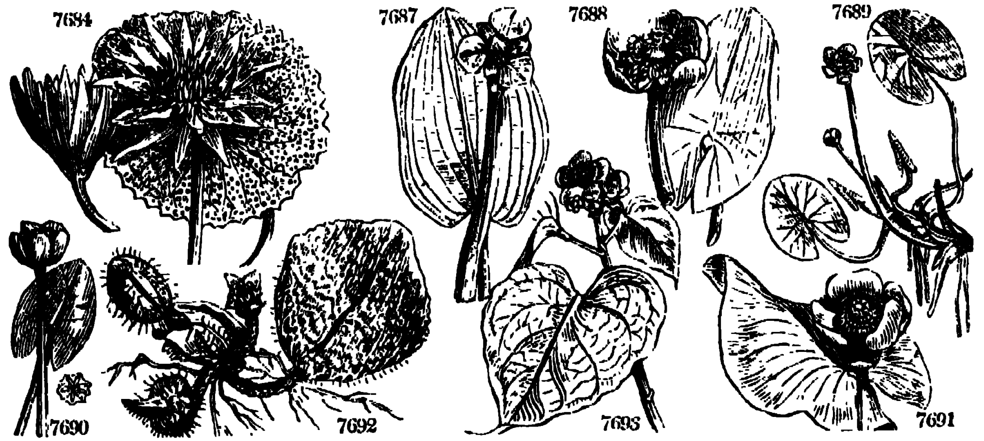
1171. *Meconopsis*. From *μηκων*, a poppy, and *οψις*, resemblance. A genus of herbaceous shade-loving plants, just intermediate between Papaver and Argemone. The flowers are yellow.

1172. *Argemone*. From *argema*, the name by which the cataract of the eye was known, and which was thought to be cured by this plant. A. mexicana is a troublesome weed in the West Indies, with a fig-like fruit, armed with prickles, and thence, by the Spaniards, called *Figo del inferno*. The whole plant abounds with a milky glutinous juice, which turns in the air to a fine bright yellow, and when reduced to consistence is not distinguishable from gamboge. In very small doses it s probably of equal efficacy, given in dropsies, jaundice, and cutaneous eruptions. It is esteemed very detersive, and generally used in diseases of the eyes: but the infusion is looked upon as a sudorific and resolutive, which may be used with success on many occasions. The seeds are said to be a much stronger narcotic than opium.

1173. *Sarracenia*. So named by Tournefort in honor of Dr. Sarrazin, a French physician of rank residing in Quebec, who sent this genus to him from Canada: it is called side-saddle flower from the resemblance of the stigma to a woman's pillion. These plants are remarkable for the singular form of the leaves, which are tubular and hold water, and some species have lids or covers, which it is alleged shrink and close over the mouth of the tribe in dry weather, so as to prevent the exhalation of the water. In great drought birds and and other animals resort to them. They grow in bogs in Carolina and Virginia, and in British gardens thrive very well in pots with turfy peat at the bottom, and the upper part filled with sphagnum, or water-moss, in which the plants must be set, and then placed in pans of water; they succeed best in frames in a shady situation. (*Bot. Cult.* 417.)

1174. *Nymphæa*. The *Nymph*, or Naiad of the streams. The species are beautiful aquatics, especially N. alba, which has a large flower filled with petals, so as almost to appear double: it raises itself out of the water and expands about seven o'clock in the morning, and closes again, reposing upon the surface, about

7684 **versicolor** *H. K.*	changeable	≛	⍍	or		au	Pk	E. Indies	1807.	R m.s	Bot. mag. 1189
7685 **cærúlea** *H. K.*	blue	≛	⍍	or		jn.s	B	C. G. H.	1792.	R m.s	Bot. mag. 552
7686 **stelláta** *W.*	star-flowered	≛	⍍	or		jn.s	B	E. Indies	1803.	R m.s	Bot. rep. 330
1175. LIMNOCHA'RIS. *Rich.*	LIMNOCHARIS.					*Hydrocharideæ. Sp.* 1—2.					
7687 Plumiéri *Rich.*	Plumier's	≛	⍍	or	1¼	jn.n	Y	Brazil	1822.	S m.s	Bot. mag. 2525
1176. NU'PHAR. *H. K.*	NUPHAR.					*Nymphæaceæ. Sp.* 4—6.					
7688 lútea *H. K.*	common-yellow	≛	Δ	or		jn.jl	Y	Brit. pools,&c.		R m.s	Eng. bot. 159
7689 Kalmiána *H. K.*	Canadian	≛	Δ	or		jl.au	Y	Canada	1807.	R m.s	Bot. mag. 1243
7690 mínima *E. B.*	least yellow	≛	Δ	or		jl.au	Y	Scotland	al.lak.	R m.s	Eng. bot. 2292
7691 ádvena *H. K.*	three-colored	≛	Δ	or		jl.au	Y	N. Amer.	1772.	R m.s	Bot. mag. 684
1177. EURY'ALE. *H. K.*	EURYALE.					*Nymphæaceæ. Sp.* 1.					
7692 férox *H. K.*	prickly	≛	⍍	or		jl.s	R	India	1809.	R m.s	Bot. mag. 1447
1178. BI'XA. *W.*	ARNOTTA.					*Bixi[illegible]æ. Sp.* 1—2.					
7693 Orellána *W.*	heart-leaved	🌳	☐	m	20	my.[illegible]	Pk	W. Indies	1690.	S s.p	Bot. mag. 1456
1179. PROCK'IA. *L.*	PROCKIA.					*Bixineæ. Sp.* 1—7.					
7694 Crúcis *L.*	ovate	♣	☐	cu	3	jl.au	Y	W. Indies	1822.	C s.p	Vah.symb.3.t.64
1180. SLO'ANEA. *W.*	SLOANEA.					*Tiliaceæ. Sp.* 1—8.					
7695 dentáta *W.*	Chestnut-leav'd	🌳	☐	tm	40	...	W	S. Amer.	1752.	S p.l	Plum. ic. 244
1181. APEI'BA. *W.*	APEIBA.					*Tiliaceæ. Sp.* 4—7.					
7696 Tibóurbou *W.*	hairy	♣	☐	or	7	...	Y	S. Amer.	1756.	C p.l	Aub. gui 1. t 213
7697 Petoúmo *W.*	hoary	🌳	☐	tm	40	...	Y	S. Amer.	1817.	C p.l	Aub. gui. 1. t.215
7698 áspera *W.*	prickly-capsul'd	🌳	☐	tm	30	...	Y	Cayenne	1792.	C p.l	Aub. gui. 1. t 216
7699 læ'vis *W.*	smooth-leaved	🌳	☐	or	10	...	G	Cayenne	1817.	C p.l	Aub. gui. 1 t 214
1182. SPARRMAN'NIA. *W.*	SPARRMANNIA.					*Tiliaceæ. Sp* 1.					
7700 africána *W.*	African	🌳	⊔	or	10	mr.jl	W	C. G. H.	1790.	C p.l	Bot. mag. 516
1183. ENTELE'A. *R. Br.*	ENTELEA.					*Tiliaceæ. Sp.* 1.					
7701 arboréscens *R. Br.*	arborescent	🌳	⊔	or	20	my	W	N. Zeal.	1820.	C p.l	Bot. mag. 2480
1184. MUNTIN'GIA. *W.*	MUNTINGIA.					*Tiliaceæ. Sp.* 1					
7702 Calabúra *W.*	Jamaica	♣	☐	cu	3	jn.jl	W	Jamaica	1690.	C p.l	Jac. amer. t. 107



History, Use, Propagation, Culture,

four in the afternoon. The roots have an astringent bitter taste; they are used in Ireland, in the Highlands of Scotland, in the island of Jura, &c. to dye a dark brown or chesnut color. Swine are said to eat it, goats not to be fond of it, kine and horses to refuse it The flowers, the herb, and the root were formerly used in medicine, but are all now obsolete.

N. lotus resembles our common white species very much in the form of the flower and leaves, but the latter are toothed about the edge. It is native of the hot parts of the East Indies, Africa, and America. It is very common in ponds, lakes, and rivers in Jamaica; and grows in vast quantities in the plains of Lower Egypt near Cairo, during the time they are under water. It flowers there about the middle of September, and ripens towards the end of October. The Arabians call it Nuphar. The ancient Egyptians made a bread of the seed of the Lotus dried and ground.

All the species grow well in large pots of water with a few inches of rich soil at the bottom: they are propagated by dividing the root, and some sorts which produce bulbs are increased by offsets from these. Mr. Kent, of Clapton, who cultivated exotic aquatics to great perfection, found that the bulbous rooted Nymphæas, if checked in their growth for want of water, from cold, or excessive heat, were apt to form bulbs at the roots and cease growing for the season. Hence the necessity of a regular and powerful moist heat to make them flower freely.

1175. ***Limnocharis.*** From λιμνες, a marsh, and χαρις, dear, so called because the species are marsh plants. They have beautiful umbels of yellow flowers, and are very easily cultivated in a stove. They are increased by seeds.

1176. ***Nuphar.*** The Arabic name is *naufar*, according to Forskahl. The species are shewy plants closely resembling Nymphæa. N. lutea is a native of most parts of Europe, and also of America. Linnæus states, that swine are fond both of the leaves and root; that goats are not fond of it; and that kine, sheep, and horses refuse it: also that crickets are driven out of houses by the smoke in burning it, and that both they and cock-roaches are destroyed by the roots rubbed or bruised with milk. Ray observes, that the flowers smell like brandy.

1177. ***Euryale.*** From ευρυαλος, broad, in allusion to the enormous broad floating leaves of the plant. A noble aquatic, easily cultivated in a good stove.

1178. ***Bixa.*** The American name of the tree. The drug called Terra Orellana, or Orleana, Roucon or Arnotto, is prepared from the red pulp which covers the seeds of this plant. By maceration in hot water, the seeds are separated from the pulp, the latter is then made into balls or cakes, which when dry are fit for use. Arnotto of a good quality is of the color of fire, bright within, soft to the touch, and dissolves entirely in water. It is reputed to be cooling and cordial, and is much used by the Spaniards in their chocolate and soups, both to heighten the flavor and to give them an agreeable color. It is esteemed good in bloody fluxes

7684 Leaves peltate at the edge and within the fissure sinuate toothed blistered smooth on each side [end
7685 Leaves peltate nearly entire not dotted smooth on each side 2-lobed at base, Anthers with appendages at
7686 Leaves cordate entire, Lobes divaricating acute, Calyx acute 4-leaved longer than the acute pet:

7687 Leaves oblong very blunt at each end, Flowers in umbels

7688 Leaves cordate entire, Lobes approximating, Cal. 5-leaved longer than petals
7689 Sepals 5, Stigma cut with 8-10 rays, Leaves cordate a little out of the water, Petioles roundish
7890 Sepals 5, Stigma lobed with 10 rays, Lvs. obl. cord. dott. sub-pubesc. Petioles at base ½ round, at end nearly
7691 Leaves cordate entire half erect, Lobes divaricating, Cal. 6-leaved longer than petals [3-cornered

7602 Petioles and calyxes covered over with stiff prickles, Leaves sometimes 3 feet across

7693 Leaves smooth on each side

7694 Leaves cordate ovate toothed, Peduncles terminal racemose

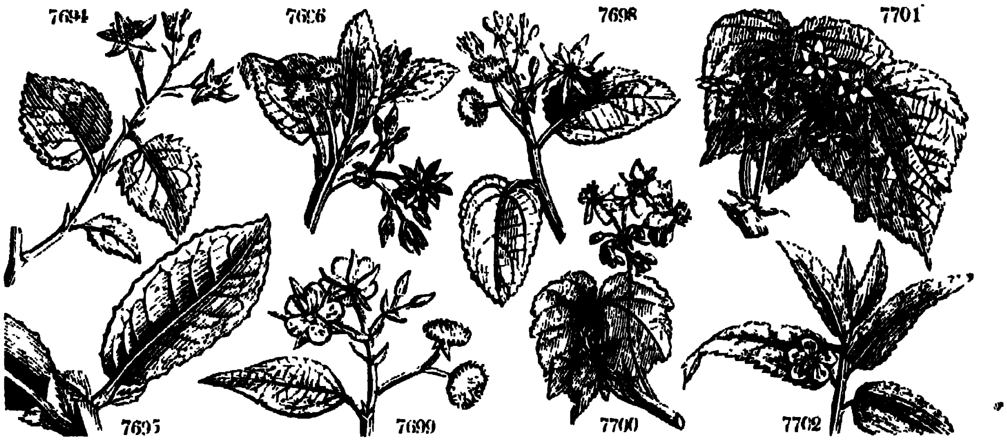
7695 Leaves ovate, Stipules cordate triangular serrated

7696 Leaves cordate lanceol. serrate hirsute beneath, Capsules bristly
7697 Leaves obl. subcordate serrulate hoary beneath, Caps. bristly
7698 Leaves obl. subcordate entire pubescent beneath, Caps. muricated
7699 Leaves obl. obovate acuminate entire smooth, Petals obtuse, Caps. scabrous

7700 The only species

7701 The only species

7702 Leaves serrated oblong oblique



and Miscellaneous Particulars.

and disorders of the kidnies. Mixed with lemon-juice and a gum, it makes the crimson paint with which the Indians adorn their persons It was formerly used by dyers to form the color called aurora; but at present it is not held in much estimation as a dye, though it still maintains its ground with painters. Arnotto is well known to be the drug which is used for dying cheese in Gloucestershire, under the name of cheese-coloring. It is used in Holland for coloring their butter. The bark makes good ropes for the common plantation uses in the West Indies; and pieces of the wood are used by the Indians to procure fire by friction.

1179. *Prockia.* A name of unknown meaning. American or Isle of France plants with alternate entire or toothed leaves, and yellow flowers, which are occasionally unisexual.

1180. *Sloanea.* Named by Plumier, in memory of the famous Sir Hans Sloane, Bart., physician to the king, and president to the Royal Society; author of the Natural History of Jamaica, and founder of Chelsea garden and hospital. The leaves are like those of the chesnut; the flowers very large, and the fruit as big as a tennis ball, armed all over with strong spines, and divided regularly into four cells, each containing one small chesnut. It grows freely in our stoves, and ripened cuttings root in sand under a hand-glass.

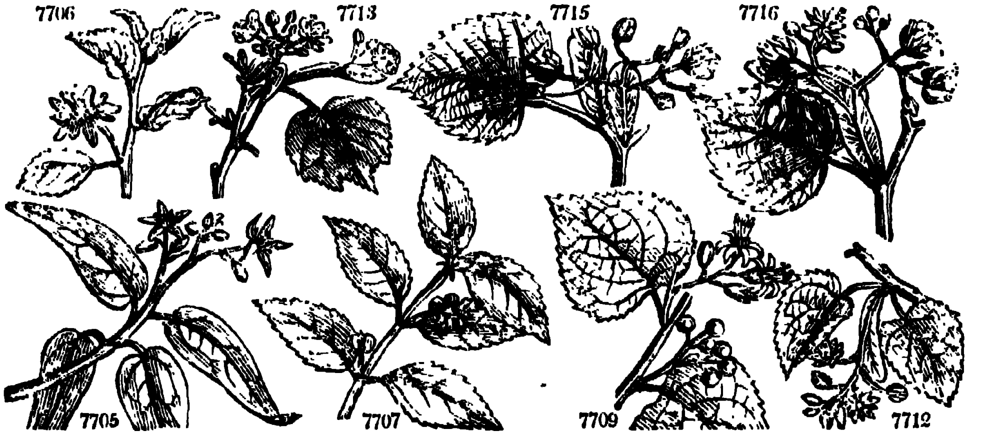
1181. *Apeiba.* The vernacular name of the plant in Guiana. Tibourbou and Petoumo are vernacular names among the Caribs. The species grow freely in light loamy soil. Cuttings must be well ripened, and the glass they are put under should have a little air given it occasionally, or they will damp off. The best way of flowering it, is to cut a ring round the bark of a large branch, which stagnates it and throws it into flower. (*Bot. Cult.* 29.)

1182. *Sparmannia.* In memory of Anders or Andrew Sparrman, a Swede, fellow of the Academy of Sciences at Stockholm, who travelled into China, the Cape of Good Hope, and the islands of the South Sea. His travels were published in London, 1785, quarto, and there are many descriptions by him in the Philosophical and other transactions. It is a beautiful shrub with snowy white petals, and singular nectaries. It grows freely in loam and peat, and cuttings root in sand under a hand-glass.

1183. *Entelea.* From ἐντελὴς, perfect. So named by Mr. Brown, because all its filaments are fertile; by which character, among others, it is distinguished from Sparmannia. A fine New Zealand plant, discovered originally by the botanists with Sir Joseph Banks in Cook's second voyage.

1184. *Muntingia.* Named by Plumier, after Abraham Munting, professor of botany at Groeningen, died in 1682. *Calabura* is an American name. The flowers resemble those of the bramble, and the fruit cherries. It grows in Jamaica on calcareous subalpine hills, flowering in spring; and in St. Domingo in the wet parts of woods, flowering in August and September. In our stoves it grows freely in light loam, and cuttings root in sand under a hand-glass.

1185. **GRE'WIA.** *W.*	GREWIA.					*Tiliaceæ.*	*Sp.* 8—65.					
7703 hirsúta *W.*	soft-leaved	♠	☐	or	10	...	Pu	E. Indies	1816.	C	p.l	
7704 Mallacócca *W.*	rough-fruited	♠	☐	or	10	au.s	Pa.pu	E. Indies	1792.	C	c.p	Forster. 39
7705 Micrócos *H. K.*	panicled	♠	☐	or	7	...	G.	E. Indies	1779.	C	c.p	Rhee. mal. 1. t.56
7706 occidentális *W.*	Elm-leaved	♠	☐	or	10	jl.s	Pu	C. G. H.	1690.	C	p.l	Bot. mag. 422
7707 orientális *W.*	oriental	♠	☐	or	10	jl.au	Pu	E. Indies	1767.	C	p.l	Rhee. mal.5. t.46
7708 pilósa *P. S.*	pilose	♠	☐	or	10	...	...	E. Indies	1804.	C	p.l	
7709 asiática *W.*	Asiatic	♠	☐	or	12	jl.au	Pu	E. Indies	1792.	C	p.l	Sonn. it. 2. t. 138
7710 tiliæfólia *W.*	Lime-tree-leav.	♠	☐	or	12	...	...	E. Indies	1812.	C	p.l	
1186. **TI'LIA.** *W.*	LIME-TREE.					*Tiliaceæ.*	*Sp.* 8—10.					
7711 rúbra *Dec.*	common	♣		tm	50	jn.au	Y.G	Britain	woods.	L	co	
7712 intermédia *Hayne.*	intermediate	♣		tm	50	jn.au	Y.G	Britain	woods.	L	co	Fl. dan. 553
7713 parvifólia *Ehr.*	small-leaved	♣		tm	50	au.s	Y.G	Britain	woods.	L	co	Eng. bot. 1705
7714 platyphýlla *Scop.*	broad-leaved	♣		tm	50	au.s	Y.G	Britain	woods.	L	co	Vent. diss. t.1.f.2
7715 americána *W.*	broad-leaved	♣		tm	30	jn.jl	Y.G	N. Amer.	1752.	L	co	Dend. brit. 134
T. glábra Vent.												
7716 pubéscens *W.*	pubescent	♣		tm	20	jl.au	Y.G	N. Amer.	1726.	L	co	Dend. brit. 135
β *leptophýlla* Vent.	*thin-leaved*	♣		tm	20	jl.au	Y.G	N. Amer.	...	L	co	
7717 álba *W. & K.*	white	♣		tm	30	jn.au	Y.G	Hungary	1767.	L	co	Dend. brit. 71
T. argentea Dec.												
7718 heterophýlla *Vent.*	various-leaved	♣		tm	30	jn.au	Y.G	N. Amer.	1811.	L	co	Vent. diss. t. 5
1187. **COR'CHORUS.** *W.*	CORCHORUS.					*Tiliaceæ.*	*Sp.* 7—25.					
7719 olitórius *W.*	bristly-leaved		⊡	w	2	jn.au	Y	India	1640.	S	co	Camer. hort. t 12
7720 triloculáris *W.*	three-celled		⊡	w	1	jl.au	Y	Arabia	1790.	S	co	Jac. vind.2. t 173
7721 æ'stuans *W.*	Hornbeam-lvd.		⊡	w	2	jn.jl	Y	S. Amer.	1731.	S	co	Jac. vind. 1. t. 85
7722 acutángulus *W.*	acute-angled	⚘	☐	w	3	jn.jl	Y	E. Indies	1816.	C	co	Plu phyt. t.44.f.1
7723 capsuláris *W.*	heart-leaved		⊡	w	1½	jn.jl	Y	E. Indies	1725.	C	l.p	Ru. am.5. t.78.f.1
7724 hirsútus *W.*	woolly-capsul'd	⚘	☐	w	1½	jn.jl	Y	S. Amer.	1752.	S	p.l	Jac. vind. 3. t. 57
7725 siliquósus *W.*	Germander-lv.	⚘	☐	un	3	jn.au	R	W. Indies	1732.	C	l.p	Jac. vind. 3. t. 59
1188. **GRI'AS** *W.*	ANCHOVY-PEAR.					*Guttiferis affinis.*	*Sp.* 1.					
7726 cauliflóra *W.*	stem-flowering	♠	☐	fr	50	...	W	Jamaica	1768.	C	l.m	Sl. hi.2.t.217.f 1,2
1189. **CALOPHYL'LUM.** *W.*	CALOPHYLLUM.					*Guttiferæ.*	*Sp* 2—9.					
7727 Inophýllum *W.*	sweet-scented	♠	☐	tm	90	...	W	E. Indies	1793.	C	s.l	Rhee. mal 4. t 38
7728 Cálaba *W.*	Calaba-tree	♠	☐	tm	30	...	W	India	1780.	C	s.l	Jac. amer. t. 165
1190. **MAMME'A.** *W.*	MAMMEE-TREE.					*Guttiferæ.*	*Sp.* 1—3.					
7729 americána *W.*	American	♠	☐	fr	60	...	W	S. Amer.	1737.	C	s.l	Ja. am. t.182.f.82



History, Use, Propagation, Culture,

1185. *Grewia.* So named by Linnæus, in honor of Nehemiah Grew, M. D., F. R. S., famous for his work on the Anatomy of Vegetables. The species are shrubs with elm-looking leaves, generally deciduous, and of no great beauty. Cuttings root in sand under a hand-glass in heat. Some of the kinds produce a sort of berry which is esteemed by the natives of the country where they grow.

1186. *Tilia.* A name the meaning of which is unexplained. *Tilleul*, Fr., *Linden*, Ger., and *Tiglio*, Ital. The species are graceful trees with highly odoriferous flowers, all the soft parts abounding in mucilage.

T. intermedia is wild in Sweden, and will in some degree bear the smoke of London. It is a favorite avenue tree in Holland and Germany, and at Evelyn's suggestions (Sylva) was a good deal employed in this way in England. He describes some enormous lime trees in Switzerland, Germany, and Hungary, and speaks of its esteem in these countries, and by the Romans. "It is a shameful negligence," he says, "that we are no better provided of nurseries, for a tree so choice and universally acceptable:" for in his time they sent into Holland and Flanders, to our excessive cost, whilst our own woods spontaneously produce them, and though of somewhat a smaller leaf, yet altogether as good, apt to be civilized, and made more florid.

Lime-tree wood is turned into light bowls and dishes, and into boxes for the apothecaries. With the twigs they make baskets and cradles. Formerly the bark was used for writing tablets. Shoemakers make dressers of the plank to cut leather on. The truncheons make a far better coal for gunpowder than that of alder itself, and also scriblets for painters' first draughts. The wood is soft, light, and smooth, close grained, and not subject to the worm. The most elegant use to which it is applied is for carving. Many of Gibbon's beautiful works in lime-tree are dispersed about the kingdom in our churches and palaces; as in the choir of St. Paul's, the Duke of Devonshire's at Chatsworth, Trinity College Library at Cambridge, &c. Evelyn first recommended him to King Charles II. The sap inspissated affords a quantity of sugar. Boutcher remarks, that the timber is stronger and lighter than any sort of willow; and makes a proper lining for rooms, and when painted will last long.

In Lincolnshire, in the forest of Dean, and in various parts of the borders of South Wales they make ropes of the bark. This, by maceration, separates into thin rough layers, and is used for making the mats used by gardeners, and called in the north of Europe bast. They form a considerable part of the exports from Russia. This quality in the bark, and a great degree of viscidity in the whole tree, evince its acknowledged affinity to the mallow tribe.

7703 Leaves lanc. ovate soft, Cal. very hairy, Pedunc. 3-flowered
7704 Leaves cordate ovate oblong crenated scabrous, Pedic. axillary 3-flowered, Fruit of 4 pieces
7705 Leaves ovate obl. acum. smooth nearly entire, Fl. terminal panicled
7706 Leaves roundish ovate blunt toothed smooth, Peduncles solitary 1-flowered
7707 Leaves ovate crenate rough on each side, Peduncles axillary 3-flowered
7708 Leaves ovate crenate rough thickish, Pedunc. 2-6-fl. axill. and term. Fruit pilose
7709 Leaves cordate roundish hoary beneath, Peduncles axillary about 4, longer than petiole
7710 Leaves cordate roundish smooth on each side, Peduncles shorter than petiole

* *Petals naked.*

7711 Lvs. cord. uneq. at base, Petioles and suckers hairy, Axill. of veins beneath beard. Fruit globose smooth
7712 Lvs. cord. acum. ser. smth. twice as long as stalks, Axill of veins beard. ben. Fr membr. obl. deform. 2 seed.
7713 Lvs. cord. round. acum. finely serr. smth. scarcely longer than stks. Ax. of veins ben beard. Fr. round very [thin & brittle
7714 Lvs. cord. round. acum. finely serr. a little downy ben. Fr. turb. woody with prominent ribs

** *Petals with a scale at base*

7715 Lvs. deeply cord. abruptly acum. finely serrated coriaceous smooth, Pet. trunc. at end cren. Fruit ov. ribbed

7716 Lvs. trunc. at base subcord. oblique dent. serr. pubescent beneath, Pet. emarginate, Fruit globose smooth
β Leaves thin deeply and rarely cut
7717 Lvs. cord. subacum. unequal at base serrated snow-white beneath smooth above, Fruit round with 5 ribs

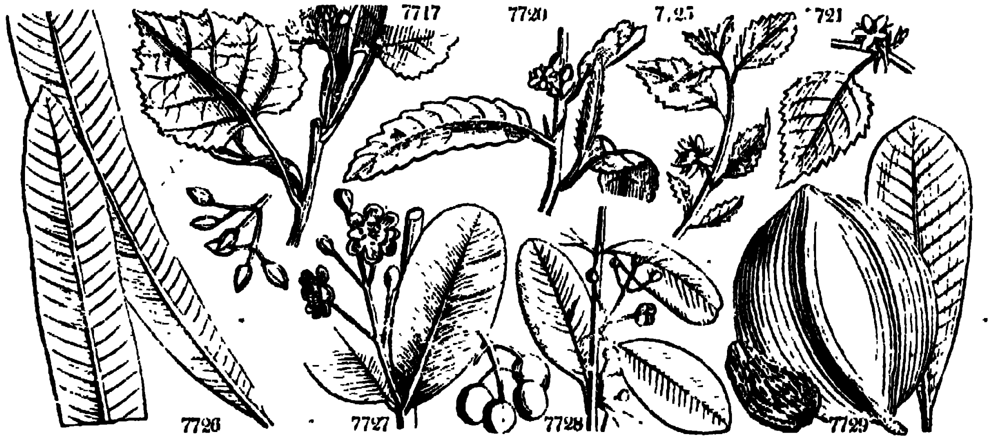
7718 Lvs. ov. downy beneath, at base either cordate or obliquely or equally truncate, Fruit round with 5 ribs

7719 Caps. obl. ventricose, Lowest serratures of leaves setaceous
7720 Caps. 3-celled 3-valved 3-cornered, Angles bifid scabrous, Leaves obl. Lowest serratures setaceous
7721 Caps. obl. 3-celled 3-valved 6-furrowed 6-pointed, Leaves cordate, Lowest serratures setaceous
7722 Caps. prismatical cuneate acutangular 5-toothed, Lvs ovate with about 1 seta at the base, Petioles hispid
7723 Caps. roundish depressed rugose, Lowest serratures of leaves setaceous
7724 Caps. roundish woolly, Leaves ovate obtuse downy equally serrated
7725 Caps. linear compressed 2-valved, Leaves lanceolate equally serrate

7726 Leaves 3 feet long obovate, Flowers growing out of the stem and old branches

7727 Leaves oval
7728 Leaves ovate obtuse

7729 Leaves very blunt striated, Peduncles short, Berries 4-seeded



and Miscellaneous Particulars.

The honey made from the flowers of the lime tree is reckoned the finest in the world. Near Kowno in Lithuania, there are large forests chiefly of this tree, and probably a distinct variety or species. The honey produced in these forests sells at more than double the price of any other, and is used exclusively in medicine and for mixing with liqueurs. (*Encyc. of Agric.; Poland and Hungary.*)

1187. *Corchorus.* Κορχορος, the Greek name of a culinary vegetable, supposed to be the same as that now known as C. olitorius. C. olitorius is sown in great plenty about Aleppo as a pot herb, the Jews boiling the leaves to eat with their meat, whence in French it is called *Mauve-de-Juif.* The other species are weeds.

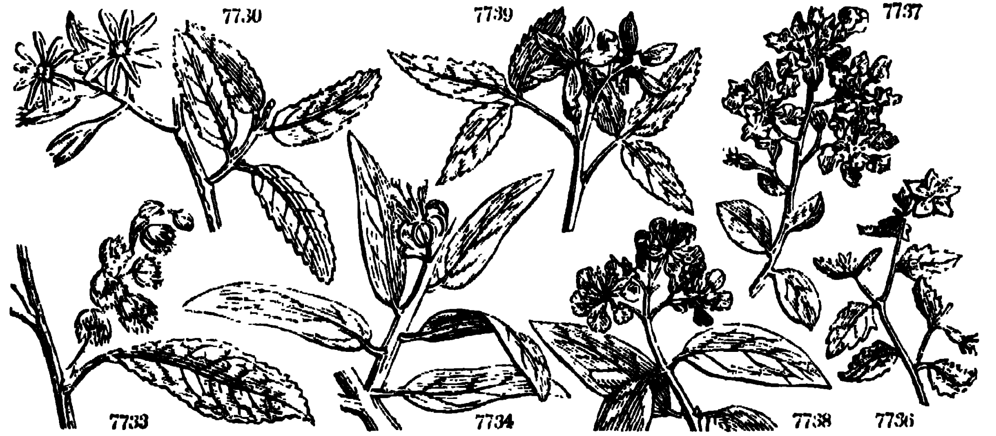
1188. *Grias.* From γραω, to eat. The fruit is eaten in the West Indies under the name of the Anchovy pear. The uprightness of the growth and the largeness of the leaves give this tree a very elegant appearance. The fruit is about the size of an alligator's egg, and much like it in shape, only a little more acute at one end, and of a brown russet color. It is frequent in many parts of Jamaica, and grows generally in low moist bottoms or shallow water, where the fruit is pickled and eaten in the same manner with the East Indian mango, which it exactly resembles in taste. It grows in a loamy soil, and large cuttings, Sweet observes, succeed best in the same soil under a hand-glass in heat.

1189. *Calophyllum.* From καλος, beautiful, and φυλλον, a leaf, on account of its large beautifully veined leaves. C. Inophyllum (*ις ινος*, fibre, because the middle nerve of the leaf seems to ramify into a multitude of fibres) is a very large tree, with leaves like a water lilly, snow-white fragrant flowers, and fruit like a walnut. The trunk when wounded exudes a viscid yellowish juice, frequently hardening to a gum. It is common in Malabar, in sandy soils, and bears fruit twice a year, in March and September, frequently to the age of three hundred years. An oil is expressed from the nuts to burn in lamps, to assuage pains, and to make ointments. The bark and gum is also used for medical purposes. In Java, &c. they plant this tree about their houses, for the elegance of the shade and the sweetness of the flowers.

C. Calaba (the name among the Caribs) branches from the ground upwards, and is therefore well adapted for tree hedges. It has a green fruit not unlike our cornelian cherry, which is eaten by the natives, and an oil is expressed from it for lamps. Both species grow freely in a light loamy soil, and ripe cuttings are readily struck in sand under a glass and plunged in heat. (*Sweet.*)

1190. *Mammea.* An alteration of its American name, *Mamey.* The name having some resemblance to the Latin word *mamma*, a teat, Linnæus attributed the derivation to that word, on account of the large fleshy pointed nature of its fruit. *Abricot-sauvage*, Fr. A handsome tree with a spreading elegant head, like those

1191.	**OCH'NA.** *W.*	Ochna.					*Ochnaceæ.* *Sp.* 2—11.						
7730	**obtusáta** *Dec.*	squarrose	●	☐	or	4	jl.au	Y	E. Indies	1790.	C	l.p	Roxb. cor 1. t.89
7731	**atropurpúrea** *Dec.*	purple-flower'd	●	⊔	or	4	...	Pu	C. G. H.	1816.	C	l.p	Plu. al. 263. f.1,2
1192.	**ELÆOCAR'PUS.** *W.*	Elæocarpus.					*Elæocarpeæ.* *Sp.* 2—10.						
7732	**serrátus** *W.*	saw-leaved	♀	☐	or	20	...	W	E. Indies	1774.	C	p.l	Burm. zeyl. t.40
7733	**cyáneus** *B. M.* *E. reticuláta* Smith.	blue-fruited	♀	⊔	or	10	jn.au	W	N. Holl.	1803.	C	p.l	Bot. mag. 1737
1193.	**ALAN'GIUM.** *J.*	Alangium.					*Myrtaceæ.* *Sp.* 1—2.						
7734	**decapétalum** *W.*	Sage-leaved	♀	☐	or	10	...	Pa.pu	E. Indies	1779.	C	p.l	Rhee.mal.4. t.17
1194.	**MENTZE'LIA.** *W.*	Mentzelia.					*Loaseæ.* *Sp.* 2—3.						
7735	**áspera** *W.*	rough		⊡	or	3	jl.au	Y	America	1733.	S	co	Plum. ic. 174. f.1
7736	**oligospérma** *Nutt.*	few-seeded	£	⊔△	or	2	my.jn	Y	Louisiana	1812.	D	s.l	Bot. mag. 1760
1195.	**LAGERSTRŒ'MIA.** *W.*	Lagerstrœmia.					*Salicariæ.* *Sp.* 2—7.						
7737	**indica** *W.*	Indian	●	☐	or	6	au.o	Pu	E. Indies	1759.	C	s.l	Bot. mag. 405
7738	**Reginæ** *W.*	oblong-leaved	●	☐	or	12	...	R	E. Indies	1792.	C	p.l	Roxb. cor. 1. t 65
1196.	**Æ'GLE.** *Correa.*	Bengal-Quince.					*Aurantiaceæ.* *Sp.* 1—2.						
7739	**Mármelos** *H. K.*	thorny	●	☐	fr	6	...		E. Indies	1759.	C	l	Rox. cor.2. t.143
1197	**CIS'TUS.** *J.*	Rock-Rose.					*Cistineæ.* *Sp.* 18—28.						
7740	**ladaniferus** *W.*	Gum-Cistus	●		or	4	jn.jl	W	Spain	1629.	C	s.p	Bot. mag. 112
	β planifólius	*Flat-leav.-Gum*	●		or	4	jn.jl	W	Spain	...	C	s.p	
7741	**monspeliénsis** *W.*	Montpelier	●		or	2	jn.jl	W	S. Europe	1656.	S	s.p	Jacq coll. 2 t 8
7742	**láxus** *W. en.*	waved-leaved	●		or	2	jn.jl	W	Spain	1656.	S	s.p	
7743	**hirsútus** *W. en.*	hairy	●		or	2	jn.jl	W	Portugal	1656.	S	s.p	
7744	**villósus** *W.*	villous	●		or	3	jn.jl	Pu	S. Europe	1640.	C	p.l	Duha.arb.1. t 64
7745	**populifólius** *W.*	Poplar-leaved	●		or	3	my.jn	W	Spain	1656.	C	s.p	Cav. ic. 3. t. 215
7746	**Corboriénsis** *P. S.*	small Poplar-lv.	●		or	1½	my.jn	W	Spain	1656.	C	s.p	
7747	**undulátus** *Dun.*	wavy	●		or	2	my.jn	Pu	......	...	C	s.p	
7748	**vaginátus** *W.*	oblong-leaved	●		or	2	ap.jn	Pa.pu	Teneriffe	1779.	C	p.l	Bot. reg. 225
7749	**críspus** *W.*	curled-leaved	●		or	2	jn.jl	Pu	Portugal	1656.	S	s.p	Cav. ic. 2. t. 174
7750	**salvifólius** *W.*	Sage-leaved	●		or	2	jn.jl	W	S. Europe	1548.	S	s.p	Jac. col. 2. t. 8
7751	**laurifólius** *W.*	Laurel-leaved	●		or	4	jn.jl	W	Spain	1731.	C	s.p	Clus. 1. p. 78 f. 1
7752	**heterophýllus** *P. S.*	various-leaved	●		or	2	jn.jl	Pu	Algiers	...	S	s.p	Desf. atl 1 t.104
7753	**incánus** *W.*	hoary	●		or	2	jn.au	Pu	S. Europe	1596	S	s.p	Bot. mag. 43
7754	**purpúreus** *P. S.*	purple	●		or	2	my.jl	Pu	......	...	C	p.l	Bot. reg. 408
7755	**créticus** *W.*	Cretan	●		or	1½	jn.au	Pu	Levant	1731.	C	p.l	Jac. ic. 1 t. 95
7756	**álbidus** *W.*	white-leaved	●		or	2	jn.jl	Pa.pu	Spain	1640.	S	s.p	Park. theat. f. 1
7757	**Lédon** *W.*	many-fl.-Gum	●		or	1	jl.au	W	France	1730.	C	s.p	Duha.arb.1. t.65



History, Use, Propagation, Culture,

of Magnolia grandiflora, and odoriferous white flowers on peduncles. The fruit is roundish, with a leathery rind, inclosing one thinner, containing a firm bright yellow pulp, having a pleasant singular taste, and a sweet aromatic smell; but the skin and seeds are very bitter and resinous. It is eaten raw alone, or cut in slices with wine or sugar, or preserved in sugar. In Martinico they distil the flowers with spirit, and make a liquor which they call Eau créole.

Some horticulturists are now attempting its culture in our stoves as a fruit tree. It grows freely in sandy loam, and ripened cuttings, with the leaves not shortened, root in sand under a hand-glass in heat. (*Sweet.*)

1191. *Ochna.* The Greek name of the wild pear tree, to which the genus so distinguished by Linnæus has no kind of resemblance. The species are pretty free-flowering plants, with shining serrated leaves, and long racemes of beautiful yellow flowers. They grow freely in loam and peat, and cuttings root readily in sand under a hand-glass.

1192. *Elæocarpus.* From ελαια, the olive, and καρπος, fruit, in allusion to the shape of its fruit. The stones cleaned from the pulp, and set in gold, are formed into necklaces. The species thrive in loam and peat, and cuttings root in sand under a hand-glass.

1193. *Alangium.* So denominated by Lamarck, from a slight alteration of one of its Malabar names, *Alangi.* It grows in light sandy soil, and cuttings root in sand under a hand-glass in moist heat. (*Sweet.*)

1194. *Mentzelia.* Named after Christian Mentzel, a Prussian, physician to the Elector of Brandenburg; he died in 1701. Curious plants related to Loasa.

1195. *Lagerstræmia.* So named by Linnæus from Magnus Lagerstroem, of Gottenburgh, director of the Swedish East India Company, who procured many curiosities from China, and gave them to the public. L. reginæ is a very handsome shrub: the flowers are in panicles, a span long, pale rose-colored in the morning, growing deeper through the day, and becoming purple in the evening. According to Sweet, this species is rather difficult to preserve through the winter; it requires a good heat, and but little water in winter; if it happens to have too much wet, it is a great chance if it survives: in summer it grows very fast, and requires plenty of room and water. Cuttings of both kinds root readily in sand, under a hand-glass. (*Bot. Cult.* 73)

1196. *Ægle.* Αιγλη was one of the Hesperides. Correa de Serra named the genus *Ægle* from the fruit having some resemblance to the orange. Sweet observes, that this plant likes a rich loamy soil. The wood

7730 Stigma capitate, Petals 8-10, Leaves obovate very blunt serrated
7731 Flowers solitary, Leaves ovate acutely toothed, Sepals ovate

7732 Leaves lanceolate ellipt. serrated, Racemes axillary
7733 Leaves obl. lanc. serrated netted, Racemes axillary clustered, Drupes blue

7734 Petals 10, Branches spiny

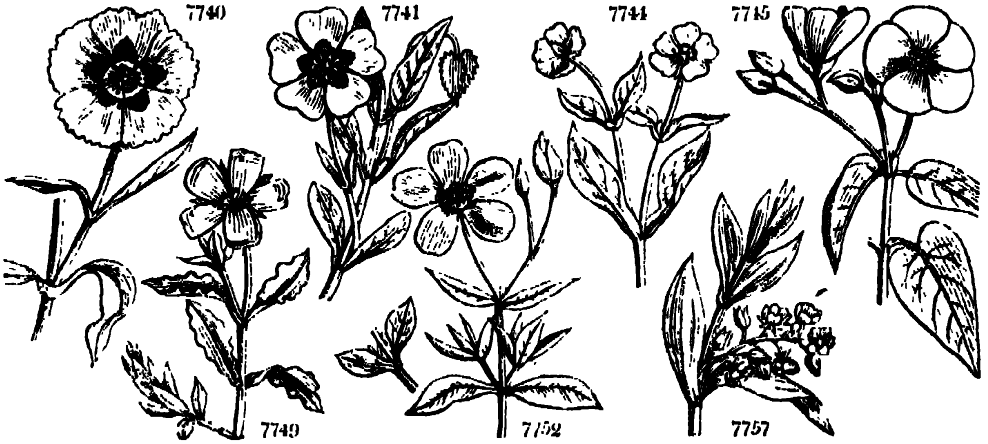
7735 Stem branched, Peduncles axillary, Petals crenate obtuse
7736 Stem branched, Peduncles axillary solitary, Petals acuminate. Fruit reflexed

7737 Petals crisp, Panicle terminal, Leaves roundish ovate acute smooth
7738 Petals wavy, Panicle terminal, Leaves oblong smooth

7739 Middle leaflet stalked, Fruit with 12 cells

7740 Leaves subsessile connate at base lin. lanc. smooth above downy beneath, Caps. 10-celled

7741 Leaves lin. lanc. sessile 3-nerved villous on each side, Pedunc. cymose 1-sided
7742 Leaves on short stalks ovate lanceolate acum. wavy at edge: the upper hairy, Cymes hirsute
7743 Lvs. sessile obl obt. hirsute, Pedunc. short 1-fl. or cymose, Caps. small in a large hairy pyramidal calyx
7744 Leaves roundish ovate rugose tomentose hairy stalked, Pedunc. 1-fl. 1-3 together, Calyx villous
7745 Leaves stalked cordate acuminate smooth, Fl cymose, Pedunc. with long bractes
7746 Leaves stalked cordate ovate acuminate fringed at edge rugose and a little glutinous on each side
7747 Leaves sessile linear oblong acute wavy at edge 3-nerved at base, Sepals villous with long points
7748 Lvs lanc. acute 3-nerv. hairy reticul. beneath stalked, Stalks sheathing the stem with their connate bases
7749 Leaves sessile linear lanceolate waved crisp 3 nerved rugose pubescent, Fl. sessile umbelled
7750 Leaves stalked ovate blunt rugose downy beneath, Pedunc. long hoary 1-flowered
7751 Leaves stalked ovate lanc. 3-nerved smooth above downy beneath, Petioles dilated and united at base
7752 Lvs. ovate lanc. on short stalks sheathing at base revolute at edge, Pedunc. hirsute leafy 1-flowered
7753 Leaves spatulate toment. rugose 3-nerved sessile subconnate: the upper narrower, Pedunc. 1-flowered
7754 Leaves obl. lanc. acuminate at each end rugose, Stalks short hairy sheathing, Pedunc. short 1-2-3
7755 Leaves spatulate ovate downy hairy narrowed into a short stalk wavy at edge, Pedunc. short 1-flowered
7756 Leaves sessile obl. ellipt. hoary downy about 3-nerved, Fl. 3-8 in terminal umbels, Outer sepals largest
7757 Lvs. conn. obl lanc. nerv. above smooth and shin. beneath silky, Fl in corymb. cymes, Ped. and cal. vill.



and Miscellaneous Particulars.

requires to be ripened before the cuttings are taken off; then to be planted in a pot of sand without shortening the leaves, and to be plunged under a *hand-glass* in heat.

1197. *Cistus.* Κιστος, in Greek; derived from κιστη, a box, or capsule The capsules of the genus are remarkable. All these words have been formed from the Anglo Saxon, *cyst*, which signifies a hollow vessel.

The species are for the most part shewy and free-flowering plants; the colors brilliant, and the petals very fugacious In gardens they are rather difficult to keep in a neat shape, getting naked below, and often dying wholly or in part during severe winters. They succeed best in glass cases, which can be entirely removed in summer, or in a dry soil under a warm wall.

C. villosus has a strong woody stem, the flowers are produced at the ends of the branches, four or five together, almost in form of an umbel, but it rarely happens that more than one is open at the same time. The petals are large, purple, and spread open like a *rose*; they are but of short duration, generally falling off the same day they expand; but there is a succession of fresh flowers every day for a considerable time in May and June; generally again in September and October, if the autumn be favorable, and even in the winter if the plants be protected from frosts.

C. ledon and ladaniferus produce the gum ladanum, but not in such quantities as C. creticus. The resin, which is secreted from the leaves and other parts of the shrub, is scraped off by means of a kind of rake, to which numerous leathern thongs are appended instead of teeth This instrument being drawn backwards and forwards over the plant from time to time, collects the resin. The chief use of this gum in modern practice is in fumigations, its fragrant smell having made it a constant ingredient in such preparations C. ladaniferus is the most popular species for warm situations in ornamental scenery.

"Most of the species," Sweet observes, "will survive through the winter in the open air, if the weather be not too severe; but it is safest to keep some of all the kinds in pots, that they may be sheltered from severe frosts; and they can be turned out in the borders in spring, when they will thrive and flower well. They will succeed in any common soil, or a mixture of loam and peat will suit them very well. They may be increased by layers; or young cuttings, as soon as ripened, taken off at a joint, and planted under a hand-glass, will root readily: they may be also raised from seeds, which are produced in abundance." (*Bot. Cult.* 168.)

1198 HELIAN'THEMUM. *J.* Sun-Rose. *Cistineæ.* *Sp* 48—124.

7758	Libanótis *W.*	Rosemary-lvd	♄	⊔	or	1	jn	Y	Spain	1752.	C	p.l	Barr. ic. 294
7759	umbellátum *P. S*	umbel-flower'd	♄	⊔	or	2	jn.au	W	S. Europe	1731.	C	p.l	
7760	scabrósum *P. S.*	rough	♄	⊔	or	3	jn.jl	Y	Italy	1775.	C	p.l	
7761	algarvense *Dun.*	Algarvine	♄	⊔	or	3	jl.au	Y	Portugal	1800.	C	p.l	Bot. mag. 627
7762	formósum *Dun.*	beautiful	♄	⊔	or	3	my.jl	Y	Portugal	1780.	C	p.l	Bot. mag. 264
7763	atriplicifólium *P S.*	Orache-leaved	♄	⊔	or	6	jn.jl	Y	Spain	1656.	C	p.l	Barr. ic. 292
7764	halimifólium *P. S.*	Sea-Pursl.-lvd.	♄	⊔	or	4	jn.jl	Y	Spain	1656.	C	p.l	Cav. ic. 2. t. 138
7765	canadénse *P S*	Canadian	♃	△	or	1	jn.jl	Y	N. Amer.	1799.	S	s.l	
7766	Tuberária *P S*	Plantain-leav'd	♃	△	or	¾	jn jl	W	S. Europe	1752.	S	s.p	Cav. ic. 1. t. 67
7767	guttátum *P. S.*	spotted-flower.		○	or	½	jn.jl	Y	England	san.pa.	D	s.l	Eng. bot. 544
7768	ledifólium *P S*	Ledum-leaved		○	or	½	jn.jl	Y	England	san.pa.	S	s.l	Eng. bot. 2414
7769	ægyptiacum *P S.*	Egyptian		○	or	¾	jn.jl	W	Egypt	1764.	S	s.l	Jac. obs. 3. t. 68
7770	salicifólium *P S.*	Willow-leaved		○	or	4	jn.au	Y	S. Europe	1759.	S	s.p	Cav. ic. 2. t. 144
7771	punctátum *P. S*	punctated		○	or	½	jn.jl	Y	S. France	1816.	S	s.l	
7772	canariénse *P S*	Canary	ɭ	⊔	or	1½	jn jl	Y	Canaries	1790.	C	p.l	Jac. ic. 1. t. 97
7773	Fumána *P. S*	Heath-leaved	♄	⊔	or	1	jn.jl	Y	France	1752.	S	s.p	Jac. aust. 3. t. 252
7774	læ'vipes *P S*	cluster-leaved	♄	⊔	or	1½	jn.au	Y	France	1690.	S	s.p	Bot mag. 1782
7775	Barrelieri *Tenore*	Barrelier's	♄	⊔	or	1	jn.au	Y	Italy	1820.	S	s.p	Bot. mag. 2371
7776	glutinósum *P. S.*	clammy	♄	⊔	or	2	my.s	Y	S. Europe	1790.	C	p.l	Cav. ic. 2. t. 145. f. 2
7777	origanifólium *P. S*	Marjoram-lvd.	♄	⊔	or	2	jn.jl	Y	Spain	1795.	C	s.p	Cav. ic. 3. t. 262
7778	œlandicum *P. S.*	smooth-leaved	ɭ		or	¾	jn.jl	Y	Germany	1816.	S	s.p	Jac. aust. t. 399
7779	itálicum *P. S.*	Italian	♄	⊔	or	2	jl s	Y	Italy	1799.	C	s.p	Barr. rar. t. 366
7780	cánum *W. en*	hoary	ɭ	⊔	or	¾	jn jl	Y	S. Europe	1772.	C	p.l	Al. ped. 2. t. 45. f. 3
7781	marifólium *P. S.*	Marum-leaved	ɭ		or	½	my.jn	Y	Britain	al.roc.	C	s.p	Eng. bot. 396
7782	squamátum *P. S.*	scaly	♄	⊔	or	2	jn.jl	Y	Spain	1815.	C	s.l	Cav. ic. 2. t. 139
7783	glaúcum *P. S.*	glaucous-leav'd	♄		or	2	jn.au	Y	Spain	1815.	C	s.l	Cav. ic. 2. t. 261
7784	tomentósum *Smith.*	tomentose	ɭ		or	¾	jl.au	Y	Scotland	sc.alp.	C	s.l	Eng. bot. 2208
7785	serpyllifólium *P. S.*	Wild Thyme-lv.	ɭ		or	½	my.s	Y	Austria	1731.	C	p.l	
7786	vulgáre *P. S.*	common-dwarf	ɭ		or	½	my.s	Y	Britain	gra.ban.	C	s.l	Eng. bot. 1321
	β *flore pleno*	*double-flowered*	ɭ		or	½	my.s	Y	......	...	C	s.l	
7787	nummulárium *P. S.*	Moneywort-lv.	ɭ		or	½	jn au	Y	Spain	1752.	C	s.l	Cav. ic. 2. t. 142
7788	surrejánum *P. S.*	dotted-leaved	ɭ		or	¾	jl.o	Y	England	ch.hil.	C	s.l	Eng. bot. 2207
7789	sampsucifólium *Cav.*	bristly-stalked	ɭ		or	¾	jn.jl	W	France	...	C	p l	Bot. mag. 1803
7790	elongátum *P. S.*	long-peduncled	♄	⊔	or	2	jl	Y	Spain	1800.	C	p l	
7791	serrátum *P. S.*	saw-petalled		○	or	½	jn.jl	Y	Spain	1804.	D	s.p	Cav. ic. 2. t. 175. f. 1
7792	hirtum *P. S*	bristly-calyxed	♄	⊔	or	1	jn jl	Y	Spain	1759.	C	s.l	Barrel. rar. t. 488
7793	pulveruléntum *P. S.*	powdered	ɭ		or	¾	jn.jl	W	France	...	C	s.l	
7794	aúreum *P. S.*	golden	ɭ		or	¾	jn.au	Y	Montpelier	...	C	s.l	
7795	thymifólium *P. S.*	Thyme-leaved	ɭ	⊔	or	½	jn.jl	Y	Spain	1658.	C	s l	Barrel ic. 144
7796	lavandulæfólium *P. S.*	Lavender-leav.	♄	⊔	or	2	jn jl	Y	Levant	1739.	C	s.l	Jac. ic. 1. t. 96
7797	angustifólium *P. S.*	narrow-leaved	ɭ		or	¾	jn.jl	Y	......	1800.	C	s.l	Jac. hort. 3. t. 53
7798	mutábile *P S*	changeable	♄		or	¾	jn.jl	R v	France	1795.	C	s l	Jac. ic. 1. t. 99
7799	polifólium *P. S.*	white-mount.	ɭ		or	½	my.jl	W	England	downs.	C	s.p	Eng. bot. 1322
7800	appenninum *P. S*	Apennine	♄		or	2	jn au	W	Italy	1731.	C	s.p	Tabern. ic. 1062
7801	pilósum *P. S.*	hairy	♄	⊔	or	1½	jn.au	W	S Europe	1731.	C	s.l	Al. pe. 2. t. 45. f. 1, 2
7802	grandiflórum *P. S.*	large-flowered	ɭ		or	1	jn.jl	Y	Italy	1800.	C	s.p	Scop carn. t. 25
7803	róseum *P. S.*	Rose-colored	ɭ		or	½	jn.au	Pk	S. Europe	...	C	s.p	Jac. hort. 3. t. 65
7804	cróceum *P. S*	Saffron-colored	ɭ		or	¾	jn.au	Y	Spain	...	C	s.l	Desf. atl. 2. t. 110
7805	sulphúreum *W. en.*	Sulphur-color'd	ɭ		or	¾	jn jl	P.v	Spain	1815.	C	s.l	

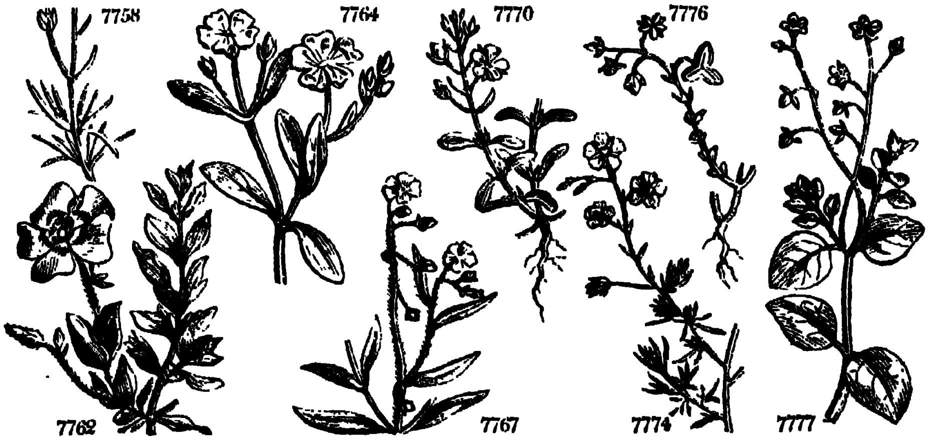
DIGYNIA.

1199. BAUE'RA. *H. K.* Bauera. *Cunoniaceæ.* *Sp.* 1.

7806	rubiæfólia *H. K.*	Madder-leaved	♄	⊔	pr	1½	jl.d	Pk	N. S. W.	1793.	C	s.p	Bot. mag. 715

1200. FOTHERGIL'LA. *W.* Fothergilla. *Hamamelideæ.* *Sp.* 4.

7807	alnifólia *W.*	obtuse-leaved	♣		or	4	ap jn	W	N. Amer.	1765.	L	s.p	Bot. mag. 1341
7808	májor *B. M.*	large-leaved	♣		or	4	my.jn	W	N. Amer.	1765.	L	s.p	Bot mag. 1342
7809	Gardéni *Jac.*	acute-leaved	♣		or	4	my.jn	W	N. Amer.	1765.	L	s p	Jac. ic. 1. t. 100
7810	serotína *B. M.*	green-leaved	♣		or	4	au	W	N. Amer.	1765.	L	s.p	



History, Use, Propagation, Culture,

1198. *Helianthemum.* From ἡλιος, the sun, and ανθος, flower, in allusion to the bright golden radiance of the blossoms. This is a shewy free-flowering genus of little trailing plants, mostly ligneous, and well adapted for rock-work. A number of them answer best kept in pots, and sheltered by frames during winter; but some are quite hardy, and none are more ornamental than the H. vulgare, and its varieties with orange, yellow, straw-colored, red, and double flowers. It is one of the handsomest plants in cultivation for rock-work. All the species are of easy culture in light soil, and cuttings root freely under a hand-glass.

1199. *Bauera.* Named after Francis and Ferdinand Bauer, German botanical draughtsmen of the highest

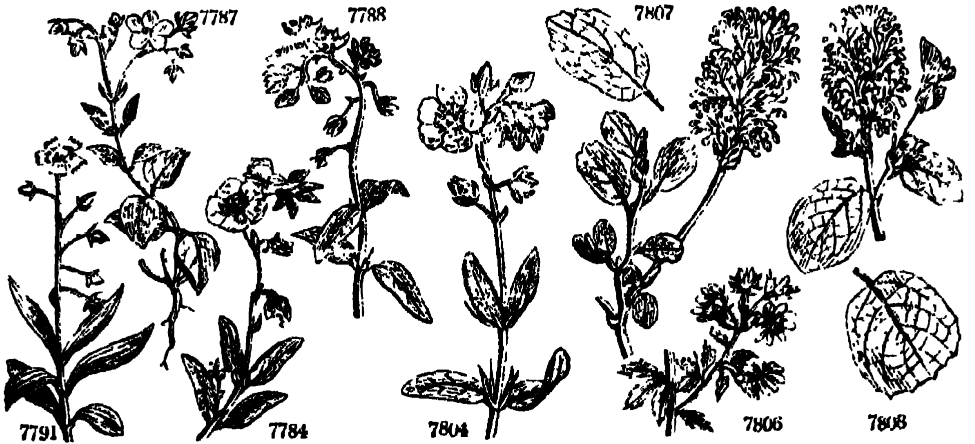
7758 Stem nearly smooth, Lvs. sess. lin. revol. at edge brownish green above hoary beneath, Fl. sol. Sep. shining
7759 Young shoots visc. with downy hairs, Lvs. sess. lin obl. viscid downy beneath, Fl. in term. umb. Sep. villous
7760 Branches hairy rough hoary, Lvs. sess. atten. at base green above ash-colored beneath, Ped. shorter than
7761 Leaves sessile hoary ovate-lanc. Pedunc. panic. hairy, Sepals 3 acute hairy [leaves, Cal. hairy
7762 Branches villous, Leaves obov. lanc. hoary, Pedunc. and cal. villous, Sepals 3
7763 Branches white with scales, Leaves broad ovate blunt wavy at base silvery on each side, Cal. hairy
7764 Branches white with scales upwards, Lvs. stalked ovate-obl. Pedunc. long brached paniel. Sepals 5 scaly
7765 Branches hairy, Lvs obl. lanc. acute hairy pale beneath, Pedunc. hairy 1-fl. Capsule shorter than calyx
7766 Stems nearly simple, Radical leaves stalked ov. obl. 3-nerved hairy, Ped. panic. few, Cal. smooth shining
7767 Stem hairy, Leaves sess. obl. lin. 3-nerved villous, Racemes lax without bractes, Ped. filiform naked
7768 Stem nearly smooth, Lvs. obl. ellipt. toothl Fl opp with stipules, Ped. erect smooth shorter than calyx
7769 Lvs. on short stalks lin. obl. narr. rev. at edge, Stip. lin. subulate, Pedunc. filif. pubescent, Calyx inflated
7770 Branches hairy, Leaves obov. obl. acute toothletted, Stip. lin. obl. Pedunc. and cal. hairy
7771 Leaves obl. 3-5-nerved rough with short stellate hairs, Racemes long pubescent cinereous few-flowered
7772 Branches hoary, Leaves stalked opp and alternate blunt glauc. Stipules subulate, Raceme term. erect
7773 Stem tortuose, Leaves altern. lin rough at edge subinvolute, Pedunc. sol. 1-fl. Caps naked
7774 Leaves setaceous glaucous nearly smooth, Stip filiform long, Pedunc. racemose, Calyx hairy
7775 Branches villous, Leaves lin. obl. pubesc. Stip. lin. subul mucron. erect, Pedunc. racemose glutinous
7776 Branches villous glutinous, Leaves lin. vill. glut. ash-colored, Stipules long lax, Pedunc. and cal. villous
7777 Leaves stalked ovate hairy on each side, Racemes short term. Pet. scarcely larger than calyx
7778 Leaves lanc. ellipt. blunt green on each side, Racemes simple few-fl. Cal. subglobose ovate
7779 Branches simple long, Leaves pilose hispid : lower ovate ; upper lanc. Racemes simple hairy hoary
7780 Leaves oblong hairy green above hoary beneath, Racemes simple, Pedic. and cal. hoary
7781 Leaves without stipules stalked ovate cordate, Racemes simple solitary few-flowered terminal
7782 Branches silvery with scales, Leaves stalked obl. blunt silvery with small stipules, Cal. scaly
7783 Branches ascend. hoary, Leaves downy glaucous : the lower round ; upper ellipt. Stip. and bractes green
7784 Leaves lanc. ovate hoary beneath green above, Calyx furrowed with elevated hairy nerves
7785 Leaves obl. ellipt. hoary beneath deep green shining above, Calyx hoary : its nerves with a few hairs
7786 Leaves scarcely revol. at edge hoary beneath, green and hairy above : lower round ; upper obl. Rac. lax

7787 Lower leaves round : upper obl. lin. hairy green beneath, Racemes and calyxes hairy
7788 Leaves obov. obl. somewhat hairy, Racemes few-fl. term. Pet. narrow lanceolate
7789 Leaves ovate-obl. keeled sessile, Peduncles long branched panicled, Stipules O
7790 Stipules O, Leaves lanc. hoary hairy beneath, Pedunc. long 2-leaved and racemose, Calyxes hairy
7791 Leaves opp lanc. 3-nerved hairy viscid, Radical obovate, Racemes without bractes, Petals serrated
7792 Leaves obovate obl. revolute at edge downy hairy hoary beneath, Calxes very hirsute white
7793 Leaves obl linear glaucous above hoary beneath, Cal. hoary minutely pubescent, Branches hoary
7794 Leaves lin. obl. revolute at edge hoary on each side, Calyxes very hirsute white
7795 Leaves lin. very short pubescent opp Stip. mucronate erect, Pedunc. villous few-flowered
7796 Leaves oblong lin. revolute at edge the younger hoary on each side, Calyxes glaucous, Sepals ciliated
7797 Leaves short stalked lin oblong hispid above, Racemes lax, Calyx with deciduous hairs
7798 Leaves flat ovate obl. acute smooth above beneath finely downy, Cal striated smoothish
7799 Leaves obl. ovate obt. flat beneath hoary above smooth green, Cal. striated smooth shining
7800 Leaves stalked obl. lin downy beneath glaucous above, Cal. shortly hairy striated glaucous obtuse
7801 Leaves linear hoary on each side setose at end, Stipules subulate, Cal. hairy nerved striated
7802 Upper leaves flat obl. hairy, Stipules ciliated longer than stalk, Fl. large, Calyxes hairy
7803 Leaves ovate lanc. a little downy on each side, Stipules linear, Ped and cal. pilose hirsute
7804 Leaves downy hoary beneath glaucous above revolute at edge, Calyxes yellowish glaucous
7805 Leaves narrow lanc. flat with stellate pubescence on each side, Raceme terminal few-flowered

DIGYNIA.

7806 The only species

7807 Leaves cuneate obovate upwards crenate toothed
7808 Leaves ovate-oblong cordate at base, upwards crenate toothed
7809 Leaves ovate acute nearly entire
7810 Leaves oblong acute crenate-toothed upwards, green beneath



and Miscellaneous Particulars.

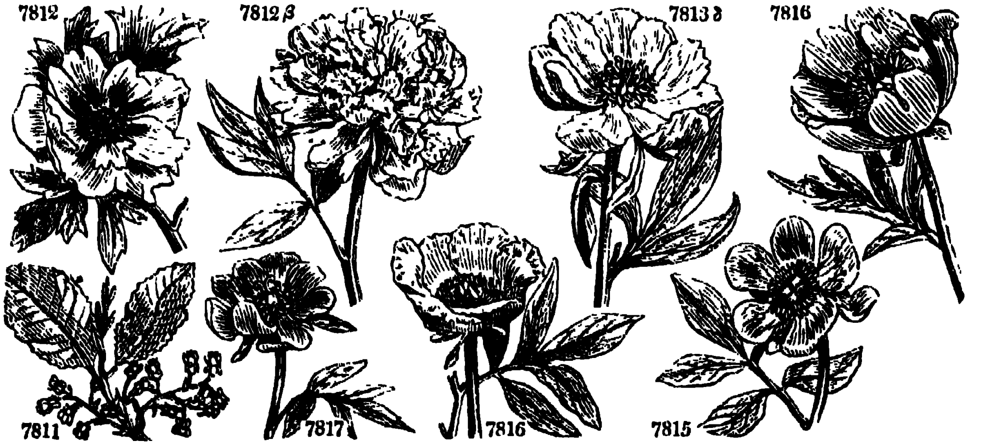
celebrity. Nothing comparable to their works has ever appeared from any other hand. The species is a hardy free-flowering plant, of easy culture in sandy loam and peat, and cuttings root in the same soil under a glass.

1200 *Fothergilla.* In memory of John Fothergill, M. D., an eminent physician and patron of botany, who cultivated a variety of the most curious plants in his garden near London. The species are dwarf deciduous shrubs, of easy culture in light soil or peat, and generally increased by layers.

1201. CURATEL'LA. *W.*	CURATELLA.					*Dilleniaceæ.*		*Sp.* 1—2.				
7811 americána *W.*	American	♣	□	or	8	...	W	S. Amer.	...	L	s.p	Aub. gui. 1. t.232
1202. PÆO'NIA. *W.*	PÆONY.					*Ranunculaceæ.*		*Sp.* 15—17.				
7812 Moután *H. K.*	Chinese tree	♣		or	3	ap.jn	Pu	China	1789.	C	p.l	Bot. rep. 373. 448
α papaveràcea	*Poppy-flowered*	♣		or	3	ap.jn	W	China	1789.	C	p.l	Bot. cab. 547
β Banksiæ	*common*	♣		or	3	ap.jn	Pu	China	1789.	C	p.l	Bot. mag. 1154
γ rósea	*Rose colored*	♣		or	3	ap.jn	Pk	China	...	C	p.l	Bot. cab. 1035
7813 albiflóra *Pall.*	eatable-rooted	✱	△	or	2	my.jn	W	Siberia	1784.	R	s.l	Bot. m. 1756. 2888
β tatárica	*Tartarian*	✱	△	or	2	my.jn	W	Siberia	...	R	s.l	
γ sibírica	*Siberian*	✱	△	or	2	my.jn	W	Siberia	...	R	s.l	
δ rubéscens	*blush-colored*	✱	△	or	2	my.jn	Pk	Siberia	1784.	R	s.l	Bot. reg. 42
ε uniflóra	*single-flowered*	✱	△	or	2	my.jn	W	Siberia	...	R	s.l	
ζ Whitleji	*double-white*	✱	△	or	2	my.jn	W	China	1784.	R	s.l	Bot. rep. 612
η Humei	*double-crimson*	✱	△	or	2	my.jn	R	China	1784.	R	s.l	Bot. mag. 1768
θ frágrans	*Rose-scented*	✱	△	or	2	my.jn	R	China	1784.	R	s.l	Hort. trans. c ic.
7814 daúrica *H. K.*	Daurian	✱	△	or	3	my.jn	Pu	Siberia	1790.	R	s.l	Bot. mag. 1441
7815 corállina *W.*	entire-leaved	✱	△	or	4	my.jn	R	England	...	R	s.l	Eng. bot. 1513
7816 officinális *W.*	common	✱	△	or	3	my.jn	R	Switzerl.	[illegible]	R	s.l	Bot. mag. 1784
β rósea	*Rose-colored*	✱	△	or	3	my.jn	R	......	...	R	s.l	
γ blánda	*blush*	✱	△	or	3	my.jn	Pk	......	...	R	s.l	
δ rúbra	*double-red*	✱	△	or	3	my.jn	R	......	...	R	s.l	
ε carnéscens	*flesh-colored*	✱	△	or	3	my.jn	W	......	...	R	s.l	
ζ álbicans	*whitish*	✱	△	or	3	my.jn	W	......	...	R	s.l	
η lobáta Dec.	*lobed*	✱	△	or	3	my.jn	R	......	1823.	R	s.l	
7817 peregrína *H. K.*	Turkish	✱	△	or	2	my.jn	D.Pu	Levant	1629.	R	s.l	Bot. mag. 1050
β compácta	*compact*	✱	△	or	2	my.jn	Pu	......	...	R	s.l	
γ Grevillii	*Greville's*	✱	△	or	2	my.jn	Pu	......	...	R	s.l	
7818 crética *Lindl.*	early pink	✱	△	or	2	my.jn	Pk	Candia	...	R	s.l	Bot. reg. 819
7819 paradóxa *And.*	paradoxical	✱	△	or	2	my.jn	Pu	Levant	...	R	s.l	
β fimbriáta	*double-fringed*	✱	△	or	3	my.jn	Pu	......	...	R	s.l	Sweet fl. gard. 19
7820 móllis *And.*	soft	✱	△	or	1½	my.jn	Pu	......	...	R		
7821 arietína *And*	Anderson's	✱	△	or	2	my.jn	Pu	......	...	R		
7822 decóra *And.*	comely	✱	△	or	2	my.jn	Pu	......	...	R		
α Pallásii	*Pallas's*	✱	△	or	2	my.jn	Pu	......	...	R	s.l	
β elátior	*tall*	✱	△	or	2	my.jn	Pu	......	...	R	s.l	
7823 húmilis *W.*	dwarf	✱	△	or	2	my	Pu	Spain	1633.	R	s.l	Bot. mag. 1422
7824 anómala *W.* *laciniata* Pall. ross 2. t. 85	jagged-leaved	✱	△	or	2	my.jn	Pk	Siberia	1788.	R	s.l	Bot. mag. 1754
7825 hýbrida *W.*	mule	✱	△	or	2	my.jn	R	Siberia	1788	R	s.l	Pall. ross. 2. t.86
7826 tenuifólia *W.*	fine-leaved	✱	△	or	3	my.jn	R	Siberia	1765.	R	s.l	Bot. mag. 926

TRIGYNIA.

1203. HIBBER'TIA. *H. K*	HIBBERTIA.					*Dilleniaceæ*		*Sp.* 3—10.				
7827 volúbilis *B. Rep.*	twining	§	⊔	or	4	my.o	Y	N. S. W.	1790	C	s.p	Bot. rep 126
7828 grossulariæfólia *Sal.*	Gooseberry-lvd	⚘	⊔	or	2	mr.au	Y	N. Holl	1803.	C	s.p	Bot. mag. 1218
7829 dentáta *R. Br*	toothed	§	⊔	or	3	...	Y	N. Holl	1816.	C	s.p	Bot. reg. 282
1204. DELPHI'NIUM *W.*	LARKSPUR.					*Ranunculaceæ.*		*Sp.* 26—53.				
7830 chinénse *Fisch*	Chinese	⚘	△	or	2	s.o	Pu	Tartary	1819.	S	p.l	Bot. cab. 71
7831 ambiguum *W.*	doubtful		○	or	3	jl.au	B	Barbary	1759	S	p.l	
7832 consólida *W.*	field		○	or	4	jn.jl	B	England	san fi.	S	r.m	Eng. bot. 1839
7833 cuneátum *Stev.*	wedge-shaped	⚘	△	or	4	jn.jl	B	Siberia	1816.	D	co	Bot. reg. 327
7834 Ajácis *W*	Rocket		○	or	2	jn.jl	Pk	Switzerl.	1573.	S	r.m	
7835 aconíti *W.*	Aconite-like	⚘	◎	or	1	jn.jl	Pu	Levant	1801.	S	p.l	Vahl. sym. 1. t. 13
7836 peregrínum *W* *D. junceum* Dec.	broad-lvd -ann.		○	or	1	jn.jl	B	Italy	1629.	S	p.l	Al ped. 2. t. 25. f. 3
7837 grandiflórum *W.*	great-flowered	⚘	△	or	1½	jn.s	D.B	Siberia	1741.	D	p.l	Bot. mag. 1686
γ flore-pléno	*double-flowered*	⚘	△	or	2	jn.s	D.B	......	...	D	p.l	



History, Use, Propagation, Culture,

1201. *Curatella.* From *curatus*, worked; a name given by Aublet to the genus, because the leaves, which have a rough surface, are used in Guyana for polishing bows, sabres, and other weapons. A small tree with rough leaves, which grows well in sandy loam; cuttings root in sand under a glass.

1202. *Pæonia.* The physician Pæon was the first to use this in medicine. The Greek legend adds, that he used it to cure Pluto of a wound inflicted by Hercules. The species are magnificent flowering plants, especially P. officinalis and moutan, with their numerous varieties. P. moutan and its different varieties are hardy enough to bear our winters in the open air; but they do not flower in such perfection as when planted out in a conservatory, or in a pit where they may be protected from the severe frost under glass: they will thrive well in any rich light soil; and ripened cuttings, slipped off, and planted in the ground, in a shady place, without cover, will root freely. (*Bot. Cult.* 234.)

P. edulis has a more slender stem than the common Pæony. The Daurians and Mongols boil the root in

7811 Leaves ovate subrepand toothletted rough

7812 Segments of leaves ovate obl. glaucous beneath

7813 Capsules smooth recurved, Segm. of leaves smooth shining 3-parted with ovate lanceolate lobes

7814 Capsules downy erect, Segm. of leaves glaucous beneath smooth somewhat lobed with blunt obovate lobes
7815 Capsules downy, Segm. of leaves ovate entire smooth
7816 Capsules downy nearly straight, Segments of leaves unequally cut smooth, Lobes ovate-lanceolate

7817 Caps. downy erect, Segm. of leaves 3-parted cut and entire ovate-lanc. flat hairy beneath

7818 Leaves somewhat shining blistered coriaceous glaucous and downy beneath, Ovaries woolly spreading
7819 Caps. downy straight, Segm. of leaves many-parted blunt somewhat wavy glaucous beneath hairy

7820 Caps. downy straight, Segm. of leaves oval-lanc. flat lobed imbricated beneath carnous hairy
7821 Caps. downy arcuate spreading, Segm. of lvs. 3-lobed and pinnatifid decurrent ovate-obl flat hairy beneath
7822 Caps. pubescent spreading, Segm. of leaves 3-parted oblong blunt hairy beneath

7823 Caps. somewhat pilose nearly erect, Segm. of leaves 3-5-parted villous beneath, Lobes obl. entire
7824 Caps. 5 smooth depressed blunt, Segm. of leaves smooth pinnated, Lobes lanc. acuminate

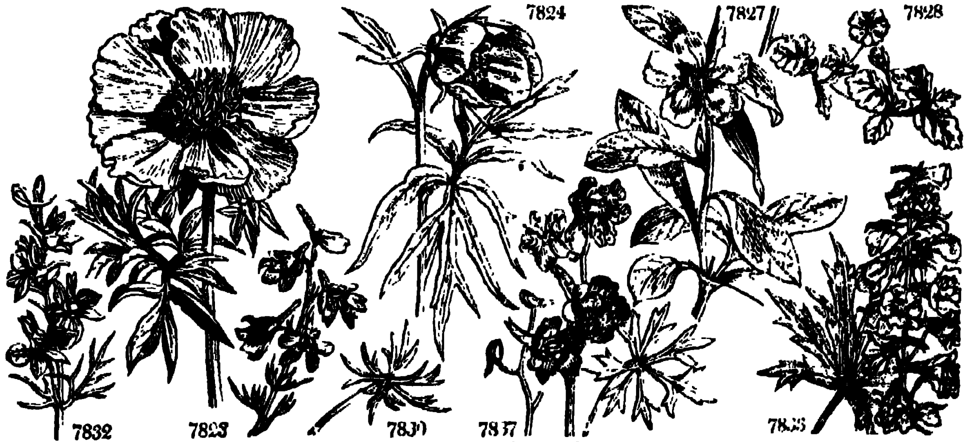
7825 Caps. pubescent, Segments of leaves smooth many-parted, Lobes linear
7826 Caps. downy spreading, Segm. of leaves smooth many parted, Lobes linear

TRIGYNIA.

7827 Leaves obovate lanc. nearly entire mucronate pubescent beneath, Flowers sessile, Stem twining
7828 Leaves roundish crenate toothed, Fl. stalked opp to the leaves, Stems procumbent
7829 Leaves obl. acum. smooth with awned serratures, Fl. stalked trigynous

7830 Like D. grandiflorum, from which it differs in having a more rigid stem, and a later time for flowering
7831 Stem erect velvety, Lvs. 3-5-part. Lobes pinnatifid, Racemes lax, Spur straight pubesc. shorter than cal.
7832 Stem suberect smth with spread. branches, Fls. few loosely racem. Ped. long. than bractes, Caps. smooth
7833 Petioles not dilated at base, Lvs cun at base 5-7-lob. Lobes cut acute, Raceme lax branch. Calyxes smooth
7834 Stem erect smoothish nearly simple, Branches much covered with fls. Ped. length of bractes, Caps. pubesc.
7835 Stem erect branch. subpub. Lvs. pedate multifid, Ped. very long, Spur incurv. at end horiz. divid. upwards
7836 Stem erect much branch. Lvs. smooth rigid: low. multifid, Branc. and bractes lin ent. Rac. lax. Pet. stalk.

7837 Leaves palmate many-parted, Lobes linear distant, Pedicels longer than bract, Pet. shorter than calyx



and Miscellaneous Particulars.

their broth, and grind the seeds and put them into their tea. P. officinalis was by old authors said to be of two sorts, male and female, the flowers of the former being smaller and lighter colored than those of the latter. These distinctions, however, were not indicative of sexual difference, the paeony being hermaphrodite, but merely of stronger and weaker growing varieties, according to the practice of the age. Now they are laid aside, the varieties reduced to seven or eight, of which a full account is given in the Horticultural Transactions (vol. ii. 273.). Of these, the double red, the most common, when introduced at Antwerp about the end of the sixteenth century, sold for twelve crowns a root. A useful account of the species and varieties has been published by Messrs. Anderson and Sabine, in the transactions of the Linnean Society.

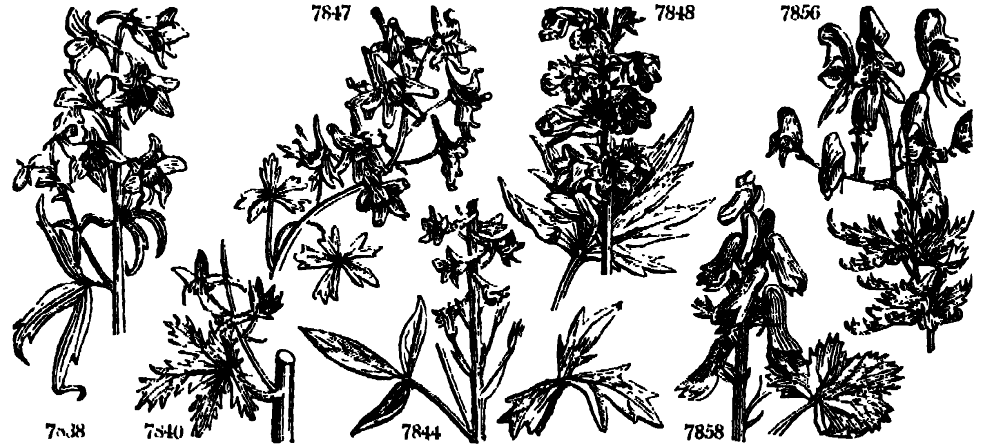
1203. *Hibbertia.* Named after George Hibbert, Esq. who was once a distinguished English collector of plants. Twining or trailing plants of New Holland, with bright yellow flowers.

1204. *Delphinium.* From δελφιν, a dolphin, on account of the resemblance between the nectary of the

7838 cheilánthum *Fisch.*	Doroninsk	♃	△	or	2	jn	D.B	Siberia	1819.	D	p.l	Bot. reg. 478
7839 intermédium *W.*	palmated Bee	♃	△	or	8	jl	B	Silesia	1710.	D	p.l	Mill. ic. t. 119
7840 elátum *W.*	common Bee	♃	△	or	6	jn.s	B	Siberia	1597.	D	p.l	Sch. han.2. t.145
montanum Dec.												
7841 revolútum *Desf.*	revolute	♃	△	or	6	jn.s	P.B	......	...	D	p.l	
7842 hýbridum *W.*	hairy	♃	△	or	3	jn.s	B	Siberia	1794.	D	p.l	
hirsútum P. S.												
7843 mesoleúcum *Link.*	white-eyed	♃	△	or	3	jn.jl	B.y	......	1822.	D	p.l	
7844 exaltátum *W.*	American	♃	△	or	3	jl.au	B	N. Amer.	1758.	D	p.l	Mill. ic. t.250. f.2
7845 azúreum *Ph.*	azure	♃	△	or	6	jl.au	L.B	Carolina	1805.	D	p.l	
7846 dictyocárpum *Dec.*	netted-capsuled	♃	△	or	4	jn.jl	B	Siberia	1817.	D	p.l	
7847 tricórne *Ph.*	three-horned	♃	△	or	¾	jl.au	B	N. Amer.	1806.	D	p.l	Bot. cab. 306
7848 urceolátum *W.*	hollow-leaved	♃	△	or	2	jl.au	B	......	1801.	D	p.l	Bot. mag. 1791
7849 flexuósum *Bieb.*	wavy	♃	△	or	2	jl.au	B	Caucasus	1820.	D	p.l	
7850 ochroleúcum *Stev*	pale-yellow	♃	△	or	2	jn.jl	W	Iberia	1823.	D	p.l	
7851 laxiflórum *Dec.*	loose-flowered	♃	△	or	3	jn jl	B	Siberia	...	D	p.l	
7852 puníceum *W.*	scarlet-flowered	♃	△	or	4	jl	R	Siberia	1785.	D	p.l	
7853 staphiságria *W. en.*	Stavesacre		○	or	2	ap.au	L.B	S. Europe	1596.	S	s.p	Woodv. t. 154
7854 píctum *W. en.*	panicled	♃	◑	or	1½	ap au	L.B	S. Europe	1816.	S	s.p	
7855 Requiénii *Dec.*	Requien's	♃	◑	or	4	my.jn	L.B	Majorca	1824.	S	co	
1205 ACONI'TUM. *W.*	WOLF'S-BANE						*Ranunculaceæ.*	*Sp.* 20—22.				
7856 paniculátum *Lam.*	panicled	♃	△	or	3	jn.s	Pa.B	France	1815.	D	co	Bot. cab. 810
7857 ochroleúcum *W.*	pale-white	♃	△	or	3	jn s	L.Y	Caucasus	1794.	D	co	Bot. mag 2570
7858 lycóctonum *W.*	great-yellow	♃	△	or	3	jl.au	Y	Al. of Eur.	1596.	D	co	Jac.aust. 4. t.380
7859 japónicum *W*	Japan	♃	△	or	6	jn s	B	Japan	1790.	D	co	
7860 variegátum *W.*	variegated	♃	△	or	5	jn.au	P.W	S. Europe	1597.	D	co	
7861 An'thora *W.*	wholesome	♃	△	or	1½	jn.au	P.Y	Pyrenees	1596.	D	co	Jac.aust. 4. t.382
7862 pyrenáicum *W.*	Pyrenean	♃	△	or	4	jn.jl	Y	Pyrenees	1739.	D	co	
7863 versícolor *Stev.*	many-colored	♃	△	or	3	jn.s	B.y	Siberia	1820.	D	co	Bot. cab. 794
7864 septentrionále *W.*	northern	♃	△	or	4	jl au	B	N. Europe	1800.	D	co	Fl. dan. t. 123
7865 álbum *W.*	white	♃	△	or	4	jl.au	W	Levant	1752.	D	co	
7866 cam'marum *W.*	rostrate	♃	△	or	3	jn.s	Pu	Switzerl.	1752.	D	co	Bot. cab. 203
rostratum Bernh.												
7867 tortuósum *W. en.*	twisting	♃	△	or	6	jl.au	P B	......	1812.	D	co	
7868 neomontánum *W.*	mountain	♃	△	or	3	jl.au	B	Europe	1799.	D	co	Barr. ic. t. 610
7869 speciósum *Otto.*	shewy	♃	△	or	3	jl au	B	......	1823.	D	co	
7870 barbátum *P. S.*	hairy	♃	△	or	2	jn jl	P.Y	Siberia	1807.	D	co	
7871 biflórum *Fisch.*	two-flowered	♃	△	or	½	jn jl	P.B	Siberia	1817.	D	co	
7872 Napéllus *W.*	Monk's-hood	♃	△	pr	4	my jl	B	Europe	1596.	D	co	
7873 taúricum *W.*	Taurian	♃	△	or	4	jn.jl	B	Tauria	1752.	D	co	Jac. ic. 3. t. 492
7874 volúbile *W*	twining	♃	△	or	6	jl.au	B	Siberia	1799	D	co	
7875 uncinátum *W.*	American	♃	△	or	2	jl.au	B	N. Amer.	1768.	D	co	Bot. mag. 1119

PENTAGYNIA.

1206. TRACHYTEL'LA. *Dec*	TRACHYTELLA.						*Dilleniaceæ.*	*Sp.* 1—2.			
7876 Actæ'a *Dec*	rough-leaved	♄	▭	cu	6	...	W	China	1823.	C	p.l



History, Use, Propagation, Culture,

plant and the imaginary figures of the dolphin. The species are shewy annuals or perennials, valuable as border flowers. The leaves are generally much divided, and the flowers in terminal spikes, blue, purple, or red; never yellow or any shade of that color.

D. consolida, (from *consolidare*, to unite; it being formerly reputed as a most powerful vulnerary,) *Pied d'Allouette*, Fr., *Rittersporn*, Ger., is a shewy annual, with blue, pink, purple, and white flowers, and semi-double and double. D. Ajacis, so called because some traces may be perceived in the flower of what may be likened to the letters AIA, is by some considered as only a variety of this species: both are universally grown as border annuals. D. elatum is well adapted for shrubberies. All the species are of the easiest culture. The species are extremely difficult to distinguish from each other, and are probably in many cases mere varieties.

1205. *Aconitum.* So called from growing about Acona, a town of Bithynia. The species are robust free-flowering plants of some beauty and consequence. The stems rise from two to six feet in height, upright, strong, furnished with many digitate or palmate leaves, and terminated by panicles or loose spikes of blue or yellow flowers.

A. Napellus, from *napus*, a turnip, its grumous roots resembling little turnips, is a well known poisonous plant. Linnæus says, that it is fatal to kine and goats, especially when they come fresh to it, and are not acquainted with the plant; but that it does no injury to horses, who eat it only when dry. He also relates (from the Stockholm Acts) that an ignorant surgeon prescribed the leaves, and on the patient refusing to take them, he took them himself and died. The ancients, who were acquainted with chemical poisons, regarded the Aconite as the most violent of all poisons. Some persons only by taking in the effluvia of the herb in full flower by the nostrils, have been seized with swooning fits, and have lost their sight for two or three days.

7838 Stem erect branch. Lvs. 5-part. Lobes obl. acumin. Pet. shorter than cal. Caps. netted with color pubescent
7839 Petioles not dilat. at base, Lvs. cord. 5-7-fid : up. 3-lobed, Lobes cut serr. Ped. bract. cal. and ovaries smooth
7840 Petioles not dilated at base, Leaves downy 5-lobed, Lobes cuneate at base trifid cut, Spur inflexed

7841 Petioles not dilated at base, Lvs. orbicular cord. 5-fid, Lobes cut acute deflexed, Bractes 3, Ovaries smooth
7842 Petioles sheathing at base, Lvs. many-part. with lin. lobes, Raceme close, Spur straight longer than flower

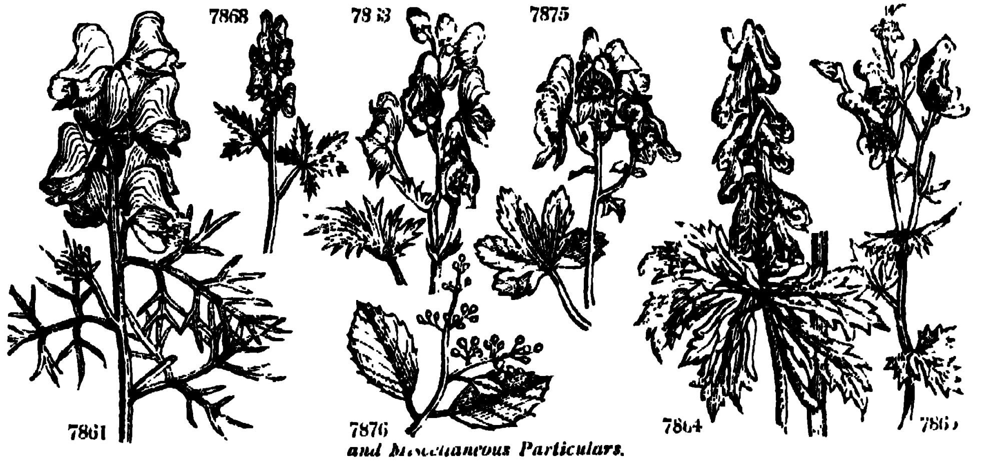
7843 Lvs. somewhat dilated at base, Segm cuneiform serr. cut in front, Stem upwards and peduncles pubescent
7844 Petioles not dilated at base, Lvs. flat trifid beyond the middle, Lobes cuneiform trifid at the end acuminate
7845 Pet. scar. dilat. at base, Lvs. 3-5-part. multif. with lin. lobes, Rac. straight, Pet. beard. at end : low. very vill.
7846 Pet. scar. dilat. at base, Lvs. 3-7-lob Lobes obl. ac. cut pinnatifid : up. 3-part Caps. nett. at keel and edge cil.
7847 Pet. smth. but scar. sheath. at base, Lvs. 5-par. Lobes 3-5-fid lin. Pet. sh. than cal. Caps. refl. from their base
7848 Petioles not dilated at base, Leaves concave beyond the middle trifid, Lobes cuneiform cut acuminate at end
7849 Petio. not dilat. at base, Lvs. 5-lob. with cut lobes, Stem flexu. and petioles hairy, Bractes lin. Caps. smooth
7850 Petioles sheathing at base, Lvs. many-par. with lin. subul. segm. Fl. pubesc. Spur acute longer than flowers
7851 Pet. not dilat. at base, Lvs. 3-7-lob. with obl. ac. cut pinnat. lobes, Rac. lax branch. Bractes and ovaries pub.
7852 Petioles sheathing at base, Lvs. many-parted in lin. lobes, Rac. long, Spur straight blunt longer than pedicel
7853 Spur very short, Bracteoles inserted at base of pedicel, Petioles hairy, Pedicels twice as long as flower
7854 Spur scarcely shorter than cal. Bracteoles inserted at base of pedicel, Petioles pubesc. Pedic. scarcely longer
7855 Spur nearly as long as calyx, Bractes inserted in the middle of pedicel, Petioles hairy [than flower

7856 Pan. divaricating, Branches tortuose, Helmet conical half circular, Spur short thick spiral [at end
7857 Fl. spiked or panic. numerous, Lvs. deeply 3-5-lobed with cuneate trifid lobes, Spur slender straight curv.
7858 Helmet conical cylindric. Spur slender spirally twisted, Lip divaricating, Lvs. palm. 3-5-lob. beyond middle
7859 Veiny smooth, Pan. smoothish with ascend. branches, Bag of hoods very large ventric. Spur thick subinvol.
7860 Pan. divaricating very smooth, Branches tortuose, Spur thick somewhat spiral, Lobes of leaves rhomboid
7861 Fls. panic. Sep. and pet. persist. Bag of hoods scarcely any, Spur thick spiral, Lvs. multif. with lin. ac. segm.
7862 All over densely pubesc. Lvs. very large palmate 3-5-lobed beyond middle pubesc. Helmet conical cylindr.
7863 Like Anthera, but flowers smoothish variegated with a low subconical helmet [compressed
7864 Like Lycoctonum, but flowers panicled, Stem peduncles and flowers villous, Ovaries smooth or hairy
7865 Ovaries 4-5, Helmet conical with a long claw, Rac. lax simple, Lvs. 3-5-parted with trifid toothed lobes
7866 Pan. lax, Helmet conical elongated abruptly mucronate in front, Spur thick spiral, Ovaries 3-5

7867 Pan. lax, Branches 1-4-fl. Spur thick long abruptly kneed, Bags of hoods inflated, Ovaries 3-5 smooth
7868 Ovaries 3 smooth, Raceme lax corymbose, Ped. smooth, Helmet very convex subconical
7869 Pan lax, Helmet exactly conical, Spur very thick blunt very short, Bag of the hoods very large
7870 Fl. panic. Helmet conical, Spur thick blunt very short. Lvs. deeply lobed with narrow diverging segments
7871 Stem very short, Low. lvs few on long stalks 5-part. with palm. segm. Hoods hook blunt, Ovaries 3 villous
7872 Ovaries 3 smooth, Raceme cylindric. long, Leaves divided down to petiole with linear acute furrowed lobes
7873 Ovaries 3 smooth, Rac. cylindr. long very compact, Pedicels smooth shorter than bractes, Lvs. subpedate
7874 Stem twining with spreading hairs, Petioles ciliated, Leaves 3-5-parted with pinnatifid lobes, Ovaries 5-7
7875 Pan. lax, Branches diverging, Helmet exactly conical, Leaves 3-lobed with entire lobes, Ovaries villous

PENTAGYNIA.

7876 Leaves very rough toothed



and Miscellaneous Particulars.

But the root is unquestionably the most powerful part of the plant. Matthiolus relates, that a criminal was put to death by taking one dram of it. Dodonæus gives us an instance, recent in his time, of five persons at Antwerp, who ate the root by mistake, and all died. Dr. Turner also mentions, that some Frenchmen at the same place, eating the shoots of this plant for those of masterwort, all died in the course of two days, except two players, who quickly evacuated all that they had taken by vomit. We have an account, in the Philosophical Transactions, of a man who was poisoned, in the year 1732, by eating some of this plant in a salad, instead of celery. Dr. Willis also, in his work De Anima Brutorum, gives an instance of a man who died in a few hours, by eating the tender leaves of this plant also in a salad. He was seized with all the symptoms of mania. The Aconite, thus invested with terrors, has, however, been so far subdued, as to become a powerful remedy in some of the most troublesome disorders incident to the human frame. Baron Stoerck led the way by administering it in violent pains of the side and joints, in glandulous scirrhi, tumours, ulcerous tubercles of the breast, &c. to the quantity of from ten to thirty grains in a dose, of an extract, the method of making which he describes.

Willdenow and the Dublin College consider that the plant used by Stoerck was the A. neomontanum, in which opinion Mr. Thomson agrees in his London Dispensatory.

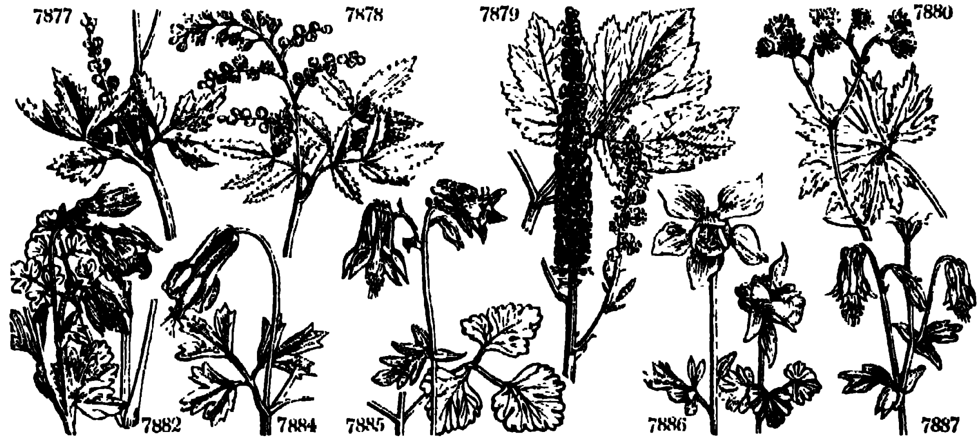
All the species are poisonous in a high degree. The limits of the species are extremely obscure, and in a very unsettled state; Decandolle in his Systema, increased the number at that time known, but in his Prodromus many of the species of the Systema are considered mere varieties. Dr. Reichenbach has, however, multiplied the species prodigiously, but with little reason.

1206. *Trachytella.* From τραχυτης, roughness. These are climbing shrubs with racemose white flowers, and hard rough leaves, which are used in China for polishing metals and hard wood.

1207.	**CIMICI'FUGA.** *Ph.*	BUGWORT.					*Ranunculaceæ.*		*Sp.* 4—6.				
7877	Serpentária *Ph.* *Actæa racemosa* W.	Black Snakeroot	♃	△	m	3	jn.jl	W.Y	N. Amer.	1732.	D	l.p	Dill.elt.t.67.f.78
7878	fœ'tida *W.*	stinking	♃	△	m	4	jn jl	L.Y	Siberia	1777.	D	p.l	Lam. ill. 487
7879	cordifólia *Ph.*	heart-leaved	♃	△	cu	3	jn.jl	W.Y	N. Amer.	1812.	D	p.l	Bot. mag. 2069
7880	palmáta *Ph.*	palmated	♃	△	cu	4	jl.au	W.Y	N. Amer.	1812.	D	p.l	Bot. mag. 1630
1208.	**AQUILE'GIA.** *W.*	COLUMBINE.					*Ranunculaceæ.*		*Sp.* 8—13.				
7881	viscósa *W.*	clammy	♃	△	or	1½	my.jn	Pu	Montpel.	1752.	D	co	Goua. ill.t.19.f.1
7882	vulgáris *W.*	common	♃	△	or	2	my.jl	B	Britain	fields.	D	co	Eng. bot. 297
	β flore pleno	*double-flowered*	♃	△	or	2	my.jl	B	......	...	D	co	
7883	glandulósa *Fisch.*	glandular	♃	△	or	1½	my.jl	W.B	Siberia	1822.	D	co	
7884	viridiflóra *Pall.*	green-flowered	♃	△	or	1½	my.jl	G.Y	Siberia	1780.	D	co	Jacq. ic. 1. t. 102
7885	bicolor *P. S.* *hýbrida* B. M.	two-colored	♃	△	or	2	my.jl	Pu	Siberia	...	D	co	Bot. mag. 1221
7886	alpína *W.*	Alpine	♃	△	or	1	my.jn	B.G	Switzerl.	1731	D	co	Bot. cab. 657
7887	canadénsis *W.*	Canadian	♃	△	or	1	ap.my	R.O	N. Amer.	1640.	D	s.p	Bot. mag. 246
7888	atropurpúrea *W. en*	dark-purple	♃	△	or	1	my.jn	Pu	Siberia	...	D	s.p	Bot. reg. 922
1209.	**NIGEL'LA.** *W.*	FENNEL-FLOWER.					*Ranunculaceæ.*		*Sp.* 6—11.				
7889	damascéna *W.*	common		○	or	2	jn.s	L.B	S. Europe	1570.	S	co	Bot. mag. 22
7890	coarctáta	dwarf		○	or	½	jn.s	W.G	S. Europe	1793.	S	co	
7891	sativa *W.*	small		○	or	1½	jn.s	L.B	Egypt	1548.	S	s.l	Zorn. ic. 119
7892	arvénsis *W.*	field		○	w	1½	jn.s	W.G	Germany	1683.	S	s.l	Sch. han.2. t.146
7893	hispánica *W.*	Spanish		○	or	1½	jn.s	B.W	Spain	1629.	S	s.l	Bot. mag. 1265
7894	orientális *W.*	yellow		○	or	1½	jn.s	Y	Syria	1699.	S	s.l	Bot. mag. 1264
1210.	**REAUMU'RIA.** *W.*	REAUMURIA.					*Ficoideæ.*		*Sp.* 1.				
7895	hypericoides *W.* *linifólia* P. L.	Hypericum-like	♄	⊔	pr	2	jl.o	Pu	Syria	1800.	L	s.p	Bot. reg. 845
1211.	**COLBER'TIA.** *Salisb.*	COLBERTIA.					*Dilleniaceæ.*		*Sp.* 1.				
7896	coromandelíána *Sal.*	Coromandel	♄	□	or	15	mr.ap	Y	Coroman.	1803.	L	p.l	Roxb. cor. t. 20
1212.	**TETRA'CERA.** *L.*	TETRACERA.					*Dilleniaceæ.*		*Sp* 1—23.				
7897	potatória *Afz.*	Water Vine	♄	□	or	20	...	...	S. Leone	1822.	L	p.l	

POLYGYNIA.

1213.	**NELUM'BIUM.** *J.*	SACRED-BEAN.					*Nymphæaceæ.*		*Sp*				
7898	speciósum *W.*	Indian	♃	⊠	or		jn au	Pk	India	1787	R	m.s	Bot. mag. 903
	β cas'picum Fisch	*Caspian*	♃	⊠	or		...	Pk	Casp. Sea	1822	R	m.s	
7899	lúteum *W.*	yellow-flowered	♃	⊠	or		...	Y	Carolina	1810.	R	m.s	



History, Use, Propagation, Culture,

1207. *Cimicifuga.* From *cimex*, a bug, and *fugo*, to drive away, indicating certain virtues a species is supposed to possess. The C. serpentaria is used with success by the native practitioners in North America, for curing the dangerous bite of the rattlesnake. Tall, leafy, herbaceous plants, with the appearance of Actæa.

1208. *Aquilegia.* From *aquila*, an eagle; the inverted spurs of the flower have been likened to the talons of a bird of prey. The species are smooth-leaved, handsome-flowered plants. A. vulgaris is an old inhabitant of the flower border: the whole plant has been recommended to be used medicinally, but it belongs to a suspicious natural order, and Linnæus affirms, that children have lost their lives by it. A. alpina is the handsomest species.

1209. *Nigella.* From *niger*, black, because of the color of the seeds, which are the part of the plant known in cookery. The species are curious or neat little plants, with fine cut leaves like fennel. N. damascena and sativa are sown as hardy annual flowers; and on the continent, the leaves and seeds of the latter species and N. arvensis, are used in cookery instead of more expensive aromatics. They are also said to be extensively used in the adulteration of pepper.

1210. *Reaumuria.* So named by Hasselquist, in honor of René A. F. de Reaumur, author of several entomological works; Histoire des Insectes, &c. He died in 1757. A small cæsious plant, bearing an abundance of bright lilac flowers.

1211. *Colbertia.* Named by Mr. Salisbury after the famous Colbert, a patron of the Paris garden, who destroyed with his own hands the vines which had been planted therein in lieu of more curious objects. A fine plant, with leaves like those of Dillenia speciosa.

1212. *Tetracera.* From *τετρα*, four, and *κερας*, a horn, because of its four capsules recurved like as many horns. Shrubs or small trees, which are often climbers with alternate stalked naked leaves, often rough above. The flowers are panicled or racemose. The leaves are remarkable as an exemplification of that mode of nervation which M. Decandolle calls feather-nerving.

1213. *Nelumbium.* This is called in Ceylon *Nelumbo.* Sir James Smith proposed to call the genus by the more classical name of *Cyamus*, but it has been remarked, that it remains to be proved that the holy *κυαμος*, was this plant. N speciosum is a native both of the East and West Indies, China, Cochin-China, and Japan, 7877 Monogynous, Racemes very long, Caps. dry dehiscent, Leaves biternate with serrate or cut segments

7878 Ovaries 4 subsessile very vill. Racemes panicled, Lvs. ternate or biternate, Segm. ovate-lanc. cut toothed
7879 Ovaries 2-3 smooth sessile, Racemes panicled, Leaves biternate, Segments cordate at base
7880 Ovaries 12-15 in a roundish head, Racemes dichotomous panicled, Leaves palmate

◆

7881 Spurs incurved, Caps. vill. Stem few or 1-fl. Lvs. covered with viscid down, Styles not longer than stamens
7882 Spurs incurved, Caps. villous, Stem leafy many-fl. Leaves nearly smooth, Styles not longer than stamens

7883 Spurs incurved twice as short as petals, Upper part of the plant and capsules covered with glandular hairs
7884 Spurs straight longer than limb, Stam. as long as petals, Styles long, Petals oval obl. shorter than petals
7885 Spurs straight longer than very blunt limb, Styles scarcely longer than stamens and petals, Sepals acute the length of petals
7886 Spurs straight somewhat incurved at end twice as short as limb of petals, Stem 2-3-fl. leafy, Lvs. finely cut
7887 Spurs straight, Styles and stamens exserted, Sepals acute a little longer than petals, Segm. of leaves 3-parted
7888 Spurs straight as long as limb, Styles and stamens as long as sepals, Sepals the length of petals

7889 Anthers blunt, Caps. 5 smooth 2-cell. united as far as end into an ovate globose one, Fls. in a leafy involucre
7890 Anthers blunt, Flowers in an involucre, Sepals erect conniving
7891 Anthers blunt, Caps. muricate, Stem erect hairy, Flowers naked
7892 Anthers pointed, Styles 5-7 revolute, Capsules and stem smooth, Branches diverging
7893 Anthers pointed, Styles 8-10 erect, Caps. smooth 1-nerved at back, Stem erect smooth, Branches erect
7894 Caps. 5-10 smooth erect, Styles straight

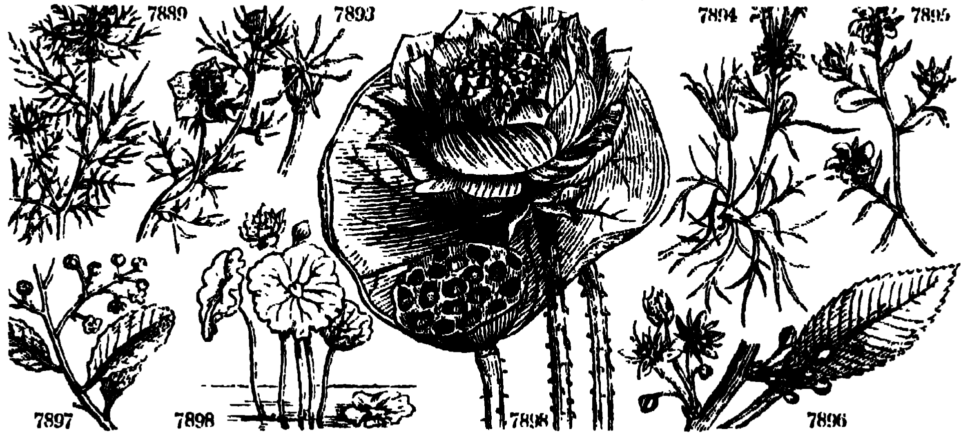
7895 A low shrub, with narrow glaucous leaves

7896 Leaves smooth 10-nerved 1-1½ foot long 6 inches broad

7897 Lvs. oval-obl. blunt or nearly acute smooth roughish above somewhat toothed at end, Pedunc. panicled [pubescent

POLYGYNIA.

7898 Petals many, Anthers lengthened beyond the cells into a clavate appendage
β Inner petals scarcely smaller than the outer, blunt
7899 Petals many, Anthers lengthened beyond the cells into a linear appendage



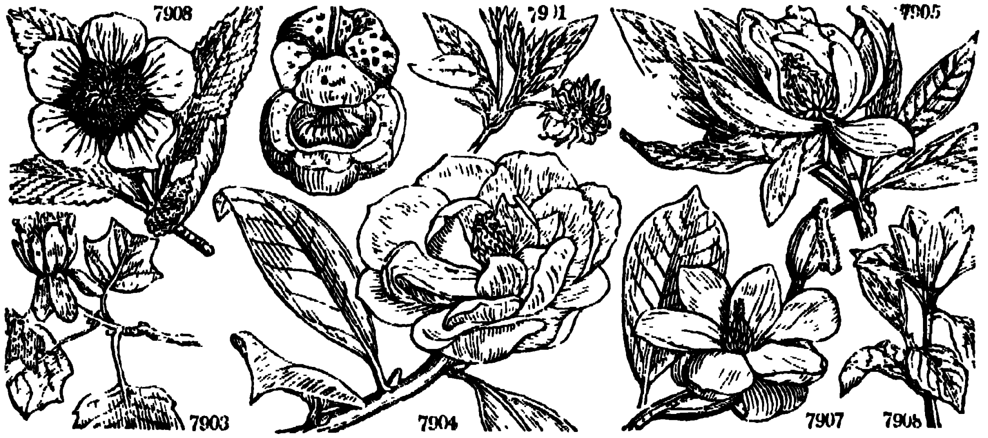
and Miscellaneous Particulars.

Persia, and some parts of the Russian empire. Thunberg informs us, that it is considered as a sacred plant in Japan, and pleasing to their deities, and that the images of their idols were often drawn sitting on its large leaves. The long stalks are there eaten among other potherbs. Loureiro relates, that it abounds in muddy marshes in India and China, and is cultivated in large handsome pots in the gardens and houses of the mandarins; that there is a variety with the flower of a pure white, and another with a very beautiful luxuriant flower, having about one hundred large petals, white or rose-colored. Both root and seeds are esculent, sapid and wholesome. In China it is called Lien-wha, and the seeds and slices of the hairy root, with the kernels of apricots and walnuts, and alternate layers of ice, were frequently presented to the British ambassador and his suite at breakfasts given by some of the principal mandarins. The Chinese have always held this plant in such high value, that at length they regarded it as sacred. That character, however, has not limited it to merely ornamental purposes; for the roots are not only served up in summer with ice, but they are also laid up in salt and vinegar for the winter. The seeds are somewhat of the size and form of an acorn, and of a taste more delicate than that of almonds. The ponds are generally covered with it, and exhibit a very beautiful appearance, when it is in flower; and the flowers are no less fragrant than handsome.

Sir George Staunton remarks, that the leaf, besides its common uses, has, from its structure, growing entirely round the stalk, the advantage of defending the flower and fruit arising from its centre from contact with the water, which might injure them. He also remarks, that the stem never fails to ascend in the water from whatever depth, unless in case of a sudden inundation, until it attains the surface, when its leaf expands, rests, and swims upon it, and sometimes rises above it. This plant bears the rigorous cold of the Pekin winter, though it is reared with difficulty in European stoves. It often grows spontaneously in China, and is propagated in the open air with ease both by the seed and root. The Chinese distinguish many varieties of it.

From the root of the Nelumbo, Sir George Staunton says, the Egyptians are supposed to have prepared their Colocasia, but the plant is now no longer found in that country; from which circumstance some naturalists infer, that it never was indigenous there, but cultivated by the inhabitants with extreme care. The ancient Romans made repeated efforts to raise it among them, from seeds brought out of Egypt; and the

1214. **DILLE'NIA.** *W.*	Dillenia.					*Dilleniaceæ.*		*Sp.* 1—9.				
7900 speciósa *W.*	large-flowered	♀	□	tm	30	...	Y	E. Indies	1800.	C	p.l	Ex. bot. 1. t. 2, 3
1215. **ILLI'CIUM.** *W.*	Aniseed-Tree.					*Magnoliaceæ.*		*Sp.* 2—3.				
7901 floridánum *W.*	red-flowered	♣	⌋	or	8	ap.jn	R	Florida	1766.	L	s.p	Bot. mag. 439
7902 parviflórum *W.*	yellow-flowered	♣	⌋	or	6	my.jn	Y	Florida	1790.	L	p.l	Vent. cels. 22
1216. **LIRIODEN'DRON.** *W.*	Tulip-tree.					*Magnoliaceæ.*		*Sp.* 1.				
7903 tulipifera *W.*	common	¥		or	60	jn.jl	Y.R	N. Amer.	1663.	S	s.l	Bot. mag. 275
β obtusiloba	*obtuse-lobed*	¥		or	60	jn.jl	Y.R	Pensylv.	1663.	S	s.l	
1217. **MAGNO'LIA.** *W.*	Magnolia					*Magnoliaceæ.*		*Sp.* 14—17.				
7904 grandiflóra *W.*	Laurel-leaved	♀		spl	20	jn.o	W	Carolina	1734.	L	l.p	Bot. rep. 513
α elliptica	*ferruginous*	♀		spl	20	jn.o	W	Carolina	1734.	L	l.p	Bot. rep. 518
β obováta	*broad-leaved*	♀		spl	20	jn.o	W	Carolina	1734.	L	l.p	
γ lanceoláta	*long-leaved*	♀		spl	20	jn.o	W	Carolina	1734.	L	l.p	Mich. arb. t. 1
7905 glaúca *Ph*	decidu. swamp	¥		or	20	jn.s	W	N. Amer.	1688.	S	p.l	Bot. mag. 2164
7906 longifólia *Ph*	evergr. swamp	♀		or	20	jn.s	W	N. Amer.	...	S	p.l	
7907 conspícua *H. K* *M. Yulan* Dec.	Yulan	¥	⌋	or	30	f.ap	W	China	1789.	G	p.l	Bot. mag. 1621
7908 obováta *W.*	purple	♣	⌋	or	6	ap.jn	Pu	China	1790.	L	p.l	Bot. mag. 390
7909 tomentósa *Thunb.* *M. gracilis* Thunb. *M. Kobus* Dec.	slender	¥	⌋	or	20	mr.ap	Pu	China	1804.	L	p.l	Par. lond. 87
7910 púmila *W.*	dwarf	♣	⊔	or	4	ja.d	W	China	1786.	C	p.l	Bot. mag. 977
7911 fuscáta *H. K.*	brown-stalked	♣	⊔	or	3	ap.my	Br	China	1789.	L	p.l	Bot. mag. 1008
β annónæfólia P. L.	*small-flowered*	♣	⊔	or	3	ap.my	Br	China	1804.	L	p.l	Par. lond. 5
7912 cordáta *Ph.*	heart-leaved	¥		or	40	jn.jl	Y.w	N. Amer.	1801.	L	s.l	Bot. cab. 474
7913 acumináta *W.*	bluish-flowered	¥		or	60	my.jl	Y.G	N. Amer.	1736.	L	s.l	Bot. cab. 418
7914 tripétala *W.* *M. umbrella* Lam.	umbrella	¥		or	30	my.jn	W	N. Amer.	1752.	L	s.l	Mich. arb. t. 5
7915 macrophýlla *Ph.*	long-leaved	¥		or	30	jn.jl	W	N. Amer.	1800.	S	p.l	Bot. mag. 2189
7916 auriculata *W.*	ear-leaved	¥		or	40	ap.my	W	Carolina	1786.	L	p.l	Bot. mag. 1206
7917 pyramidáta *Ph.*	pyramidal	¥		or	20	ap.my	W	Carolina	1811.	G	p.l	Bot. reg. 407



History, Use, Propagation, Culture,

modern attempts to cultivate it in Europe, though with the assistance of artificial heat, seldom have succeeded.

Dr. Patrick Browne is of opinion that the ancients confounded two plants under the name of Lotus or Egyptian bean, and that under these titles they described the upper parts of the Nymphæa Nelumbo, and the roots of the lesser Colocasia, now commonly called *coccos* in Jamaica, Arum Colocasia. (*Jam.* 243. 332.)

In our stoves the Nelumbium should be grown in a tub or large pot, in a rich loamy soil, and requires a strong heat to flower in perfection. The pot or tub should be kept full of water all the time the plants are growing, but may be allowed to get dry when the flowering season is over. The plants may be increased by dividing at the root, but it is obtained more readily from seeds, which vegetate freely. (*Bot. Cult.* 83.)

Kent of Clapton says, that the seeds will keep forty years, vegetate freely, and flower the first year. (*Hort. Trans.* iii. 36.)

1214. *Dillenia.* So named by Linnæus, in honor of John James Dillenius, the famous professor of botany at Oxford, author of Historia Muscorum, Hortus Elthamensis, &c. The species are beautiful trees, with large leathery leaves, and axillary or terminating flowers often also large. They thrive best in a light loamy soil. Ripened cuttings, not deprived of their leaves, strike root freely, in a pot of sand plunged under a hand-glass in heat. Good seeds sometimes arrive from India, when the sooner they are sown the better; placed in a moderate hot-bed frame, they will succeed well. (*Bot. Cult.* 50.)

1215. *Illicium.* From *illicio*, to attract, on account of its agreeable perfume. I. floridanum has very fragrant leaves, and capsules having a strong smell of anise when rubbed. This species, and more especially anisatum is powerfully carminative and stomachic. In China it is in frequent use for seasoning dishes, especially such as are sweet. In Japan they place bundles and garlands of the aniseed-tree in their temples before their idols, and on the tombs of their friends. They also use the powdered bark as incense to their idols. A branch put into the decoction of Tetraodon hispidum is supposed to increase the virulence of that poison The bark, finely powdered, is used by the public watchmen to make a chronometer or instrument for measuring the hours, by slowly sparkling at certain intervals in a box, in order to direct when the public bells are to sound.

Ripened cuttings will root in sand, but the plant is most readily increased by layers.

1216. *Liriodendron.* From λειριον, a lily, and δενδρον, a tree. The flowers, which may be likened to a lily or tulip, grow upon one of the loftiest trees of the forest. A smooth tree, not less admired for its fiddle-shaped leaves, than its tulip-like flowers, which are produced at the end of the branches; they are composed of six petals, three without and three within, which form a sort of bell-shaped flower, whence the inhabitants of North America gave it the title of tulip. These petals are marked with green, yellow, and red spots, making a fine appearance when the trees are well charged with flowers. When the flowers drop the germ swells, and forms a kind of cone, but it does not ripen in England.

The timber is used in America for canoes, but is unfit for boards or planks, as it contracts and expands more than the wood of any other tree.

The tulip tree is now very common in Europe; in the south of France and Italy, it is frequent in public avenues, and flowers when twenty or thirty feet high, and of six or seven years growth. In Britain it requires a

7900 Leaves elliptic oblong simply serrated, Peduncles 1-flowered

7901 Petals 27-30 purple: outer oblong; inner lanceolate
7902 Petals 9-12 yellowish ovate roundish

7903 Leaves truncate at end with two broad opposite stipules

7904 Leaves evergreen oval-obl. coriaceous shining above ferrugineous beneath, Flowers erect with 9-12 petals

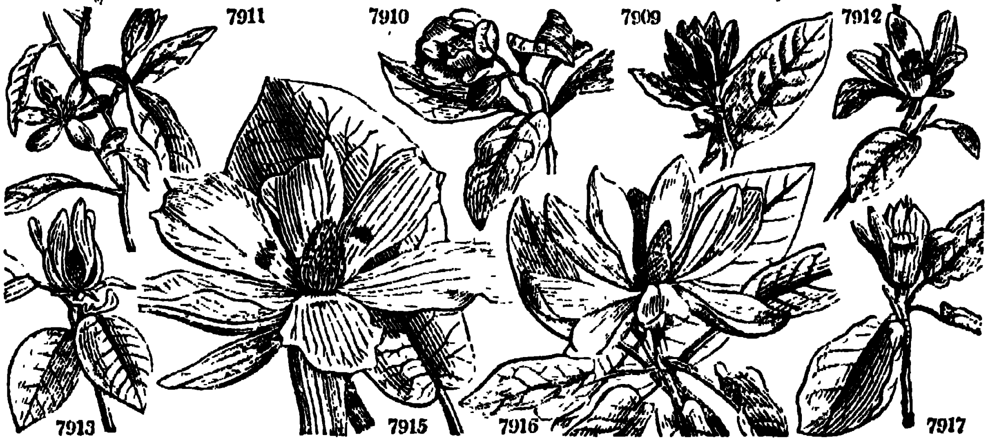
7905 Leaves elliptical blunt glaucous beneath, Flowers with 9-12 contracted petals which are ovate concave
7906 Like the last, but leaves evergreen elliptical acute at each end
7907 Lvs. deciduous obovate abruptly acuminate the younger pubescent, Flowers naked erect with 6-9 petals

7908 Lvs. deciduous obov. acute netted nearly smooth, Fls. erect, Sepals 3, Petals 6 obovate, Styles very short
7909 Lvs. decid. obov. point. at each end, younger downy ben., old ones smooth, Fls. erect, Sep. 3, Pet. 6, Styles [very short

7910 Leaves evergreen smooth netted ellipt. acuminate at each end subglaucous, Flowers cernuous
7911 Leaves evergreen elliptic obl.: the old smooth; younger and branches fuscous downy, Flowers erect

7912 Lvs. deciduous heart-shaped subovate acute, above smooth, beneath somewhat tomentose, Pet. 6-9. obl.
7913 Leaves deciduous oval acuminate pubescent beneath, Petals 6-9
7914 Leaves deciduous lanc. much spreading, younger downy beneath, Petals 9-12, the outer hanging down

7915 Lvs. deciduous very large obl. obov. subcuneate cordate at base, beneath whitish glaucous, Pet. 6-9 ovate
7916 Lvs. decid. smooth spatulate obov. subcord. at base, Auricles blunt close, Sep. 3 much spread. Pet. 9 oblong
7917 Lvs. decid. smth spatul. obov. subcord. at base, of same color on both sides, Auric. spread. Pet. 9 lanc. acum.



and Miscellaneous Particulars.

greater age, though ringing might probably be successfully applied to throwing this and other ornamental trees into a flowering state. There are many fine old trees round London, in the parishes of Fulham, Walham-green, Kew, &c., and a very fine one even so far north as Pitcalthly wells in Fifeshire.

1217. *Magnolia.* In honor of Pierre Magnol, professor of medicine, and prefect of the botanic garden at Montpelier; author of Botanicum Monspeliense, 1676, and other works. The species are chiefly large trees with large leaves, and axillary flowers, also very large and highly odorous.

M. grandiflora is the noblest species; the leaves, which are persistent, are nine or ten inches long, and not unlike those of a common laurel. The flowers are produced at the ends of the branches: they are very large, and composed of eight or ten petals, narrow at their base, but broad, rounded, and a little waved at their extremities; they spread open very wide, are of a pure white color, and have an agreeable scent.

The variety g. elliptica or Exmouth (having been raised from the seed of an old tree in Sir John Collington's garden of that place) flowers earliest and most freely: it is also the hardiest.

M. glauca is deciduous. In America it is known by the names of *white laurel, swamp sassafras,* and *beaver tree.* It has the last name, because the root is eaten as a great dainty by beavers; and this animal is caught by means of it. Kalm says, these trees may be discovered by the scent of the blossoms at the distance of three quarters of a mile, if the wind be favorable. It is beyond description pleasant to travel in the woods at the flowering season, especially in the evening. They retain their flowers for three weeks, and even longer. The berries also look very handsome when they are ripe, being of a rich red color, and hanging in bunches on slender threads. They cure coughs and other pectoral diseases by putting these berries into brandy, and giving a draught of the liquor every morning. The wood is made use of for joiners' planes. Dillenius remarks, that the flowers never open in a morning, that the calyx falls off at the second opening of the flower, but that the petals dry on, and that the scent resembles that of the lily of the valley, with a mixture of aromatic.

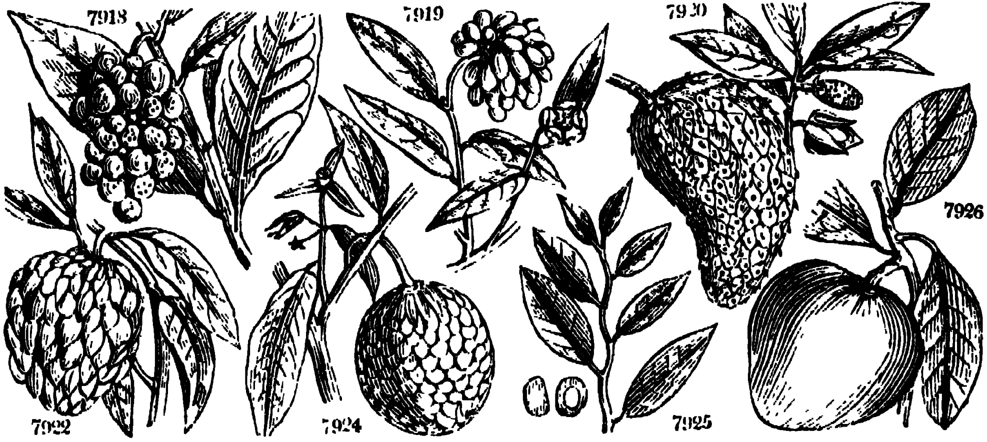
M. conspicua is much valued as a free flowerer, and on account of the early appearance of its white odoriferous blossoms. *Yulan* is the vernacular name in Japan.

M. acuminata bears a fruit about three inches long, like a small cucumber, and is thence called cucumber tree in America.

M. tripetala has leaves twelve or fifteen inches long and five or six inches wide, narrowing to a point at each extremity, and placed at the ends of the branches in a circular manner like an umbrella, whence its name. The flowers are composed of ten, eleven, or twelve large oblong white petals; the wood is soft and spongy, and the leaves drop off earlier than in the other deciduous sorts.

The different species, Sweet observes, are generally increased by layers or seeds: when the layers are first taken off they should be potted in a mixture of loam and peat, and placed in a close frame till they have taken fresh root. None of the leaves should be taken off or shortened, nor any shoots be cut off, or their tops shortened, as they will not succeed so well; for the more branches and leaves are on them, the sooner they will strike fresh root. Most cultivators cut off many of the leaves and shoots of layers, when they are first taken off, thinking the roots will not have so much to nourish, which is the very reason

1218.	MICHE'LIA. *W.*	MICHELIA.					*Magnoliaceæ.*		*Sp.* 1—7.				
7918	Champáca *W.*	sweet-scented	🌳	☐	tm	20	...	Y	E. Indies	1779.	C	s.l	Rhe. mal. 1. t.19
1219.	UVA'RIA. *W.*	UVARIA.					*Annonaceæ.*		*Sp.* 1—9.				
7919	Zeylánica *W.*	Ceylon	🌳	☐	or	20	...	R.o	E. Indies	1794.	C	p.l	Rhe mal. 2. t. 10
1220.	ANNO'NA. *P. S.*	CUSTARD APPLE.					*Annonaceæ.*		*Sp.* 7—36.				
7920	muricáta *W.*	Sour-sop	🌳	☐	fr	10	...	G.Y	W. Indies	1656.	C	r.m	Jac. obs. 1. t. 5
7921	Cherimólia *Mill.* *tripetala* W.	Cherimoyer	🌳	☐	fr	18	jl.au	Br	S. Amer.	1739.	C	r.m	Trew. ehr. t. 49
7922	squamósa *W.*	Sweet-sop	🌳	☐	fr	20	...	W.o	S. Amer.	1731.	C	r.m	Rhe. mal. 3. t.29
7923	paludósa *W.*	marsh	♣	☐	or	4	...	G	Guiana	1803.	C	r.m	Aub. gui.1. t.246
7924	reticuláta *W.*	netted	🌳	☐	fr	20	...	W.o	S Amer.	1690.	C	r.m	Rh. m. 3. t 30,31
7925	palústris *W.*	Cork-wood	♣	☐	or	6	...	Y	W. Indies	1731.	C	r.m	Pl. alm. t.240.f.6
7926	glábra *W.*	smooth-fruited	🌳	☐	or	16	jl.au	Br	Carolina	1774.	C	r.m	Cat. car. 2. t. 64
1221.	ARTABO'TRYS. *R. Br.*	ARTABOTRYS.					*Annonaceæ.*		*Sp.* 1.				
7927	odoratis'sima *R.Br.* *U. hexapetala* W.	sweet-scented	♣	☐	or	6	jn.jl	G	China	1758.	S	r.m	Bot. reg. 423
1222.	GUATTE'RIA. *R.&P.*	GUATTERIA.					*Annonaceæ.*		*Sp.* 2—22.				
7928	rúfa *Dun.*	rufous	♣	☐	or	3	jl.au	Br	China	1822.	C	r.m	Bot. reg. 836
7929	virgáta *Dun.* *Uvaria lanceolata* Swz.	Lancewood	🌳	☐	tm	30	...	W	Jamaica	1793.	C	p.l	Dun. mon. t. 31
1223.	ASIMINA. *Ad.*	ASIMINA.					*Annonaceæ.*		*Sp.* 3—5.				
7930	tríloba *Ph.*	trifid-fruited	♣		or	3	au	Pa.pu	N. Amer.	1736.	S	p.l	Cat. car. 2. t. 83
7931	parviflóra *Ph.*	small-flowered	♣		cu	2	ap.my	Br	N. Amer.	1806.	L	p.l	Dun. mon. t. 9
7932	pygmæ'a *Ph.*	dwarf	♣		cu	1	...	W	N. Amer.	1812.	L	p.l	Bartr. trav. t. 1
1224.	XYLO'PIA. *W.*	XYLOPIA.					*Annonaceæ.*		*Sp.* 2—9.				
7933	muricáta *W.*	rough-fruited	♣	☐	or	4	...	...	W. Indies	1793.	C	p.l	Br. jam. t. 5. f. 2
7934	glábra *W.*	smooth-fruited	🌳	☐	tm	20	...	...	Jamaica	...	C	p.l	Pl. al. t. 238. f. 4
1225.	HEPA'TICA. *W. en.*	HEPATICA.					*Ranunculaceæ.*		*Sp.* 1—3.				
7935	tríloba *W.*	common	🌿	△	or	½	f.ap	Pu	Europe	1573.	D	s.l	
	α *cærúlea*	*blue*	🌿	△	or	½	f.ap	B	......	...	D	s.l	
	β *cærúleo-pléna*	*double-blue*	🌿	△	or	½	f.ap	B	......	...	D	s.l	
	γ *rúbra*	*red*	🌿	△	or	½	f.ap	R	......	...	D	s.l	Bot. mag 10
	δ *rubro-pléna*	*double-red*	🌿	△	or	½	f.ap	R	......	...	D	s.l	
	ε *álba*	*red-anth. white*	🌿	△	or	½	f.ap	W	......	...	D	s.l	
	ζ *nívea*	*snowy-white*	🌿	△	or	½	f.ap	W	......	...	D	s.l	



History, Use, Propagation, Culture,

they often lose great part of their crop; layers of any kind of shrub whatever, when first taken off, should not have a single leaf taken off till they have made fresh root: supposing their tops flag ever so much, as long as there is life it will draw up the sap, and help the plant to root afresh. The Chinese kinds are often inarched or budded on M obovata, which takes readily. (*Bot. Cult.* 306.)

1218. *Michelia.* Named by Linnæus, in honor of Pietro Antonio Micheli, of Florence, author of Nova Plantarum Genera, Flor. 1729, fol. A lofty tree, with fragrant flowers, and fruit edible, but not agreeeable. In our stoves it grows well in light loam, and cuttings root in sand under a glass and plunged in heat.

1219. *Uvaria.* The fruit grows in bunches like a small bunch of grapes, whence it has been called *Uvaria* from *Uva*. The berries are considered a specific for gonorrhœa, and are used under the name of *cubebs*. These are trees or shrubs with erect or trailing stems, and 1-4-flowered axillary peduncles.

1220. *Anona.* This is called by the Malays, *manoa*, and at Banda, *menona*, which it is presumed that the Europeans have corrupted into Anona. As the word signifies in Latin food, it has been adopted by Linnæus in this sense, because of the habitual use made of the fruit by the Americans. The species are for the most part fruit trees, with soft pulpy subacid berries, sometimes as large as an orange, but generally more like a plum.

A. muricata is common in every savannah of Jamaica, flowering in the spring. The large succulent fruit is agreeable to new-comers and over-heated habits; but it is so common, and so much in use among the negroes, that it is now hardly ever used among the better sort of people. The smell and taste of the fruit, flowers, and whole plant, resemble very much those of black currants.

A. tripetala is a large tree with large bright green leaves. The fruit is oblong, scaly on the outside, and of a dark purple color when ripe; the flesh is soft and sweet, and has many brown seeds intermixed with it which are very smooth and shining. It is esteemed by the Peruvians as one of their most delicate sorts.

A. palustris grows wild in soft marshy places in Jamaica, and bears a fine sweet-scented fruit, of no disagreeable flavour; but it is said to be a strong narcotic, and is not eaten on that account. It is called alligator apple. The wood of this tree is so very soft, even after it is dried, that it is frequently used by the country people instead of corks, to stop up their jugs and calabashes; whence it has now universally obtained the name of cork-wood in Jamaica. (*Browne.*)

To bear fruit in our stoves, these trees require a rich loamy soil, rather moist, and to be trained on a wall or trellis close under the glass. Ringing would also be useful. They are propagated by ripened cuttings, of a good size, with their leaves on, planted in sand, and plunged in heat.

7918 Leaves lanceolate smooth

7919 Leaves lanc. acuminate, Pedunc. lateral solitary 1-flowered

7920 Leaves ovate lanceolate smooth somewhat shining, Pedunc. solitary 1-flowered
7921 Leaves ovate lanceolate not dotted very finely silky beneath, Outer petal downy outside

7922 Leaves lanceolate smooth with pellucid dots, Outer petals smooth
7923 Leaves obl. acute somewhat downy above, silky and rufous beneath, Flowers on short stalks
7924 Leaves obl. lanc. acute smooth somewhat dotted, Outer petals obl. somewhat closed
7925 Leaves ovate obl. coriaceous very smooth, Fl. solitary stalked
7926 Leaves ovate lanc. smooth, Pedunc. opposite the leaves 2-flowered

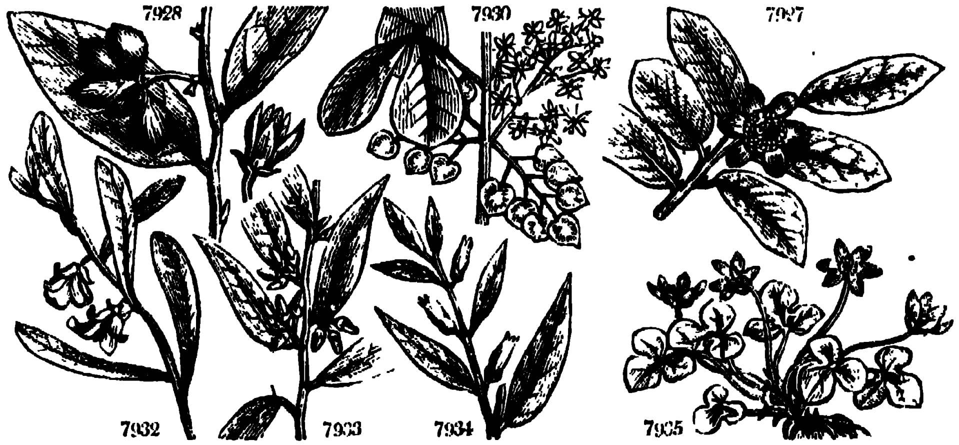
7927 Leaves obl. lanc. acuminate smooth shining

7928 Leaves oval acuminate cordate covered beneath, as on the branches, with brown down
7929 Leaves ovate acuminate very smooth nearly sessile, Pedunc. axillary 1-flowered

7930 Leaves obl. cuneate acuminate, Branches quite smooth
7931 Leaves cuneate obovate mucronate beneath, as on the branches, rufous with down
7932 Leaves obl. linear long-cuneate, Branches quite smooth

7933 Leaves lanc. acuminate strigose beneath bearded at end
7934 Leaves obl. ovate smooth, Pedunc. 1-fl. solitary

7935 Leaves cordate 3-lobed, Lobes entire



and Miscellaneous Particulars.

1221. *Artabotrys.* This name was suggested by the curious grapple or tendril belonging to the peduncle, by which the growing fruit is conveniently suspended on the nearest support. A beautiful Chinese plant, cultivated as an ornamental covering to walls, as well as on account of the fragrance of the blossom, which diffuses an odor like that proceeding from the finer kinds of ripe fruit. The genus is intermediate, between Kadsura and Guatteria.

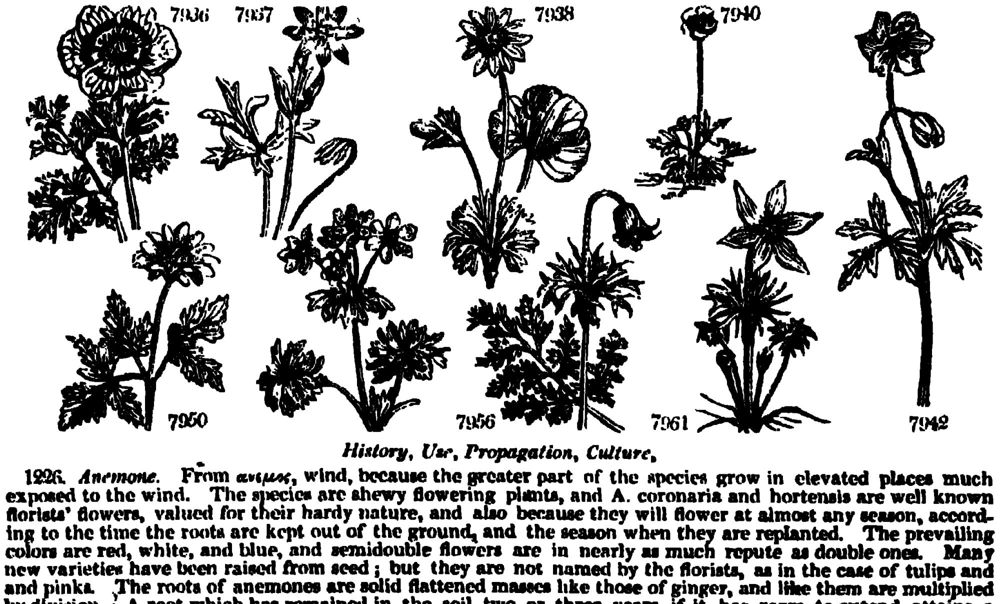
1222. *Guatteria.* Named by the authors of the Flora Peruviana, after John Baptist Guatteri, an Italian professor of botany at Parma. G. virgata is one of the best timber trees in Jamaica for strength and elasticity; it is imported under the name of lance-wood, and much used by coachmakers for shafts to light carriages.

1223. *Asimina.* A name coined by Adanson, without any meaning Shrubs with deciduous, oblong, often cuneate leaves, and axillary flowers, which often appear before the leaves The species are natives of shady woods in the more southern provinces of North America.

1224. *Xylopia.* Named by syncope from ξυλον πικρον, bitter wood, in allusion to the properties of the wood. Fruit-bearing trees, but not in much esteem as such. X glabra is the most useful species. The wood, bark, and berries have an agreeable bitter taste, not unlike that of the orange seed. The wild pigeons feed much upon the latter, and owe that delicate bitterish flavor, so peculiar to them in the season, wholly to this part of their food. Fresh gathered from the tree, they are agreeable to the palate and grateful to the stomach. The bark is also richly impregnated with this juice as well as the wood, and both yield a very agreeable bitter in the mouth while fresh; but that delicacy diminishes greatly after they are dried. The wood is easily wrought, and esteemed a good timber where it is not much exposed to the weather. The bitter quality of this tree is communicated with great facility. A handful of the shavings immersed in water and instantly taken out again, will render it of a very bitter taste. Sugar sent over in hogsheads made of this wood was so bitter that no person would purchase it. Bedsteads and presses made of it, are proof against cockroaches and other insects. Carpenters who work the wood, perceive a bitter taste in their mouths and throats. A decoction of it is said to be of service in cholics, and to create appetite.

1225. *Hepatica.* From ἡπατικος, of or relating to the liver. The three lobes of the leaves have been compared to the three lobes of the liver. A great favorite of the flower border, both as being evergreen in its foliage, and for its abundant blossoms and great variety of colors and shades.

1226.	ANEMO'NE. *W. en.*	ANEMONE.					*Ranunculaceæ.*	*Sp.* 27—40.					
7936	coronária *W.*	Poppy	⚘	△	or	¾	ap.my	St	Levant	1596.	R	l.p	Bot. mag. 841
	β *pléna*	*double-flowered*	⚘	△	or	½	ap.my	St	......	...	R	r.l	
7937	horténsis *W.* *A. stellata* Dec.	star	⚘	△	or	¾	ap.my	St	Italy	1597.	R	s.p	Bot. mag. 123
7938	palmáta *W.*	palmated	⚘	△	or	½	my.jn	Y	Portugal	1597.	R	s.p	Bot. reg. 200
7939	sibírica *W.*	Siberian	⚘	△	or	¾	jn	W	Siberia	1804.	R	s.p	
7940	álba *Juss.*	white	⚘	△	or	½	jn	W	Siberia	1820.	R	s.p	Bot. mag. 2167
7941	baldénsis *W.*	Strawberry-like	⚘	△	or	¼	my	W	Switzerl.	1792.	R	s.p	Jac. ic. 1. t. 103
7942	sylvéstris *W.*	Snow-drop	⚘	△	or	½	ap.my	W	Germany	1596.	R	s.p	Bot. mag. 54
7943	pavonína *Dec.*	Peacock-eye	⚘	△	or	1	ap my	R	France	...	R	s.p	Clus. ic. f. 1, 2
7944	virginiána *W.*	Virginian	⚘	△	or	½	my.jn	W	N. Amer.	1722.	R	s.p	Herm. par. t. 18
7945	uralénsis *Dec.*	Ural	⚘	△	or	½	my	B	Siberia	1824.	R	s.p	
7946	pensylvánica *Ph.*	Pensylvanian	⚘	△	or	1	my.jn	W	N. Amer.	1766.	R	s.p	
7947	dichótoma *Ph.*	forked	⚘	△	or	1	my jn	Pa.w	N. Amer.	1768.	R	s p	Lin. fil. d. 2. t. 15
7948	trifólia *W.*	three-leaved	⚘	△	or	½	ap.my	W	France	1597.	R	s.p	Mor. s. 4. t. 25. f. 1
7949	nemorósa *W.*	wood	⚘	△	or	¼	mr.my	W	Britain	woods.	R	s.p	Eng. bot. 355
7950	apennína *W.*	blue mountain	⚘	△	or	½	mr.ap	B	England	woods.	R	s.p	Eng. bot. 1062
7951	ranunculoídes *W.*	yellow wood	⚘	△	or	½	mr.ap	Y	England	woods.	R	s.p	Eng. bot. 1484
7952	narcissiflóra *W.*	Narcissus-flow	⚘	△	or	1	my	W	Siberia	1773.	R	s.p	Bot. mag. 1120
7953	thalictroídes *W.*	Meadow-rue-lv.	⚘	△	or	½	ap.my	W	N. Amer.	1768.	R	s.p	Bot. mag. 866
7954	alpína *W. en.*	Alpine	⚘	△	or	¾	jl	W	Austria	1658.	R	s.p	Jac. aus. 1. t. 85
7955	praténsis *W. en.*	meadow	⚘	△	or	½	my	D.Pu	Germany	1731.	R	s.p	Fl. dan t. 611
7956	obsoléta *Sims.*	pale-flowered		△	or	¾	my	Pu	Germany	...	R	s.p	Bot. mag. 1863
7957	Pulsatílla *L.*	com. Pasque fl.	⚘	△	or	¾	ap.my	V	England	ch. pa.	R	s.p	Eng. bot. 51
7958	Halléri *W. en.*	Haller's P. fl.	⚘	△	or	½	ap.my	Pu	Switzerl.	1816.	R	s.p	All. ped. t. 80. f. 2
7959	vernális *W. en.*	spring P. fl.	⚘	△	or	¼	ap	Pa.w	Switzerl.	1752.	R	s p	Fl. dan. t. 29
7960	cérnua *W.*	drooping P. fl.	⚘	△	or	½	my.jn	R.w	Japan	1806.	R	s.p	
7961	pátens *W. en.*	spreading P. fl.	⚘	△	or	1	jn jl	Li.Y	Siberia	1752.	R	s.p	Bot. mag. 1994
7962	capénsis *Dec.* *Atragene capensis* L.	Cape	⚘	⊔	or	1	mr.ap	Pu	C. G. H.	1795.	S	p l	Bot. mag. 716
1227.	CLE'MATIS. *L.*	VIRGIN'S BOWER.					*Ranunculaceæ.*	*Sp.* 26—90.					
7963	austriaca *H. K.*	Alpine	♣		or	12	my.jl	B	Austria	1792.	C	co	Bot. rep. 180
7964	sibírica *H. K.*	Siberian	♣		or	12	jn.jl	W	Siberia	1753.	L	co	Pall. ross. 2 t. 76
7965	verticilláris *Dec.* *A. Americana* H.K.	American	♣		or	15	my jn	Pu	N. Amer.	1797.	L	s.p	Bot. mag. 887
7966	glaúca *W.*	glaucous	♣		or	12	ap	Pa.Y	Siberia	...	L	co	Dend. brit. 73
7967	hedysarifólia *Dec.*	hedysarum-lv.	♣	☐	or	12	o	W	E. Indies	1819.	L	co	Bot. reg. 599
7968	chinensis *Retz.*	Chinese	♣	⊔	or	12	...	W.G	China	1820.	L	co	Retz. obs. t. 2
7969	cirrhósa *W.*	evergreen	♣		or	12	mr.ap	W.G	Spain	1596.	C	co	Bot. mag. 1070
7970	flórida *W.*	large-flowered	♣		or	10	ap.s	W.Y	Japan	1776.	L	s.l	Bot. mag. 834
	β *flore pléno*	*double-flowered*	♣		or	10	ap.s	W.Y	......	...	L	s.l	
7971	Viticélla *W.*	purple	♣		or	20	jn.s	Pu	Spain	1569.	S	co	Bot. mag. 565
	β *pléna*	*double-purple*	♣		or	20	jn.s	Pu	......	...	L	co	
7972	Viórna *W.*	leathery-flower.	♣		or	12	jn.s	Pu	N. Amer.	1730.	S	co	Di. el. t. 118. f. 144
7973	reticuláta *Ph.*	netted	♣		or	8	jn.s	Pu	N. Amer.	1812.	L	s p	Dend. brit. 72
7974	cylindrica *H. K.*	long-flowered	♣		or	8	jl.s	B	N. Amer.	1802.	L	p l	Bot. mag. 1160
7975	críspa *B. M.*	curled-flowered	♣		or	6	jl.s	Pa.pu	N. Amer.	1726.	L	p.l	Bot. mag 1892
7976	balcárica *Rich.* *calycina* W.	Minorca	♣	⊔	or	12	f.mr	Y.w	Minorca	1783.	C	co	Bot. mag. 959
7977	orientális *W.*	oriental	♣		or	8	jl.o	Y.w	Levant	1731.	Sk	co	Di. el. t 119. f. 145
7978	virginiána *W.*	Virginian	♣		or	15	jn.au	G	N. Amer.	1767.	L	s.p	Dend. brit. 74
7979	dioíca *W.*	Jamaica	♣	☐	or	15	my.jn	G.Y	W. Indies	1733.	L	s.p	Slo. ja. 1. t. 128 f. 1
7980	aristáta *B. Reg.*	awned-anther.	♣	⊔	or	15	my.au	G.Y	N. Holl.	1812.	L	s.p	Bot. reg. 238
7981	brachiáta *B. Reg.*	armed	♣	⊔	or	12	o.d	Y.G	C. G. H.	...	L	s.p	Bot. reg. 97



History, Use, Propagation, Culture.

1226. *Anemone.* From ἄνεμος, wind, because the greater part of the species grow in elevated places much exposed to the wind. The species are shewy flowering plants, and A. coronaria and hortensis are well known florists' flowers, valued for their hardy nature, and also because they will flower at almost any season, according to the time the roots are kept out of the ground, and the season when they are replanted. The prevailing colors are red, white, and blue, and semidouble flowers are in nearly as much repute as double ones. Many new varieties have been raised from seed; but they are not named by the florists, as in the case of tulips and and pinks. The roots of anemones are solid flattened masses like those of ginger, and like them are multiplied by division. A root which has remained in the soil two or three years, if it has room to extend, attains a great breadth, but is still only one root; and hence the mode of sale is by weight, and the roots are divided when planted.

The soil preferred by the anemone is a fresh loam, rather heavy or light. The usual time of planting is the end of October, covering the roots three inches; but to have an early bloom they may be planted in the beginning of September, and to have a bloom every month in the year, plant every month. The finer sorts

7936 Leaves ternate with multifid segments and linear mucronate lobes, Sep. 6 oval close

7937 Leaves 3-parted with cuneate cut-toothed lobes, Invol. sessile obl. entire or cut, Sepals 10-12 oblong

7938 Leaves cordate roundish bluntly 3-5-lobed toothed, Invol. sessile trifid, Sepals 10-12 oblong
7939 Leaves ternate with cut-toothed ciliated segments, Invol. on short stalks 3 cut, Sepals 6 round
7940 Leaves ternate or quinate, Segments cut-toothed at the end, Invol. stalked similar, Sepals 5 obovate
7941 Lvs. biternate with a branch. stalk, Segm. many-part. with lin. lobes, Inv. shortly stalk. multifid, Sep. obl.
7942 Leaves ternate or quinate, Segm. cut-toothed at end, Invol. stalked similar, Sepals 6 elliptical
7943 Leaves 3-parted with cuneate cut-toothed lobes, Invol. sessile oblong entire or a little cut, Sep. very acute
7944 Leaves ternate with trifid acuminate cut-toothed segments, Invol. stalked similar, Sepals 5 elliptical
7945 Invol. leaves on short stalks thrice cut with linear cut-toothed segments, Sepals 5-6 oval-oblong
7946 Leaves 3-parted with cut-toothed acuminate lobes, Invol. sessile similar, Sepals 5 elliptical, Fruit hairy
7947 Leaves 3-parted with cut-toothed oblong lobes, Invol. sessile similar, Sepals 5 elliptical, Fruit smooth
7948 Leaves all stalked ternate with ovate lanc. acute-toothed segments, Sepals 5 elliptical obtuse
7949 Leaves ternate with trifid cut-toothed lanc. acute segments, Invol. stalked similar, Sepals 6 elliptical
7950 Leaves 3-ternate with a branched stalk, Sepals 12-14 oblong obtuse, Leaves of invol. stalked
7951 Radical lvs. 3-5 cut with subtrifid cut-toothed segments, Invol. stalk. 3-parted toothed, Sep. 5-6 elliptical
7952 Radical leaves villous palmate 3-5-parted with cut-toothed lobes, Lobes lin. acute, Fl. umbelled
7953 Flowers umbelled, Floral leaves stalked biternate forming a sort of involucre
7954 Leaves biternate with a branched petiole, Segm. pinnated cut serrate, Sepals 6 spreading
7955 Leaves pinnated with multifid segments, Lobes linear, Flowers pendulous, Sepals 6 erect reflexed at end
7956 Like the last, but the flower larger and paler, and the lobes of the pinnæ broader and awned
7957 Leaves pinnated with multifid segments, Lobes linear, Flower somewhat nodding, Sepals 6 spreading
7958 Leaves pinnated very villous with 3-parted segments, Lobes lanc. lin. acum. Fl. erect, Sep. 6 oval lanceol.
7959 Leaves pinnated with cuneate lanceolate trifid smoothish segments, Fl. erect,- Invol. very villous
7960 Leaves pinnated villous beneath, Segm. pinnatifid, Lobes cut oblong, Fl subcernuous, Sep. 6 spreading
7961 Leaves pinnate coming after the flowers, Segm. 3-parted, Lobes toothed cut at end, Fl. erect spreading
7962 Leaves biternate rigid smooth, Segm cuneiform toothed at end

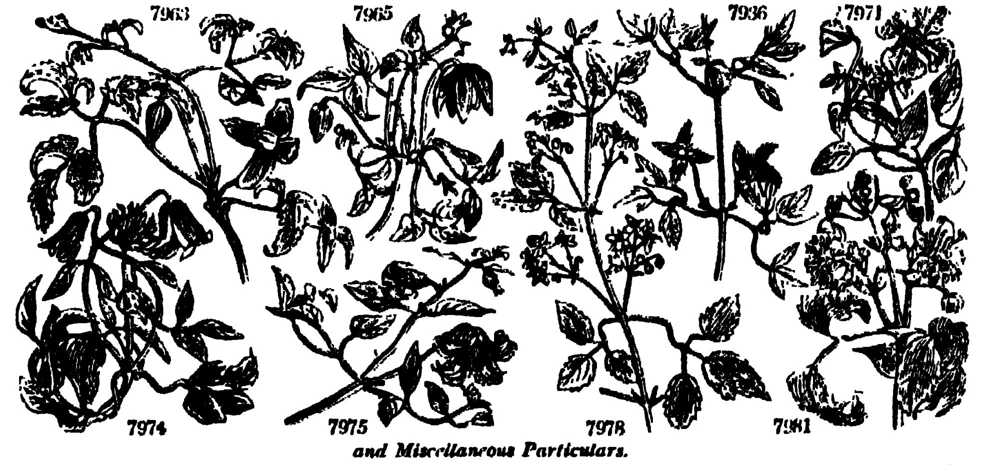
7963 Pedunc. 1-fl. longer than leaf, Lvs. biternate, Segm. ovate-lanc. acum. serrate, Pet. subspatulate obtuse
7964 Pedunc. 1-fl. the length of leaf, Leaves biternate with obl. lanc. acumin. segments, Pet. emarginate at end
7965 Pedunc. 1-fl. Leaves whorled in fours ternate, Segm. stalked cordate lanc. entire, Petals acute

7966 Leaves pinnate, Segm. glaucous smooth cuneiform lobed, Lobes entire blunt, Pedunc trifid
7967 Fl panicled, Leaves ternate, Segm ovate lanc. acumin. nearly entire smooth 5-nerved at base
7968 Leaves pinnated, Segm ovate lanc. entire, Pedunc. few-fl. longer than leaf, Ovaries about 4, Tails almost
7969 Pedunc. 1-fl. with an involucrum, Leaves ovate subcordate toothed fascicled [naked
7970 Pedunc. 1-fl. longer than leaf, Leaves tern. decompound, Segm. ovate acute entire, Sepals much pointed

7971 Pedunc. 1-fl longer than leaf, Leaves entire or ternate decomp. Lobes or segm. entire, Sepals obovate

7972 Pedunc. 1-fl Sep. connivent thick reflexed at end acuminate, Lvs. smooth with ent. or 3-lob ov. acute segm.
7973 Pedunc. 1-fl. Sep. connivent, Lvs. coriaceous netted nerved smooth with stalked 3-lobed or entire segments
7974 Pedunc. 1-fl. Sep acumin. wavy at edge thin, Lvs smooth thin decompound with stalked ov or obl. segm.
7975 Pedunc. 1-fl. shorter than leaf, Leaves entire 3-lobed very acute, Sepals conniving at base spreading at end
7976 Pedunc 1-fl. with an involucre under the leaf, Leaves ternate with stalked ternate cut-toothed segments

7977 Leaves pinnate with glaucous smooth wedge-shaped 3-lobed segments, Lobes toothed acuminate
7978 Fl panicled diœcious, Leaves ternate, Segm cordate acute coarsely toothed and lobed
7979 Fl. panicled diœcious, Lvs tern. Segm smooth ovate cordate acuminate 3-nerved ent. Pedicels pubescent
7980 Fl. panic. diœc. Sep 4 Lvs. tern. Segm. ovate subcord. acute coarsely toothed 3-nerv. Anth. awned at end
7981 Ped. 3 1-fl. or 3-fid or panic. long. than lvs. Lvs. tern. or pinn. Segm. ovate coarsely toothed, Fl.-buds globose



and Miscellaneous Particulars.

require protection from violent storms and excessive light and heat; but many varieties do exceeding well in borders. A very severe winter will destroy the roots if the surface is not mulched, but the anemone is considerably hardier than the ranunculus. Anemone pulsatilla is common in borders. The roots are mostly tuberous, and when taken up should not be long kept out of ground. Like most tuberous plants, they thrive best in a sandy loam.

1227. *Clematis.* From κλημα, a tendril; the climbing habit of this genus is well known The species are mostly climbing shrubs of rapid growth, free-flowerers, very ornamental, and some are highly odoriferous. *C.* florida, viticella, and flammula are admired species. The plants formerly called Atragene, but now properly united to Clematis, are shewy climbers, especially C. austriaca, which grows and flowers freely. Any common garden soil will suit them, and they are readily increased by layers; or young cuttings, planted under a common hand-glass, will root freely. Seeds are often ripened in abundance, by which any quantity may be raised; they are best sown in pans, or wide-mouthed pots, and placed in a shady situation, where they will

7982	Massóniana *Dec.*	Masson's	⚘	⊔	or	12	...	...	C. G. H.	...	L	s.p	
7983	Vitálba *W.*	Traveller's Joy	⚘		or	20	jl.s	W	England	hed.	S	co	Eng. bot. 612
7984	Flámmula *W.*	sweet-scented	⚘		or	20	jl.o	W	France	1596.	S	co	Ku. th. 2. t. c 9
	α rotundifólia	*round-leaved*	⚘		or	20	jl.o	W	France	1596.	L	co	
	C. frágrans Tenore.												
	β vulgaris	*broad-leaved*	⚘		or	20	jl o	W	France	...	L	co	
	γ marítima W.	*narrow-leaved*	⚘	△	or	20	jn.s	W	S. Europe	...	D	p.l	
7985	erécta *W.*	upright	⚘	△	or	3	jn.au	W	Austria	1597.	D	p.l	Jac. aus. 3. t. 291
7986	angustifólia *W.*	narrow-leaved	⚘	△	or	4	my.s	W	Austria	1787.	D	p.l	Dend. brit. 112
7987	ochroleúca *W.*	silky	⚘	△	or	2	jn.jl	L.Y	N. Amer.	1767.	D	p.l	Bot. cab. 661
7988	integrifólia *W.*	entire-leaved	⚘	△	or	2	jn.au	B	Hungary	1596.	D	p.l	Bot. mag. 65
	β angustifólia	*narr.-entire-lv.*	⚘	△	or	2	jn.au	B	Hungary	...	D	p.l	
1228.	NARAVE'LIA. *Dec*	Naravelia.					*Ranunculaceæ.*	*Sp.* 1.					
7989	zeylánica *W.*	Ceylon	⚘	☐	or	12	...	Y	Ceylon	1796.	L	s.p	Rox.cor.2. t. 188
1229.	THALIC'TRUM. *W.*	Meadow-Rue.					*Ranunculaceæ.*	*Sp.* 26—52.					
7990	alpínum *W.*	Alpine	⚘	△	or	¼	my.jl	W	Britain	bgs. m.	D	co	Eng. bot. 262
7991	fœ'tidum *W*	fœtid	⚘	△	or	½	my.jl	W	France	1640.	D	co	Pl. ra. h. 2. t. 174
7992	tuberósum *W.*	tuberous-rooted	⚘	△	or	2	jn	W	Spain	1713.	D	co	M. ic. 2. t.265.f.2
7993	Cornúti *W.*	Canadian	⚘	△	or	3	my.jl	W	N. Amer.	1640.	D	co	Corn. can. t. 187
	T corynellum Dec.												
7994	dioícum *W*	diœcious	⚘	△	or	1	jn.jl	L.Y	N. Amer.	1759.	D	co	
7995	elátum *W.*	tall	⚘	△	or	2	jn.au	L.Y	Hungary	1794.	D	co	Jac. vind. 3. t. 95
7996	május *W.*	greater	⚘	△	or	3	jn jl	G.Y	England	m thi.	D	co	Eng. bot. 611
7997	médium *W.*	middle	⚘	△	or	1¼	jn.au	G Y	Hungary	1789.	D	co	Jac vind. 3. t. 96
7998	mínus *W.*	lesser	⚘	△	or	1	jn.jl	Pu	Britain	ch. pa.	D	co	Eng. bot. 11
7999	concínnum *W. en.*	neat	⚘	△	or	3	jn.jl	W.o	......	...	D	co	
8000	rugósum *W.*	rough	⚘	△	or	2	jl	W	N. Amer.	1774.	D	co	
8001	sibíricum *W.*	Siberian	⚘	△	or	1	jn.jl	L.Y	Siberia	1775.	D	co	
8002	squarrósum *W.*	squarrose	⚘	△	or	1	jn.jl	L.Y	Siberia	1806.	D	co	
8003	pubéscens *Ph.*	pubescent	⚘	△	or	1½	jn.jl	L.Y	N. Amer.	1806.	D	co	
8004	purpuráscens *W.*	purple	⚘	△	or	3	jn.jl	L.P	N. Amer.	1699.	D	co	
8005	angustifólium *W.*	narrow-leaved	⚘	△	or	3	jn.jl	W	Germany	1739.	D	co	Jac. vind. 3 t 43
8006	lúcidum *W.*	shining	⚘	△	or	4	my.jl	Li.Y	Spain	1739.	D	co	Pl. alm t. 65. f.5
8007	flávum *W.*	common	⚘	△	or	4	my jl	O	Britain	m.mc.	D	co	Eng. bot. 367
8008	nígricans *W.*	black	⚘	△	or	2	my jl	P	Austria	1798.	D	co	Jac. aus. 5 t 421
8009	glaúcum *Desf.*	glaucous-leav'd	⚘	△	or	5	jn.jl	Y	Sp.	1798.	D	co	Mo. his. t. 20 f.1
	speciósum W. en.												
8010	ranunculínum *W. en.*	Ranuncul.-lvd.	⚘	△	or	1	jn.jl	Pa.Y	N. Amer.	1806.	D	co	
8011	símplex *W.*	simple-stalked	⚘	△	or	1	my.jn	L.Y	Sweden	1778.	D	co	Fl. dan. 244
8012	aquilegifólium *W.*	Columbine-lvd.	⚘	△	or	3	my.jl	L.Pu	Austria	1731.	D	co	Bot. mag. 2025
	β átro-purpúreum	*dark-purple*	⚘	△	or	3	my.jl	D.Pu	Austria	1731.	D	co	Bot mag. 118
8013	galioídes *W. en.*	sweet scented	⚘	△	or	1	my.jl	Y	Alsace	1816.	D	co	Mo. his. t. 20. f.8
8014	contórtum *W.*	crook-seeded	⚘	△	or	2	jn.jl	W	Siberia	1796.	D	co	
8015	petaloídeum *W.*	Daurian	⚘	△	or	3	jn jl	W	Dauria	1799.	D	co	Bot. cab. 891
1230.	ADO'NIS. *L.*	Adonis.					*Ranunculaceæ.*	*Sp.* 6—14.					
8016	æstivális *W.*	tall		○	pr	1½	jn.jl	Sc	S. Europe	1629.	S	co	Kn. th. 2. t. A. 12
8017	autumnális *W.*	Pheasant's-eye		○	pr	1	my.o	Cr	Britain	cor. fl.	S	co	Eng. bot. 308
8018	flámmea *W.*	flame-colored		○	pr	1	jn.jl	Y	Austria	1800.	S	co	Jac. aus. 4. t. 355
8019	vernális *W.*	perennial	⚘	△	or	1	mr.ap	Y	Europe	1629.	D	s.p	Bot mag. 134
8020	fláva *Vill.*	yellow		○	pr	1	jn jl	Y	S. Europe	...	S	co	Wein. phy. t. 28
8021	pyrenáica *Dec.*	Pyrenean	⚘	△	or	1¼	jl	Y	Pyrenees	1817.	D	co	
1231.	KNOWLTO'NIA. *H. K.*	Knowltonia.					*Ranunculaceæ.*	*Sp.* 2—5.					
8022	rígida *H. K.*	thick-leaved	⚘	⊔△⊔	cu	1½	mr.my	Y.o	C. G. H.	1780.	S	p.l	Bot. cab. 850
8023	vesicatória *H K.*	blistering	⚘	⊔△⊔	cu	1½	t.ap	Y.G	C. G H.	1691.	S	p.l	Bot. mag. 775
1232.	FICA'RIA. *Pers.*	Pilewort.					*Ranunculaceæ.*	*Sp.* 1—2.					
8024	ranunculoídes *Mön.*	vernal	⚘	△	w	¼	mr.my	Y	Britain	he. ba.	D	l.p	Eng. bot. 584
	β pléna	*double-flowered*	⚘	△	or	¼	mr.my	Y	Britain	he ba.	D	l.p	

History, Use, Propagation, Culture,

remain some time before they come up; they may then be potted off, or planted out in the ground, when they will require to be shaded a little if the weather be warm, till they have taken fresh root. (*Bot. Cult.* 281.)

1228. *Naravelia.* An alteration of *narawael*, the name by which the plant is known in Ceylon. A plant with the habit of Clematis, but bearing leaves of only one opposite many-nerved pair, like Lathyrus.

1229. *Thalictrum.* This name is said to be derived from θαλλω, to grow green; from the bright color of the young shoots. The species are vigorous growing plants, with ramose roots and smooth finely divided leaves; they grow in any soil and situation, and T. tuberosum, cornuti, and aquilegifolium, are reckoned handsome ornaments in a border or shrubbery.

1230. *Adonis.* The plant which sprang from the blood of Adonis when wounded by the boar. Handsome border flowers, especially A. vernalis and autumnalis, and of the easiest culture in any common soil.

7982 Leaves pinnate with smooth subglaucous ovate cut-toothed 3-lobed segments
7983 Lvs. pinn. Segm. ovate-lanc. cut-toothed acuminate truncate cordate at base, Pedunc. shorter than leaf
7984 Leaves pinnate, Segments smooth entire or 3-lobed round oval oblong or linear rather acute
α Segments nearly round

β Segments oval or oblong lanceolate
γ Segments linear
7985 Leaves pinnate with stalked ovate-lanc. entire segments
7986 Pedunc. 1-fl. Sepals 6-8 blunt, Leaves pinnate, Segm. lanc. lin. acute or 3-lobed, Stems erect
7987 Pedunc. 1-fl. Fl. suberect, Leaves entire ovate; young ones silky
7988 Pedunc. 1-fl. Fl. nodding, Leaves entire ovate lanc. smooth

7989 The only species

7990 Stem simple almost naked, Raceme simple terminal, Fl. nodding, Segm. smooth
7991 Stem simple naked at base: leafy in middle; panicled at end, Lvs. pubescent viscid, Segm. blunt toothed
7992 Fl. loosely corymbose or subsolitary, Invol. none, Bract subsessile
7993 Fl. diœcious, Filam. clavate at end, Pericarp obl. sessile striated, Segm. of leaves bluntly 3-lobed

7994 Fl. diœcious, Fil. filiform, Segm. of leaves roundish cordate bluntly lobed smooth
7995 Stem round without bloom, Fl. panicled erect, Segm. of leaves smooth ovate or subcordate subtrifid
7996 Stem round without bloom, Fl. loosely panic. Segm. of leaves smooth glauc. ben. Peric. obliq. round. at base
7997 Stem round without bloom, Fl. loosely panicled, Segm. of lvs. obl. cuneiform sharply trifid: upper entire
7998 St. round cover. with a glauc. bloom, Fl. loose. pan. cern. Segm. of lvs. roundish tooth. at end, glauc. beneath
7999 Stem round upright, Fl. cernu. in a very large spreading panic. Segm. of lvs. smooth cuneif. trifid acute
8000 St. erect round striat. green, Pan. erect. comp. Fl. clust. Segm. of lvs. ov. subcord. coarsely cren. shin. above
8001 Stem roundish, Fl. panic. cernuous, Segm. of lvs. smooth ov. cuneate trifid, Lobes acute entire or finely cut
8002 Stem round, Fl. panicled cernuous, Petioles stem-clasping winged
8003 Stem simple covered with scattered leaves panicled at end, Stem downy viscid
8004 Fl. diœcious or monœc. Filam. filif. colored, Segm. of lvs. roundish coarsely tooth. smooth glauc. beneath
8005 Stem upright round somewhat furrowed, Root fibrous, Panic. multiple erect, Segm. of lvs. lin. lanc. entire
8006 St. branch. round somew. furrow. Root fibr. Pan. multiple erect, Segm. of lvs. lin lanc. ent. cuneate at base
8007 Stem branch. erect somewhat furrowed, Root fibr. Pan. multiple erect, Segm. of lvs. cuneiform trifid acute
8008 St. branch. erect somew. furrow. Root fibr. Pan. multiple erect, Segm. of rad. lvs. cuneif. trif. Caul. obl. lin.
8009 Stem erect round striat. glauc. Pan. multip. erect close, Seg. of lvs. subcord. ov. bluntly trifid glauc. beneath

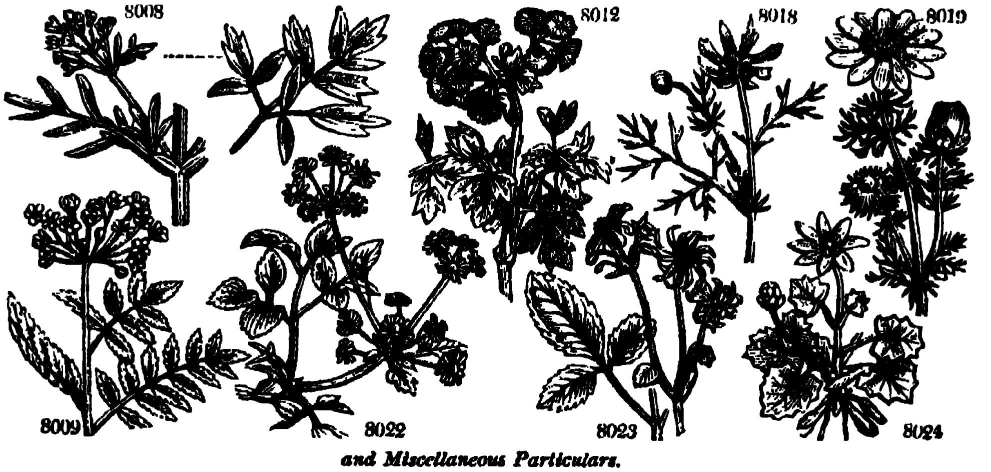
8010 Leaves simple 5-lobed serrated
8011 Stem erect simple angular, Root creeping, Panic. erect racemose few-flowered, Segm. of leaves linear
8012 Stipules ovate, two at the base of the ramifications of the petiole, Panic. corymb. Fruit 3-cornered

8013 Stem round upright somewhat furrowed, Root creeping, Panic. erect, Segm of lvs. lin. very narrow entire
8014 Stipules O, Fl. loosely corymbose racemose, Fruit 3-cornered pendulous
8015 Stem round nearly naked, Fl. corymb. Filam. dilated at end, Segm. of lvs. smooth ovate entire or 3-lobed

8016 Cal. hispid at base, Pet. flat obl. blunt, Fruit netted in a long lax spike
8017 Cal. smooth, Pet. conc conniving scarcely longer than cal. Fruit netted in an ovate head
8018 Cal. hispid at base, Pet. flat acute longer than cal. Flower large, Fruit in a cylindrical head
8019 Lower leaves abortive, Upper sessile, Fruit velvety, Pet. 10-12 oblong somewhat toothed
8020 Cal. smooth distinct at base, Pet. flat obl. twice as long as cal. Fruit smooth in an oblong head
8021 Rad. leaves on long stalks, Stalks trifid, Fruit smooth, Pet. 8-10 obl. cuneate entire

8022 Umb. supradecompound much spreading
8023 Umb. simple few-flowered

8024 Root grumous, Stem leafy, Leaves cordate



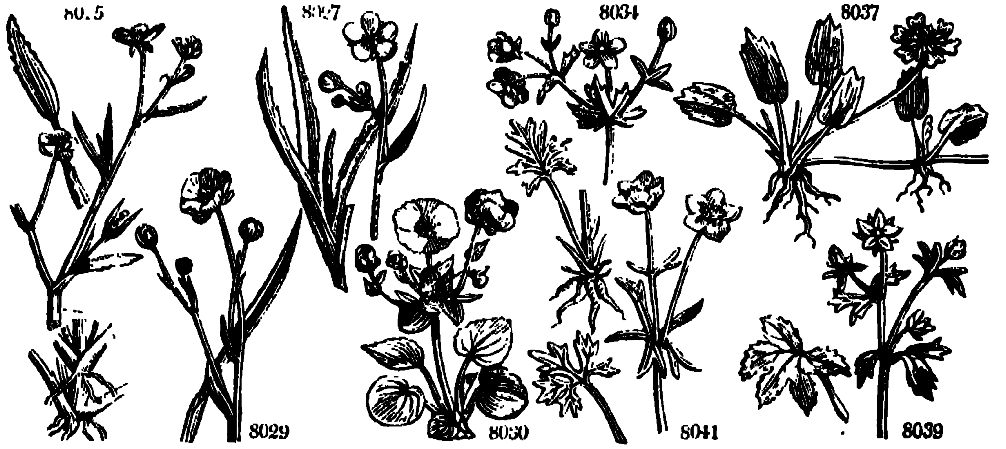
and Miscellaneous Particulars.

1231. ***Knowltonia.*** Named after Thomas Knowlton, once the curator of the botanic garden at Eltham. The species grow freely in loam and peat, and are increased by dividing at the root, and by seeds.

1232. ***Ficaria.*** So named because the grumous roots bear tubercles like little figs. A common wood plant, remarkable for its shining leaves and bright yellow flowers. The young leaves are sometimes used as greens in Sweden, and the roots were formerly applied in poultices to piles in England, probably from their resemblance to that disease. These roots or tubercles lie near the surface, and are sometimes laid bare by the rains, and in this state have induced the ignorant, under the influence of superstition, to fancy that it rained wheat. The plant is injurious in moist grass lands, but is effectually destroyed by a dressing of coal or wood ashes.

1233. **RANUN'CULUS.** *W.* Crow-Foot. *Ranunculaceæ.* *Sp.* 49—160.

8025	Flámmula *W.*	lesser-Spearw.	⚘	△	cu	1	jn.s	Y	Britain	wa. pl.	D	co	Eng. bot. 387
8026	réptans *W.*	least-Spearw.	⚘	△	cu	¾	jn.s	Y	Britain	wa. pl.	D	co	Fl. dan. 108
8027	Língua *W.*	great-Spearw.	⚘	△	cu	2	jn.au	Y	Britain	mud.d.	D	co	Eng. bot. 100
8028	nodiflórus *W.*	knot-flowered		○	w	½	my.jl	Y	Sicily	1714.	S	co	Bot. mag. 2171
8029	gramíneus *W.*	grassy	⚘	△	or	1	ap.jn	Y	Wales	al. me.	D	co	Eng. bot. 2306
8030	parnassifólius *W.*	Parnassia-lvd.	⚘	△	or	¾	jn.jl	St	S. Europe	1769.	D	co	Bot. mag. 386
8031	amplexicaúlis *W.*	Plantain-leav'd	⚘	△	or	1	ap.my	W	Pyrenees	1633.	D	co	Bot. mag. 266
8032	bullátus *W.*	Portugal	✻	△	or	1	my.jn	Y	S. Europe	1640.	D	co	M. his. t. 31. f. 50
8033	Thóra *W.*	kidney-leaved	⚘	△	or	¾	my.jn	Y	Austria	1710.	D	co	Jac. aus. 5. t.442
8034	monspeliácus *Gouan.*	Montpelier	⚘	△	or	1	ap.my	Y	S. Fránce	...	D	co	M. his. t. 30. f.48
8035	lácerus *Dec.*	torn	⚘	△	cu	¾	my.jn	Y	S. France	1821.	D	co	Bell. taur. 5. t.8
8036	ophioglossifólius *Dec.*	Snake's-tongue-l.		○	w	¾	jn	Y	S. Europe	1824.	S	co	
8037	salsuginósus *Pall.*	salt	⚘	△	cu	1	ap.my	Y	Siberia	1822.	D	co	Jac. vind. t. 31
8038	fumariæfólius *Desf.*	fumitory-leav'd	✻	△	cu	1	my.jn	Y	......	...	D	co	
8039	créticus *W.*	Cretan	⚘	△	or	1	ap.my	Y	Candia	1658.	D	co	Mo. his. t. 31. f.48
8040	cassúbicus *W.*	Caltha-leaved	⚘	△	or	2	jn.jl	Y	Siberia	1794.	D	co	Bot. mag. 2267
8041	auricomus *W.*	wood	⚘	△	w	1½	ap.my	Y	Britain	woods.	D	co	Eng. bot. 624
8042	abortivus *W.*	three-flowered	⚘	△	w	¾	my.au	Y	N. Amer.	1713.	D	co	
8043	scelerátus *W.*	Celery-leaved		○	p	2	my.jn	Y	Britain	wa.pl.	S	co	Eng. bot. 681
8044	aconitifólius *W.*	Aconite-leaved	⚘	△	or	1	my.jn	W	Al. of Eur.	1596.	D	co	
	—. *flore pléno*	*double-flowered*	⚘	△	or	1	my.jn	W	Al. of Eur.	1596.	D	co	Bot. mag. 204
	β *platanifólius* W.	*Plane-tree-lvd.*	⚘	△	or	2	jn.jl	W	Germany	1769.	D	co	Fl. dan. 111
8045	pedátus *W. en.*	pedate	✻	△	or	1	my.jn	Y	Hungary	1806.	D	co	Bot. mag. 2229
8046	illýricus *W.*	Illyrian	✻	△	or	1½	my.jn	Y	S. Europe	1596.	D	co	Jac. aus. 3. t. 222
	R. sericeus W.												
8047	asiáticus *W.*	common-gard.	✻	△	or	¾	my.jn	Va	Levant	1596.	D	r.m	Mill. ic. 2. t. 216
8048	chærophyllus *L.*	villous	⚘	△	cu	1	my.jn	Y	Portugal	...	D	r.m	Mo. h. t. 30. f. 44
8049	rutæfólius *W.*	Rue-leaved	⚘	△	pr	½	my.jl	Y	Austria	1759.	D	r.m	Jac. col. 1. t. 6, 7
8050	glaciális *W.*	two-flowered	⚘	△	pr	½	jn.au	Y	Lapland	1775.	D	s.l	Fl. dan. 19
8051	nivális *W.*	snowy	⚘	△	pr	½	jn.au	Y	Lapland	1775.	D	s.l	Fl. lap. t. 3. f. 2
8052	montánus *W.*	mountain	⚘	△	pr	½	jn.au	Y	Lapland	1775.	D	s.l	Jac. aus. t. 325,6
8053	alpéstris *W.*	alpine	⚘	△	pr	¼	jn.au	W	Scotland	al.riv.	S	co	Eng. bot. 2390
8054	pensylvánicus *W.*	Pensylvanian	⚘	⊙	w	1	jn.jl	Y	N. Amer.	1785.	D	p.l	Jac. ic. 1. t. 105
8055	bulbósus *W.*	bulbous	✻	△	w	½	my.jn	Y	Britain	me.pa.	S	co	Eng. bot. 515
8056	hirsútus *H. K.*	pale hairy		○	w	1	jn.o	Y	England	rubble.	D	co	Eng. bot. 1504
8057	marylándicus *Ph.*	Maryland	⚘	△	un	1	my.jl	Pa.Y	N. Amer.	1811.	D	co	
8058	répens *W.*	creeping	⚘	△	w	½	my.au	Y	Britain	me.pa.	D	co	Eng. bot. 516
	β *flore pléno*	*double-flowered*	⚘	△	or	¾	my.au	Y	......	...	D	co	
8059	polyánthemos *W.*	many-flowered	⚘	△	un	½	my.jn	Y	Europe	1596.	D	co	Lob. ic. 666
8060	ácris *W.*	upright	⚘	△	w	1½	jn.jl	Y	Britain	me. pa.	D	co	Eng. bot. 652
	β *flore pléno*	*double-flowered*	⚘	△	or	2	jn.jl	Y	Britain	...	D	co	Bot. mag. 215



History, Use, Propagation, Culture,

1233. *Ranunculus.* Said to be so called from *rana*, a frog, because the species inhabit humid places frequented by that reptile. *Renoncule*, Fr., *Ranunkel*, Ger., and *Ranuncole*, Ital. Some of the species are weeds, one or two border flowers, and R. asiaticus is one of our most esteemed florists' flowers. Some of the species are tuberous and others bulbous rooted, but the most part are tuberous. R. sceleratus is one of the most virulent of our native plants. Bruised and applied to the skin it soon raises a blister, and makes a sore by no means easy to heal. Strolling beggars have been said to use it for that purpose, in order to excite compassion. When chewed, it inflames the tongue; and when taken into the stomach, it produces violent effects. It is suspected to have proved poisonous to sheep.

R. aconitifolius is a handsome plant, with branching stems, deep green leaves, and pure white flowers; the double variety is an old and much admired border flower.

Of R. asiaticus the varieties raised from seed are endless. Maddock, in the end of the last century, had nearly eight hundred, all with proper names, and ranged as purple, gray, crimson, red, rosy, orange, yellow, white, olive, coffee, striped, spotted, &c. No plant is more prolific in new varieties from seeds; no two plants, as Maddock observes, producing flowers alike, or the same as the original. Established sorts are propagated by offsets, which generally flower the first year: rare sorts may be multiplied by dividing the crown of the tuber with a sharp penknife into as many parts as there are buds: these will not flower till the second year, but will diminish the risk of losing a very rare variety.

The ranunculus prefers a fresh loamy soil, rather than otherwise inclined to clay: it should be well manured; and it is customary, in forming the beds, to place a stratum of well rotted cow-dung six or nine inches below the surface, which both retains moisture and supplies nourishment. The roots may either be planted in November or earlier, in which case, to prevent their being destroyed by the frost, they should be mulched, or they need not be planted till March. The former mode gives much the strongest bloom, as the roots, when kept in air all the winter, are apt to be over dried, and kept in sand they sometimes get mouldy: and in this and similar cases, the progress of vegetation from the planting to the blossoming period, is more rapid than is natural to the species. Ranunculus roots will retain their vegetative properties two and sometimes three years; a thing not common among bulbs and tubers, unless preserved dormant in an ice cold room.

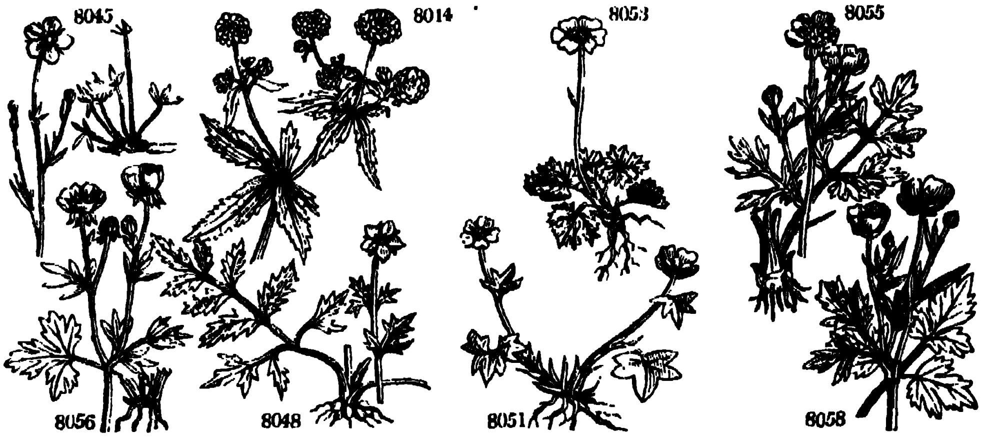
R. bulbosus has a solid white bulb about the size of that of the common Crocus. The flowers are some-

8025 Leaves smooth lin. lanc. : lower stalked, Stem declinate solid rooting at base, Fruit smooth
8026 Leaves lin. entire smooth, Stem creeping and rooting at every joint
8027 Leaves lanc. subserrate sessile half stem-clasping, Stem erect smooth
8028 Rad. leaves stalked oval-obl. Fl. sess. opposite the leaves, Fruit granular scarcely crowned with the style
8029 Leaves lanc. or lin. entire, Stem erect very smooth, Scales of the petals tubular
8030 Rad. leaves stalked subcordate ovate-roundish : cauline sessile ovate-lanc. Pedunc. hirsute
8031 Leaves oval-lanceolate acuminate stem-clasping, Scape and peduncles smooth
8032 All the leaves radical stalked ovate toothed, Scapes naked 1-flowered
8033 Leaves smooth reniform crenate, Floral cut, Stem 2-3-fl. smooth
8034 Lvs. woolly 3-lobed with trifid toothed cuneate lobes : upper 3-parted with entire lin. lobes, Cal. reflexed
8035 Leaves cuneiform irregularly cut at the end, Stem smooth branched many-fl. Cal. appressed
8036 Lower leaves stalked cordate blunt : upper obl. sessile, Stem erect hollow, Fruit granular
8037 Rad. lvs. stalked oval or subcord. 3-5-tooth. at end, Runners from neck of plant, Scapes naked 1-fl. erect
8038 Lvs. very smooth many-parted, Lobes obl. Scapes many 1-fl. with appressed hairs, Cal. spreading smooth
8039 Covered with soft hairs, Rad. lvs. stalk. cord. orbic. somewhat cut-tooth. Stem branched, Cal. appressed
8040 Lvs. smooth : radic. stalked reniform crenate; caul. in linear lobes, Cal. pubescent shorter than petals
8041 Leaves smooth : radic. stalked cordate generally 3-parted or lobed, Calyx pubescent shorter than petals
8042 Lvs. smooth : radic. stalk. cordate-roundish crenate some 3-parted or cut, Cal. smooth longer than petals
8043 Lvs. smooth : radic. stalk. 3-part. Lobes 3-lob. bluntly cut, Cal. smooth, Fruit very small in an obl. spike
8044 Lvs. palm. 3-7-parted cut-toothed : upper sessile with lin. lanc. lobes, Stem branch. many-fl. Cal. appressed

β Radic. leaves 5-7-lobed with acuminate lobes, Bractes lin. entire
8045 Leaves smooth : radic. stalked 3-parted or pedate ; upper linear, Stem erect few-fl. Calyx appressed
8046 Lvs. silky : first cut. lin. lanc ; rest 3-part. with entire or 3-part. lobes, Stem many-fl. Cal. somewhat reflexed

8047 Leaves tern. or bitern. Segm. toothed or cut trifid, Stem erect simple or branched, Fruit in a cylindr. spike
8048 Rad. lvs. stalked villous 3 cut : first ovate toothed or 3-lobed, Stem erect 1-2-fl. Cal. spreading subreflexed
8049 Leaves pinnate with 3-lobed cut multifid lobes, Stem about 1-fl. Cal. smooth, Pet. 8-10
8050 Radical leaves stalked palmate 3-parted with trifid blunt thick lobes, Calyx very hirsute
8051 Leaves smooth : radical stalked 5-fid with entire ovate lobes, Calyx very hirsute twice as short as petals
8052 Rad. lvs. smooth 3-parted round with trifid blunt segments : cauline sess. linear-lobed, Cal. nearly smooth
8053 Leaves round 3-lobed, Lobes blunt crenate at end, Stem about 1-fl. Cal. smooth, Pet. obcord. or 3-lobed
8054 Stem and petioles cover. with stiff hairs, Lvs. 3-fid with stalk. acutely 3-lob. segm. Cal. reflex. Style smooth
8055 Rad. lvs. stalked 3-cut with trifid cut segm., of which the middle one is stalked, Stem erect, Cal. reflexed
8056 Lvs. 3-lob. with blunt cut lobes, of which the mid. is stalk. Cal refl. Grains with a single row of minute warts
8057 Stem and petioles with soft hairs at base, Lvs. smooth. trif. with 3-lob. ac. cut segm. Cal. smooth spreading
8058 Lvs. pinnate 3-fid with cuneate 3-lobed cut segm. Runners creeping, Cal. erect, Grains with an acute point

8059 Lvs. 3-5-lob. with lin. divisions, Stem erect and petioles with spreading hairs, Pedunc. furrowed, Cal. hairy
8060 Lvs. pubesc. or smooth, Lobes cut-tooth. acute : upper lin. Stem many-fl. pubesc. Cal. vill. Grains mucron.



and Miscellaneous Particulars.

times double, but not so frequently as R. acris. It is distinguished from *R.* repens, with which it has been confounded by some authors, by its roots, by its never throwing out runners, and by its reflexed calyx ; this last character arises from its particular structure, the lower half being thin and almost transparent, and therefore not having a sufficient degree of solidity to support itself upright. It is the second flower which, next to the Dandelion, covers the meadows with dazzling yellow. Like most of the Crow-foots, it possesses the property of inflaming and blistering the skin ; particularly the root, which is said to raise blisters with less pain and more safety than Spanish flies ; hence these roots have been applied for that purpose, particularly to the joints in cases of the gout. According to Hoffman, beggars make use of them to blister their skins, with a view of exciting compassion. The juice of the herb is said to be more acrid than that of R. sceleratus, and if applied to the nostrils, it provokes sneezing. The roots, on being kept, lose their stimulating quality, and are even eatable when boiled. Hogs are fond of them, and frequently dig them up. The herb is too acrid to be eaten unmixed by cattle ; accordingly the flowering-stalks are left to perfect the seed in pastures : some of it, however, is consumed, and it is not improbable that this and other pungent plants, mixed with the grasses, may act as a powerful stimulus to some animals, as salt does to others. It abounds in dry pastures, and flowers in May. Besides the name of round-rooted or bulbous Crowfoot, it is called by the common people butter-flower, butter-cups, king-cups, gold-cups ; and it is the cuckoo-buds of yellow hue, of Shakspeare. R. repens, hirsutus, and acris, however, are all confounded with this under one name by the vulgar.

R. repens is an obnoxious plant in every description of gardening and agriculture. From the great variety of soil and situation in which it is found, it assumes many varieties ; by a river's side, or in marshes, it will grow three or four feet high, with a stem nearly as large as the human thumb ; in barren gravelly fields it is entirely procumbent, with a stem not larger than a small wheat-straw ; but in all states it retains the character of the creeping stem, and it does not lose it in cultivation. Its principal time of flowering is in June, but it may be found in blossom during most of the ensuing summer months in meadows and pastures, under hedges, in shady waste places, church-yards, and gardens. The qualities of this and bulbosus are similar : both blister the skin, and are very acrid in taste. Like R. acris and bulbosus, it is sometimes found double, but more rarely.

R. acris is supposed to possess the blistering property in a considerable degree, whence Linnæus gave it the

8061 **lanuginósus** *W.*	woolly-leaved	⚘	△	or	1	jn.jl	Y	S. Europe	1683.	D	co	Fl. dan. 397
8062 **par'vúlus** *W.*	little-upright		○	w	¼	jl.au	Y	England	...	S	co	Col. ec. t. 316 f. 1
8063 **hederáceus** *W.*	Ivy-leaved	≛	△	pr		my.au	W	Britain	wat. pl.	D	co	Eng. bot. 2003
8064 **aquátilis** *W.*	various-leaved	≛	△	pr		ap.au	W	Britain	dit.	D	co	Eng. bot. 101
8065 **tripartítus** *Dec.*	three-parted	≛	△	pr		ap.au	W	Europe	dit.	D	co	
8066 **pan'tothrix** *Dec.*	rigid-leaved	≛	△	pr		ap.au	W	Britain	...	D	co	
β fluviátilis W.	*long-lvd.-water*	≛	△	or		ap.au	W	Britain	...	D	co	Fl. dan. 376
8067 **arvénsis** *W.*	corn	⚘	△	w	1	jn.au	Y	Britain	cor. fi.	D	co	Eng. bot. 135
8068 **oxyspérmus** *W.*	sharp-grained	⚘	△	or	1	my	Pa.Y	Caucasus	1822.	D	co	
8069 **hyperbóreus** *L.*	northern	⚘	△	cu	½	ap.my	Y	N. Europe	1820.	D	co	Fl. dan t. 331
8070 **Gouáni** *W.*	Gouan's	⚘	△	or	1	my.au	Y	Pyrenees	1818.	D	co	Go. ill. t. 17. f. 1,2
8071 **nemorósus** *Dec.*	wood	⚘	△	or	1	my.au	Y	Switzerl.	1810.	D	co	
8072 **muricátus** *W*	prickly-seeded		○	w	½	jl.au	Y	S. Europe	1683.	S	co	Vent. cels. t. 73
8073 **parviflórus** *W.*	small-flowered		○	w	¾	my jn	Y	England	gra. pl.	S	co	Eng bot. 120
1234. **TROL'LIUS.** *W.*	Globe-Flower.					*Ranunculaceæ.*		*Sp.* 3—5.				
8074 **americánus** *Muhl.* *láxus* Ph.	American	⚘	△	or	¾	my.jl	Y	N. Amer.	1805.	D	co	Bot. mag. 1988
8075 **europæ'us** *W.*	European	⚘	△	or	2	my.jn	Y	Britain	groves.	D	p.l	Eng. bot. 28
8076 **asiáticus** *W.*	Asiatic	⚘	△	or	1	my.jn	D.O	Siberia	1759.	D	p.l	Bot. mag. 235
β intermédius	*intermediate*	⚘	△	or	1	my jn	Y	......	...	D	p.l	
γ hýbridus	*hybrid*	⚘	△	or	1	my.jn	Y	......	...	D	p.l	
1235. **ISOPY'RUM.** *W.*	Isopyrum.					*Ranunculaceæ.*		*Sp.* 2—4.				
8077 **fumarioides** *W.*	Fumitory-lvd.		○	pr	1	jn	W.G	Siberia	1741.	S	s.l	Am. rut. 74. t. 12
8078 **thalictroides** *W.*	meadow-rue-lv.	⚘	△	pr	¾	mr.ap	W.G	Italy	1759.	D	s.l	Jac. aust. 2. t. 105
1236. **ERAN'THIS.** *Sal.*	Winter-Aconite.					*Ranunculaceæ.*		*Sp.* 1—2.				
8079 **hyemális** *Sal.*	common	♉	△	or	½	ja.mr	Y	Italy	1596.	O	co	Bot. mag. 3
1237. **HELLE'BORUS.** *W.*	Hellebore.					*Ranunculaceæ.*		*Sp.* 7—9.				
8080 **níger** *W.*	Christmas Rose	⚘	△	or	1	ja.mr	Pk	Austria	1596.	D	r.m	Bot. mag. 8
8081 **víridis** *W.*	green	⚘	△	or	2	mr.ap	G	Britain	woods.	D	co	Eng. bot. 200
8082 **purpuráscens** *Pers.*	purplish	⚘	△	or	1½	mr.ap	Pu.G	Hungary	1817.	D	s.l	Pl. ra. h. 2. t. 101
8083 **odórus** *W. en.*	sweet-scented	⚘	△	or	1½	mr.ap	G	Hungary	1817.	D	s.l	
8084 **dumetórum** *W. en.*	bushy	⚘	△	or	1½	mr.ap	G	Hungary	1817.	D	s.l	
8085 **fœ'tidus** *W.*	Bear's-foot	⚘	△	or	1½	f.ap	G	England	cha. pa.	D	co	Eng. bot. 613
8086 **lívidus** *W.*	three-leaved	⚘	△	or	1	ja.my	Pu	Corsica	1710.	D	p.l	Bot. mag. 72
1238.* **COP'TIS.** *Sal.*	Coptis.					*Ranunculaceæ*		*Sp.* 1—2.				
8087 **trifólia** *Ph.*	three-leaved	⚘	△	pr	¼	ap.my	Br	Amer.	1782.	D	p.l	Bot. cab. 173

History, Use, Propagation, Culture,

name of acris. Curtis says, that even pulling up the plant, and carrying it to some little distance, has produced a considerable inflammation in the palm of the hand: that cattle, in general, will not eat it; yet that sometimes, when they are turned hungry into a new field of grass, or have but a small spot to range in, they will feed on it, and hence their mouths have become sore and blistered. According to Linnæus, sheep and goats eat it; but kine, horses, and swine refuse it. When made into hay it loses its acrid quality, but then it seems to be too stalky and hard to afford much nourishment: if it be of any use it must be to correct, by its warmth, the insipidity of the grasses. In many pastures the flowering stems are left standing in vast abundance to disseminate their seeds: before they do that, they might easily be cut down with the scythe, or pulled up by women and children after a shower, which would more effectually destroy the plants; they should be gathered into heaps and burnt. It flowers in June and July, and is confounded vulgarly with the repens and bulbosus, under the name of butter-flower or butter-cups, under a notion that the yellow color of butter is owing to these plants. It is the richness and exuberance of the pasture that communicates this color, and not these flowers, which the cattle seldom or ever touch. It is frequent in gardens with a double flower, among other herbaceous perennials, under the name of yellow bachelor's buttons.

R. aquatilis produces flowers which are sometimes very large, and make a handsome show in ponds and ditches: the curious variety in the floating and immersed leaves, occasioned by the depth and velocity of the stream, adds to the beauty of this common aquatic plant. Dr. Pulteney (*Linn. Trans.* vol. 5. p. 19.) contradicts the assertions of its deleterious qualities, and proves that it is not merely innoxious, but nutritive to cattle, and capable of being converted to useful purposes in agricultural economy. In the neighbourhood of Ringwood, on the borders of the Avon, some of the cottagers support their cows, and even horses, almost wholly by this plant. A man collects a quantity every morning, and brings it in a boat to the edge of the water, from which the cows eat it with great avidity, insomuch that they stint them, and allow only about twenty-five or thirty pounds to each cow daily. One man kept five cows and one horse so much on this plant with the little which the heath afforded, that they had not consumed more than half a ton of hay throughout the whole year, none being used except when the river is frozen over. Hogs also are fed with this plant, and improve so well on it, that it is not necessary to give them any other sustenance till they are put up to fatten. This property of water-crowfoot is the more remarkable, as all the species have been deemed acrimonious, and some of them are, without doubt, highly so. It is probable this species is rendered inert as a poison by growing in the water; although it must be confessed, that in other instances moisture heightens the deleterious property of vegetables, especially in the umbelliferous tribe.

8061 Leaves trifid silky, Lobes broad toothed cut, Stem and petiole with reflexed hairs, Grains hooked
8062 A small variety of R. hirsutus, with a dwarf 1-flowered stem
8063 Lvs. reniform 3-5-lobed with broad entire blunt lobes, Pet. scarcely longer than cal. Petals 5-12 [bristles
8064 The submersed lvs. capill. multifid : emersed 3-part. with cuneif. lobes tooth. at end, Grains hispid with stiff
8065 The submersed lvs. capillary multifid : emersed 3-part. with cuneif. lobes toothed at end, Grains smooth
8066 All the leaves capillary multifid, Pet. obovate larger than calyx, Grains smooth

8067 Leaves smooth : radical 3-parted ; cauline multifid with lin. lobes, Grains with long prickles on each side
8068 Lvs vill. : radic. stalk. ov. 3-part. cut ; floral 3-part. Stem erect dichotom. with spread. hairs, Grains muric.
8069 Lvs. smooth stalk. bifid, Lobes oval obl. divaricat. : the mid. entire, Sheaths auricled at base, Stem filiform
8070 Radical leaves round with 5 cut lobes : cauline sessile palmate, Stem pubescent, Cal. subvillous
8071 Rad. lvs. trifid beyond midd. with cuneif. trifid lobes, Stem with spread. hairs, Grains hooked with style
8072 Lvs. smooth stalk. roundish 3-lob. coarsely tooth. Pedunc. opp. lvs. Cal. spreading, Grains muricate cornute
8073 Lvs. vill. round 3-lob. coarsely tooth. Stems soft decumb. Cal. reflexed as long as pet. Grains tuberculate

8074 Sepals 5-10 spreading, Pet. 10-15 shorter than stamens

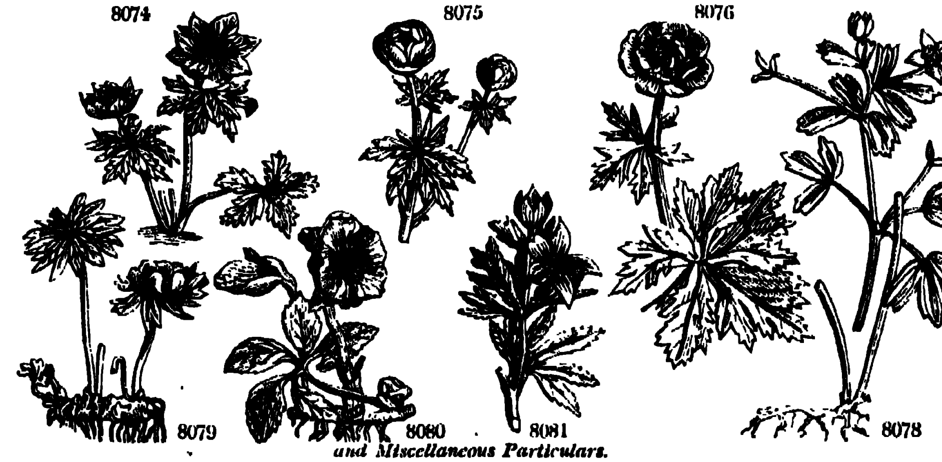
8075 Sepals 15 globose, Pet. 5-10 the length of stamens
8076 Sepals 10 spreading, Pet. 10 longer than stamens

8077 Caps. 10-20, Sepals acute, Root slender nearly simple perpendicular
8078 Caps. 1-3, Sepals blunt, Root creeping grumous

8079 Sepals 6-8-oblong

8080 Radical leaves pedate smooth, Scape leafless with 1-2-fl. and bractes
8081 Radical leaves pedate smooth : cauline subsessile palmate, Sepals roundish ovate green
8082 Radical leaves palmate downy beneath, Segm. cuneate at base 3-5-lobed at end, Sepals roundish colored
8083 Radical leaves palmate downy beneath, Segm obl undivided serrate at end, Sepals ovate obl. acute green
8084 Radical leaves very smooth pedate : cauline subsessile palmate, Sepals roundish green
8085 Stem many-fl. leafy, Leaves pedate very smooth with obl. linear segments
8086 Stem many-fl. leafy, Leaves 3 cut smooth glaucous beneath, Segments ovate-lanceolate

8087 Leaves trifid with obovate toothed blunt 3-lobed segments, Scape 1-flowered



and Miscellaneous Particulars.

This remark of Dr. Pulteney's is the more important, as in the Swedish experiments the R. aquatilis is recorded as the only one rejected by all the species of domestic cattle; of the common sorts, there is no doubt but that R. Flammula, bulbosus, acris, sceleratus, and arvensis are acrimonious. Before the introduction of Cantharides they were used as vesicatories, and are said to act with less pain than flies, without any effect on the urinary passages; but their action is related to be uncertain, and they are accused of frequently leaving ill-conditioned ulcers.

The acrimony, even of the most virulent, is wholly dissipated in drying; so that in form of hay they appear to be harmless. It is also expelled in decoction; accordingly, the shepherds of Morlachia boil the R. sceleratus and eat it; and both R. auricomus and repens are said to be wholly inoffensive, and are ranked by some authors among oleraceous plants.

The Ranunculi give out their acrimony wholly in distillation. The distilled water of R. sceleratus is intensely acrimonious; and when cold deposits crystals, which are scarcely soluble in any menstruum, and are of an inflammable nature.

1234. *Trollius.* A name given to this plant by Conrad Gesner. It is derived from *trol* or *trolen*, an old German word, signifying something round, in allusion to the form of the flowers. The species are showy flowers for the general border, and of the easiest possible culture.

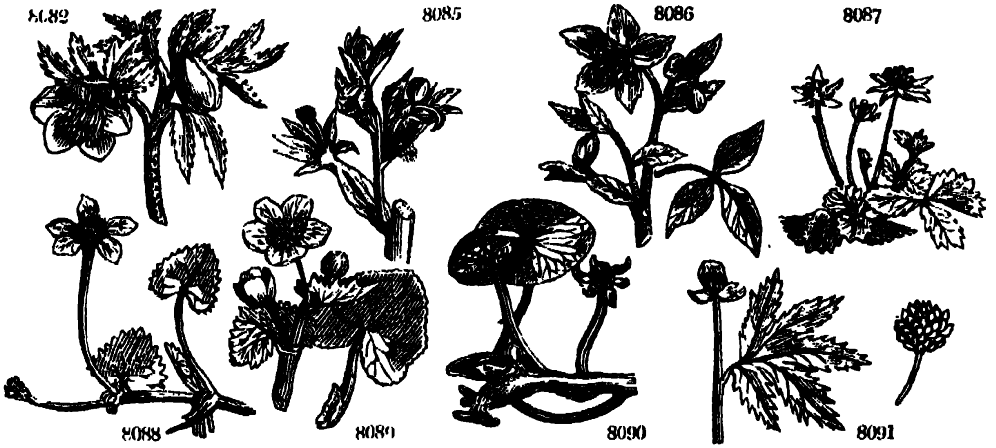
1235. *Isopyrum.* A name given by the Greeks to a plant resembling Nigella, the seeds of which had the same taste. These are small herbaceous plants related to Nigella, but with the habit of Thalictrum.

1236. *Eranthis.* From *ερα*, the earth, and *ανθος*, flower, because the bright yellow blossoms seem to lie upon the earth. A pretty little tuberous rooted plant, valuable for the early period at which it flowers.

1237. *Helleborus.* From *ἑλειν*, to cause death, and *βορα*, food. The dangerous qualities of Hellebore are well known. Leathery leaved plants, most of which are evergreen, and flower in winter and early in spring. H. niger and fœtidus have long been in use in popular medicine, especially the latter, as a vermifuge and cathartic. They are both admitted in the London Materia Medica, but being violent poisons, require caution in their application. H. fœtidus, from its deep green and finely divided leaves, forms a most ornamental evergreen bush for the shrubbery.

1238. *Coptis.* From *κοπτω*, to cut, in reference to the numerous divisions of the leaves. Small plants, with the habit of Trientalis.

1239. **CAL'THA.** *W.*	MARSH-MARYGOLD.		*Ranunculaceæ.* *Sp.* 2—7.							
8088 **rádicans** *L. T.*	creeping	△ or	½	ap.my	Y	Scotland	sc. ma.	D	m.s	Linn. tr. 8 t. 17
8089 **palústris** *W.*	common	△ or	1	ap.my	Y	Britain	mar.	D	m.s	Eng. bot. 506
β flore pléno	double-flower'd	△ or	1	ap.my	Y	......	...	D	m.s	
1240. **HYDROPEL'TIS.** *H. K.*	HYDROPELTIS.		*Hydropeltideæ.* *Sp.* 1.							
8090 **purpúrea** *H. K.*	purple	△| cu		jl.au	R	N. Amer.	1798.	D	m.s	Bot. mag. 1147
1241. **HYDRAS'TIS.** *W.*	HYDRASTIS.		*Ranunculaceæ.* *Sp.* 1.							
8091 **canadénsis** *W.*	Canadian	△| or	½	my.jn	G	Canada	1759.	D	m.l	Mil. ic. 2. t. 285



History, Use, Propagation, Culture,

1239. *Caltha.* A syncope of *καλαθος*, a goblet, in allusion to the form of the corolla, which may be likened to a golden cup. The flower-buds of C. palustris, gathered before they expand, are said to be a good substitute for capers. The juice of the petals boiled with alum dyes paper yellow The whole plant is acrid, and not eaten by cows, unless in case of extreme hunger.

CLASS XIV. — DIDYNAMIA. 4 STAMENS, of which two are shorter than the others.

THIS class, which, as its name applies, depends upon the presence of four stamens in the corolla, two of them being longer than the others, is, with the exception of Syngenesia and Gynandria, the most natural and best defined of all Linnæus's great groups, or, as he named them, classes. It is divided into two orders, called Gymnospermia and Angiospermia.

Gymnospermia contains all the genera with what are popularly but erroneously called by the Linnæan school of botany, naked seeds. It answers to the natural order of Labiatæ of Jussieu's method, with the exception of some genera which are excluded on account of having only two stamens, and are found in Diandria. Nearly all the class consists of herbaceous plants, those which are called shrubs being for the most part herbaceous plants, whose stems, from the mildness of the climate in which they grow, become perennial. The most remarkable plants are the rosemary, hyssop, balm, thyme, mint, and marjoram, for the kitchen or laboratory; and the various species of Teucrium, Lavandula, Phlomis, and Dracocephalum, for the flower garden.

In Angiospermia are included the genera with numerous, or rarely a few, seeds, enclosed in a simple pericarpium. These would be combined in a manner not altogether unnatural, if some of the genera were excluded. For instance, the beautiful Linnæa, the emblem of the most highly gifted naturalist the world has ever produced, belongs to Caprifoliaceæ, and stands alone in point of natural affinity; the same may be said of Melianthus. The greater part of Scrophularineæ, all Melampyraceæ and Orobancheæ, and nearly the whole of Verbenaceæ and Gesnerieæ are found here. A considerable portion of Acanthaceæ also occupy a station in this order. Among these are many genera of much beauty, but few of interest as useful plants. Among the ornamental families every one will recognize the Bignonia, with its elegant orange or yellow trumpet flowers, and frequently twining stem; the Jacaranda, with its fern-like umbrageous foliage and magnificent diadem of blue; the Acanthus, consecrated to sculpture; the noble Clerodendrum, the pride of the Japanese; and the modest Eyebrights (Euphrasia) of our English meadows. In one part of the class we have the Vervain, surrounded by its mystic moonlight charms; in another, the Antirrhinum tribe, remarkable for the grotesque resemblance of its blossoms to the snouts of animals; and close behind it, imperial Pedicularis, proudly rearing her heraldic honours among the snows and deserts of the frozen north. These are succeeded by a long line of forms, principally European, and of various degrees of beauty. Among the useful plants, Digitalis, used in medicine, and Sesamum as oil seed, are all which can be particularized.

Order 1. GYMNOSPERMIA. Pericarpium divided into four lobes resembling naked seeds.

1242. *Ajuga.* Upper lip of cor. very minute, 2-toothed. Stamens longer than upper lip.

1243. *Anisomeles.* Calyx tubular, 10-striated, 5-cleft. Upper lip of corolla small, entire; lower trifid, with the middle segment 2-lobed. Stamens exserted, ascending. Anthers of the short stamens 2-celled, with close cells; of the longer halved or dissimilar. Seeds smooth.

1244. *Teucrium.* Upper lip of cor. none, 2-parted beyond the base. Stamens exserted.

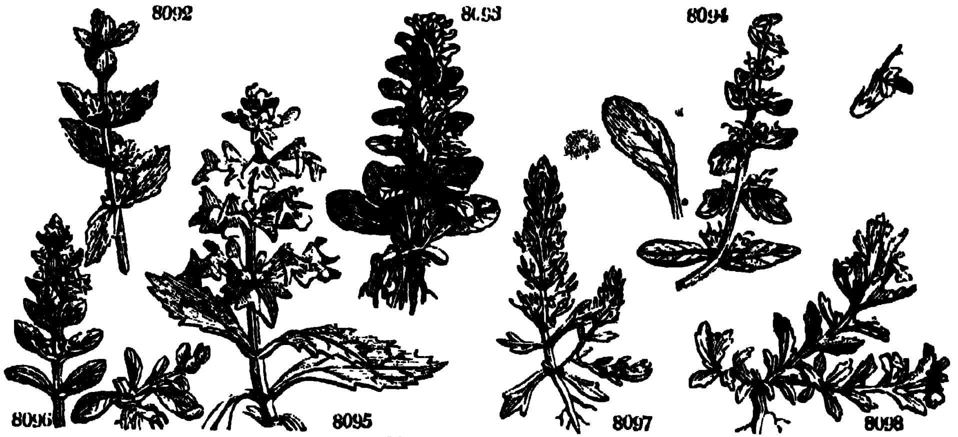
1245. *Westringia.* Cal. campanulate, 5-toothed. Corolla subrotate, with the upper segment bifid. Two of the anthers barren.

1246. *Satureja.* Cal. tubular, striated. Segments of corolla nearly equal. Stamens distant.

8088 Stem creeping, Leaves triangular cordate serrate crenate
8089 Stem erect, Leaves cordate roundish crenate with round auricles

8090 An aquatic floating plant, covered all over with viscid slime, Roots fibrous

8091 The only species. A small plant with simple stems and a few 3-5-parted leaves



and Miscellaneous Particulars.

1240 *Hydropeltis.* From υδωρ, water, and πελτη, a buckler; that is to say, a water-plant, with a leaf like a round shield. A curious little floater, with the aspect of Hydrocharis.

1241. *Hydrastis.* From υδωρ, water, in reference to the humid places wherein it grows. The root of this plant is yellow, bitter, pungent, and tonical.

1247. *Thymbra.* Cal. subcylindrical, 2-lipped, with a villous furrowed line on each side. Segm. of cor. flat. Style half bifid.

1248. *Hyssopus.* Lower lip of cor. 3-parted, with the intermediate segm. subcrenate. Stamens straight, distant.

1249. *Nepeta.* Cal. dry, striated. Cor. with a longish tube; the middle segments of lower lip crenate. Orifice reflexed at edge. Stamens approximating.

1250. *Elsholtzia.* Cal. tubular, 5-toothed. Upper lip of corolla 4-toothed; lower longer, undivided, somewhat crenulate. Stamens distant.

1251. *Lavandula.* Cal. ovate, somewhat toothed, supported by a bractea. Corolla resupinate. Stamens within the tube.

1252. *Sideritis.* Cal. 5-fid. Cor. ringent or subregular: the upper lip bifid, lower 3-parted. Stamens within the tube. The short stigma wrapping over the other.

1253. *Bystropogon.* Cal. with 5 subulate teeth, closed at the orifice with hairs. Upper lip of cor. bifid; lower trifid. Stamens distant.

1254. *Mentha.* Cor. nearly equal, 4-fid, with the broadest segment emarginate. Stamens erect, distant.

1255. *Perilla.* Cal. with the upper segment very short. Stamens distant. Styles 2, united.

1256. *Hyptis.* Cal. 5-toothed, increasing in size. Corolla ringent: the upper lip bifid; the lower 3-parted, with the intermediate segment shaped like a little bag. Stamens inserted in the swollen part of the tube, and declinate.

1257. *Horminum.* Cal. 2-lipped, awned, smooth in the orifice; when past flower, having its upper teeth crossing each other. Upper lip of corolla 2-lobed; lower 3-lobed, with nearly equal segments. Leaves radical. Scape nearly naked.

1258. *Glechoma.* Cal. 5-fid. Each pair of anthers forming by their union the figure of a cross.

1259. *Lamium.* Upper lip of corolla entire, vaulted; lower 2-lobed; the orifice toothed at the edge on both sides.

1260. *Galeopsis.* Upper lip of corolla somewhat crenate, vaulted; lower 2-toothed above.

1261. *Galeobdolon.* Cal. 5-fid, unequal, awned. Upper lip of corolla vaulted, entire; lower trifid, with acute segments. Anthers smooth.

1262. *Betonica.* Calyx awned. Upper lip of cor. ascending, flattish. Tube cylindrical.

1263. *Stachys.* Upper lip of cor. vaulted; lower reflexed at edges, intermediate larger and emarginate. Stamens after flowering reflexed towards the sides.

1264. *Zietenia.* Cal. 5-parted, with subulate very long equal segments. Segments of lower lip of cor. reflexed; intermediate folded together and emarginate. Stamens after flowering reflexed towards the sides. Grain one.

1265. *Ballota.* Cal. hypocrateriform, 5-toothed, 10-lined. Upper lip of cor. crenate concave. Grains ovate 3-cornered.

1266. *Marrubium.* Cal. hypocrateriform, rigid, 10 lined. Upper lip of cor. bifid, linear, straight.

1267. *Leonurus.* Cal. 5-angled, 5-toothed. Upper lip of cor. villous, flat, entire; lower 3-parted, with the middle segment undivided. Anthers covered, with shining spots.

1268. *Phlomis.* Calyx 5-angled, 5-toothed. Helmet compressed, keeled, emarginate. Seeds bearded at end.

1269. *Leucas.* Cal. tubular, 10-striated, 8-10-toothed, with an orifice, either equal or oblique. Corolla ringent. Helmet concave, entire, bearded: lower lip 3-fid, with the middle segment largest. Anthers twin, beardless, with divaricating lobes. Stigma 2-lipped, with the upper segment very short.

1270. *Leonotis.* Differs from the last in having an elongated helmet, and the lower lip small and withering: the middle segment scarcely larger than the others.

1271. *Moluccella.* Cal. campanulate, enlarged, wider than corolla, spiny.

1272. *Clinopodium.* Invol. of many bristles beneath the whorl. Corolla 2-lipped. Upper lip of corolla flat, obcordate, straight.

1273. ***Pycnanthemum.*** Involucre of many bractes beneath the little heads. Cal. tubular, striated. Upper lip of corolla nearly entire; lower trifid. Stamens nearly equal.

1274. ***Origanum.*** Cone 4-cornered, spiked, collecting the calyxes. Upper lip of corolla erect, flat; lower 3-parted, with nearly equal segments.

1275. ***Thymus.*** Orifice of bilabiate calyx closed with hairs. Upper limb of corolla flat, emarginate.

1276. ***Acynos.*** Cal. 2-lipped, furrowed, hispid, gibbous at base, villous at orifice. Cor. ringent, inflated at orifice, with the upper lip erect, emarginate; the lower 3-parted, spreading: intermediate segm. concave. All the stamens fertile.

1277. ***Calamintha.*** Cal. after flowering closed by hairs. Orifice of cor. inflated. Upper lip emarginate; lower 3-parted, with the intermediate segment entire, subemarginate or crenulate

1278. ***Melissa.*** Cal. dry, flattish above, with the upper lip somewhat fastigiate. Upper lip of cor. somewhat vaulted, 2-fid: lower less, with middle lobe cordate.

1279. ***Dracocephalum.*** Cor. inflated at orifice, with the upper lip concave.

1280. ***Melittis.*** Cal. smooth, campanulate, blunt, oblique at orifice. Upper lip of cor. flat; lower crenate. Anthers cruciate.

1281. ***Ocymum.*** Cal. with the upper lip orbicular; lower 4-fid. Corolla resupinate, with one lip 4-cleft, the other undivided. Exterior filaments having a process at their base.

1282. ***Plectranthus.*** Upper lip of cal. largest. Corolla resupinate, ringent, with the tube gibbous upwards, or spurred.

1283. ***Trichostema.*** Upper lip of cor. falcate, Stamens very long.

1284. ***Prostanthera.*** Calyx 2-lipped, in fruit closed. Tube striated, lips undivided, blunt. Corolla ringent, with a half bifid helmet: middle segment of lower lip large, 2-lobed. Anthers spurred beneath.

1285. ***Scutellaria.*** Cal. entire, after flowering closed with a lid. Tube of the corolla elongated.

1286. ***Prunella.*** Upper lip of calyx dilated. Filaments forked, upon one point bearing their anthers. Stigma bifid.

1287. ***Cleonia.*** Filaments forked, upon one point bearing their anthers. Stigma bifid.

1288. ***Prasium.*** Cal. campanulate, 2-lipped. Upper lip of cor. vaulted; lower trifid, with the middle segm. largest cordate. Grains berried.

1289. ***Phryma.*** Cal. 2-lipped, 5-toothed. Grain only one.

Order 2. ANGIOSPERMIA. Seeds several, enclosed in an undivided pericarpium.

I. *Ovary inferior, or nearly inferior.*

1290. ***Gesneria.*** Cal. 5-fid. Corolla incurved and recurved. Capsule 2-celled.

1291. ***Gloxinia.*** Cal. 5-leaved. Cor. campanulate, with an oblique limb. Filaments with the rudiment of a fifth inserted upon the receptacle.

1292. ***Linnæa.*** Cal. double: of the fruit 2-leaved; of the flower 5-parted. Cor. campanulate. Berry dry, 3-celled.

II. *Ovary superior, polypetalous.*

1293. ***Melianthus.*** Cal. 5-leaved, with the lower leaflet gibbous. Petals 4, with the nectary below the lowest. Capsule 4-celled.

III. *Ovary superior, monopetalous.*

A. *Filaments 5, the upper only rudimentary.*

1294. ***Bignonia.*** Cal. 5-fid, cup-shaped. Cor. campanulate, 5-fid, ventricose beneath. Pod 2-celled. Seeds with membranous wings.

1295. ***Jacaranda.*** Cal. 5-toothed. Cor. tubular at base, with a dilated throat, and a 5-lobed unequal limb. Fifth filament sterile, long, villous at end. Stigma with two lips. Capsule large, round, woody, with the edge dividing into two valves.

1296. ***Sesamum.*** Cal. 5-parted. Cor. campanulate 5-fid, with the lower lobe largest. Stigma lanceolate Capsule 2-celled, the cells divided in two by the inflexed edges of the valves.

1297. ***Pentstemon.*** Cal 5-leaved. Cor. 2-lipped, ventricose. Fifth filament longer than the rest, and bearded at its upper end. Capsule compressed, 2-celled, 2-valved. Seeds numerous, subglobose.

1298. ***Chelone.*** Cal. 5-parted, with two bractes. Cor. ringent, ventricose. Fifth filament shorter than the others. Caps. 2-celled, 2-valved. Seeds numerous, with a membranous edge.

1299. ***Tourretia.*** Cal. 2-lipped. Corolla ringent: the upper lip galeate, large; lower 2-toothed, very small. Nectary annular, 4-lobed. Stigma truncate. Capsule 4-celled. Dissepiments with 4 wings. Seeds cordate.

1300. ***Martynia.*** Cal. 5-fid. Cor. ringent. Capsule woody, coated, with a hooked beak, 4-celled, 2-valved.

B. *Filaments 4. Capsule many-seeded, opening with elasticity. Seeds large, flat.*

* *Calyx bifid.*

1301. ***Acanthus.*** Cal. 4-parted: the two lateral inner segments short; the two outer long, with 3 bractes, of which the middle one is toothed, spiny. Cor. labiate, having the orifice closed with hairs. Lower lip very large, 3-lobed. Anthers villous. Stigma bifid. Caps. ovate, with [illegible]-seeded cells.

** *Calyx 4-fid.*

1302. ***Barleria.*** Cal. 4-parted. Stamens 2, much smaller than the others. Capsule with 4 angles, 2-celled, 2-valved, elastic, without claws. Seeds 2.

*** *Calyx 5-fid.*

1303. ***Phaylopsis.*** Calyx unequal, with a large dorsal segment. Cells of the ovary 2-seeded, with the segments of the dissepiment spontaneously dividing in two. Otherwise like Blechum.

1304. ***Ruellia*** Cal. 5-parted, generally with two bractes. Corolla campanulate, with a 5-lobed limb. Stamens in pairs. Capsule narrowed to each end. Teeth opening elastically. Seeds not many.

1305. ***Blechum.*** Cal. 5-parted, equal. Cor. funnel-shaped. Capsule about 2-celled, 2-valved: the segments of the crosswise dissepiment finally becoming loose. Seeds many, with hooks.

1306. ***Aphelandra.*** Cal. 5-parted, unequal. Cal. 2-lipped. Anthers 1-celled. Capsule 2-celled, 2-valved, with a dissepiment crosswise. Seeds with hooks.

1307. ***Crossandra.*** Cal. 5-parted, unequal. Cor. 1-lipped. Stamens included. Anthers 1-celled. Capsule 2-celled. 2-valved, with a dissepiment crosswise. Seeds with hooks.

**** *Calyx multifid.*

1308. ***Thunbergia.*** Cal. double: outer 2-leaved; inner about 12-toothed. Cor. campanulate. Capsule beaked, 2-celled.

C. *Filaments 4. Capsule, drupa, or berry few seeded. Seeds erect.*

* *Calyx bifid.*

1309. ***Hebenstreitia.*** Cal. spathaceous, opening lengthwise beneath. Cor. tubular, unequal, with one upper 4-fid lip. Stamens projecting from the lower cleft of the corolla. Caps. 2-seeded.

** *Calyx 4-fid.*

1310. ***Hosta.*** Cal. obsoletely 2-lipped, 4-toothed. Corolla ringent, with the middle segment of the lower lip large, emarginate. Drupe with a 4-celled, 4-seeded nut.

1311. ***Gmelina.*** Cal. about 4-toothed. Cor. 4-fid, campanulate. Two of the anthers 2-parted, 2-simple. Drupe baccate. Putamen bony, 4-celled. Cells 1-seeded, the lower sterile.

1312. ***Lantana.*** Flowers capitate. Cal. obsoletely 4-toothed. Limb of corolla 4-fid, with an open orifice. Stigma hooked backwards. Drupes heaped, with a 2-celled smooth nut.

1313. ***Aloysia.*** Calyx deeply 4-cleft. Corolla tubular, 4-lobed. Stigma emarginate. Stamens 4, perfect. Seeds two.

1314. ***Lippia.*** Flowers capitate. Cal. 4-toothed, roundish, erect, compressed, membranous. Corolla 4-fid, funnel-shaped. Drupe dry, 1-seeded, thin, covered by the calyx. Nuts two, 1-seeded.

1315. ***Melampyrum.*** Capsule 2-celled. Seeds 2, gibbous, polished.

*** *Calyx 5-fid.*

1316. ***Selago.*** Cal. 5-fid. Tube of corolla filiform. Limb nearly equal. Capsule simple or 2-lobed, each lobe with a seed.

1317. ***Vitex.*** Cal. 5-toothed. Limb of cor. 5-6-fid. Drupe 1-seeded, with a 4-celled nut.

1318. ***Cornutia.*** Cal. 5-toothed. Stamens longer than corolla. Style very long. Berry 1-seeded.

1319. ***Zapania.*** Flowers capitate. Cal. 5-toothed. Cor. 6-fid. Stigma peltate, capitate, oblique. Fruit covered, bladdery, enclosing two seeds.

1320. ***Priva.*** Cal. inflated, 5-toothed. Cor. a little longer than the tube of calyx, contracted at orifice. Drupe covered by the calyx. Nuts two, 2-celled, 2-seeded. Stamens 2-4.

1321. ***Spielmannia.*** Cal. 5-fid. Limb of cor. 5-fid, the orifice closed by hairs. Stigma hooked. Drupe with a 2-celled warted nut.

1322. ***Verbena.*** Cal. 5-fid Cor. funnel-shaped, with an incurved tube, and an unequal 5-fid limb. Stamens 4, fertile. Fruit bladdery, covered, withering. Seeds 4.

1323. ***Avicennia.*** Cal. 5-parted. Cor. 2-lipped : the upper lip square. Caps. coriaceous, rhomboid, 1-seeded. Seed germinating within the capsule.

1324. ***Caldasia.*** Cal. tubular, 5-toothed. Cor. hypocrateriform, nearly equal. Filaments inserted in top of tube. Caps. 3-celled, 3-seeded, 3-valved. Seeds elliptical.

1325. ***Clerodendrum.*** Cal. 5-fid, campanulate. Corolla with a filiform tube and a 5-parted equal limb. Stamens very long, projecting from between the segments of corolla. Drupe 4-seeded, with a 1-celled nut.

1326. ***Volkameria.*** Cal. 5-fid. Cor. with 1-sided segments. Drupe 2-seeded. Nuts 2-celled, with 1-seeded cells.

1327. ***Holmskioldia.*** Cal. colored, very large, campanulate, spreading, with a nearly entire limb a little shorter than the ringent corolla.

1328. ***Petræa.*** Cal. 5-parted, very large, colored. Corolla rotate. Caps. 2-celled, 2-seeded in the bottom of the calyx. Seeds solitary.

1329. ***Citharexylum.*** Cal. 5-toothed, campanulate. Corolla funnel-shaped, rotate. Segments villous, above equal. Drupe 2-seeded. Nuts 2-celled.

1330. ***Duranta.*** Cal. 5-fid, superior. Drupe 4-seeded, covered by the calyx. Nut 4-2-celled, 2-seeded.

1331. ***Pedalium.*** Cal. 5-parted. Cor. tubular, ringent, with a 5-cleft limb. Filaments hairy at base. Anthers in pairs, forming a cross. Nut corky, with spiny angles. Seeds 2, with an arillus.

1332. ***Myoporum.*** Cal. 5-parted. Corolla campanulate, with a spreading nearly equal 5-parted limb. Drupe 1-2-seeded, with 2-celled nuts.

1333. ***Stenochilus.*** Cal. 5-parted. Cor ringent : the upper lip erect, half 4-cleft : lower undivided, narrow, deflexed. Stamens didynamous, exserted. Ovary 4-celled, with 1-seeded cells. Stigma blunt, undivided. Drupe berried, 4-celled. Seeds solitary.

1334. ***Bontia.*** Cal. 5-parted. Cor. 2-lipped, with an oblong tube : the lower lip 3-parted, revolute. Drupe ovate, 1-seeded, oblique at end.

D. *Filaments 4. Capsule or berry many-seeded. Seeds small, attached to a central receptacle.*

* *Calyx bifid.*

1335. ***Orobanche.*** Cal. of 2-lobed lateral leaflets. Corolla ringent. Capsule 1-celled, 2-valved, many-seeded. Gland at the base of the ovary.

1336. ***Crescentia.*** Cal. 2-parted, equal. Corolla gibbous. Berry stalked, 1-celled, many-seeded. Seeds immersed in pulp.

1337. ***Castilleija.*** Cal. spathaceous ; the upper lip bifid, lower none. Cor. 2-lipped : the lower lip very short, trifid, with 2 glands between the segments. Caps. 2-celled.

** *Calyx trifid.*

1338. ***Halleria.*** Cal. 3 or 5-leaved. Cor. 4-fid, somewhat inflated. Berry 2-celled, many-seeded

*** *Calyx 4-fid.*

1339. ***Lathræa.*** Cal. 4-fid. A depressed gland at the base of the suture of the ovary. Capsule 1-celled.

1340. ***Rhinanthus.*** Cal. 4-fid, ventricose. Cor. ringent, with the upper lip generally compressed. Capsule 2-celled, blunt, compressed.

1341. ***Bartsia.*** Cal. 4-lobed, emarginate, colored. Cor. smaller than the calyx : the upper lip longest. Capsule 2-celled. Seeds angular.

1342. ***Euphrasia.*** Cal. cylindrical, 4-fid. Corolla 2-lipped : the upper lip bifid ; the lower 3-lobed, with bifid lobes. Lower anthers with spiny lobes.

**** *Calyx 5-fid.*

1343. ***Antirrhinum.*** Cal 5-leaved. Cor. not spurred, gibbous at base : the upper lip bifid, reflexed ; lower trifid, closed by the prominent palate. Caps. oblique at base, without valves, opening at the end by three pores.

1344. ***Linaria.*** Cal. 5-parted, with the two lower segments remote. Cor. spurred, ringent : the orifice closed by the prominent palate. Caps. ovate 2-valved, opening at the end into 3-5-segments.

1345. ***Anarrhinum.*** Cal. 5-leaved. Cor. prominent at base, honey bearing : lower lip flat, without a prominent palate. Caps 2-celled, many-valved.

1346. ***Nemesia.*** Cal. 5-parted. Cor. spurred, with a prominent palate. Caps. compressed, truncate, opening lengthwise in the middle, 2-celled, 2-valved. Seeds numerous, linear.

1347. ***Maurandya*** Cal. 5-parted. Cor. campanulate, unequal. Filaments callous at base. Caps. 2, united, half 5-valved at end.

1348. ***Gerardia.*** Cal. 5-fid. Cor. 2-lipped, the lower lip 3-parted, with emarginate lobes : the middle 2-parted. Capsule 3-celled, splitting.

1349. ***Pedicularis.*** Cal. 5-fid. Cor. ringent. Capsule 2-celled, mucronate, oblique. Seeds truncated. Leaves multifid.

1350. ***Erinus.*** Cal. 5-leaved. Cor. with a 5-fid, equal limb. Lobes emarginate : the upper lip very short, reflexed. Caps. 2-celled.

1351. ***Mimulus.*** Cal. prismatical, 5-toothed. Cor. ringent, with the upper lip folded back at the sides. Stigma thick. Capsule 2-celled, many-seeded.

1352. *Hornemannia.* Cal. tubular, 5-toothed, plaited. Cor. with the upper lip emarginate: lower 3-lobed. Seeds minute, scurfy.

1353. *Mazus.* Cal. large, campanulate, spreading. Cor. ringent, with a pimpled throat. Anthers connected. Stigma spatulate. Caps. 2-celled, many-seeded.

1354. *Isoplexis.* Like Digitalis, but corolla campanulate, with the upper segment as long as the lip, and incumbent upon it before expansion.

1355. *Digitalis.* Cal. 5-parted. Corolla campanulate, ventricose, 5-fid. Capsule ovate 2-celled.

1356. *Scrophularia.* Cal. 5-fid. Cor. subglobose, resupinate. Caps. 2-celled.

1357. *Vandellia.* Cal. 4-fid. Cor. ringent. Two outer filaments from the disk of the lip of cor. Anthers united in pairs. Caps. 1-celled, many-seeded.

1358. *Sibthorpia.* Cal. 5-parted. Cor. 5-parted, equal. Stamens in remote pairs. Caps. orbicular, compressed, 2-celled, with a transverse dissepiment.

1359. *Limosella.* Cal. 5-fid. Cor. 5-fid, equal. Stamens approximating in pairs. Caps. 1-celled, 2-valved, many-seeded.

1360. *Browallia.* Cal. 5-toothed. Cor. closed by the prominent orifice. Two of the anthers larger than the others. Caps. 1-celled.

1361. *Stemodia.* Cal. 5-parted. Cor. 2-lipped. Stamens 4: each filament bifid, and bearing two anthers. Capsule 2-celled.

1362. *Trevirana.* Cal. 5-leaved. Cor. declinate funnel-shaped. Limb flat, 5-parted, nearly equal. Caps. half 2-celled.

1363. *Columnea.* Cal. 5-parted, spreading. Corolla ringent: the upper lip 3-parted, with the intermediate segment arched, above the base gibbous. Capsule berried, 1-2-celled.

1364. *Russelia.* Cal. 5-leaved. Cor. 2-lipped, with a hairy throat: upper lip broader, emarginate, lower trifid, with linear segments. Stigma globose. Caps. 1-celled, 2-valved, many seeded.

1365. *Dodartia.* Cal. campanulate, angular, 5-toothed. Lower lip of cor. broad, 3-fid. Stigma bifid. Caps. globose, 2-celled, covered by the calyx.

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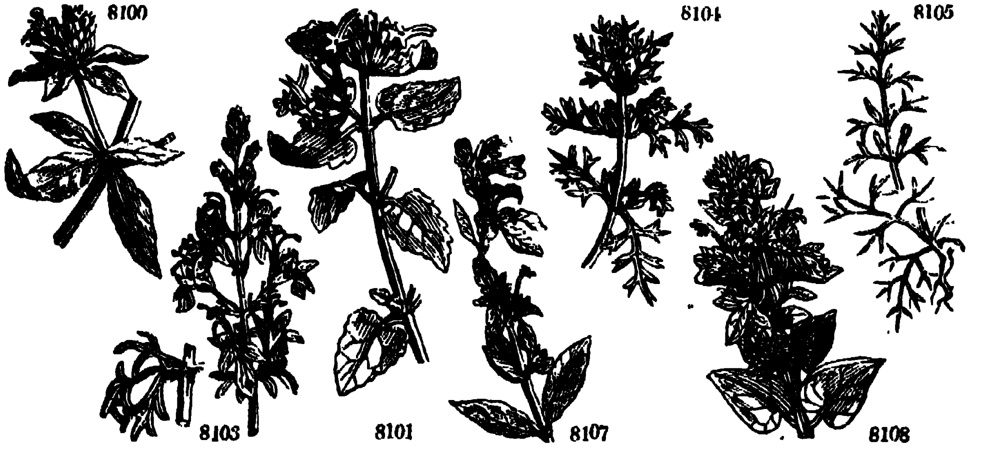
1242.	**A'JUGA.** *W.*	BUGLE.					*Labiatæ.*		*Sp.* 8—17.				
8092	**orientális** *W.*	oriental	♃	△	or	1¼	my.jn	B	Levant	1732.	D	s.p	Dill elt t.53. f.61
8093	**pyramidális** *W.*	pyramidal	♃	△	or	¼	my.jn	Pu	Britain	sc mo.	D	s.p	Eng. bot. 1270
8094	**alpína** *W.*	Alpine	♃	△	or	½	my.jl	B	England	moun.	D	co	Eng. bot. 477
8095	**genevénsis** *W.*	Geneva	♃	△	or	½	my.jn	F	Switzerl.	1656.	D	co	Bull herb. t. 361
8096	**réptans** *W.*	common	♃	△	or	½	my.jn	B	Britain	moi.w.	D	s.p	Eng. bot. 489
	β álba	*white-flowered*	♃	△	or	½	my.jn	W	Britain	moi.w.	D	s.p	
	γ rúbra	*red-flowered*	♃	△	or	½	my.jn	R	Britain	moi.w.	D	s.p	
8097	**Chamæ'pitys** *W.*	Ground Pine		○	pr	¼	ap.jl	Y	England	san.fi.	S	s.l	Eng. bot. 77
8098	**I'va** *W.*	musky		○	cu	½	jl.au	R	S. Europe	1759.	S	s.l	Fl. græca, 525
8099	**furcáta** *Link.*	furcate	♃	⊔	or	½	jl.au	B	Nepal	1824.	D	co	
1243.	**ANISOME'LES.** *R. Br.*	ANISOMELES.					*Labiatæ.*		*Sp.* 2—5.				
8100	**malabárica** *R. Br.*	Malabar	♃	□	or	1½	jl.au	V	E. Indies	1817.	C	co	Rheede, 10. t. 93
8101	**ováta** *H. K.*	broad-leaved		⊡	or	1½	jl.au	Pk	E. Indies	1783.	S	l.p	Bur.zeyl. t.71.f.1
1244.	**TEU'CRIUM.** *W.*	GERMANDER.					*Labiatæ.*		*Sp.* 44—87.				
8102	**campanulátum** *W.*	small-flowered	♃	△	or	1	jl.au	W	Levant	1728.	D	co	
8103	**orientále** *W.*	great-flowered	♃	△	or	1	jl.au	B	Levant	1752.	D	co	Bot. mag. 1279
8104	**Bótrys** *W.*	cut-leaved		○	or	¾	jl.s	R	S. Europe	1633.	S	co	Ger.ema. 525.f.2
8105	**nissoliánum** *W.*	Spanish	♃	△	or	1	jn.jl	Pu	Spain	1752.	D	co	Mor.his.t.22.f.19
8106	**trífidum** *W.*	trifid-leaved	♄	⊔	or	1½	jn.au	Pu	C. G. H.	1791.	C	r.m	
8107	**frúticans** *W.*	narrow-leav. tr.	♄	⊔	or	3	jn.s	V	Spain	1640.	C	r.m	Dil.el.t.284.f.366
8108	**latifólium** *B. M.*	broad-leav. tree	♄	⊔	or	3	jn.s	V	Spain	1640.	C	r.m	Bot. mag. 245
8109	**Márum** *W.*	Cat-thyme	♄	⊔	or	1½	jl.s	Pa.pu	Spain	1640.	C	r.m	Park. thea 17.f.2
8110	**multiflórum** *W.*	many-flowered	♃	△	or	1	jl.s	L.R	Spain	1731.	C	co	Bocc. mus. t.117
8111	**régium** *W.*	royal	♄	⊔	or	1½	my.o	Pu	Spain	1699.	C	r.m	Plu.alm. t.65. f.1



History, Use, Propagation, Culture,

1242. *Ajuga.* Said to be an alteration of *abigo*, to expel or drive away. The Latins attributed emmenagogue qualities to a plant called *ajuga*, which is believed to be our Teucrium chamæpitys. Handsome flowering plants. A. reptans is vulgarly reputed vulnerary, cooling, and gently astringent. It is commonly called *bugle*, which appears to be a corruption of *bugula*, a contracted diminutive of *buglossum*, which the plant resembles in medical qualities.

1243. *Anisomeles.* So named by Mr. Brown, from *α*, privative, *ἴσος*, equal, and *μέλος*, a member. Tropical downy herbaceous plants. Their leaves are crenated, flowers grow in whorls supported by minute bracteas; the calyxes are glandular, and the corolla of all the species purple.

1244. *Teucrium.* Teucer, the Trojan prince, is said by Pliny to have been the first to employ this plant

1366. *Lindernia.* Cal. 5-parted. Cor. ringent: upper lip very short. Two lower stamens with a terminal tooth and lateral anther. Capsule 1-celled.

1367. *Herpestis.* Cal. 5-parted, unequal: 2 inner sepals smaller, covered by the others. Cor. tubular, somewhat 2-lipped. Stamens included. Lobes of anthers spreading. Stigma emarginate.

1368. *Capraria.* Cal. 5-parted. Cor. campanulate, 5-fid, acute. Caps. 2-valved, 2-celled, many-seeded.

1369. *Buchnera.* Cal. absolutely 5-toothed. Limb of corolla 5-fid, equal, with cordate lobes. Capsule 2-celled.

1370. *Manulea.* Cal. 5-parted. Cor. funnel-shaped. Limb 5-parted, with subulate segments; the four upper large, connected. Caps. 2-celled, many-seeded.

1371. *Angelonia.* Cal. 5-parted, nearly equal. Cor. irregular, spreading, 2-lipped, with a short tube, and arched orifice: upper lip 2-parted; lower much larger, 3-parted, with the middle segment slipper-shaped at base.

1372. *Schizanthus.* Cor. irregular: the upper lip 5-fid; lower 3-parted. Two filaments sterile. Capsule 2-celled.

1373. *Besleria.* Cal. 5-parted. Cor. tubular, gibbous on each side, with a 5-lobed unequal limb. Berry roundish, 1-celled, many-seeded. Seeds nidulant.

1374. *Teedia.* Cal. 5-parted. Cor. hypocrateriform, 5-fid, blunt. Style short, persistent. Berry 2-celled, many-seeded.

1375. *Brunsfelsia.* Cal. 5-toothed, small. Tube of cor. very long, with a flat 5-lobed limb. Capsule berried, 1-celled, many-seeded, with a very large receptacle.

1376. *Celsia.* Cal. 5-parted. Cor. rotate. Filaments bearded. Capsule 2-celled.

1377. *Alonsoa.* Cal. 5-parted. Cor. subrotate, resupinate, 5-fid, with the upper segment largest. Stamens declinate. Filaments smooth. Anthers approximating, similar. Capsule 2-celled.

1378. *Anthocercis.* Cal 5-fid. Cor. campanulate, regular. Rudiment of a 5th filament. Stigma capitate. Caps. 2-celled, 2-valved, many-seeded The inflexed edges of valves inserted in the placenta.

***** *Calyx multifid.*

1379. *Cymbaria.* Cal. 10-toothed. Upper lip of cor. bifid, lower trifid. Capsule cordate, 2-celled.

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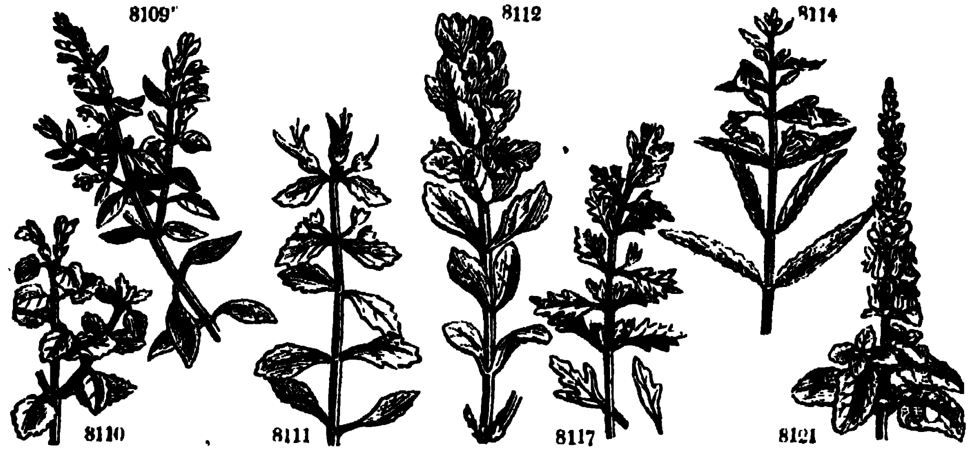
8092 Leaves ovate, Cor. pubescent resupinate
8093 Four-cornered pyramidal villous, Radical leaves very large
8094 Stem simple, Cauline leaves as long as radical leaves
8095 Radical leaves smaller than cauline leaves
8096 Stolones creeping

8097 Leaves trifid, Fl. axillary solitary shorter than leaf, Stem diffuse
8098 Leaves linear toothed forwards, Flowers axillary solitary
8099 Leaves stalked subcordate ovate acuminate acutely crenate hairy, Thyrses axillary stalked

8100 Bractes filiform, Leaves lanceolate entire downwards
8101 Leaves ovate subcordate crenate, Whorls many-fl. Bractes linear, Calyx hairy, Glands inconspicuous

8102 Leaves multifid, Flowers lateral solitary
8103 Leaves multifid linear, Raceme compound, Pedicels short
8104 Leaves multifid, Whorls halved
8105 Leaves trifid or 5-fid filiform, Flower stalked solitary opposite, Stem decumbent
8106 Leaves lanceolate trifid, Pedunc̣. axillary 3-flowered
8107 Leaves lanceolate entire white beneath, Flowers solitary
8108 Leaves entire rhomboid acute villous downy beneath, Flowers solitary
8109 Leaves quite entire ovate acute stalked downy beneath, Flowers racemose one-sided
8110 Leaves oval toothed forwards, floral entire stalked, Whorls racemose, Stem much branched
8111 Leaves ovate toothed forwards, floral entire sessile, Whorls racemose, Stems branched



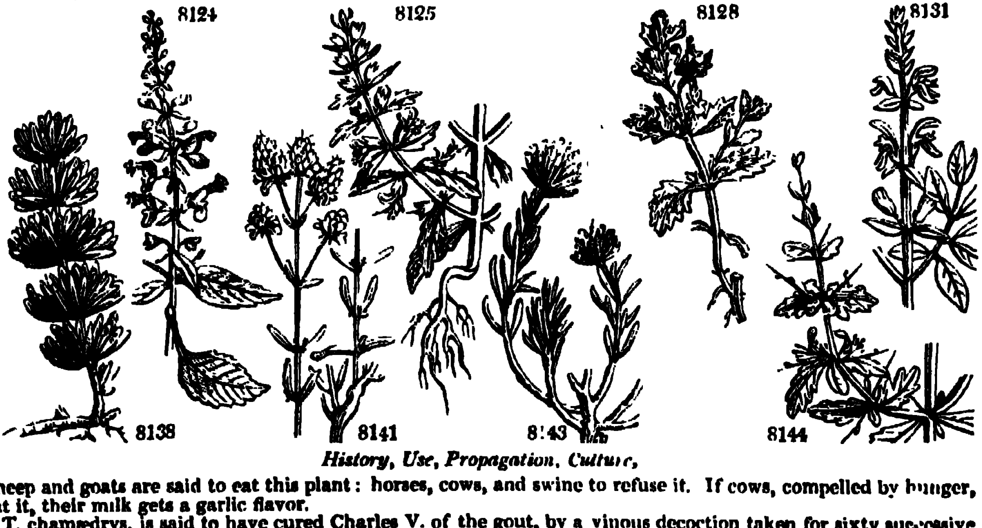
and Miscellaneous Particulars.

medicinally. Under-shrubs or herbs of little beauty, but several of them aromatic. The leaves and younger branches of T. marum (*Mar*, Arabic, signifying bitter), when recent, on being rubbed between the fingers, emit a volatile aromatic smell, which readily excites sneezing, but to the taste they are bitterish, accompanied with a sensation of heat and acrimony. Cats are very fond of these plants, and where there are few will destroy them.

T. scorodonia (*σκοροδον*, garlic, the smell of which this plant possesses) in Jersey is used as a substitute for hops, and the beer is said sooner to become clear than when hops are made use o[illegible] Withering found on trial that it gave too much color to the liquor.

T. scordium, also from *σκοροδον*, garlic, was once in high esteem for destroying worms and for fomentations.

8112	Laxmánni *W.*	Laxmann's	⚘	△	or	1	jn.au	Var	Siberia	1800.	C	co	Pl. rar. hu. 1. t. 69
8113	sibíricum *W.*	Siberian	⚘	△	or	1	jl	Pu	Siberia	1804.	C	co	
8114	asiáticum *W.*	Asiatic	♃	⊔	or	2	jn.o	Pu	......	1777.	C	r.m	Jac. vind. 3. t. 41
8115	lusitánicum *Lam.*	Portuguese	♃	⊔	or	1½	jn.o	Pu	Portugal	1822.	C	co	
8116	Arduíni *L.*	Arduini's	♃	⊔	or	1½	jn.o	Y	Candia	1823.	C	co	
8117	cubénse *W.*	Cuba	₤	[○]	or	1½	my	Pu	Cuba	1733.	C	co	Jac. obs. 2. t. 30
8118	canadénse *W.*	nettle-leaved	⚘	△	or	2	au.s	Pu	N. Amer.	1768.	D	co	
8119	virgínicum *W.*	Virginian	⚘	△	or	2	my.jn	B	N. Amer.	1768.	D	co	Schk. hand. 160
8120	inflátum *W.*	thick-spiked	₤	[△]	or	2	au.o	Li	Jamaica	1778.	D	co	
8121	hyrcánicum *W.*	Betony-leaved	⚘	△	or	1½	au.o	P	Persia	1763.	D	co	Bot. mag. 2013
8122	Abutiloídes *W.*	Mulberry-leav.	♃	⊔	or	1¾	ap.my	Y	Madeira	1777.	C	r.m	Jac. schæ. 3. t. 358
8123	Scorodónia *W.*	Wood Sage	⚘	△	or	1½	jl	Y	Britain	woods.	C	co	Eng. bot. 1543
8124	betónicum *W.*	hoary	♃	⊔	or	1½	my.au	Li	Madeira	1775.	C	r.m	Bot. mag. 1114
8125	resupinátum *W.*	resupinate		○	or	1	jl.au	Pa.Y	Barbary	1801.	C	r.m	Desf. atl. 2. t. 117
8126	massiliénse *W.*	sweet-scented	♃	⊔	or	2	jn.jl	Pu	France	1731.	C	r.m	Jac. vind. 1. t. 94
8127	Scórdium *W.*	water	≙	△	or	½	jl.au	Pu	England	mar.	C	r.m	Eng. bot 828
8128	Chamæ'drys *W.*	wall	⚘	△	or	¾	my.au	Pu	England	old w.	C	co	Eng. bot. 680
8129	heterophýllum *W.*	various-leaved	♃	⊔	or	2	jn.jl	Pu	Madeira	1759.	C	r.m	
8130	lúcidum *W.*	shining	⚘	△	or	1½	jn.s	Br	S. Europe	1730.	C	r.m	Magn. hort. 52
8131	flávum *W.*	yellow-flower.	♃	⊔	or	2	jl.s	Y	S. Europe	1640.	C	r.m	Park. the. 109. f. 1
8132	montánum *W.*	dwarf mount.	♃	⊔	or	½	jl.o	W	S. Europe	1710.	C	co	
8133	supínum *W.*	procumbent	♃		or	¾	jn.o	W	Austria	1752.	C	co	Jac. aust. 5. t. 417
8134	thymifólium *P. S.*	thyme-leaved	⚘	△	or	½	jn.o	Pu	Spain	1816.	C	co	
8135	pyrenáicum *W.*	Pyrenean	⚘	△	or	½	jn.au	Pa.w	Pyrenees	1731.	D	co	Bot. cab. 1387
8136	aúreum *W.*	golden Poly	♃	⊔	or	1	jn jl	Y	S. Europe	1731.	D	co	Cav. ic. 2. t. 117
8137	Pólium *W.*	Poly	♃	⊔	or	1	jl.s		S. Europe	1562.	C	r.m	Barr. rar. t. 1074
8138	flavéscens *P. S.*	yellow Poly	♃	⊔	or	1	jl.s	Y	S. Europe	...	C	co	Barr. rar. t. 1073
8139	gnaphalódes *P. S.*	woolly-calyxed	♃	⊔	or	1¼	jl.s	Pu	Spain	1816.	C	co	Barr. rar. t. 1083
8140	Pseudohyssópus *W.*	Hyssop-leaved	♃		or	1½	jn.jl	W	Italy	1804.	C	co	Col. ecphr. 1. t. 67
8141	capitátum *W.*	round-headed	♃	⊔	or	¾	jl.au	Pu	Spain	1731.	C	co	Cav. ic. 2. t 119
8142	pycnophýllum *P. S*	close-leaved	⚘	△	or	½	jl.au	Pu	Spain	1816.	C	co	Barr. rar. 1096
8143	púmilum *W.*	small	♃	⊔	or	¼	jl.au	Pu	Spain	1816.	C	co	Barr. rar. t. 1092
8144	spinósum *W.*	thorny		○	or	½	my.jn	W	Spain	1640.	S	co	Cav. ic. 1. t. 31
8145	subspinósum *W. en.*	Minorca	♃	⊔	or	1½	...	Pu	Minorca	1816.	C	co	
1245.	WESTRIN'GIA. *Sm.*	WESTRINGIA.					*Labiatæ.* *Sp.* 2—8.						
8146	rosmariniformis *Sm.*	Rosemary-lvd.	♣	⊔	or	4	my.au	Pa.B	N. S. W	1791.	C	s.p	Bot. rep. 214
8147	Dampiéri *B. P.*	Dampier's	♣	⊔	or		my.jl		N. H	1803.	C	s.p	Bot. mag. 3308
1246	SATURE'JA. *W*	SAVORY.					*Labiatæ* *Sp.* 10—						
8148	juliána *W.*	linear-leaved	⚘	⊔	un	1	my.s	Pk	Italy	1596.	D	co	Lam. ill t. 504. f 1
8149	Teneriffæ *W. en.*	Teneriffe	⚘	⊔	un	1		Pu	Teneriffe				
8150	Thýmbra *W.*	whorl-flowered	♃	⊔	or	1	my.jl	Pu	Candia	1640.	C	r.m	Barr ic. t. 898
8151	græ'ca *W.*	Grecian	⚘	⊔	or	¾	jn jl	Pu.w	Greece	1759.	D	co	Alp. exot. t. 264
8152	montána *W.*	winter	♃		cul	1½	jn.jl	Pu	S. Europe	1562.	C	co	
8153	tenuifólia *Tenore.*	fine-leaved	⚘	⊔	un	1½	jn jl	Pu	S. Europe	1822.	D	co	
8154	rupéstris *W.*	rock	⚘	△	or	1	jn jl	Pu	Carniola	1798.	S	co	Jac. ic. 3. t. 494
8155	horténsis *W.*	summer		○	cul	1½	jn.au	Pk	Italy	1652.	C	r.m	Lam. il. it. 504. f 2
8156	capitáta *W.*	ciliated	♃		cul	1	jn.o	Pu	Levant	1596.	C	r.m	Barr. ic. t. 897
8157	vimínea *W.*	Pennyroyal-tr.	♃	□	cul	1	...	Pu	Jamaica	1783.	C	r.m	
1247.	THYM'BRA. *W.*	THYMBRA.					*Labiatæ.* *Sp.* 2—6.						
8158	spicáta *W.*	spike-flowered	♃	⊔	cu	1½	jn jl	Pa.pu	Levant	1699.	C	co	Pluk. al. t. 116. f. 5
8159	verticilláta *W.*	whorl-flowered	♃	⊔	cu	1½	jn.jl	Pa.pu	Spain	1702.	C	co	
1248.	HYSSO'PUS *W.*	HYSSOP.					*Labiatæ.* *Sp* 5—7.						
8160	officinális *W.*	common	♃		or	2	jn s	B	S. Europe	1548.	C	co	Jac. aust. 3. t 254
8161	orientális *W. en*	oriental	♃		or	2	jn.s	B	Caucasus	...	C	co	Bot. mag. 2299
8162	Lophánthus *W.*	Mint-leaved	⚘	△	or	2	au.s	Y	Siberia	1752.	C	p.l	Jac. vind. 2. t. 182
8163	nepetoídes *W.*	square-stalked	⚘	△	or	5	au.o	Y.w	N. Amer.	1692.	D	p.l	Jac. vind. 1. t. 69
8164	scrophulariifólius *W.*	Figwort-leaved	⚘	△	or	5	jl.au	Pk	N. Amer.	1800.	D	co	Herm par t 106



History, Use, Propagation, Culture,

Sheep and goats are said to eat this plant: horses, cows, and swine to refuse it. If cows, compelled by hunger, eat it, their milk gets a garlic flavor.

T. chamædrys, is said to have cured Charles V. of the gout, by a vinous decoction taken for sixty successive days. It is commonly called Germander, which seems to be a corruption of the word Chamædrys, for the French call it *germandrée*, an evident alteration of *gamandré*, under which name it first appeared in the very rare Herbier de Mayence, printed in 1485.

1245. *Westringia.* Named by Sir J. E. Smith, in honor of Dr. John Peter Westring, physician to the king of Sweden, and author of several learned papers on the Lichen tribe. A genus of New Holland plants, chiefly from the colder parts of that country, and having the appearance of our Rosemary.

8112 Leaves ovate-oblong villous nearly entire, Flowers axillary solitary sessile
8113 Leaves ovate serrate smooth, Pedunc sol 3-flowered intermediate sessile, Bractes linear lanceolate
8114 Leaves lanceolate repand-serrate rectangular at base, Fl. racemose one-sided, Calyx 2-lipped
8115 Leaves lanceolate crenate rugose, Flower racemose one-sided, Calyx 2-lipped
8116 Leaves ovate serrate, Raceme spiked round sessile terminal
8117 Leaves cuneate serrate-cut smooth narrowed into the stalk, Flower solitary stalked
8118 Leaves ovate-lanceolate serrate hoary beneath, Stem erect round terminal, Whorls 6-leaved
8119 Leaves ovate unequally serrate, Racemes terminal, Bractes shorter than flower-stalk
8120 Leaves oblong acuminate unequally serrate pubescent, Spikes sessile terminal, Cal. inflated villous
8121 Leaves cordate oblong obtuse, Stem brachiate dichotomous, Spikes very long terminal sessile spiral
8122 Leaves cordate toothed acuminate, Racemes lateral nodding
8123 Leaves cordate subpubescent toothed stalked, Racemes axillary one-sided, Stem erect herbaceous
8124 Leaves lanceolate crenate tomentose hoary beneath, Racemes terminal, Flower stem brachiate
8125 Leaves cuneiform lanc serrated villous, Racemes axillary and terminal, Cor resupinate
8126 Leaves ovate rugose cut crenate hoary, Stems erect, Racemes straight one-sided
8127 Leaves oblong sessile toothed nearly naked, Fl axillary stalked in pairs, Stem diffuse pubescent
8128 Leaves cuneiform ovate cut crenate stalked, Fl ternary, Stems procumbent somewhat hairy
8129 Leaves elliptical crenate, Fl lateral solitary, Lip of cor woolly outside, Leaves various in form
8130 Leaves ovate cut serrate smooth, Whorls halved, Stems erect smooth
8131 Leaves ovate crenate floral entire, Whorls halved racemose, Stem bearded in two rows
8132 Corymbs terminal, Cal. with acute unarmed teeth, Leaves lanceolate entire downy beneath
8133 Corymbs terminal, Cal with acute mucronate teeth, Lvs. linear entire revolute at edge downy beneath
8134 Heads terminal few flowered, Leaves stalked ovate blunt downy beneath, Stem procumbent
8135 Corymbs terminal, Leaves cuneiform orbicular crenate hairy
8136 Corymbs terminal hairy, Leaves ovate serrate and stems densely woolly at the ends yellow and shining
8137 Heads roundish stalked, Leaves lanceolate blunt crenate revolute at edge downy, Stem decumbent
8138 Heads roundish, and leaves, which are linear lanceolate crenate forwards, tomentose yellow at end
8139 Fl solitary clustered, Leaves linear revolute crenate, Calyxes woolly
8140 Heads roundish lax, Leaves lanceolate crenate forwards downy hoary, Stem woolly corymbose
8141 Heads stalked, Leaves lanceolate crenate tomentose, Stem erect
8142 Heads roundish, Leaves linear revolute crenate forwards close and stem densely woolly
8143 Heads terminal sessile, Leaves linear revol at edge packed in four close rows, Stem procumbent downy
8144 Spiny, Upper lip of calyx ovate, Corolla resupinate, Peduncles twin
8145 Leaves entire ovate acute stalked revolute at edge pubescent downy beneath, Fl racemose

8146 Leaves beneath and calyxes silvery, Teeth half as long again as tube
8147 Leaves beneath and calyxes ash colored opaque, Teeth half as short as tube

8148 Whorls fastigiate, Leaves linear lanceolate rough
8149 Lvs. acute revolute at edge pubescent, Pedunc axillary many fl Bractes much shorter than calyx
8150 Whorls roundish hispid, Leaves obovate oblong acuminate veinless dotted hispid
8151 Pedunc axillary 3 6-flowered, Bractes shorter than calyx, Leaves ovate hispid veiny beneath
8152 Pedunc axillary cymose one sided, Sepals acuminate mucronate, Leaves lin lanc entire mucronate
8153 Stem erect branched with spreading hairs, Upper leaves hairy acute, Ped 1 flowered axillary
8154 Ped axil cymose one-sided, Sepals blunt unarmed, Lvs roundish ovate atten at base toothed bluntish
8155 Pedunc axillary cymose, Leaves lanceolate entire, Stem brachiate
8156 Flowers spiked, Leaves keeled dotted ciliated
8157 Fl axillary 3 subsessile, Bractes linear, Leaves oblong entire attenuate at base smooth hispid beneath

8158 Flowers spiked, Bractes heaped linear ciliate
8159 Flowers whorled, Leaves linear lanceolate entire

8160 Fl whorled racemose 1 sided, Middle lobe of cor 2-lobed entire, Leaves lanceolate, Teeth of calyx erect
8161 Fl. whorled racemose 1 sided, Midd lobe of cor 2-lobed entire, Lvs lin lanc Teeth of cal spreading uneq
8162 Pedunc axillary cymose, Cor resupinate, Middle lobe crenate, Leaves oblong cordate toothed [tooth
8163 Spikes whorled cylind Midd lobe of cor crenate, Style shorter than cor Lvs subcord ov acum sharply
8164 Spikes whorl. cylind Midd. lobe of cor crenate, Style longer than cor Lvs cord ov acum bluntly tooth

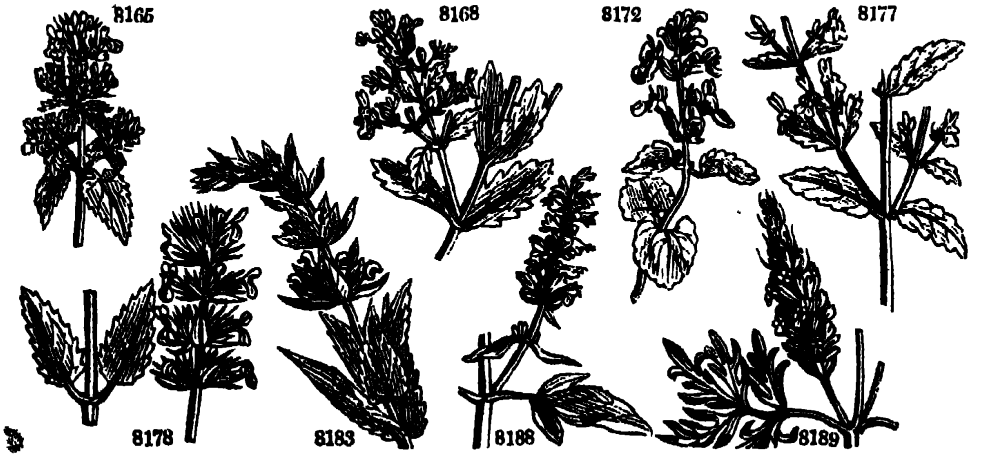
and Miscellaneous Particulars

1246. *Satureja.* The Arabs call all labiate plants by the collective name of *sa'atar*, according to Bochart Forskahl says, they call the wild Thyme *sa'atar* S. montana and hortensis have been cultivated as culinary aromatics from time immemorial, and much more formerly than now, when almost all European species are superseded by those of the East Indies.

1247 *Thymbra.* A name of uncertain origin The ancients gave it to a plant analogous to Thyme Possibly it may have been so called after the name of a place Thymbræa, a town in Lydia, was the spot where the famous battle was fought between Cyrus and Crœsus, in which the fate of the latter was decided

1248 *Hyssopus* Latinized from the Hebrew name *esob*. The Arabic name *azzof*, is evidently the same.

1249.	**NE'PETA.** *W.*	CAT-MINT.					*Labiatæ.*	*Sp.* 25—40.					
8165	catária *W.*	common	♃	△	cu	2	jl.s	W	Britain	ro.sid.	D	co	Eng. [illegible] 137
8166	angustifólia *W.*	narrow-leaved	♃	△	cu	2	jn.jl	Pu	Spain	1798.	D	co	
8167	críspa *W.*	curl-leaved	♃	△	cu	2	jl.au	Pa.B	Levant	1800.	D	co	
8168	pannónica *W.*	Hungarian	♃	△	cu	4	au.o	R	Hungary	1683.	D	co	Jac. aust. 2. t.129
8169	cærúlea *W.*	blue	♃	△	cu	1½	my.jn	B	......	1777.	D	co	
8170	violácea *W.*	violet-colored	♃	△	cu	2	jl.s	B	Spain	1723.	D	co	Boc. mus. t. 36
8171	longiflóra *Vent.*	long-flowered	♃	△	cu	2	jn.au	V	Persia	1802.	D	co	Vent. cels. 66
8172	Mussini *Bieb.*	scolloped-leav.	♃	△	cu	2	my.au	V	Siberia	1804.	D	co	Bot. mag. 923.
8173	incána *W.*	hoary	♃	△	cu	½	au	W	Levant	1723.	D	p.l	
8174	ucránica *W.*	Ukraine	♃	△	cu	2	jl.au	W	Ukraine	1789.	D	co	
8175	Nepetélla *W.*	small	♃	△	cu	1	jl.au	R	S. Europe	1758.	D	co	
8176	gravéolens *W.*	strong-smelling	♃	△	cu	1½	jl.au	Pu	S. Europe	1804.	D	co	All.ped.2.t. f.1
8177	núda *W.*	naked	♃	△	cu	1½	jl.au	W.	S. Europe	1710.	D	co	Jac. aus. 1. t. 24
8178	multibracteáta *Desf.*	many-bracted	♃	△	un	3	jl.au	Pu	Algiers	1817.	D	co	Desf. atl. t. 123
8179	coloráta *W. en.*	Nettle-leaved	♃	△	un	2	jl.au	Pu	Caucasus	1806.	D	co	
8180	melissæfólia *W. en.*	Balm-leaved	♃	△	un	2	jl.au	W	Candia	*1752.*	D	p.l	
8181	itálica *W.*	Italian	♃	△	un	1	jn.au	Y.w	Italy	1640.	D	p.l	Jac.vind.2. t.112
8182	marrubioídes *W. en.*	Horehound-lv.	♃	△	un	1½	jn.au	R	......	...	D	co	
8183	reticuláta *W.*	netted	♃	△	un	2	jl.au	Pu	Morocco	1801.	D	co	Desf. atl. 2. t.124
8184	lamiifólia *W. en.*	Lamium-leav'd	♃	△	un	1½	jl.au	Pu	Armenia	1806.	D	co	
8185	teucriifólia *W. en.*	Teucrium-lvd.	♃	△	un	1½	jl.au	Pu	Armenia	1816.	D	co	
8186	tuberósa *W.*	tuberous-root.	♃	△	un	2	jn.au	V	Spain	1683.	D	co	Barr. ic. t. 602
8187	lanáta *W.*	woolly	♃	△	un	1½	my.jn	Pu	S. Europe	1774.	D	co	Jac. obs. 3. t. 75
8188	multífida *W.*	multifid	♃	△	un	½	jl.au	W	Siberia	1796.	D	co	Gmel. sib. 3. t. 55
8189	botryoídes *W.*	annual		○	un	1½	jn.jl	W	Siberia	1779.	S	co	Cav. ic. 1. t. 49
1250.	**ELSHOLT'ZIA.** *W.*	ELSHOLTZIA.					*Labiatæ.*	*Sp.* 2—5.					
8190	ocymoídes *Pers.*	Basil-like	£	□	un	1	jl	Pu	E. Indies	1824.	S	co	
8191	cristáta *W.*	crested		○	or	1½	my.jl	Pk	Siberia	1789.	S	co	Lam.ill. t.502. f.2
1251.	**LAVAN'DULA.** *W.*	LAVENDER.					*Labiatæ.*	*Sp.* 8—12.					
8192	Spica *W.*	common	♄		clt	2	jl.s	Li	S. Europe	1568.	C	s.l	Sch. han.2. t.157
	β *alba*	*white-flowered*	♄		or	2	jl.s	W	......	...	C	s.l	
	γ *latifolia* W. en.	*broad-leaved*	♄		clt	2	jl.s	Li	S. Europe	1568.	C	s.l	
8193	Stœ'chas *W.*	French	♄	⌴	or	1½	my.jl	Li	S. Europe	1562.	C	s.l	Barrel. ic. t. 301
8194	víridis *W.*	Madeira	♄	⌴	or	1½	my.jl	Pu	Madeira	1777.	C	p.l	Hof.et L.lu. 1.t.4
8195	dentáta *W.*	tooth-leaved	♄	⌴	or	1½	jn.s	Li	Spain	1597.	C	p.l	Bot. mag. 400
8196	pinnáta *W.*	pinnated	♄	⌴	or	1½	ap.au	Li	Madeira	1777.	C	p.l	Bot. mag. 401
8197	multífida *W.*	cut-leaved	£	⊡	or	1½	jl.s	Li	Canaries	1597.	S	p.l	Lob. ic. 432
8198	abrotanoídes *W.*	Southernw.-lv.	♄	⌴	or	1½	jn.s	Li	Canaries	1690.	C	co	Comm. rar. t. 27
8199	carnósa *W.*	thick-leaved	£	⊡	or	1½	jn.jl	Li	E. Indies	1788.	C	co	Lin.am.ac.10.t.3
1252.	**SIDER'ITIS.** *W.*	IRONWORT.					*Labiatæ.*	*Sp.* 17—43.					
8200	canariénsis *W.*	Canary	❀	⌴	or	3	my.au	Y	Canaries	1697.	C	r.m	Jac. vind. 3. t. 30
8201	cándicans *W.*	Mullein-leaved	❀	⌴	cu	3	ap.jl	Y.Br	Madeira	1714.	C	r.m	Com.hort.2. t.99
8202	montána *W.*	mountain		○	or	1½	jl.au	Y.Br	Austria	1752.	S	co	Jac. aust.5. t.434
8203	élegans *W. en.*	dark-flowered		○	or	1½	jl	Y	......	1787.	S	co	Mur.co.got.1. t.4
8204	romána *W.*	Roman		○	or	1	jn.au	W	Italy	1740.	S	co	Cav. ic. 2. t. 187
8205	syríaca *W.*	Syrian	♄	⌴	or	1½	jn.s	W.y	Levant	1597.	C	r.m	Sabb.hort.3. t.40
8206	taúrica *W. en.*	Taurian	♄	⌴	cu	1½	jn.s	Pa.Y	Tauria	1822.	C	co	
8207	perfoliáta *W.*	perfoliate	♃	△	or	2	au.n	Y	Levant	1731.	C	co	
8208	incána *W.*	Lavender-lvd.	♄	⌴	or	1½	jl.au	Y	Spain	1752.	C	co	Cav. ic. 2. t. 186
8209	ilicifólia *W. en.*	Holly-leaved	♃	△	or	1½	jn.s	Y	Levant	...	C	co	
8210	spinósa *W. en.*	spiny	♃	△	or	1½	jn.s	Y	Spain	...	C	co	
8211	hyssopifólia *W. en.*	Hyssop-leaved	♃	△	or	1	jn.n	L.Y	Pyrenees	1597.	C	co	Sch. han.2. t.158
8212	scordioídes *W.*	scollop-leaved	♃	△	or	1	au.n	Y	France	1597.	C	co	Barr. ic. t. 343



History, Use, Propagation, Culture,

Vide John de Souza, p. 106. The plant to which this name was given is involved in uncertainty. It appears to have been one of the smallest plants, whence some have inferred that "the Hyssop which groweth out of the wall" is a kind of moss. H. officinalis, a neat little evergeen tuft, and most ornamental and fragrant when in flower, was once in considerable repute as a popular medicine, but is now almost out of use.

1249. *Nepeta.* Said by Linnæus to be derived from *Nepet*, a town of Tuscany, mentioned by Pliny. N. cataria is called catmint, because cats are very fond of it, especially when it is withered, when they will roll themselves on it, tear it to pieces, and chew it with great pleasure. Ray observes, that plants which he transplanted from the fields into his garden were always destroyed by the cats, unless he protected them with thorns till they had taken good root and came into flower; but that they never meddled with plants raised from seed. Miller has confirmed this by his own experience; having frequently set a plant from another part of the garden within two feet of others which came up from seeds, when the former was torn in pieces and destroyed by the cats, whilst the latter remained unhurt. The true reason of this difference is assigned by Ray; that the cat is fond of it in a languid withering state, or when the peculiar scent of the plant is excited by being handled or bruised in gathering or transplanting. Hence the English vulgar saying,

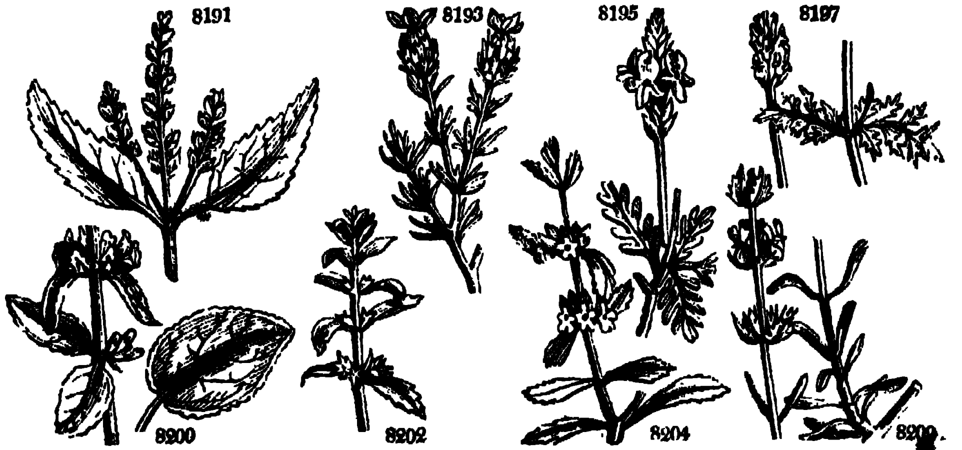
8165 Flowers spiked, Whorls somewhat stalked, Leaves stalked cordate tooth-serrated
8166 Corymbs stalked spiked, Leaves lanceolate rugose tomentose bluntly serrated
8167 Spike whorled interrupted, Leaves cordate toothed rugose waved crisp stalked hoary
8168 Cymes stalked many-flowered, Leaves lanceolate oblong cordate naked, Lateral lobes of cor. reflexed
8169 Cymes stalked many-fl. hairy, Lvs. oblong cordate villous subsessile, Lateral lobes of cor. reflexed
8170 Cymes stalked many-fl. pilose, Leaves cordate stalked naked subsessile, Lateral lobes of cor. spreading
8171 Cymes remote stalked 1-sided few-fl. Lvs. cordate blunt crenate glandular beneath : floral all sessile
8172 Cymes stalk. 1-sid : lower rem. Lvs. cord. blunt cren. rug. downy without glands : floral generally stalked
8173 Cymes stalked many-flowered, Leaves stalked oblong subcordate crenate downy
8174 Flowers panicled, Leaves lanceolate serrate sessile naked
8175 Cymes stalked, Leaves cordate oblong lanceolate deeply serrate downy
8176 Leaves cordate oblong serrated, Bractes linear, Whorls 8-12-flowered incurved nearly 1-sided
8177 Racemes whorled naked, Leaves cordate oblong sessile naked
8178 Flowers sessile in whorled spikes, Bractes lan. longer than calyx pubesc. Leaves stalked villous beneath
8179 Cymes stalked racemose, Leaves obl. cordate serrate beneath hoary and rugose with veins
8180 Leaves cordate oblong crenate stalked, Stem smooth angular, Flowers whorled capitate clustered
8181 Fl. sessile in whorled spikes, Bractes lin. the length of calyx, Leaves stalked
8182 Fl. sessile in whorled spikes, Whorls distant capitate, Bractes lanc. length of cal. Leaves stalked entire
8183 Leaves sessile lanceolate in approximated whorls, Bractes ovate with netted veins [at end
8184 Cymes stalked many-fl. Tube of cor. filiform curved, Leaves ovate cordate blunt stalked serr. pubescent
8185 Cymes stalked few-fl. racemose, Leaves ovate cordate blunt stalked toothed pubescent
8186 Spikes term. Bractes obl. acum. nerved with colored lines, Lvs. cord. pubesc. Lateral lobes of cor. reflexed
8187 Spikes term, Bractes ov. nerved rugose subscariose, Lvs. obl. cord. villous, Lateral lobes of cor. spreading
8188 Flowers spiked, Leaves pinnatifid entire
8189 Flowers spiked, Lateral lobes of cor. spreading, Leaves pinnatifid with lin. nearly equal segments

8190 Stems prostrate, Leaves ovate subserrate, Spikes terminal, Calyx scarious at end
8191 Spikes solitary unilateral erect, Bractes veiny

8192 Leaves sessile lin. lanc. revolute at edge, Spike interrupted naked

8193 Leaves sessile lin. downy revolute at edge, Spike contracted comose subsessile, Bractes 3-lobed
8194 Leaves sessile lin. rugose villous revolute at edge, Spike comose, Bractes undivided
8195 Leaves sessile linear pectinate-pinnate, Spike contracted comose
8196 Lvs. stalked pinnate, Leaflets cuneate, Spike imbricated
8197 Lvs. stalked hoary, Leafl. pinnatifid crosswise, Spike simple 4-corn. spiral, Bractes ovate nerved villous
8198 Lvs. stalked pinnate nearly smooth, Leafl. pinnatifid crosswise, Spike branched interrupted 4-cornered
8199 Lvs. stalked ovate cordate serrate fleshy, Spike 4-cornered, Calyxes recurved

8200 Shrubby villous, Lvs. cordate oblong acute stalked, Spikes whorled before flowering nodding
8201 Shrubby downy, Lvs. ovate lanc. cordate narrowed at end white beneath, Whorls about 8-fl. remote
8202 Herbaceous without bractes, Cal. larger than cor. spiny, Upper lip trifid
8203 Herbaceous without bractes villous, Stem diffuse, Segm. of calyx nearly equal spiny
8204 Herbaceous decumbent without bractes, Leaves spatulate toothed at end, Cal. spiny, Upper lip ovate
8205 Half-shrubby woolly, Leaves lanc. nearly entire, Fl. in whorled spikes, Bractes cordate acute downy
8206 Half-shrubby downy, Lvs. lanc. cren. Fl. in whorled spikes, Bractes cord. acum. reticulated with nerves
8207 Herbac. pilose-hispid, Upper lvs. lanc. amplexicaul. toothletted, Bractes cord. acum netted hairy at edge
8208 Half-shrubby downy, Lvs. linear lanceolate nearly entire, Flowers and bractes toothed
8209 Hirsute, Lvs. lanc. spiny toothed, Bractes round. cord. shorter than cal. with spiny teeth, Whorls distant
8210 Hirsute, Lvs. lanc. spiny toothed, Bractes cord. acum. longer than cal. with spiny teeth, Whorls close
8211 Lvs. lanc. smooth entire, Bractes cord. toothed-spiny, Calyxes equal
8212 Leaves lanc. toothed smooth above, downy beneath, Bractes ovate toothed spiny, Calyxes equal



and Miscellaneous Particulars.

"*If you set it*
The cats will eat it;
If you sow it
The cats will not know it."

1250. *Elsholtzia.* Named by Willdenow, in memory of a Prussian botanist, John Sigismund Elsholtz, who ved in the middle of the seventeenth century. Inconspicuous hardy herbaceous plants of little merit.

1251. *Lavandula.* From *lavare*, to wash. The use of the distilled water of this plant is well known. he flowers of L. spica have an agreeable fragrant odour, and warm bitterish taste. Alcohol extracts their virtues completely, and elevates in distillation all their odorous parts; water acts less completely. The oil, however, on which their virtues depend, is obtained separate in distillation with water; in the proportion, according to Lewis, of one ounce of oil from sixty ounces of the flowers. Lavender is stimulant and tonic. The oil extracted by alcohol enters into several compositions. The dried leaves in powder were used formerly as a sternutatory; but they are now neglected. The flowers are cut in dry weather, when they begin to blow. (*London Dispensatory*, 862.)

1252. *Sideritis.* From *σιδηρος*, iron. A name given by the Greeks to a plant by which were cured all

8213	hirsúta *W.*	hairy	♃	△	or	1½	jn.jl	Y	S. Europe	1731.	C	co	Cav. ic. 4. t. 302
8214	crispáta *W. en.*	curled-leaved	♃	△	or	1½	jn.s	Y	Gibraltar	1816.	C	co	
8215	crética *L.*	Candian	⚘	⊔	cu	1½	jn.s	W	Candia	1823.	C	co	
8216	fœ'tida *W.*	stinking	♃	△	un	1	jn.n	Y	Spain	1822.	C	co	
1253.	**BYSTROPO'GON.** *W.*	Bystropogon.						*Labiatæ.*	*Sp.* 4—7.				
8217	plumósus *W.*	woolly-flower'd	⚘	⊔	or	1½	jn.jl	Pa.pu	Canaries	1779.	C	p.l	L'her. sert. n. 4
8218	origanifólius *W.*	entire-leaved	⚘	⊔	or	1½	jl.au	Pa.pu	Canaries	1815.	C	p.l	L'her. sert. n. 5
8219	canariénsis *W.*	Canary	⚘	⊔	or	1½	jn.au	Pa.pu	Canaries	1714.	C	p.l	Com. hort. 2. t. 65
8220	punctátus *W.*	cluster-flower'd	⚘	⊔	or	1½	jl.s	Pa.pu	Madeira	1775.	C	p.l	L'her. sert. n. 7
1254.	**MEN'THA.** *W.*	Mint.						*Labiatæ.*	*Sp.* 35—43.				
8221	Auriculária *W.*	Indian	♃	[△]	or	1	jl.au	Pu	E. Indies	1796.	D	co	Rum. amb. 6. t. 16
8222	lævigáta *W. en.*	polished	♃	△	or	1½	jl	Pu	......	...	D	co	
8223	rotundifólia *W.*	round-leaved	♃	△	or	2	au.s	R	England	moi.pl.	D	co	Eng. bot. 446
	β *variegáta*	*variegated*	♃	△	or	2	au.s	R*	......	...	D	co	
8224	gratissima *W.*	oblong-leaved	♃	△	or	1½	jl.au	Pu	Germany	1799.	D	co	
8225	pubéscens *W. en.*	pubescent	♃	△	or	1½	jl.au	Pu	......	...	D	co	
8226	pyramidális *Tenore.*	pyramidal	♃	△	or	2	jl.au	Pu	Naples	1824.	D	co	
8227	víridis *W.*	spear	♃	△	cul	2	au	Pu	Britain	mar.	D	co	Eng. bot. 2424
8228	incána *W. en.*	hoary	♃	△	or	1½	jl.au	Pu	......	1790.	D	co	
8229	piperita *W.*	pepper	♃	△	m	2	au.s	Pu	England	wat.pl.	D	co	Eng. bot. 687
8230	glabráta *W.*	smooth	♃	△	or	1	jl.au	Pu	Egypt	1802.	D	co	
8231	críspa *W.*	curled	♃	△	or	2	jl.au	Pu	Siberia	1640.	D	co	
8232	crispáta *W. en.*	crumpled	♃	△	or	1½	jl.au	Pu	......	1807.	D	co	
8233	unduláta *W. en.*	wave-leaved	♃	△	or	1½	jl.au	Pu	......	1816.	D	co	
8234	odoráta *Smith.* *M. citráta* W.	Bergamot	♃	△	or	1	jl.au	Pu	England	wat.pl.	D	co	Eng. bot. 1025
8235	balsamea *W. en.*	Balsam-scented	♃	△	or	1½	jl.au	Pu	Italy	1804.	D	co	
8236	niliaca *W.*	Egyptian	♃	△	or	¾	jl.au	Pu	Egypt	1796.	D	co	Jac. hort. 3. t. 87
8237	nemorósa *W. en.*	wood	♃	△	or	2	jl.au	Pu	Britain	...	D	co	Fl. dan. t. 484
8238	sylvéstris *W.*	wild	♃	△	or	2	jl.au	Li	Britain	wat.pl.	D	co	Eng. bot. 686
8239	macrostáchya *Ten.* *M. rotundifolia* W. en.	long-spiked	♃	△	or	2	jl.au	Pu	S. Europe	...	D	co	
8240	lavandulácea *W. en.*	Lavender-lvd.	♃	△	or	1	jl.au	Pu	Spain	1823.	D	co	
8241	rúbra *H. K.*	common-red	♃	△	or	1½	s	Pu	Britain	wat.pl.	D	co	Eng. bot. 1413
8242	acutifólia *H. K.*	sharp-leaved	♃	△	or	1	s	Li	Britain	wat.pl.	D	co	Eng. bot. 2415
8243	boreális *Mich.*	northern	♃	△	pr	¾	s	Pu	N. Amer.	1824.	D	co	
8244	hirsúta *H. K.*	hairy-water	♃	△	or	1½	jl.s	Li	Britain	wat.pl.	D	co	Eng. bot. 447
8245	capénsis *W.*	Cape	♃	⊔	or	1	jl.au	Pu	C. G. H.	1816.	D	co	
8246	austriáca *W. en.*	Austrian	♃	△	or	1	jl.au	Pu	Germany	1809.	D	co	
8247	sativa *W.*	tall-red	♃	△	or	2	au.s	Pu	England	...	D	co	Eng. bot. 448
8248	hirta *W. en.*	shaggy	♃	△	or	1½	au.s	Pu	......	...			
8249	grácilis *H. K.*	narrow-leaved	♃	△	or	1	au	Pu	Britain	wat.pl.	D	co	Eng. bot. 449
8250	arvénsis *H. K.*	corn	♃	△	or	¾	jl.s	Li	Britain	corn fi.	D	co	Eng. bot. 2119
	β *præ'cox* S. M.	*early-flowering*	♃	△	or	¾	jn	Pu	Britain	...	D	co	Sole's Mints, c. ic
8251	gentilis *H. K.*	bushy-red	♃	△	or	1½	jn.au	Pu	Britain	pools.	D	co	Eng. bot. 2118
8252	canadénsis *W.*	Canadian	♃	△	or	1	jl	Pu	N. Amer.	1801.	D	co	
8253	dentáta *W. en.*	toothed	♃	△	or	1	jl.au	Pu	Germany	1816.	D	co	
8254	Pulégium *W.*	Pennyroyal	♃	△	m	½	au.s	Pu	Britain	wet co.	D	co	Eng. bot. 1026
8255	cervina *W.*	Hyssop-leaved	♃	△	or	3	jn.au	W	France	1648.	D	co	Mor. his. 3. t. 7. f. 7

History, Use, Propagation, Culture,

wounds by sword. The plants of the moderns do not possess any such properties. Their flowers, however, have frequently a ferruginous color.

1253. *Bystropogon.* A name elegantly contrived by L'Heritier, from βυω, to close, and πωγων, a beard, in allusion to the throat of the corolla being closed by hairs.

1254. *Mentha.* Μινθα or μινθη, in old Greek. The poets feign that Mintha was a daughter of Cocytus, transformed into the plant which bears her name; an allegorical description of the terrible effects ascribed to their plant by the ancients. M. viridis not being so hot to the taste as peppermint, and having a more agreeable flavor than most of the others, is generally preferred for culinary and some medicinal purposes. The leaves or tops are used in spring salads, and eaten dried as sauce with lamb and in soups.

The medical preparations of spearmint are more pleasant than those of peppermint, but perhaps less efficacious. This herb, as do the other sorts, contains much essential oil, but of an odor less agreeable than that of lavender or marjoram: it is therefore less employed as a cephalic; but it acts very powerfully on parts to which it is immediately applied, and therefore considerably on the stomach. It acts especially as an antispasmodic, and therefore relieves pains and cholic arising from spasm. It will also stop vomiting dependent on the same cause; but if it arise from an inflammatory irritation in the stomach itself, or in other parts of the body, it aggravates the disease. The infusion of mint in warm water agrees better with the stomach than the distilled water. The officinal preparations are an essential oil, a conserve, a simple water, and a spirit. The conserve is very grateful, and the distilled waters both simple and spirituous, are generally thought pleasant.

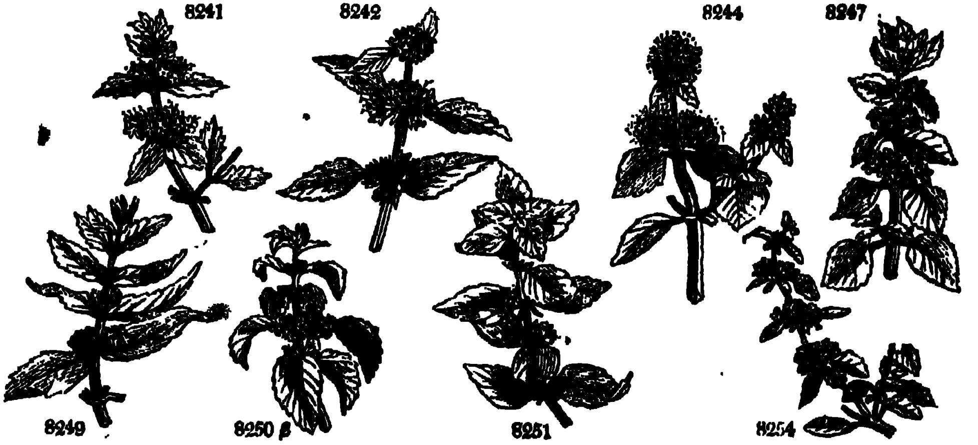
8213 Leaves lanc. toothed blunt pilose, Bractes toothed spiny, Stems hirsute decumbent
8214 Hirsute, Lvs. obl. cuneate toothed wavy downy beneath, Bractes round with spiny teeth, Whorls distant
8215 Shrubby downy, Lvs. cord. obl. crenate stalked downy on each side, Upper lip of cor. ovate entire
8216 Like hyssopifolia, but leaves smooth on each side somewhat toothed lanceolate blunt

8217 Panicle dichotomous, Cal. feathery, Leaves ovate subserrate downy beneath
8218 Panicle dichotomous, Cal. feathery, Leaves ovate entire very white beneath
8219 Panicle dichotomous, Flowers capitate, Leaves ovate crenate most villous beneath
8220 Panicle dichotomous, Flowers capitate, Leaves ovate toothed smooth dotted

8221 Spikes oblong, Leaves oblong serrated hairy sessile, Stamens longer than cor.
8222 Spikes cylindr. interrupted, Leaves ovate-obl. subsessile remotely serrate and calyxes smooth
8223 Hoary, Spikes oblong interrupted, Leaves roundish rugose crenate sessile

8224 Spikes obl. Leaves sessile oval finely and equally serrate acum. hoary beneath, Stamens as long as cor.
8225 Spikes obl. Lvs. ovate stalked serr. hoary beneath, Calyxes and peduncles hirsute, Stem much branched
8226 Leaves stalked subcordate slightly pubescent, Spikes middle sized [somewhat hairy
8227 Spikes cylindr. interrupted, Lvs. lanc. subses. cun. at base finely serrated smth. on each side, Teeth of cal
8228 Spks. obl. Lvs. obl. comp. blunt. serrat. ses. hoary and downy on each side, Cal. and ped. vill. Stem much br.
8229 Spikes obl. blunt interrupted at base, Lvs. ov.-obl. acute serrat. stalked smooth, Cal. quite smooth at base
8230 Flowers racemose whorled, Leaves stalked ovate lanc. serrated smooth
8231 Spikes capitate, Leaves cordate cut-toothed wavy sessile, Stamens length of corolla [hirsute
8232 Spikes cylindr. interrupt. Lvs. ov.-obl. subsess. cuspid. ser. waved complicate hoary on each side, Cal. and ped.
8233 Spikes cylindr. Lvs. ovate obl. subsess. cuspidate serr. wavy complicate hoary on each side
8234 Flowers in heads, Lvs. ellipt. blunt serrated smooth stalked, Stamens shorter than corolla
[at base
8235 Spikes cylindr. interrupted, Lvs. ovate lanc. stalked finely serr. entire at base, Ped. hirsute, Cal. smooth
8236 Spikes obl. interrupt. at base, Lvs. obl. lanc. subses. remotely and finely serrat. entire at base hoary beneath
8237 Spikes cylindr. contracted, Leaves obl. subcor. subses. equally serrated hoary beneath, Cal. and ped. hirsute
8338 Spks. cylindr. interrupt. at base, Lvs. ov. obl. subsess. finely and unequally serr. hoary, Cal and ped. hirsute
8239 Spikes cylindr. interrupted, Lvs. ovate-ellipt. rounded at end serrated subsessile hoary beneath
[calyx villous
8240 Spks. cylindr. interrupt. at base, Lvs. lin. lanc. nearly entire complicate sess. hoary on each side, Ped. and
8241 Flowers whorled, Lvs. ovate stalked serrated entire at base smooth, Teeth of calyx hairy
8242 Fls. whorl. Lvs. ov.-lanc. narrowed at each end, Cal. tubular obl. hairy, Hairs of pedicels spreading, of stems
8243 Low pubesc. Fl. whorled, Lvs. stalked with resinous dots acute at each end, Stamens exserted [deflexed
8244 Flowers capitate or whorled, Lvs. stalked ovate, Calyx hairy on each side, Pedicels hispid backwards
8245 Whorls spiked oblong, Leaves lanceolate entire downy
8246 Fl. whorled, Lvs. ovate stalked serrate hairy, Cal. hairy, Ped. smooth, Stem erect
8247 Flowers whorled, Lvs. ovate acutish serrated, Stamens longer than corolla
8248 Spikes cylindr. interrupted at base, Lvs. ovate stalked serrate beneath hairy, Cal. and peduncle hirsute
8249 Flowers whorled, Lvs. lanc. subsess. Stem much branched erect, Cal. at base and pedicels very smooth
8250 Flowers whorled, Lvs. ovate stalked serrate hairy, Cal. and peduncles hirsute, Stem much branched

8251 Flowers whorled, Lvs. ovate, Stem much branched spreading, Calyxes and pedicels smooth at base
8252 Flowers whorled, Lvs. lanc. serrate stalked hairy, Stam. as long as corolla
8253 Flowers whorled, Lvs. ov subsess. cuspidate serr. wavy nearly smooth, Pedunc. and calyx smooth at base
8254 Flowers whorled, Lvs. ovate, Stem prostrate, Pedicels and cal. downy on each side, Teeth ciliated
8255 Flowers whorled, Lvs. lanc. nearly entire sessile smooth, Bractes palmate



and Miscellaneous Particulars.

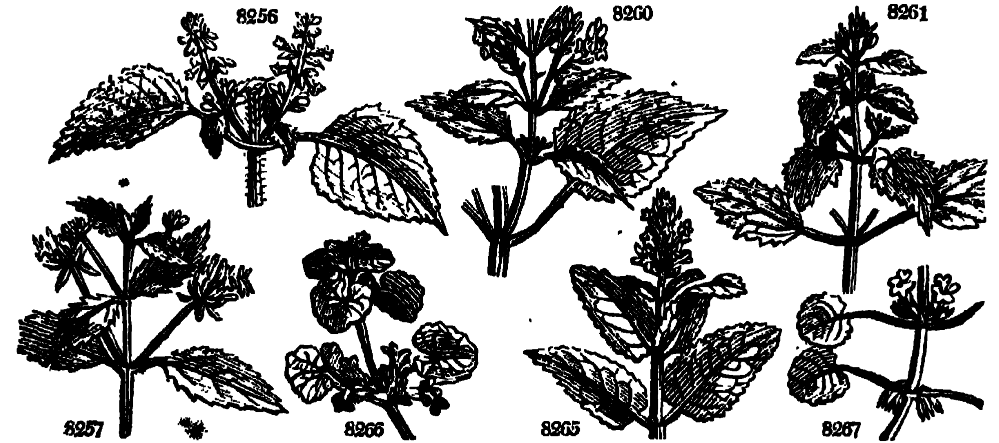
Lewis observes, that mint is said to prevent the coagulation of milk; and hence it has been recommended to be used with milk diets, and even in cataplasms and fomentations for resolving coagulated milk in the breasts: upon experiment, the curd of milk, digested in a strong infusion of mint, could not be perceived to be any otherwise affected than by common water; but milk, in which mint leaves were set to macerate, did not coagulate near so soon as an equal quantity of the same milk kept by itself. Dry mint digested in rectified spirits of wine, gives out a tincture which appears by day-light of a fine dark green, but by candle-light of a bright red color. The fact is, that a small quantity of this tincture is green, either by day-light or candle-light, but a large quantity seems impervious to common day-light; however, when held between the eye and a candle, or between the eye and the sun, it appears red; so that if put into a flat bottle it appears green, but when viewed edgewise red.

For medicinal use spearmint is generally cut just as the flowers appear; but for obtaining the essential oil, the flowering plant is preferred. It should be cut in very dry weather. (*London Dispensatory*, 384.)

M. piperita has a more penetrating smell than any of the other species, and a much stronger taste, pungent and glowing like pepper, sinking as it where into the tongue, and followed by a sensation of coldness. Its stomachic, anti-spasmodic and carminative qualities render it useful in flatulent colics, hysterical affections, retchings, and other dyspeptic symptoms, acting as a cordial, and often producing immediate relief. The officinal preparations are an essential oil, a simple water, and a spirit. The essence of peppermint is an elegant medicine, and seems to be the rectified oil dissolved in spirits of wine.

"The cultivators of the plant observe, that to keep up its quality, the roots must be transplanted every three

1255.	**PERIL'LA.** *W.*	PERILLA.					*Labiatæ.* *Sp.* 1.						
8256	ocymoides *W.*	Basil-leaved		○	cu	½	jl.au	W	India	1770.	S	s.l	Bot. mag. 2395
1256.	**HYP'TIS.** *Poit.*	HYPTIS.					*Labiatæ.* *Sp.* 8—27.						
8257	capitáta *H. K.*	Jamaica	£	[○]	cu	1½	jn.jl	Pa.pu	W. Indies	1714.	S	s.l	P.an.m.7.t.27.f.1
8258	radiáta *Poit.*	Carolina	£	[△]	cu	1	jn.jl	Pa.pu	Carolina	1690.	D	l.p	P.an.m.7.t.27.f.2
8259	ebracteáta *H. K.*	small-headed		[○]	cu	¾	ja.o	Pa.pu	W. Indies	1778.	S	l.p	P.an.m.7.t.29.f.2
8260	pectináta *Poit.*	Balm-leaved	£	[△]	cu	1½	ja.d	Pa.pu	W. Indies	1776.	D	l.p	Poi. an.mus.7.30
8261	pérsica *P. S.*	Persian	ɱ	⊔	cu	1½	jl	Pa.pu	Persia	1800.	C	l.p	Lin. trans.6. t.12
8262	stachyódes *Link.*	long-spiked		[○]	cu	1½	jl	W	......	1824.	S	co	
8263	recurváta *Poit.*	recurved	£	[△]	cu	1	jl	Pa.pu	Cayenne	1820.	D	co	
8264	brévipes *Poit.*	short-stalked		[○]	cu	1	jn.au	Li	S. Amer.	1822.	S	co	
1257.	**HORMI'NUM.** *Ort.*	HORMINUM.					*Labiatæ.* *Sp.* 1—3.						
8265	cauléscens *Ort.*	spiked	♃	△	pr	1	jl.au	Pa.R	Mexico	1800.	C	s.p	W. h. ber. t. 21
1258.	**GLE'CHOMA.** *W.*	GROUND IVY.					*Labiatæ.* *Sp.* 2.						
8266	hederácea *W.*	common	⌒	△	w	1	mr.my	B	Britain	hed.b.	D	co	Eng. bot. 853
8267	hirsúta *P. S.*	hairy	⌒	△	cu	2	mr.my	Pk	Hungary	...	D	co	Pl.rar.hun. t.119
1259.	**LA'MIUM.** *W.*	ARCHANGEL.					*Labiatæ.* *Sp.* 11—19.						
8268	Orvála *W.*	Balm-leaved	♃		or	1¾	my.jl	D.P	Italy	1596.	D	co	Bot. mag. 172
8269	lævigátum *W.*	smooth	♃		w	1	mr.o	Pu	Italy	1711.	D	co	Pluk.al. t.198.f.1
8270	rugósum *W.*	rough	♃		w	1	jl.au	R	Italy	1766.	D	co	Bocc. mus.5.t.23
8271	gargánicum *W.*	woolly	♃		w	2	jl.au	Pu	Italy	1729.	D	co	Exot. bot. 1. t.48
8272	maculátum *W.*	spotted	♃		w	1	jn.jl	Pu	Italy	1683.	D	co	Col.ecph.1. t.185
8273	álbum *W.*	white	♃		w	2	ap.s	W	Britain	was.gr.	S	co	Eng. bot. 768
8274	moschátum *H. K.*	musk-scented		○	w	1	...	...	Levant	1739.	D	co	
8275	mólle *W.*	Pellitory-leav'd	♃		w	1	ap.my	W	......	1683.	S	co	
8276	purpúreum *W.*	purple		○	w	1	my.au	Pu	Britain	was.gr.	S	co	Eng. bot. 769
	β *incisum* H. K.	*cut-leaved*		○	w	1	my.jl	Pk	Britain	san.fi.	S	co	Eng. bot. 1933
8277	amplexicáule *W.*	Henbit		○	w	¾	mr.jn	Pk	Britain	san.fi.	S	co	Eng. bot. 770
8278	multifidum *W.*	multifid-leaved		○	cu	1	ap.my	Pu	Levant	1752.	S	co	
1260.	**GALEOP'SIS.** *W.*	HEMP-NETTLE.					*Labiatæ.* *Sp.* 4.						
8279	Ládanum *W.*	red		○	w	¾	jl.s	Pk	Britain	chal.fi.	S	co	Eng. bot. 884
8280	villósa *E. B.*	downy		○	w	1	jl.au	Y	Britain	san.fi.	S	co	Eng. bot. 2353
8281	Tetráhit *W.*	common		○	w	1½	jl.au	W	Britain	corn fi.	S	co	Eng. bot. 207
8282	versícolor *H. K.*	large-flowered		○	w	1	jl.au	Y	Britain	san. fi.	S	co	Eng. bot. 667
1261.	**GALEOB'DOLON.** *E. B.*	DEAD-NETTLE.					*Labiatæ.* *Sp.* 1—2.						
8283	lúteum *E. B.*	yellow	♃	△	or	1	my.jn	Y	Britain	m.sh.pl.	D	co	Eng. bot. 787
1262.	**BETON'ICA.** *W.*	BETONY.					*Labiatæ.* *Sp.* 7—12.						
8284	officinális *W.*	wood	♃	△	or	1	jl.au	Pu	Britain	woods.	D	co	Eng. bot. 1142
8285	stricta *W.*	Danish	♃	△	or	1½	jn.jl	Pu	Denmark	1592.	D	co	Par.thea.615. f.4
8286	incána *W.*	hoary	♃	△	or	½	jn.jl	F	Italy	1759.	D	s.p	Bot. mag. 2125
8287	orientális *W.*	oriental	♃	△	or	1	jn.jl	L.Pu	Levant	1737.	D	co	Lam.ill. t.507.f.2
8288	alopecúrus *W.*	fox-tail	♃	△	or	1½	jl	L.Y	S. Europe	1759.	D	co	Jac. aus. 1. t. 78
8289	hirsúta *W.*	hairy	♃	△	or	½	jn.jl	Pu	Italy	1710.	D	s.p	Mur.co. got.2.t.3
8290	grandiflóra *W*	great-flowered	♃	△	or	2	jn.jl	L.R	Siberia	1800.	D	co	Bot. mag. 700



History, Use, Propagation, Culture,

years, otherwise it degenerates into the flavor of spearmint." (*Linnean Transactions*, v. 176.) If the plant be cut in wet weather it changes to black, and is little worth. (*London Dispensatory*, 385.)

M. pulegium (from *pulex*, a louse, which animal it was thought to drive away) smells like spearmint, but less fragrant; the taste aromatic and pungent, with a slight flavor of camphor. These qualities reside in a very volatile essential oil, which rises in distillation with water. It was formerly regarded as emmenagogue, expectorant, and diaphoretic, and was in repute for promoting the uterine evacuation, and relieving hysteria, hooping-cough, asthma; but it is now justly considered of no value, and seldom used in regular practice. (*London Dispensatory*, 386.)

1255. *Perilla.* A name the meaning of which has not been explained. An annual plant with a strong balmy fragrance.

1256. *Hyptis.* From *ὑπτιος*, reversed, because the corolla seems inverted, both as to its form and as to the insertion of stamens. Plants with densely whorled flowers, all natives of the western parts of the world, within, or nearly so, the limits of the tropics.

1257. *Horminum.* From *ὁρμαω*, to excite, in allusion to its stimulant qualities. The Horminum of the ancients was reputed aphrodisiac.

1258. *Glechoma.* Γληχων was a sort of Thyme among the Greeks. Small trailing herbs. The leaves of G. hederacea are often deformed with red hairy tumours, which are the galls of the Cynips Glechomæ. Before

8256 Leaves ovate serrate, Bractes long leafy

8257 Heads stalked in an involucre, Invol. lanc. the length of flowers, Leaves ovate toothed
8258 Heads stalked in an involucre, Invol. lanc. longer than flowers, Leaves oblong toothed narrowed at base
8259 Heads opp. few-fl. without bractes, Pedunc. shorter than joints, Leaves cord. doubly serrate; upper oval
8260 Flowers in spiked 1-sided panicles on a two-parted peduncle, Leaves ovate
8261 Flowers in stalked capitate cymes, Leaves of invol. 2 longer than calyx in fruit, Leaves oblong
8262 Leaves ovate subcordate attenuate acutely crenate pubesc. spiked whorled terminal, Cal. 5-toothed
8263 Flowers capitate, Invol. filiform hispid shorter than calyx of fruit, Lower leaves cordate
8264 Heads on a short peduncle, Leaves of invol. oblong lanc. Cal. pubescent not closed with hairs

8265 Stem leafy, Leaves ovate oblong crenate, Bractes cordate, acuminate, Cal. pungent

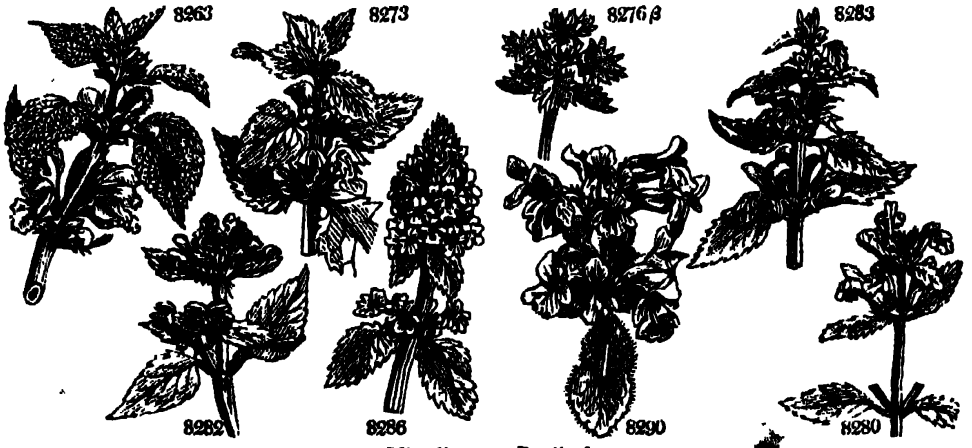
8266 Smooth, Segment of calyx ovate acute
8267 Hirsute, Segment of calyx lanceolate cuspidate

8268 Leaves cord. unequally finely serr. Orifice of cor. inflated, Lower lip 3-toothed on each side, Cal. colored
8269 Leaves cord. rugose, Stem smooth, Cal. smooth the length of tube of corolla
8270 Leaves cord. acute rugose and stems hairy, Whorls many-flowered, Tooth of orifice solitary setaceous
8271 Leaves cord. concave somewhat hoary, Orifice of cor. inflated, Tube straight with two teeth on each side
8272 Leaves cord. acuminate, Whorls 10-flowered
8273 Leaves cord. acuminate serrate stalked, Whorls 20-flowered
8274 Smooth, Leaves cordate crenate: floral subsessile, Teeth of calyx as long as cor.
8275 Leaves stalked somewhat toothed: lower cordate; upper ovate
8276 Leaves stalked cordate blunt toothed; upper close together, Stem naked below
β Leaves cut-toothed
8277 Floral leaves sessile amplexicaul cut; radical lobed
8278 Leaves many-parted

8279 Joints of stem equal, All the whorls remote, Leaves lanceolate
8280 Joints of stem equal, Leaves ovate lanceolate serrate villous, Helmet crenate cut
8281 Joints of stem thickened upwards, Upper whorls contiguous, Cal. pungent, Cor. little longer than calyx
8282 Stem hispid, Joints thickened upwards, Cor. thrice as long as calyx, Helmet ventricose

8283 All the leaves ovate, Involucre 4-leaved

8284 Spike interrupted, Helmet entire, Middle segm. of lower lip emarg. Cal. smoothish
8285 Spike oblong, Helmet entire, Middle segm. of lower lip crenate wavy, Cal. hairy, Bractes ciliated
8286 Spike interrupted, Helmet bifid, Middle segm. of lower lip crenate, Tube downy incurved
8287 Spike entire, Middle segm. of lower lip entire
8288 Spike leafy at base, Helmet bifid
8289 Spike leafy at base, Helmet entire
8290 Spike leafy interrupted, Calyx villous at edge, Teeth subulate, Helmet obcordate



anu Miscellaneous Particulars.

the use of hops, the leaves were put in ale, and being bitter, aromatic, and having a peculiar and very strong smell, were much used in popular medicine. It is now, however, seldom used.

1259. *Lamium.* *Lamia* was a celebrated marine monster; the flowers of this genus have a considerable resemblance to the grotesque figure of some beast. L. orvala is the only species admitted into the garden. The others are mostly ugly weeds. L. album, *Ortie blanche*, Fr., *Taube Nessel*, Ger., and *Ortica morta* or *bianca*, Ital., has a disagreeable smell when bruised, and though no cattle whatever will touch it, yet Linnæus says, the leaves are eaten in Sweden as a pot herb in spring.

1260. *Galeopsis.* From γαλη, a weasel, and οψις, appearance. The flower has a grotesque figure, and may be likened to the form of a weasel, or, indeed, of any thing else.

1261. *Galeobdolon.* A word with the same meaning as Galeopsis, which see.

1262. *Betonica.* In Celtic botany is called *Bentonic*; wherefore it appears, that Pliny gave too much way to conjecture, when he wrote that Betonica or Vetonica was so called from the Vetones, a people who dwelt at the foot of the Pyrenees. B. officinalis was formerly much used in medicine, but it is discarded from modern practice. When fresh it intoxicates. The leaves when dry excite sneezing. Sheep eat it, but goats refuse it. The roots are bitter and very nauseous; in a small dose they vomit and purge violently. This plant dyes wool of a very fine dark yellow color.

1263. STA'CHYS. *W.*	HEDGE-NETTLE.				*Labiatæ.*	*Sp.* 37—55.					
8291 sylvática *W.*	common	Δ	w	2	jl.au	Bd	Britain	hed.	D	co	Eng. bot. 416
8292 sibírica *Link.*	Siberian	Δ	un	1	jl.au	Pu	Siberia?	1822.	D	co	
8293 mollíssima *W. en.*	soft-leaved	Δ	w	1½	jl.au	Pa.pu	Corfu	1806.	D	co	W.hort.ber. t.60
8294 cor'sica *Pers.*	Corsican	Δ	un	½	jl.au	Pu	Corsica	1823.	D	co	
8295 palústris *W.*	Clown's Allheal	Δ	w	2	au	Pu	Britain	moi.m.	D	co	Eng. bot. 1675
8296 coccínea *W.*	scarlet	⌊Δ⌋	or	3	jn.au	S	S. Amer.	1798.	C	p.l	Bot. mag. 666
8297 nepetifólia *Desf.*	Catmint-leav'd	Δ	w	1½	jn.au	Pu	......	1805.	D	co	
8298 decúmbens *Pers.*	decumbent	Δ	w	2	my.jl	Y	......	1816.	D	co	
8299 germánica *W.*	downy	Δ	w	3	jl	Pu	England	chal.fi.	D	co	Eng. bot. 829
8300 intermédia *H. K.*	oblong-leaved	Δ	or	2	jn.jl	Pu	Carolina	1762.	D	co	
8301 lanáta *W.*	woolly	Δ	or	2	jn.s	St	Siberia	1782.	D	p.l	Jac. ic. 1. t. 107
8302 Heráclea *L.*	broad-leaved	Δ	or	3	jn.s	Pu	Italy	1822.	D	co	
8303 ambígua *Smith*	ambiguous	Δ	w	1½	jn.jl	Pu	Britain	al.mo.	D	co	Eng. bot. [illegible]
8304 tenuifólia *Bieb.*	fine-leaved	Δ	or	1½	jn.jl	Pk	Iberia	1822.	D	co	
8305 salviæfólia *Ten.*	sage-leaved	Δ	or	2	jn.jl	Pu	S. Europe	1824.	D	co	
8306 alpína *W.*	Alpine	Δ	w	2	jn.au	D.P	Germany	1597.	D	p.l	Lap. pyr. 1. t. 8
8307 circináta *W.*	blunt-leaved	Δ	w	1	my.jl	Pu	Barbary	1777.	D	p.l	L'He. s.nov. t.26
8308 Balbísii *Link.*	Balbis's	Δ	or	1½	my.jl	Y	Italy	1823.	D	co	
8309 ibérica *Bieb.*	Iberian	Δ	or		my.jl	Pu	Iberia	1822.	D	co	
8310 fœniculum *Psh.*	Fennel-scented	Δ	cu	2	my.jn	B	N. Amer.	1824.	D	co	
8311 arenária *Desf.*	sand	Δ	or	1	jl	Pu	Levant	1804.	D	p.l	Desf. atl. t. 126
8312 crética *W.*	Cretan	Δ	w	2	jn.au	Pu	Candia	1640.	D	co	Wal.ho.108. t.19
8313 glutinósa *W.*	clammy	Δ	or	1	jn.jl	Pu	Candia	1729.	C	co	M.h.s.11. t.4.f.17
8314 spinósa *W.*	thorny	⌊⌋	un	1½	jl	Pu	Candia	1640.	D	co	M.h s.11. t.10.f.S
8315 orientális *W.*	oriental	Δ	or	1½	jn.jl	Pu	Levant	1768.	D	s.l	
8316 marítima *W.*	sea	Δ	ft	2	jl	Y	S. Europe	1714.	D	co	Jac. vind. 1. t. 70
8317 oblíqua *Pers.*	oblique-leaved	Δ	or	2	jn.jl	Y	Hungary	1816.	D	co	Pl.rar.hun. t.134
8318 betonicæfólia *Pers.*	Betony-leaved	Δ	or	1½	jn.jl	Y	Rochelle	1812.	D	co	
8319 æthiópica *W.*	Ethiopian	⌊Δ⌋	or	1½	ap.jl	Pu	C. G. H.	1770.	C	p.l	Jac. obs. 4. t. 77
8320 hírta *W.*	procumbent	Δ	or	1	jn.au	Pu	Spain	1725.	D	co	All.ped. 1. t.2. f.3
8321 rugósa *W.*	rough	⌊⌋	or	2	jl.au	Pa.Y	C. G. H.	1774.	C	p.l	Jac. ic. 3. t. 493
8322 scordifólia *W. en.*	wedge-leaved	Δ	or	1	jl.au	V	N. Amer.?	1816.	D	co	
8323 récta *W. en.*	upright	Δ	or	2	jn.au	Y	S. Europe	1683.	D	co	Jac. aust.4. t.359
8324 ánnua *W.*	annual	○	w	1	jn.au	W.Y.P	S. Europe	1713.	S	co	Jac. aust.4. t.360
8325 arvénsis *W.*	corn	○	w	1	jl.au	Pu	Britain	corn fi.	C	co	Eng. bot. 1154
8326 latifólia *W.*	broad-leaved	Δ	or	2	jn.jl	Pu	......	1775.	D	co	
8327 phlomoídes *W. en.*	Phlomis-leaved	Δ	or	1½	jn.jl	Pu	......	1816.		co	
1264. ZIETE'NIA. *Pers.*	ZIETENIA.				*Labiatæ.*	*Sp.* 1.					
8328 lavandulifólia *Pers.*	lavender-leav'd	Δ	or	1½	jl.au	Pu	Levant	1824.	D	co	
1265. BALLO'TA. *W.*	STINKING HOREHOUND.				*Labiatæ.*	*Sp.* 4—7.					
8329 nígra *W.*	black	Δ	w	2	jl.s	Pu	Britain	hed.	D	co	Eng. bot. 46
8330 álba *W.*	white	Δ	w	2	jl.s	W	Britain	...	D	co	
8331 lanáta *W.*	woolly	Δ	or	2	jn.au	Y	Siberia	1752.	D	co	Gmel. sib. 3. t. 54
Panzéria multifida Mœnch.											
8332 dísticha *W.*	distichous	Δ	w	1	jl	B	India	1823.	S	co	
1266. MARRU'BIUM. *W.*	HOREHOUND.				*Labiatæ.*	*Sp.* 16—20.					
8333 Alýssum *W.*	plaited-leaved	Δ	or	1½	jl.au	Pu	Spain	1597.	C	s.l	Ger.herb.379. f.1
8334 astracánicum *W.*	Astracan	Δ	or	1½	jl.au	Pa.pu	Levant	1816.	D	co	Jac. ic. 1. t. 109
8335 peregrínum *W.*	Sicilian	Δ	or	3	jl.s	W	Sicily	1640.	D	co	Jac. aust.2. t.160
8336 créticum *W.*	Cretan	Δ	or	1	jl.s	W	Levant	1596.	D	co	
8337 candidíssimum *W.*	woolly-white	Δ	or	3	jl.s	W	Levant	1732.	D	s.p	Dil.el. t.274. f.214
8338 supínum *W.*	procumbent	Δ	or	½	au.o	Pu	S. Europe	1714.	D	co	Bocc.mus.2. t.96
8339 africánum *W.*	African	⌊Δ⌋	or	1	jl.s	Pu	C. G. H.	1710.	D	p.l	Com. hort.2. t.90
8340 vulgáre *W.*	common-white	Δ	m	2	jn.s	W	Britain	rubble.	D	co	Eng. bot. 410
8341 affíne *Horn.*	kindred	Δ	or	1½	jn.s	Pu	Siberia?	1822.	D	co	
8342 hirsútum *W.*	hirsute	Δ	or	1½	jn.jl	Pa.pu	......	...	D	co	
8343 cinéreum *W. en.*	cinereous	Δ	or	1½	jn.jl	Pa.pu	Spain	1823.	D	co	
8344 críspum *W.*	curl-leaved	Δ	or	1	jl.au	Pa.pu	S. Europe	1714.	C	co	Herm. par. t.200
8345 catariæfólium *Lam.*	Catmint-leaved	Δ	or	1½	jl.au	Pu	Levant	1819.	D	co	
8346 hispánicum *W.*	Spanish	Δ	or	1	jl.au	Pu	Spain	1714.	C	co	Herm. par. t.201
8347 Pseu.-Dictámnus *W.*	shrubby-white	⌊⌋	or	1½	jl.au	Pu	Candia	1596.	C	p.l	Lam.ill. t.508. f.2
8348 acetabulósum *W.*	saucer-leaved	⌊Δ⌋	or	1	jn.au	Pu	Candia	1676.	C	p.l	Barr. ic. 129

History, Use, Propagation, Culture,

1263. *Stachys.* From σταχυς, a spike; the flowers of all the species grow in spikes. They are for the most part strong smelling weeds.

1264. *Zietenia.* A genus divided by Gleditsch from Stachys, on account of the different structure of the corolla, and the single grain. It is a plant with lanceolate entire lineate leaves, the lower of which are connate, purple blossoms.

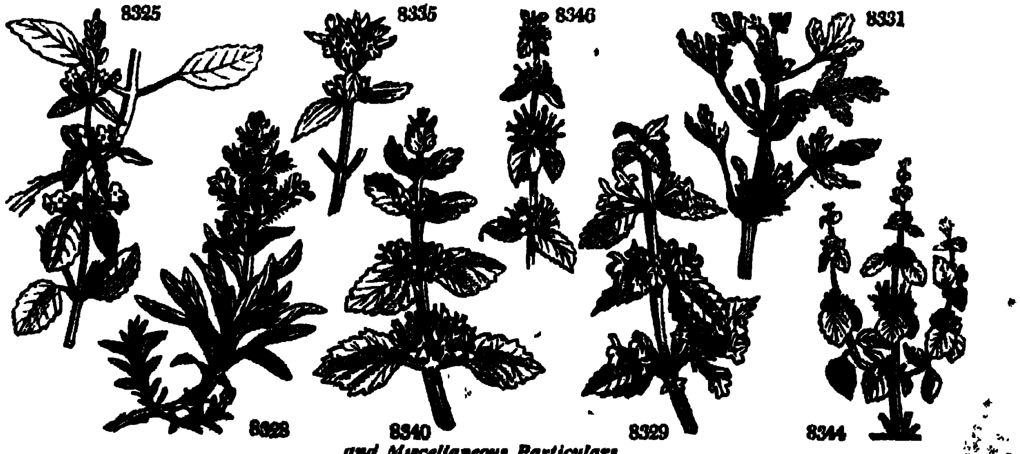
8291 Whorls 6-flowered, Leaves cordate stalked
8292 Leaves ovate obl. acum. serrated hairy above with soft down beneath, Segm. of cal. linear mucronate
8293 Whorls spiked 6-fl. Tube of cal. shorter than spread. teeth, Helm. of cor. emarg. Lvs. ov. serr. with soft down
8294 Small, Stems much branched diffuse, Leaves cordate crenate, Cal. campanulate spiny
8295 Whorls about 6-flowered, Leaves linear lanceolate ; stem-clasping sessile
8296 Whorls 6-flowered, Leaves ovate cordate crenate, Petioles dilated
8297 Leaves cordate cren. pubescent, Whorls 4-6-flowered, Stem erect smooth simple
8298 Whorls many-fl. approximated, Bractes filiform, Leaves cordate toothed, Stem decumbent villous
8299 Hoary, Whorls many-fl. Leaves ovate, Serratures imbricated, Stem woolly
8300 Whorls many-fl. Calyxes subpungent, Leaves oblong subcordate crenate, Stem woolly
8301 Whorls many-fl. Leaves woolly oblong, Stems procumbent at base and rooting
8302 Whorls 10-fl. Calyxes unarmed, Leaves cordate : floral ovate entire sessile, Stem hairy
8303 Whorls 6-fl. Leaves oblong cordate stalked, Stem hollow
8304 Whorls 2-fl. Leaves linear naked ; lower pinnatifid-toothed
8305 Like S. germanica, but downy not woolly, Leaves narrower, Calyxes long spiny
8306 Whorls many-fl. Leaves cordate thin, Serratures cartilaginous at end, Lips of cor. flat
8307 Whorls spiked 6-flowered, Bractes cordate, Leaves cordate stalked blunt crenate toothed
8308 Leaves ovate crenate pubescent : upper entire, Whorls 6-fl. Cal. hairy with filiform segments
8309 Whorls spiked, Lvs. oblong attenuated at base serrated hairy : lower blunt, Cal. mucronate spiny
8310 Erect pubescent, Leaves cord. ov. toothed : above smooth ; beneath white with down, Whorls about 6-fl.
8311 Whorls a little spiked hairy 6-fl. Cal. spiny, Leaves oblong serrate blunt, Helmet bifid
8312 Hairy, Whorls 30-flowered, Calyx pungent, Stem hairy
8313 Smooth much branched, Branches spiny, Pedunc. axillary solitary 1-fl. with two bractes
8314 Hoary, Branches brachiate terminated by a spine, Flowers axillary in threes
8315 Leaves downy ovate lanceolate : floral shorter than the whorl
8316 Whorls 6-flowered, Radical leaves oval crenate : upper ovate entire, Cor. twice as long as calyx
8317 Leaves obliquely cordate rugose crenate blunt hairy, Bractes entire shorter than calyx
8318 Leaves cordate ellipt. the lower on long stalks, Stems and spinulose calyxes covered with wool
8319 Whorls 2-flowered, Leaves cordate deeply serrated rugose, Tube of cor. curved
8320 Whorls 6-flowered, Stems prostrate, Upper lip of cor. bifid spreading reflexed, Lvs. broad cord. crenate
8321 Hoary, Whorls 6-fl. Leaves linear lanceolate narrowed at base downy rugose serrated, Calyxes pointless
8322 Whorls 6-fl. Calyxes rather pungent, Lvs cuneate lanceolate blunt serrate at end sessile, Stem decum.
8323 Whorls subspiked, Leaves cordate ellipt. crenate rough, Stems ascending
8324 Whorls 6-fl. Leaves ovate lanc. rugose 3-nerved stalked, Stem erect
8325 Small, Whorls 6-fl. Leaves blunt nearly naked, Corolla the length of calyx, Stem weak
8326 Whorls many-fl. spiked, Upper lip bifid, with acute divisions, Leaves broad cordate rugose hairy
8327 Whorls 8-flowered, Leaves lanceolate cordate crenate rugose, Stem very hairy

8328 Whorls 6-flowered very hairy, Leaves lanceolate entire lined

8329 Leaves cordate undivided serrated, Cal. acuminate
8330 Leaves cordate undivided serrated, Cal. subtruncate
8331 Leaves palmate toothed, Stem woolly

8332 Leaves whorled halved 2-parted half-spiked

8333 Leaves cuneiform 5-toothed plaited, Whorls without involucrum
8334 Leaves elliptical obtuse crenate downy rugose, Calyxes and bractes lanceolate
8335 Leaves oblong hoary rugose toothed ; the teeth towards the end largest, Cal. with small subulate teeth
8336 Leaves lanceolate hoary rugose toothed at end, Cal. with setaceous teeth, Stem branched divaricating
8337 Leaves ovate hoary bluntly toothed rugose, Cal. with subulate teeth, Stem branched at base
8338 Leaves roundish subcordate crenate rugose, Cal. with straight villous setaceous teeth
8339 Leaves cordate roundish emarginate crenate, Calyx 10-toothed spiny
8340 Leaves roundish ovate toothed rugose, Teeth of calyx 10 setaceous hooked
8341 Leaves cordate crenate downy green above, Teeth of calyx mucronate recurved
8342 Leaves cordate ovate crenate, Teeth of cal. 10 spreading lanceolate, Bractes subulate
8343 Leaves roundish cordate unequally crenate, Limb of calyx spreading, Teeth ovate mucronate
8344 Leaves cordate roundish, crenate somewhat toothed, Teeth of calyx 10 unarmed
8345 Leaves ovate greenish deeply crenate, Teeth of calyx subulate smooth spreading
8346 Leaves cordate ovate crenate, Limb of calyx spreading, Teeth ovate mucronate, Bractes oblong
8347 Hoary, Limb of calyx flat villous, Leaves cordate concave, Stem shrubby
8348 Limb of calyx longer than tube membranous, Larger angles rounded



and Miscellaneous Particulars.

1265. *Ballota.* So named on account of its offensive odor, from βαλλω, to reject.

1266. *Marrubium.* According to Linnæus is derived from an ancient town of Italy called *Maria-urbs*, situated on the borders of the Fucine lake. M. vulgare dried, has an aromatic odor, which, however, is soon lost by keeping, and a bitter taste. Both water and alcohol extract its virtues. It is tonic, diuretic, and laxative ; was formerly much used in pulmonary affections, and is still a popular remedy for asthma and obsti-

1267.	LEONU'RUS. *R. Br.*	MOTHERWORT.					*Labiatæ.*	*Sp.* 6—9.					
8349	críspus *W.*	curl-leaved	⅄	△	or	2	jl.au	W	Siberia	1658.	D	co	Mur. c. got.8. t.4
8350	cardíaca *W.*	common	⅄	△	or	3	jl.au	W	Britain	gra.ba.	S	co	Eng. bot. 286
8351	tatáricus *W.*	Tartarian	⅄	⊙	or	2	au.o	F	Russia	1756.	S	p.l	Mill. ic. 1. t. 80
8352	sibíricus *W.*	Siberian	⅄	⊙	or	2	jn.au	R	Siberia	1759.	S	p.l	Exot. bot. 2. t.94
8353	marrubiástrum *W.*	small-flowered		○	or	2	jn.au	Pu	Austria	1710.	S	co	Jac. aust.5. t.405
8354	supínus *W.*	procumbent	⅄	△	or	1	jn.au	W	Siberia	1816.	D	co	
1268.	PHLO'MIS. *R. Br.*	PHLOMIS.					*Labiatæ.*	*Sp.* 14—30.					
8355	fruticósa *W. en.*	Jerusalem Sage	♣		or	3	jn.jl	Y	Spain	1596.	C	co	Bot. mag. 1843
8356	lanáta *W. en.*	small-shrubby	♣		or	1½	jn.jl	Y	Spain	1596.	C	co	
8357	purpúrea *Sm.*	purple	♣		or	2	jn.au	Pu	S. Europe	1661.	C	co	Smith.spic. 6.t.7
8358	itálica *W.*	Italian	♣		or	2	jn.au	Pu	Italy	1661.	C	co	
8359	Nissólii *W.*	Nissole's	£	△	or	2	jn.jl	Y	Levant	1757.	D	co	Mill. ic. 2. t. 204
8360	Lychnítis *W.*	lamp-wick	♣	⊔	or	2	jn.au	Y.Br	S. Europe	1658.	C	p.l	Bot. mag. 999
8361	Sámia *W.*	Samian	£	△	or	3	jn.jl	Y.Br	N. Africa	1714.	D	p.l	Bot. mag. 1891
8362	Herba-vénti *W.*	rough-leaved	£	△	or	2	jl.s	R	S. Europe	1596.	D	co	Bot. mag. 2449
8363	alpìna *W.*	Alpine	£	△	or	1	jn.s	Pu	Siberia	1802.	D	s.l	Pal.ac.pet.2. t.13
8364	tuberósa *W.*	tuberous	£	△	or	4	jn.o	L.P	Siberia	1759.	D	co	Bot. mag. 1555
8365	laciniáta *W.*	jagged-leaved	£	△	or	3	jl	Pu	Levant	1731.	D	co	Sweet fl. gard.24
8366	púngens *W.*	pungent	£	△	or	3	jl	Br	Armenia	1820.	D	co	Sweet fl. gard.33
8367	lunarifólia *Sm.*	Honesty-leaved	⅄	△	or	3	jn	Br	Levant	1818.	D	co	Bot. mag. 2542
8368	ferrugínea *Tenore*	rusty	♣		or	2	jn.jl	Y.Br	Naples	1823.	C	co	
1269.	LEU'CAS. *R. Br.*	LEUCAS.					*Labiatæ.*	*Sp.* 5—6.					
8369	zeylánica *R. Br.*	Ceylon		[○]	un	1½	jn.o	Pu	E. Indies	1777.	S	s.l	Jac. ic. 1. t. 111
8370	martinicénsis *R. Br.*	West Indian		[○]	un	1½	jl.s	W	W. Indies	1781.	S	s.l	Jac. ic. 1. t. 110
8371	urticifólia *R. Br.*	Nettle-leaved		[○]	un	1½	jl.s	W	E. Indies	1810.	S	s.l	
8372	índica *R. Br.*	Indian		[○]	un	1½	jl.au	W	E. Indies	1789.	S	s.l	
8373	áspera *Link.*	rough-leaved		[○]	un	1	jl.au	W	Caramania	1818.	S	s.l	
1270.	LEONO'TIS. *R. Br.*	LION'S-TAIL.					*Labiatæ.*	*Sp.* 4.					
8374	nepetifólia *H. K.*	Catmint-leaved		[○]	or	3	s.o	Or	E. Indies	1778.	S	s.l	Bot. reg. 281
8375	Leonúrus *H. K.*	narrow-leaved	♣	⊔	or	3	o.d	Or	C. G. H.	1712.	C	p.l	Bot. mag. 478
8376	Leonítis *H. K.*	dwarf-shrubby	♣	⊔	or	1½	jn.jl	Or	C. G. H.	1713.	C	p.l	Mil.ic.2. t.162.f.1
8377	intermédia *Lindl.*	intermediate	♣	▭	or	3	s.o	Or	C. G. H.	1822.	C	p.l	Bot. reg. 850
1271.	MOLUCCEL'LA. *W.*	MOLUCCA-BALM.					*Labiatæ.*	*Sp.* 3—7.					
8378	spinósa *W.*	prickly		○	cu	1½	jl.au	Pa.pu	Levant	1596.	S	co	Lam. ill. t. 510
8379	læ'vis *W.*	smooth		○	cu	1½	jl au	Pa.pu	Syria	1570.	S	co	Bot. mag. 1852
8380	tuberósa *W.*	tuberous-root.	⅄	△	cu	2	jl	Pa.pu	Tartary	1796.	D	l.p	Pall. it. 3. t. T.
1272.	CLINOPO'DIUM. *W.*	WILD-BASIL.					*Labiatæ.*	*Sp.* 2—4.					
8381	vulgáre *W.*	common	⅄	△	or	1	jn.au	Pk	Britain	gra.ba.	D	co	Eng. bot. 1401
8382	ægyptiácum *W.*	Egyptian	⅄	△	or	1	jn.au	Pu	Egypt	1759.	D	co	
1273.	PYCNAN'THEMUM. *Ph.*	PYCNANTHEMUM.					*Labiatæ.*	*Sp.* 4—9.					
8383	incánum *Ph.*	hoary	⅄	△		3	jl.o	W	N. Amer.	1732.	D	co	Dill.elt. t.74. f.85
8384	aristátum *Ph.*	awned	⅄	△		2	au	W	N. Amer.	1752.	D	co	Mich.amc.2.t.33
8385	linifólium *Ph.*	Flax-leaved	⅄	△		1½	jl.au	W	N. Amer.	1739.	D	co	Herm. par. t.218
	Thymus virginicus W.												
8386	lanceolátum *Ph.*	spear-leaved	⅄	△	or	1	jl.au	W	N. Amer.	1812.	D	co	
1274.	ORI'GANUM. *W.*	MARJORAM.					*Labiatæ.*	*Sp.* 14—24.					
8387	ægyptíacum *W.*	Egyptian	♧	⊔	ft	1	jn.au	Pk	Egypt	1731.	C	co	Alp ægypt. t. 95
8388	Dictámnus *W.*	Dittany of Crete	♧	⊔	or	1	jn.au	Pk	Candia	1551.	C	r.m	Bot. mag. 298
8389	sipýleum *W.*	Mount Sipylus	♧	⊔	or	1	jn.s	Pk	Levant	1699.	C	r.m	Herm. lug. t.463
8390	Tournefórti *W.*	Tournefort's	♧	⊔	or	1	au.s	Pk	Amorgos	1788.	C	co	Bot. rep. 587
8391	créticum *W.*	Cretan	⅄	△	or	1	jl.au	W	S. Europe	1596.	C	s.l	Sck. han. 2. t.164

History, Use, Propagation, Culture,

nate coughs. It loosens the belly when taken in large doses, and was consequently recommended in jaundice, cachexies, menstrual obstructions, and hysteria; but its powers are not found by modern practitioners equal to the account ancients gave of them, and therefore it is very seldom prescribed. (*London Dispensatory*, 379.)

1267. *Leonurus.* From λεων, a lion, and ουρα, tail. The spikes of flowers have been compared to the tuft which grows on the end of the lion's tail. L. Cardiaca was formerly used in medicine, but is now neglected. Tall herbaceous plants with cut leaves and whorls of flowers, of which the corolla is woolly.

1268. *Phlomis.* Φλομος was the Greek name of the Mullein, and so called from φλοξ, fire, because the thick cottony leaves were used as wicks for lamps. At this day, P. Lychnitis is so called, because the dried leaves, which are cottony and russet colored, are used in Spain for wicks. Fine shewy small shrubs or herbaceous plants, with corolla covered with down, and usually of a brownish yellow color.

1269. *Leucas.* A name used by Burmann, neglected by Linnæus and others, and restored by Mr. Brown; derived from λευκος, white, in reference to the usual color of the flowers, which are covered all over with a thick covering of wool.

1270 *Leonotis* From λεων, a lion, and ωτα, an ear. A fanciful name applied to the fine scarlet-flowering

8349 Leaves cordate 3-lobed or 5-lobed cut toothed wavy, Cor. larger than pungent calyx
8350 Leaves cuneiform ovate 3-lobed toothed, Cor. larger than pungent calyx, Middle lobe of lower lip acute
8351 Leaves 3-parted cut, Calyxes villous
8352 Leaves 3-parted multifid linear somewhat blunt
8353 Lvs. obl. toothed, Cor. scarcely longer than somewhat pungent calyx, Middle lobe of lower lip roundish
8354 Leaves about 5-lobed, Lobes blunt toothed at end, Cal. sessile spiny

8355 Leaves oblong blunt rugose and branches downy; floral ovate-lanceolate, Bractes ovate acuminate
8356 Leaves elliptical blunt woolly rugose, Branches woolly, Bractes obovate twice as short as calyx
8357 Bractes lanceolate acute pungent, Cal. 5-cornered acuminate, Leaves densely woolly beneath
8358 Bractes lanceolate blunt unarmed, Cal. truncated pointless, Leaves woolly on each side
8359 Lvs. downy on each side: rad. cord. sagitt.; cauline obl. Whorls without bractes, Cal. with obl. acute teeth
8360 Leaves lanceolate downy: floral ovate, Bractes setaceous woolly length of bluntly toothed calyx
8361 Stem hairy, Lvs. cordate crenate downy beneath, Bractes 3-parted subulate mucronate as long as calyx
8362 Lvs. ovate obl. serrate hairy beneath, Teeth of calyx lanc. subulate erect, Bractes subul. and stem hairy
8363 Radical leaves cordate pubescent; floral lanceolate, Bractes linear subulate villous, Stem pubescent
8364 Radical leaves cordate rough; floral oblong lanceolate, Bractes subulate hispid, Stem smooth
8365 Leaves alternately pinnate, Leaflets laciniate, Calyx woolly
8366 Leaves stalked obl. lanc. serr. at end, rough above downy beneath, Teeth of calyx subulate spreading
8367 Leaves cordate crenate downy beneath, Bractes ovate-lanceolate mucronate
8368 Like P. fruticosa, but the lower leaves are cordate stalked, Upper ovate

8369 Leaves lanceolate serrate, Heads terminal, Calyxes with 8 teeth
8370 Leaves obl. toothed pubes. beneath, Whorls many-fl. globose, Cal. incurv. 8-toothed, upper tooth longest
8371 Leaves ovate serrated hoary, Invol. subulate, Cal. obliquely truncate membranous 9-toothed
8372 Invol. linear, Cal. 1-lipped oblique, Leaves ovate hairy
8373 Lvs. lanc. smooth serrated at end, Stem 4-cornered rough, Whorls many-fl. Lip of cor. undivided

8374 Leaves cordate acute-serrated somewhat downy, Calyx 7-toothed awned; upper tooth largest
8375 Leaves lanceolate serrate, Calyxes 10-cornered 10-toothed unarmed
8376 Leaves small ovate blunt somewhat downy crenate, Cal. 7-toothed awned
8377 Leaves stalked ovate cordate acuminate cut-toothed, Cal. velvety 10-toothed

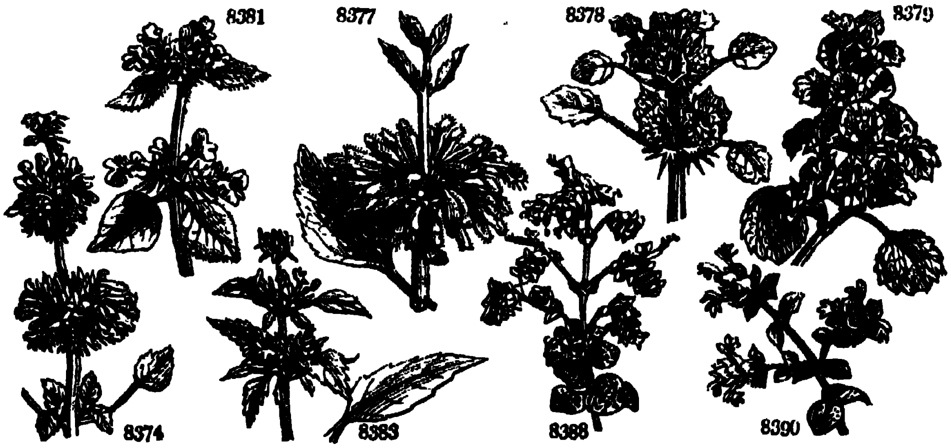
8378 Cal. 2-lipp. upper lip lanc. mucron. longest, lower round. 7-tooth. Teeth spiny, Lvs. stalk. ov. deeply tooth.
8379 Cal. campanulate 5-toothed, Teeth equal pointless, Leaves stalked roundish ovate toothed
8380 Cal. funnel-shaped 5-toothed: teeth equal mucronate, Leaves sessile wedge-shaped oblong toothed

8381 Heads whorled, Bractes setaceous hispid, Leaves hairy above remotely toothed, Stem simple
8382 Heads terminal, Bractes setaceous hispid, Leaves smooth above nearly entire

8383 Leaves oblong-ovate acute subserrate hoary, Heads compound, Bractes setaceous, Stamens exserted
8384 Leaves lanceolate ovate subserrate on short stalks somewhat hoary, Heads sessile, Bractes awned
8385 Stem much branched rather rough, Leaves linear 3-nerved entire, Heads terminal fascicled

8386 Stem much branched roughish, Lv. lin. lanceolate veiny entire, Heads terminal fascicled corymbose

8387 Leaves concave downy, Spikes naked
8388 Lower leaves downy, Spikes nodding
8389 Leaves all smooth, Spikes nodding
8390 Spikes 4-cornered, Bractes roundish very large
8391 Spikes aggregate long prismatical upright, Bractes membranous twice as long as calyx



and Miscellaneous Particulars.

plants, known at the Cape by the name of lion's tail. They require a good greenhouse and plenty of air to secure their appearing in perfection. In places badly ventilated their leaves acquire a yellow color, and are apt to fall off.

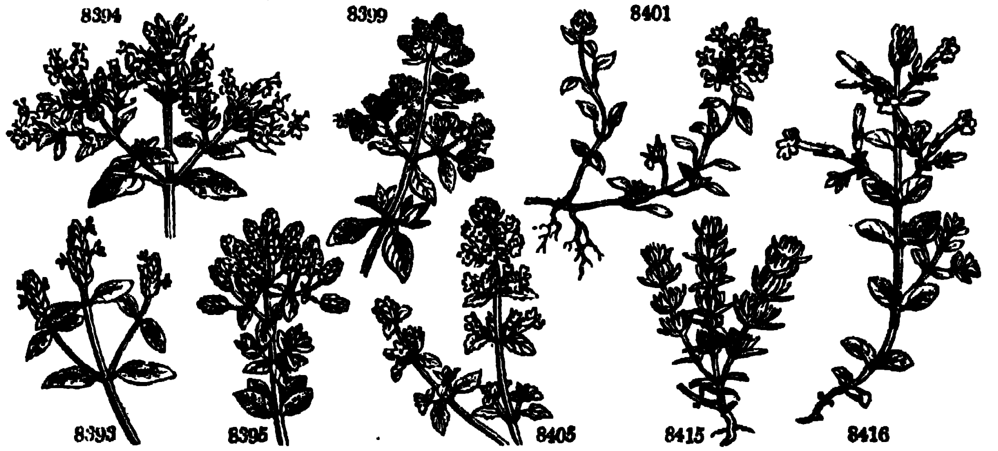
1271. *Moluccella.* Brought from the Moluccas. Plants remarkable for the enlarged calyx in which the flower is seated.

1272. *Clinopodium.* From κλινη, bed, and πους, a foot. The tufted close whorls of flowers have been compared to the caster of a bed's foot.

1273. *Pycnanthemum.* From πυκνος, dense, and ανθος, a flower. The blossoms are in a close head. A North American genus of plants, some of which, as P. verticillatum and incanum, are occasionally seen in gardens.

1274. *Origanum.* From ορος, a mountain, and γανος, joy. These plants, with their pretty spikes of bracteated flowers and agreeable perfume, may indeed be called the joy of the places where they grow naturally. O. vulgare is an aromatic and ornamental plant, growing wild in thickets and hedges, chiefly in a calcareous soil. The dried leaves used instead of tea, are said to be exceeding grateful; they are also used in fomentations: the essential oil is so acrid, that it may be considered as a caustic, and is much used with that intention by

8392	smyrnæ'um *W.*	Smyrna	£	⌊△⌋	or	1¼	jn.jl	W	Smyrna	1722.	C	r.m	
8393	heracleóticum *W.*	winter-sweet	⸙	△	cul	1	jn.n	W	S. Europe	1640.	D	a.l	Lob. ic. 492
8394	vulgáre *W.*	common	⸙	△	cul	2	jn.o	Pk	Britain	ch.wo.	D	a.l	Eng. bot. 1143
8395	onites *W.*	pot	⸙	△	cul	1	jl.n	Pk	Sicily	1759.	D	co	Bocc. mus. t. 38
8396	megastáchyum *Link.*	large-spiked	⸙	△	un	1½	jl.n	Pk	S. Europe	1823.	D	co	
8397	hirtum *Link.*	hairy	⸙	△	un	1½	jl.n	Pk	Levant	1823.	D	co .	
8398	oblongátum *Link.*	oblong	⸙	△	un	1½	jl.n	W	......	...	D	co	
8399	Majorána *W.*	knotted	£	⌊⊙⌋	cul	1	jn.jl	Pk	Portugal	1573.	S	r.m	Moris.s.11.t.3.f.1
8400	majoranoides *W.*	shrubby-sweet	ℏ	⊔	or	1	jn.jl	Pk	......	...	C	co	Bot. mag. 2605
1275.	THY'MUS. *L.*	Thyme.					*Labiatæ.*	*Sp.*	20—32.				
8401	serpýllum *W.*	wild	ℒ		or	¼	jn.au	Pu	Britain	heaths.	C	s.p	Eng. bot. 1514
8402	lanuginósus *W.*	woolly	ℒ		or	¼	jn.au	Pu	......	...	C	co	
8403	citriodórus *P. S.*	Lemon	ℒ		or	¼	jn.au	Pu	......	...	C	co	
8404	angustifólius *P. S.*	narrow-leaved	ℒ		or	¼	jn.au	Pu	......	...	C	co	
8405	vulgáris *W.*	garden	ℏ		cul	1	my.au	Pu	S. Europe	1548.	C	r.m	
8406	pannónicus *W. en.*	Hungarian	ℒ		or	¼	jn.au	Pu	Hungary	1817.	C	co	
8407	Marschallinus *W.*	Marschall's	ℏ		or	½	jn.au	Pu	Crimea	1817.	C	co	
8408	ericæfólius *Roth.*	Heath-leaved	ℏ		or	½	jn.au	Pu	Spain	1806.	C	co	
8409	aciculáris *P. S.*	needle-leaved	ℒ		or	¼	jn.au	Pu	Hungary	1806.	C	co	Pl.rar.hu.2.t.147
8410	lúcidus *W. en.*	shining-leaved	ℏ		or	1	jn.au	Pu	......	1816.	C	co	
8411	Mastichina *W.*	Mastick	ℏ	⊔	or	1	jl.s	Pa.pu	Spain	1596.	C	co	Blackw. t. 134
8412	montánus *W.*	mountain	ℒ	△	or	½	jn.jl	St	Hungary	1800.	D	s.p	Pl. rar.hu.1. t.71
8413	nummulárius *Bieb.*	round-leaved	ℒ		or	¼	jn.jl	Pu	Crimea	1822.	C	co	Bot. mag. 2666
8414	tomentósus *W. en.*	tomentose	ℏ		or	1	jn.au	W	Spain	1816.	C	co	
8415	Zýgis *W.*	Spanish		○	or	1	au	Pu	Spain	1771.	C	r.m	Barrel. ic. 777
8416	croáticus *P. S.*	oval-leaved	⸙	△	or	1	jl.au	Pu	Hungary	1802.	D	co	Pl.rar.hu.2.t.156
8417	cephalótes *W.*	great-headed	ℏ	⊔	or	¾	jl.au	Pu	Portugal	1759.	C	co	Hof.et L.lus.1.13
8418	villósus *W.*	hairy	ℏ	⊔	or	¾	jn.jl	Pu	Portugal	1759.	C	co	Hof.et Lin.1.t.14
8419	Tragoriganum *W.*	goat's	ℏ	⊔	or	1	my.jn	Pu	Candia	1640.	C	co	Alp. exot. t. 78
8420	filifórmis *W.*	Minorca	ℒ	⊔	or	½	jn.jl	Pu	Minorca	1770.	C	co	
1276.	A'CYNOS. *Pers.*	Acynos.					*Labiatæ.*	*Sp.*	5—7.				
8421	vulgáris *Pers.* *Thýmus A'cinos* W.	Basil-leaved		○	or	½	jn.au	V	Britain	dry h.	S	co	Eng. bot. 411
8422	villósus *Pers.*	villous		○	or		jn.au	R	Germany	1817.	S	co	
8423	alpinus *Pers.*	Alpine	£	⌊⊙⌋	or	½	jn.s	R	Austria	1731.	S	s.l	Jac. aust. 1. t. 97
8424	patavinus *Pers.*	Marjoram-lvd.	⸙	⊙	or	¾	jn.au	F	S. Europe	1776.	C	s.l	Bot. mag. 2153
8425	gravéolens *Bieb.*	strong-scented	ℏ		or	1	jn.au	Pu	Crimea	...	C	co	
1277.	CALAMIN'THA. *Ph.*	Calamint.					*Labiatæ.*	*Sp.*	7—9.				
8426	grandiflóra *Pers.*	great-flowered	⸙	△	or	1	jn.s	Pu	Italy	1596.	D	co	Bot. mag. 208
8427	caroliniána *Sweet.* *Thymus grandiflorus* B. M.	Carolina	⸙	⌊△⌋	or	1	jn.jl	F	Carolina	1804.	D	co	Bot. mag. 997
8428	vulgáris *Sweet.*	common	⸙	△	or	2	jl.au	V	England	bor.fi.	D	s.l	Eng. bot. 1676
8429	Népeta *Ph.*	lesser	⸙	△	or	1½	jl.o	B	England	ch.hil.	D	co	Eng. bot. 1414
8430	marifólia *Pers.*	Marum-leaved	⸙	△	or	1½	jn.jl	Pu	Spain	1788.	D	co	Cav. ic. 6. t. 576
8431	crética *Pers.*	Cretan	ℏ	⊔	or	½	jn.jl	Pu	S. Europe	1596.	D	r.m	Barr. ic. 1166
8432	fruticósa *Pers.*	shrubby	ℏ	⊔	or	¾	jl.s	Pu	Spain	1752.	C	r.m	
1278.	MELIS'SA. *W.*	Balm.					*Labiatæ.*	*Sp.*	2.				
8433	cordifólia *Pers.*	heart-leaved	✱	△	m	1	jn.o	W.pu	Italy	...	D	co	
8434	officinális *W.* *β romána*	common *hairy*	✱	△	m	1	jn.o	W	S. Europe	1573.	D	co	



History, Use, Propagation, Culture,

farriers; a little cotton moistened with it, and put into the hollow of an aching tooth, frequently relieves the pain. The country people use the tops to dye woollen cloth purple. It also dyes linen of a reddish brown color. For this purpose the linen is first macerated in alum water and dried; it is then soaked for two days in a decoction of the bark of the crab-tree; it is then wrung out of this, boiled in a ley of ashes, and then suffered to boil in the decoction. According to the Swedish experiments, goats and sheep eat it, horses are not fond of it, and kine refuse it.

O. onites and marjorana are culinary aromatics; the latter being principally in use under the name of knotted marjoram, from the flower coming in whorls at the joints. O. vulgare and marjorana are both retained in the Materia Medica as tonics and stomachics, though scarcely ever used. In quack medicine, the leaves dried and powdered form an ingredient in cephalic snuff. Marjorana is so called from *marjamie* (*máryamych*), its Arabic name, according to Forskahl, p. 59.

1275. *Thymus.* From θυμος, courage, on account of its balsamic smell, which revives the spirits of animals. T. serpyllum, from ἑρπω, to creep, is fragrant, and yields an essential oil that is very heating. It has the same sensible qualities as garden thyme, but the flavor is milder, and rather more grateful. Its essential oil is both smaller in quantity and less acrid, and its spirituous extract comes greatly short of the penetrating warmth and pungency of the other. It is a common notion that the flesh of sheep that feed upon aromatic plants, particularly wild thyme, is superior in flavor to other mutton. The truth is, that sheep do not crop

8392 Leaves ovate acute serrated, Spikes clustered in umbels
8393 Spikes on long stalks aggregate, Bractes the length of calyx
8394 Spikes roundish panicled clustered, Bractes longer than calyx ovate colored
8395 Spikes oblong aggregate hairy, Leaves cordate downy
8396 Leaves stalked ovate pubesc. Spikes clustered prismatical, Bractes imbricate ovate smooth ciliated at edge
8397 Leaves stalked ovate acute subserrate hairy, Spikes prismatical, Bractes dense ovate acute
8398 Leaves subsessile ovate acute subserrate hairy, Spikes oblong bluntish
8399 Spikes roundish thin compact stalked, Leaves stalked ellipt. blunt smoothish
8400 Spikes roundish several clustered stalked, Leaves stalked ellipt. blunt downy

8401 Flowers capitate, Stems decumbent, Leaves flat blunt ciliated at base
8402 Flowers capitate, Stems creeping hairy, Leaves blunt villous
8403 Leaves ovate smooth with the smell of common balm
8404 Flowers capitate, Stems procumbent, Leaves cuneate linear ciliated at base
8405 Erect, Leaves revolute ovate, Flowers in whorled spikes
8406 Leaves oblong more ciliated than in T. serpyllum, Cor. with a more obscure spot in the orifice
8407 Stem shrubby, Flowers in whorled spikes, Lvs. linear lanc. bluntish flat about 3-nerved ciliated at base
8408 Erect, Leaves revolute linear-lanc. hairy, Head few-flowered axillary stalked
8409 Flowers capitate, Stems creeping, Leaves linear nerved and furrowed beneath, Bractes ovate
8410 Fl. whorled somew. spiked, Ped. 1-fl. Stem shrubby erect, Lvs. ellipt. entire acute smooth shining above
8411 Flowers in whorled spikes, Cal. woolly with very long setaceous segments
8412 Flowers in whorled spikes, Spikes oblique, Ped. 1-fl. Lvs. ov. obtuse very entire and calyxes nearly naked
8413 Flowers in whorled heads, Stems filiform, Leaves roundish flat hairy nerved ciliate at base
8414 Flowers in whorled spikes, Cal. woolly with setaceous teeth, Lvs. ellipt. entire downy on each side
8415 Flowers in whorled spikes, Stem erect, Lvs. linear very blunt nerveless revolute at edge ciliated at base
8416 Pedun. about 3-fl. axillary, Lvs. ovate blunt nerved entire sess. Cor. twice as long as calyx, Stem villous
8417 Heads laxly imbricated, Bractes broad ovate colored not dotted, Leaves linear entire
8418 Heads imbricated large, Bractes toothed, Leaves setaceous hairy
8419 Flowers whorled, Stem half-shrubby erect, Leaves hispid acuminate
8420 Flowers axillary subsolitary stalked, Leaves cordate acute entire, Stems filiform

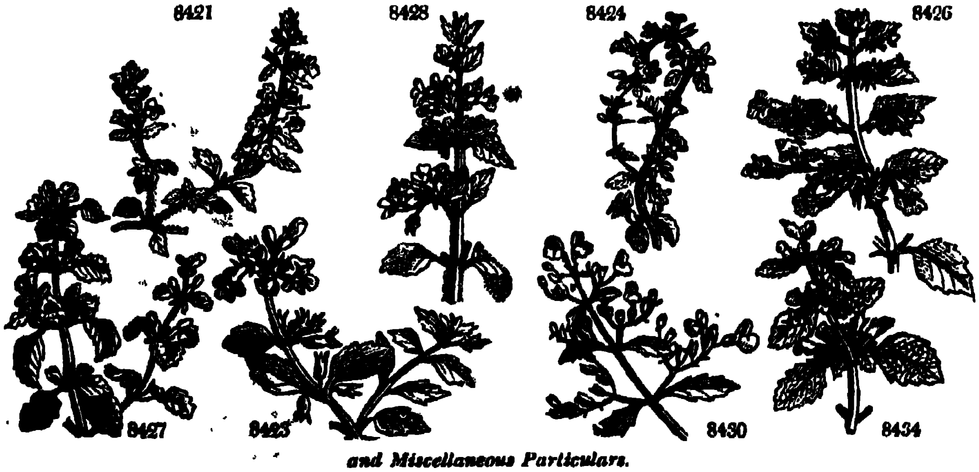
8421 Stem erect branched at base, Leaves ovate acute serrated forwards, Whorls 6-flowered

8422 Hirsute villous larger than the last, Stem much branched, Leaves ovate
8423 Whorls 6-fl. Leaves nearly blunt roundish concave subserrated
8424 Nearly smooth, Whorls 6-10-fl. Leaves ovate subserrate, Stem ascending
8425 Fls. whorled, Pedunc. 1-flow. Stem branched spreading, Leaves roundish acute subserrate at end hairy

8426 Pedun. axill. 3-4-fl. Bractes lanc. sessile, Leaves ovate acute finely serrated
8427 Leaves rhomboid oval obsoletely toothed upwards, Whorls somewhat stalked about 10-fl. shorter than leaf

8428 Stem weak, Pedun. axill. many-fl. dichotomous, Lvs. ovate blunt serrated hairy dotted
8429 Pedunc. axill. many-fl. in dichotomous corymbs, Lvs. ovate blunt subserrate smoothish
8430 Leaves ovate somewhat toothed glaucous, Pedunc. axill. dichotomous, Segm. of calyx equal
8431 Racemes terminal, Peduncles solitary very short
8432 Branches thin twiggy, Leaves downy beneath

8433 Villous, Leaves cordate crenate-toothed, Branches axillary elongated flowering
8434 Whorls halved subsessile, Bractes oblong stalked, Leaves ovate acute serrated



and Miscellaneous Particulars.

these aromatic plants, unless now and then by accident, or when they are first turned on hungry to downs, heaths, or commons; but the soil and situations favorable to aromatic plants produce a short sweet pasturage best adapted to feeding sheep, whom nature designed for mountains, and not for turnip grounds and rich meadows. The attachment of bees to this and other aromatic plants is well known.

Few plants are subject to more varieties than wild thyme. In its most natural state, on dry exposed downs, it is small and procumbent; but when it grows among furze or other plants, it runs up with a slender stalk to a foot or more in height. It differs also very much in the smoothness or hairiness of its leaves. The flowers are sometimes larger than ordinary, and of a paler purple color, or even white.

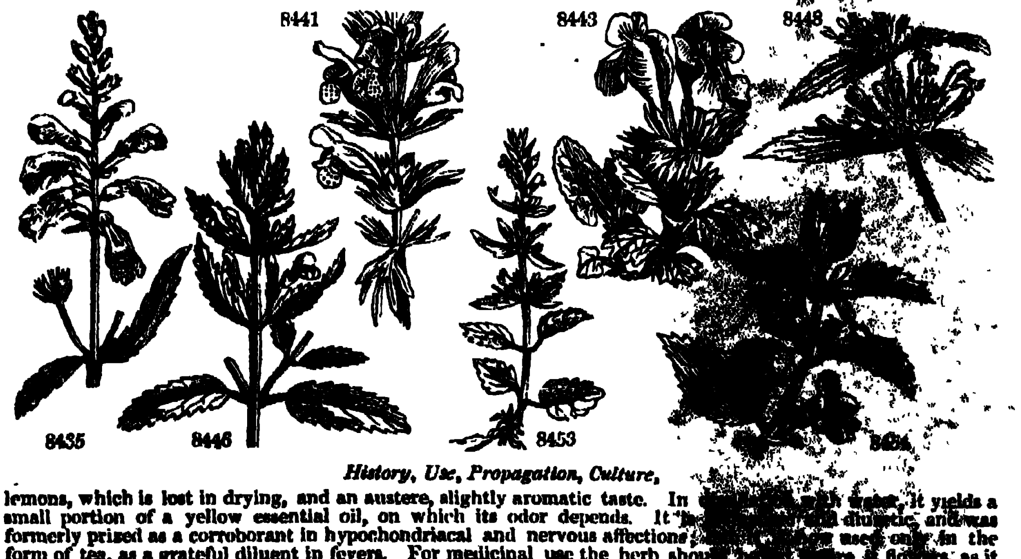
T. vulgaris has the aromatic qualities common to lavender, sage, rosemary, and other Verticillatæ. It yields a species of camphor in distillation with water. In Spain they infuse it in the pickle with which they preserve their olives. Before the oriental spices were common, it was much used in cookery.

1276. *Acynos.* The Greek name of a balsamic plant, which probably was related to Thymus. This genus was included in Thymus by Linnæus.

1277. *Calamintha.* From *καλος*, beautiful, and *μινθη*, mint. An ancient Greek name of a plant supposed to chase away serpents.

1278. *Melissa.* This is the Greek name of the bee, from *μελι*, honey, which is sought by bees in these flowers with avidity, as indeed it is in all the plants of the order. The recent plant has the agreeable odor of

1279.	**DRACOCE'PHALUM.** *W.*	Dragon's-Head.							*Labiatæ.*	*Sp.* 10—25.			
8435	virginiánum *W.*	Virginian	✱	△	or	3	jl.s	L.B	N. Amer.	1683.	D	p.l	Bot. mag. 467
8436	denticulátum *W.*	Carolina	✱	△	or	1	au.s	St	Carolina	1787.	D	p.l	Bot. mag. 214
8437	variegátum *Ph.*	variegated	✱	△	or	1½	au.s	Pu	Carolina	1812.	D	co	Vent. cels. t. 44
8438	canarien'se *W.*	Balm of Gilead	ɱ	⊔	or	3	jl.s	Pa.pu	Canaries	1697.	S	r.m	Com. hort. 2. t. 41
8439	palmátum *W.*	palmated	⚘	△	or	1½	jn.au	Pu	Siberia	1815.	D	co	
8440	peregrinum *W.*	prickly-leaved	⚘	△	or	½	jl.au	B	Siberia	1759.	D	p.l	Bot. mag. 1084
8441	austriacum *W.*	Austrian	⚘	△	or	1	jn.jl	B	Austria	1597.	D	p.l	Jac. ic. 1. t. 112
8442	Ruyschiána *W.*	Hyssop-leaved	⚘	△	or	2	jn.jl	B	N. Europe	1699.	D	p.l	Fl. dan. 121
8443	grandiflórum *W.*	great-flowered	⚘	△	or	1	jl	B	Siberia	1759.	D	p.l	Bot. mag. 1009
8444	altaicum *W.*	Betony-leaved	⚘	△	or	1	jl au	Pu	Georgia	1787.	D	co	N.co pet. t. 29. f. 3
8445	sibiricum *W.*	Siberian	⚘	△	or	1	jn.au	L.B	Siberia	1760.	D	p.l	Bot. mag. 2185
8446	Moldávica *W.*	Moldavian		○	or	2	jl.au	B	Moldavia	1596.	D	[illegible]	Lam. ill. t. 513. f. 1
	β *albiflorum*	*white-flowered*											
8447	canéscens *W.*	hoary		○	or	2	jl.au	B	Levant	1711.	D	co	Sweet fl. gard. 38
8448	peltátum *W.*	Willow-leaved		○	or	1½	jl.au	Pu	Levant	1711.	D	co	[illegible] ill. t. 513. f. 2
8449	argunénse *Fisch.*	rough-flowered	⚘	△	or	1½	jl.au	B	Siberia	1822.	[illegible]	co	Bot. cab. 797
8450	speciósum *Hort.*	shewy	✱	△	or	3	jl.au	Pk	Siberia	[illegible]	D	co	Sweet fl. gard. 93
8451	botryoides *Bieb.*	cut-leaved	⚘	△	or	1½	jl.au	Pu	Siberia	[illegible]	[illegible]	co	
8452	nútans *W.*	nodding	⚘	△	or	1	jl.au	B	Siberia	[illegible]	D	co	Bot. reg. [illegible]
8453	thymiflórum *W.*	small-flowered		○	or	½	jn.s	Pu	Siberia	[illegible]	S	co	Gmel. sib. 3. t. 50
1280.	**MELI'TTIS.** *W.*	Bastard-Balm.							*Labiatæ.*	*Sp.* 2—4.			
8454	Melissophýllum *W.*	common	✱	△	or	1	my.jn	F	England	woods.	D	co	Eng. bot. 577
	β *alpina*	*Alpine*	✱	△	or	½	my.jn	F	Switzerl.	...	D	co	
8455	grandiflóra *H. K.*	great-flowered	✱	△	or	1	my	W.y	England	woods.	D	co	Eng. bot. 636
1281.	**O'CYMUM.** *W.*	Basil.							*Labiatæ.*	*Sp.* 20—50.			
8456	thyrsiflórum *W.*	thyrse-flowered	¥	⧇	un	1½	jl.au	W	E. Indies	180[illegible]	C	s.l	Jac. vind. 3. t. 72
8457	suáve *W. en.*	sweet-scented	ɱ	☐	un	3	jl.s	W	......	1816.	C	s.l	
8458	viride *W. en.*	green	ɱ	☐	un	3	jl.s	W.o	......	1816.	C	s.l	
8459	monachórum *W.*	monk's		⧇	un	1	jl.au	W	E. Indies	1796.	S	s.l	
8460	gratissimum *W.*	shrubby	ɱ	☐	un	2	jl.au	W	E. Indies	1752.	C	s.l	Jac. ic. 3. t. 495
8461	grandiflórum *W.*	great-flowered	ɱ	⊔	un	2	s.o	W	Abyssinia	1802.	C	s.l	L'He. s.nov. t. 43
8462	Basilicum *W.*	common-sweet		○	cul	1	jl.au	W	India	15[illegible]	S	r.m	Blackw. t. 104
8463	minimum *W.*	bush		○	cul	1	jl.au	W	E. Indies	157[illegible]	S	r.m	Sch. han. 2. t. 166
8464	sánctum *W.*	purple-stalked		⧇	un	1	jl.s	Pu	E. Indies	175[illegible]	S	s.l	Rhe. mal. 10. t. 92
8465	pilósum *W. en.*	ciliated		⧇	un	1	jl s	W	......	1816.	S	s.l	
8466	americánum *W.*	American		⧇	un	1	jl.au	W	India	17[illegible]	S	s.l	Jac. vind. 3. t. 86
8467	tenuiflórum *W.*	slender-spiked	¥	⧇	un	1	jl.au	Pa.pu	E. Indies	170[illegible]	S	s.l	Ru. am. 5. t. 92. f. 2
8468	polystáchyon *W.*	many-spiked		⧇	un	1	jl au	W	E. Indies	1783.	S	s.l	Mur. co. got. 3. t. 3
8469	menthoides	Mint-leaved		⧇	un	1	jl.au	W	E. Indies	1783.	S	s.l	
8470	micránthum *W. en.*	small-flowered		⧇	un	1	jl au	Pa.pu	......	1816.	S	s.l	
8471	mólle *W.*	heart-leaved		⧇	un	1	s.o	V	E. Indies	1781.	S	s.l	
8472	capitellátum *W.*	small-headed		○	ec	1½	jl.au	W	China	1806.	S	s.l	
8473	febrifugum *Lindl.*	fever-plant	ɱ	☐	m	3	jn.o	W	S. Leone	1822.	C	co	Bot. reg. 753
8474	cánum *Sims.*	hoary		○	un	1	jl	W	China	1822.	S	co	Bot. mag. 2452
8475	polycládum *Link.*	many-branched		⧇	un	1½	jn.o	W	......	1823.	S	co	
	Lumnitzera ocymoides Jacq.												
1282.	**PLECTRAN'THUS.** *W.*	Plectranthus.							*Labiatæ.*	*Sp.* 8—13.			
8476	fruticósus *W.*	shrubby	ɱ	⊔	or	3	jn.s	B	C. G. H.	1774.	C	r.m	L'Her. st. 85. t. 41
8477	Forskohlæ'i *W.*	Forskohl's	ɱ	☐	or	3	o.n	B	Abyssinia	1806.	C	l.p	Bot. mag. 2036
8478	parviflórus *W. en.*	small-flowered	ɱ	⊔	or	3	jn.s	B	S. Amer.	1805.	C	l.p	W. hort. ber. 65
8479	scutellarioides *R. Br.*	skullcap-like		⧇	or	2	jl.au	B	E. Indies	1764.	S	l.p	Bot. mag. 1446
	O'cimum scutellarioides H. K.												
8480	punctátus *W.*	dotted	¥	⧇	or	2	ja.my	B	Africa	1775.	S	r.m	L'Her st. 87. t. 41
8481	comósus *Sims.*	comose		○	pr	2	au	B	Nepal	1821.	S	co	Bot. mag. 2318
8482	ternátus *Sims.*	Omime Plant	¥	⟁	or	½	au	Pu	Madagasc.	1821.	D	r.m	Bot. mag. 2460
8483	incánus *Link.*	hoary	¥		or	3	jl.au	B	......	1822.	D	co	



History, Use, Propagation, Culture,

lemons, which is lost in drying, and an austere, slightly aromatic taste. In [illegible] water, it yields a small portion of a yellow essential oil, on which its odor depends. It [illegible] diuretic, and was formerly prized as a corroborant in hypochondriacal and nervous affections; [illegible] used only in the form of tea, as a grateful diluent in fevers. For medicinal use the herb should [illegible] before it flowers, as it is then more odorous. (*London Dispensatory*, 383.)

1279. *Dracocephalum.* From δρακων, a dragon, and κεφαλη, a head. A name applied in the same sense as Lamium, Galeopsis, &c. See those genera. Most of the species are plants of ornament, and cultivated as such in the gardens of the curious. D. canariense smells of citron, especially when rubbed between the fingers. Sown on a hot-bed early in spring, it may be planted out in the borders like other tender annuals. D. austriacum is a handsome plant for a flower border.

8435 Smooth, Flowers spiked close, Leaves linear lanceolate serrated
8436 Flowers spiked remote, Leaves obovate lanceolate toothletted upwards
8437 Spikes short 4-cornered, Corolla variegated, Leaves oblong toothletted upwards
8438 Flowers spiked, Leaves ternate oboing
8439 Fl. somewhat spiked, Lvs. roundish cuneiform sinuate-toothed, Upper lip of cal. undivided mucronate
8440 Fl. somewhat spiked, Leaves lanceolate remotely mucronate toothed, Bractes lin. lanc. toothed spiny
8441 Fls. spiked, Lvs. sessile linear mucronate, Cauline 3-5-parted at base, Stem branched somewhat villous
8442 Flowers spiked, Leaves and bractes lanceolate undivided pointless, Stem nearly simple smooth
8443 Fls. whorled, Lvs. obl. blunt toothed stalked, Bractes lanc. entire, Upper lip of cal. ellipt. blunt undivided
8444 Fls. whorled, Rad. lvs. cord. ov.; cauline sessile roundish wedge-shaped acutely toothed, Teeth of cal. equal
8445 Flowers whorled, Whorls stalked bifid one-sided, Leaves lanc. cordate acum. serrated smooth
8446 Flowers whorled, Bractes lanceolate deeply toothed dotted beneath, Lower serratures subciliated

8447 Flowers whorled, Bractes oblong ciliated, Cal. striated pubescent, Tube of cor. longer than calyx
8448 Flowers whorled, Bractes orbicular serrate ciliate
8449 Stem erect, Leaves linear lanceolate blunt entire at edge rough, Two upper teeth of calyx largest
8450 Leaves broad-lanceolate finely serrated entire at base, Lower teeth of calyx longest
8451 Flowers in spiked heads, Leaves roundish pinnatifid crenate downy on each side
8452 Flowers whorled, Bractes oblong ovate entire, Cor. twice as long as calyx nodding
8453 Flowers whorled, Bractes oblong entire, Cor. scarcely larger than calyx

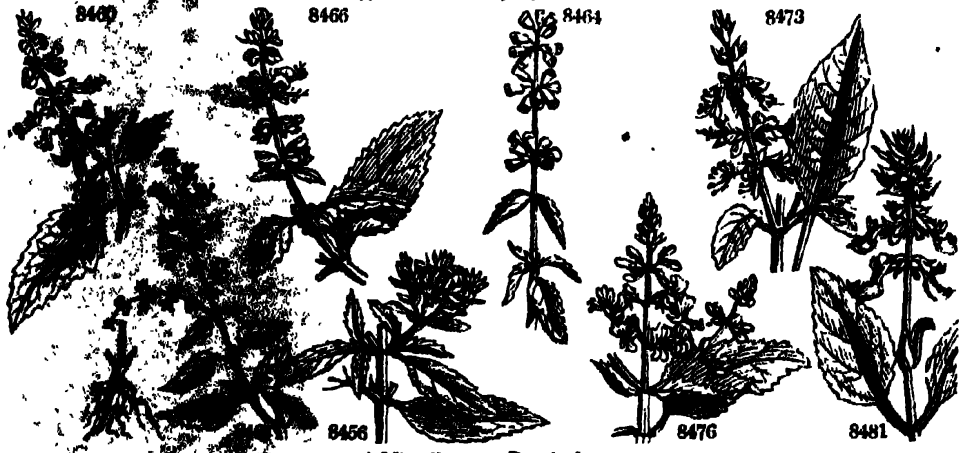
8454 Leaves opposite ovate toothed, Calyx 3-lobed hairy

8455 Cal. 4-lobed smooth, Cor. yellowish white, Segment of lower lip violet in the middle

8456 Flowers in panicled fascicles, Stem much branched
8457 Racemes panicled, Leaves ovate oblong cuneate at base acutely serrated hoary beneath
8458 Racemes panicled, Leaves ovate cuneate at base bluntly serrated, Veins hairy above rough beneath
8459 Stamens toothless, every other one bearded at base
8460 Stem ½ shrubby, Leaves lanceolate ovate subtomentose, Racemes rounded
8461 Stem shrubby, Leaves ovate serrate, Stamens very long
8462 Leaves ovate smooth, Calyxes ciliated
8463 Leaves ovate entire
8464 Leaves somewhat oblong blunt serrated wavy, Stem hairy, Bractes cordate
8465 Leaves ovate oblong, Foot-stalks, bractes and calyxes ciliated
8466 Leaves sublanceolate acuminate subserrate, Racemes rounded, Stem nearly herbaceous
8467 Leaves ovate-oblong serrated, Bractes cordate reflexed concave, Spikes filiform
8468 Cor. 4-fid, Racemes leafless nodding at end
8469 Leaves linear lanceolate serrate [than calyx
8470 Lvs. broad ovate acum. at each end serr. Bractes shorter than cal. winged at edge, Cor. scarcely longer
8471 Leaves ovate cordate acute serrated rugose, Recesses closed, Bractes roundish wedge-shaped
8472 Leaves ovate, Flowers aggregate, Footstalks lateral
8473 Downy, Lvs. ovate lanceolate crenate stalked, Whorls terminal racemose, Corolla the length of calyx
8474 Leaves oblong elliptical serrated hoary on long stalks, Stamens twice as long as corolla
8475 Like Ocymum polystachyon, but not having a musky scent as that has

8476 Nectary spurred, Racemes compound, Pedunc. 3-parted, Stem shrubby polished
8477 Nectary gibbous, Racemes leafless, Stem nearly equal
8478 Nectary gibbous, Racemes compound, Pedunc. 1-flowered whorled, Stem half shrubby nearly smooth
8479 Cor. falcate, Flower-stalks branched

8480 Nectary gibbous, Flowers spiked, Stem herbaceous hairy rufous dotted
8481 Flowers whorled sessile, Lower lip of calyx 4-parted, Bractes cordate acuminate
8482 Stem 6-angled, Leaves ternate stalked ovate crenate rugose, Roots tuberous
8483 Leaves stalked cordate crenate hairy, Bractes nearly equal to flower ovate



and Miscellaneous Particulars.

1980. *Melittis.* A [illegible] the same meaning as Melissa.

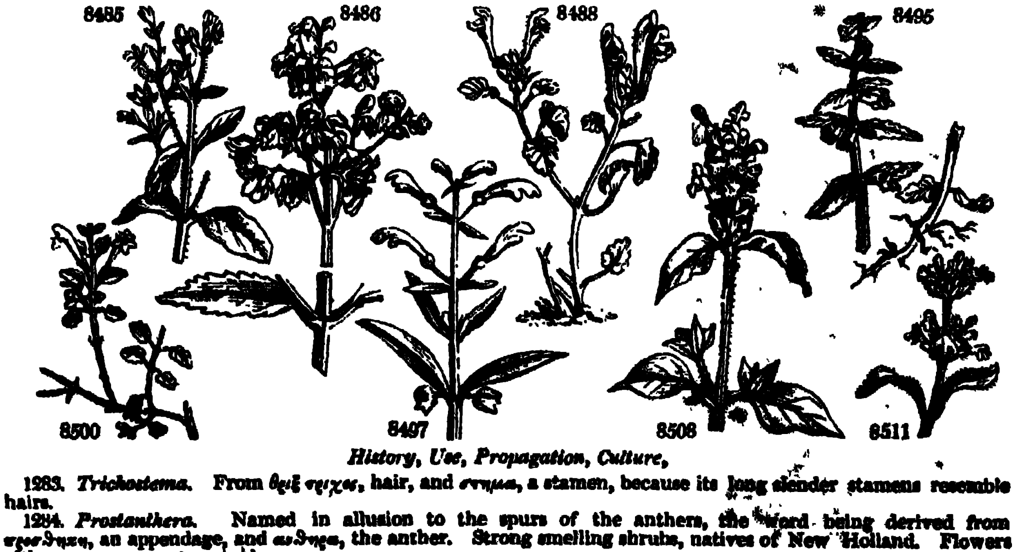
1981. *Ocymum.* [illegible] seems to be derived from ὄζω, to smell, on account of the powerful scent of the plants. O. gratissimum [illegible] used in China for culinary purposes. O. Basilicum (βασιλικος, royal) and minimum, are culinary [illegible] much used in French cookery. There are several varieties of the basilicum, which with some other species were formerly used in medicine, but are now neglected.

1982. *Plectranthus.* From πληκτρον, a cock's spur, and ανθος, a flower, the corolla of the original species of the genus being terminated by a spur-like appendage. Half-shrubby plants with purple flowers, all natives of hot climates.

1283. TRICHOSTE'MA. *W.*	TRICHOSTEMA.					*Labiatæ.*	*Sp.* [illegible]—4.					
8484 dichótoma *W.*	Marjoram-leav.		○	gr	[illegible]	[illegible].jl	B	N. Amer.	1759.	S	s.l	
8485 brachiáta *W.*	sessile-leaved	♃	◎	pr	[illegible]	jn.au	B	N. Amer.	1732.	[illegible]	s.p	Di.el. t.285.f.369
1284. PROSTANTHE'RA. *R. B.*	PROSTANTHERA.					*Labiatæ.*	*Sp.* 1—13.					
8486 lasiánthos *R. Br.*	villous-flower'd	♄	⊔	or	8	jn.jl	Pu.w	N. S. W.	1808.	C	s.p	Bot. reg. 143
1285. SCUTELLA'RIA. *W.*	SKULL-CAP.					*Labiatæ.*	*Sp.* 21—30.					
8487 orientális *W.*	yellow-flowered	♃	△	or	1	jl.s	Y	Levant	1729.	D	p.l	Bot. mag. 2120
8488 grandiflóra *P. S.*	large-flowered	♃	△	or	1½	jl.au	P.Y	Siberia	1804.	D	s.l	Bot. mag. 635
8489 álbida *W.*	hairy	♃	△	or	1½	jn.jl	W.pu	Levant	1771.	D	s.l	Sab. hort. 3. t.29
8490 alpína *W.*	Alpine	♃	△	or	½	jn.o	B.w	Hungary	1752.	D	p.l	Sweet fl. gard.90
8491 lupulína *W.*	Tartarian	♃	△	or	1	jn.s	Y.w	Tartary	1739.	D	p.l	Schmidel.ic. t.73
8492 lateriflóra *W.*	Virginian	♃	△	or	1	jn.s	B	N. Amer.	1752.	D	p.l	Pluk. am. 442. 2
8493 pilósa *Ph.*	pubescent	♃	△	or	1	jl.au	B	N. Amer.	1805.	D	p.l	
8494 galericuláta *W.*	common	♃	△	or	1	jn.s	B	Britain	wat.pl.	D	co	Eng. bot. 523
8495 minor *W.*	lesser	♃	△	or	½	jl.au	Pk	Britain	m.hed.	D	co	Eng. bot. 524
8496 hastifólia *Pers.*	hastate-leaved	♃	△	or	½	jn.jl	Pu	Germany	1798.	D	co	
8497 caroliniána *Ph.*	Carolina	♃	△	or	1½	jn.jl	B	Carolina	1811.	D	co	Lam.ill. t.515.f.3
8498 integrifólia *Ph.*	entire-leaved	♃	△	or	2	jn.s	B	N. Amer.	1731.	D	p.l	Pluk.al. t.441.f.6
8499 serráta *Ph.*	saw-leaved	♃	△	or	4	jn.s	B	N. Amer.	1800.	D	s.l	Bot. rep. 494
8500 havanénsis *W.*	Havannah	£	⍓	or	2	my.jn	B	Havannah	1798.	D	s.l	Jac. obs. 2. t. 29
8501 peregrína *W.*	Florentine	♃	△	or	2	jn.o	V	Italy	1683.	D	co	Pl.rar.hu.2.t.125
8502 colúmnæ *W.*	heart-leaved	♃	△	or	1½	jn.au	B	Italy	1806.	D	co	Sweet fl. gard.52
8503 altíssima *W.*	tall	♃	△	or	1	jl.au	D.P	Levant	1731.	D	p.l	Bot. mag. 2548
8504 crética *W.*	Cretan	♄	⊔	or	1	jn.jl	Pu	Crete	1729.	C	s.l	
8505 par'vula *Mich.*	lea[illegible]	♃	◎	cu	½	jn.jl	B	N. Amer.	1822.	S	p	Hook. ex. fl 10
8506 rubicúnda *W. en.*	p[illegible]	♃	△	or	2	jl.au	Pk	......	1823.	D	co	
8507 pállida *Bieb.*	pale	♃	△	or	2	jl.au	W	Crimea	1824.	D	co	Gmel. sib. t. 58
1286. PRUNEL'LA. *W.*	SELF-HEAL.					*Labiatæ.*	*Sp.* 8—10.					
8508 vulgáris *W.*	common	♃	△	m	½	jl.au	Pk	Britain	me.pa.	D	co	Eng. bot. 961
β álba	*white-flowered*	♃	△	cu	½	jl.au	W	Britain	me.pa.	D	co	
8509 ováta *Pers.*	oval-leaved		○	un	½	jl.au	Pu	America	...	S	l.p	
8510 pensylvánica *W.*	Pensylvanian	♃	△	un	½	jl.s	Pa.B	N. Amer.	1801.	D	p.l	W. hort. ber. t.9
8511 hyssopifólia *W.*	Hyssop-leaved	♃	△	un	½	jl.s	L.B	France	1731.	D	p.l	Mor. s.11. t.5. f.7
8512 grandiflóra *W.*	great-flowered	♃	△	un	½	jl.s	L.B	Austria	1596.	D	p.l	Bot. mag. 2014
8513 laciniáta *P. S.*	yellow-flowered		○	un	½	jl.s	Y	Austria	1713.	S	p.l	Lam.ill. t.516.f.2
8514 intermédia *P. S.*	various-leaved	♃	△	un	½	jl.s	Pk	Portugal	1790.	D	s.l	Bot. mag. 337
8515 incísa *Link.*	cut	♃	△	un	½	jl.s	Pk	....	1823.	D	co	
1287. CLEO'NIA. *W.*	CLEONIA.					*Labiatæ.*	*Sp.* 1.					
8516 lusitánica *W.*	sweet-scented		○	or	1	jn.jl	L.B	Portugal	1710.	S	co	Mill. ic. 1. t. 70
1288. PRA'SIUM. *W.*	PRASIUM.					*Labiatæ.*	*Sp* 2.					
8517 május *W.*	great Spanish	♄	⊔	cu		jn.au	Pu	Spain	1699.	C	r.m	Fl. græca, 584
8518 minus *W.*	small Sicilian	♄	⊔	cu		jn.au	Pu	Sicily	1752.	C	r.m	
1289. PHRY'MA. *W.*	PHRYMA.					*Labiatæ.*	*Sp.* 1.					
8519 leptostáchya *W.*	slender-spiked	♃	△	cu	1½	au.s	W.pu	N. Amer.	1802.	D	l.p	Pl.amal.t.380.f.5

ANGIOSPERMIA.

1290. GESNE'RIA. *W.*	GESNERIA.					*Gesnerieæ.*	*Sp.* 6—25.					
8520 acaúlis *W.*	stemless	♄	▢	or	1	...	S	Jamaica	1793.	C	l.p	Slo. ja.1. t.102.f.1
8521 tomentósa *W.*	woolly	♄	▢	or	2	jn.n	S	S. Amer.	1752.	C	p.l	Bot. mag. 1023
8522 aggregáta *Ker.*	aggregate	£	⍓	or	2	au	S	Brazils	1816.	C	p.l	Bot. reg. 329
8523 bulbósa *Ker.*	bulbous		⍓	or	2	my.jn	S	Brazils	1816.	C	p.l	Bot. reg. 343
8524 prasináta *Ker.*	green	♄	▢	or	3	my.jn	G	Brazils	1818.	C	p.l	Bot. reg. 428
8525 tubiflóra *Cav.*	tube-flowered	♃	⍓	or	2	f.mr	S	S. Amer.	1815.	D	p.l	Cav. ic. t. 584
1291. GLOXI'NIA. *W.*	GLOXINIA.					*Gesnerieæ.*	*Sp.* 2.					
8526 maculáta *W.*	spotted-stalked	£	⍓	or		jl.o	Pu	S. Amer.	1739.	C	s.p	Bot. mag. 1191
8527 speciósa *B. Reg.*	many-flowered	£	⍓	or	½	jn.n	Pu	S. Amer.	1815.	C	s.p	Bot. reg. 213



History, Use, Propagation, Culture,

1283. *Trichostema.* From θριξ τριχος, hair, and στημα, a stamen, because its long slender stamens resemble hairs.

1284. *Prostanthera.* Named in allusion to the spurs of the anthers, the word being derived from προσθηκη, an appendage, and ανθηρα, the anther. Strong smelling shrubs, natives of New Holland. Flowers either racemose or terminal.

1285. *Scutellaria.* From *scutilla*, a small vessel, on account of the figure of the calyx, which is not unlike a cup with its handle. The calyx inverted, presents the figure of a helmet with visor raised.

1286. *Prunella.* A barbarous name softened down by Linnæus from the Brunella of some authors, and so called from the German *die Bräune*, a disorder in the jaws and throat, which this plant is said to cure. Herbaceous plants common by way-sides all over Europe.

8484 Stamens very long exserted, Leaves linear
8485 Stamens short included

8486 Leaves lanceolate tooth-serrated smooth, Racemes panicled, Corolla hairy

8487 Leaves cut downy beneath, Spikes rounded 4-cornered
8488 Leaves cordate cut crenate pubescent on each side shorter than footstalk, Spikes short 4-cornered
8489 Leaves subcordate serrate rugose opaque, Spikes 1-sided, Bractes ovate
8490 Leaves cordate cut serrate crenated, Spikes imbricated rounded 4-cornered, Bractes twice as short as fl.
8491 Leaves cordate cut serrate acute smooth, Spikes imbricated rounded 4-cornered, Bractes length of flower
8492 Much branched, Leaves smooth with a scabrous keel, Racemes lateral leafy
8493 Hairy, Leaves ovate rhomboid crenate, Flowers subracemose
8494 Leaves cordate lanceolate crenate, Flowers axillary
8495 Leaves cordate ovate nearly entire, Flowers axillary
8496 Leaves quite entire, lower hastate, upper sagittate, Flowers axillary
8497 Branched very smooth, Leaves stalked linear lanceolate acute entire, Racemes loose leafy, Cal. blunt
8498 Simple densely pubes. Lvs. subsess. obl. or linear blunt entire attenuated at base, Racemes loosish leafy
8499 Branched tall pubescent, Leaves ovate acuminate serrate on short stalks, Racemes usually panicled
8500 Leaves cordate ovate crenate, Flowers solitary axillary, Each lip of cor. trifid
8501 Leaves cordate serrate, Spikes elongated 1-sided, Bractes stalked ovate longer than calyx
8502 Leaves oblong cordate serrate pubes. Spikes elongated 1-sided, Bractes stalked ovate shorter than calyx
8503 Leaves cordate oblong acuminate serrate, Spikes nearly naked
8504 Villous, Leaves cordate blunt and bluntly serrated, Spikes imbricated, Bractes setaceous
8505 Subvillous, Leaves ovate entire all alike, Flowers axillary
8506 Related to S. albida from which it differs in being much less hairy, and in its more slender flower
8507 Lvs. cord. cren. serrate bluntish villous, Spikes long 1-sided hispid, Bractes stalked ovate longer than cal.

8508 Lvs. stalked obl. ovate somew. toothed, Upper lip of cor. trun. with 3 awns, Stem ascending, Spike round

8509 Leaves broad ovate toothed, Stem much branched, Spikes ovate
8510 Lvs. stalked ovate lanc. toothed at base, Lips of cal. equal: upper truncate with 3 awns, Stem ascending
8511 Leaves sessile lanceolate entire rough, Stem erect
8512 Leaves stalked oblong ovate toothed at base, Upper lip of cor. trifid, Stem ascending
8513 Small, Stem nearly simple villous, Leaves pinnatifid lower oblong, Cor. pale yellow
8514 Leaves entire and sinuated toothed rugose hairy, Upper lip of cor. truncate slightly 3-toothed
8515 Upper leaves linear-lanceolate: lower sinuate toothed somewhat hairy

8516 Bractes laciniate

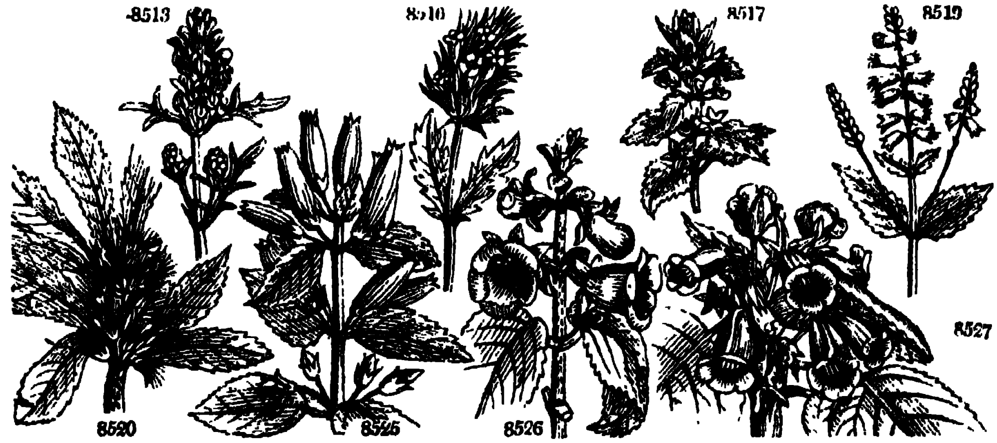
8517 Leaves ovate oblong serrated
8518 Leaves ovate with a double crenature on each side

8519 Leaves stalked ovate serrated, Spikes terminal long

ANGIOSPERMIA.

8520 Leaves lanceolate ovate serrated somewhat stalked terminal, Pedunc. 3-fl. shorter than leaves
8521 Leaves ovate lanceolate crenate hairy, Peduncles lateral very long bearing corymbs
8522 All vill. Branches rounded, Lvs. opp. obl. ovate cren. Ped. 2-4 axill. 1-fl. aggregate, Cor. clavate cylind.
8523 All pubes. Lvs. opp. ovate ellipt. cord. at base serr. cren. Panicle numer. opp. spread. dist. Ped. corymbose
8524 All pubes. Lvs oval lanc. velvety above, Panicle leafy, Fl. with a campan. inflated orifice, Limb oblique
8525 Leaves opposite ovate crenulate tomentose, Flowers axillary 2-3 together downy

8526 Leaves oblong cordate crenate rugose, Stem spotted
8527 Leaves hoary ellipt. or oblong crenate, Pedunc. erect longer than flower, Sepals angular acuminate



and Miscellaneous Particulars.

1287. *Cleonia.* An ancient Greek name employed by Theophrastus, *lib.* 7. *cap.* 4.: the Cleonæum of Pliny. This is an annual plant six or eight inches high, and nearly related to Prunella, from which some eminent French botanists do not distinguish it.

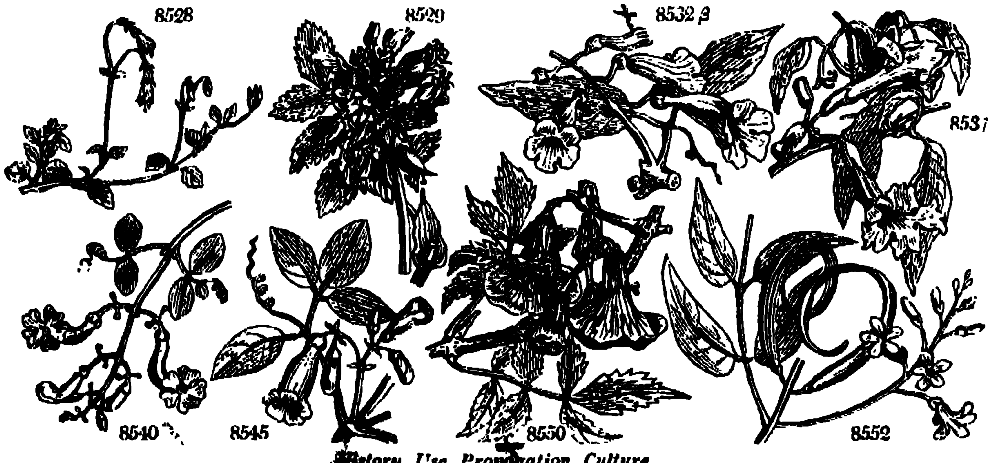
1288. *Prasium.* The Greek name of the horehound, which this plant resembles in some respects.

1289. *Phryma.* A Linnean name, the meaning of which is unknown.

1290. *Gesneria.* In honor of Conrad Gesner, of Zurich, the famous botanist and natural historian, called the German Pliny. Very fine herbaceous or half-shrubby plants, some of which are remarkable for the brilliance of their colors.

1291. *Gloxinia.* In memory of Ben. Petr. Gloxin, of Colmar, author of Observationes Botanicæ, Argent,

1292. **LINNÆ'A.** *W.*	LINNÆA.					*Caprifoliaceæ.*		*Sp.* 1.				
8528 **boreális** *W.*	two-flowered	⚘	△	pr	¼	my.au	F	Scotl.	dry st.c.	D	l.p	Eng. bot. 435
1293. **MELIAN'THUS.** *W.*	HONEY-FLOWER.					*Rutaceæ ?*		*Sp.* 2—4.				
8529 **májor** *W*	great	♣	⊔	or	10	my.jl		C. G. H.	1688.	Sk	s.l	Bot. reg. 45
8530 **minor** *W.*	small	♣	⊔	or	2	au		C. G. H.	1696.	Sk	s.l	Bot. mag. 301
1294. **BIGNO'NIA.** *W.*	TRUMPET-FLOWER.					*Bignoniaceæ.*		*Sp.* 27—75.				
8531 **únguis** *W.*	Barbadoes	ʃ	□	or	10	...	Y	W. Indies	1759.	L	s.p	Plum.amer. t.94
8532 **æquinoctiális** *W.*	equinoctial	ʃ	□	el	40	ap.o	Y	Guiana	1768.	C	s.l	Plum.ic. t 55.f.1
β Chamberlaynii	*Chamberlayne's*	ʃ	□	el	40	ap.o	Y	Brazil	1820.	C	s.l	Bot. reg. 741
8533 **alliácea** *W.*	Garlick-scent.	ʃ	□	cu	10	...	Y	W. Indies	1790.	C	l.p	
8534 **laurifólia** *W.*	Laurel-leaved	ʃ	□	or	20	...	...	Guiana	1804.	C	l.p	
8535 **paniculáta** *W.*	panicled	ʃ	□	or	20	...	Pu	W. Indies	1738.	C	l.p	Plum. ic. 56. f. 1
8536 **crucígera** *W.*	cross-bearing	ʃ	□	or	20	...	Y.s	S. Amer.	1759.	L	s.p	Plum. ic. t. 58
8537 **uncáta** *B. M.*	hooked	ʃ	□	or		jn.s	Y	Guiana	1804.	L	s.p	Bot. mag. 1511
8538 **capreoláta** *W.*	four-leaved	ʃ		or	15	jn.jl	S	N. Amer.	1710.	C	s.p	Bot. mag. 864
8539 **pubéscens** *W.*	downy	ʃ	□	or	15	jn.jl	Y	Campeachy	1759.	C	s.p	
8540 **rigéscens** *Jacq.*	stiff	ʃ	□	or	20	jn jl	Pk	Caraccas	1823.	C	s p	Jac.schon. t. 210
8541 **lactiflóra** *Vahl.*	milk-white	ʃ	□	or	20	jn.jl	W	SantaCruz	1823.	C	s.p	Vah. symb. t. 66
8542 **meonántha** *Link.*	small-flowered	ʃ	□	or	20	jn.jl	Pk	N. Holl. ?	...	C	s.p	
8543 **grandifólia** *Jacq.*	large-flowered	ʃ	□	or	60	ap.jl	Y	Caraccas	1816.	C	p.l	Bot. reg. 418
8544 **venústa** *B. Reg.*	comely	ʃ	□	or		s.d	Or	S. Amer.	1816.	C	l.p	Bot. reg. 249
8545 **echináta** *W.*	bristly-fruited	ʃ	□	or	20	...	Pk	Guiana	1804.	C	l.p	Aub. gui.2. t.264
8546 **triphýlla** *W.*	three-leaved	♣	□	or	10	...	W	S. Amer.	1733.	R	l.p	
8547 **pentaphýlla** *W.*	five-leaved	ʃ	□	or	20	...	...	Jamaica	1733.	C	l.p	Marcg.bra.t.118
8548 **Leucóxylon** *W.*	white-wooded	♀	□	or	12	jn.jl	Pk	W. Indies	1759.	C	l.p	Bot. rep. 43
8549 **rádicans** *W.*	Ash-leaved	ʃ		or	30	jl.au	Or	N. Amer.	1640.	R	s.p	
α májor	*great Ash-lvd.*	ʃ		or	30	jl.au	Or	N. Amer.	1640.	R	s.p	Bot. mag. 485
β minor	*small Ash-lvd.*	ʃ		or	20	jl au	S	N. Amer.	1640.	C	s.p	Cates car 1 t.65
8550 **grandiflóra** *W.*	large-flowered	ʃ	⊔	or	30	jl.au	Or	China	1800.	C	r.m	Bot. mag. 1398
8551 **stans** *W.*	branching	♀	□	or	12	au	Y	America	1730.	S	l p	Plum. ic. t. 54
8552 **chelonoides** *W.*	tree	♀	□	or	30	...	R	E. Indies	1808.	R	l p	Rhee mal.6 t.26
8553 **spatháеca** *W.*	salver-shaped	♀	□	or	30	...	W	E. Indies	1794.	C	l.p	Rox. cor 2. t.144
Spathodea longiflóra	P. S.											
8554 **austrális** *H. K.*	New S. Wales	ʃ	⊔	or		ap.jl		N. S. W.	1793.	C	s.p	Bot. mag. 865
8555 **indica** *W.*	Indian	♀	□	or	40	...	W	India	1775	C	l.p	
8556 **prócera** *W.*	Box-leaved	♀	□	or	80	...	B	Guiana	1798.	C	l p	Aub. gui.2. t.265
8557 **lineáris** *Cav.*	linear-leaved	♀	□	or	20	...	Pk	Mexico	1825.	C	p.l	Cav. ic. 3. t. 269
1295. **JACARAN'DA.** *Juss.*	JACARANDA.					*Bignoniaceæ*		*Sp.* 2—4.				
8558 **caroliniána** *R. Br.*	Carolina	♀	⊔	or	10	jl.au	B	Bahamas	1724.	C	p l	Cates. car.1. t.42
8559 **ovalifólia** *R. Br.*	oval-leaved	♀	□	or	10	ap.my	B	Brazils	1818.	C	p.l	Bot. reg. 631
1296. **SE'SAMUM.** *W.*	OILY-GRAIN.					*Pedalinæ.*		*Sp.* 2—4.				
8560 **orientále** *W.*	oriental		⊙	clt	1½	jl	W	E. Indies	1731.	S	co	Rhee.mal.9. t 54
8561 **indicum** *W.*	Indian		⊙	clt	1½	jl	Pa.pu	E. Indies	1731.	S	co	Bot. mag. 1788
1297. **PENTSTE'MON.** *W.*	PENTSTEMON.					*Scrophularineæ.*		*Sp.* 9—11.				
8562 **campanuláta** *W.*	bell-flowered	♄	⊔	or	1½	mr.o	L.Pu	Mexico	1794.	D	p.l	Bot. mag. 1878
8563 **lævigáta** *W.*	smooth	♃	△	or	2	au.s	L.Pu	N. Amer.	1776.	D	p.l	Bot. mag. 1425
8564 **hirsúta** *W.*	narr.-lvd.-hairy	♃	△	or	1	au.s	L.Pu	N. Amer.	1758.	D	p.l	M h.s.11. t.21 f.3



History, Use, Propagation, Culture.

1785, quarto. Handsome low herbaceous plants, with fine shewy flowers. The Gloxinia speciosa is a favorite in every hothouse, on account of the beauty of its rich purple blossoms.

1292. *Linnæa.* So named by Gronovius, in honor of the celebrated Carl von Linné, the reformer of natural history, and the father of the modern physical sciences. His works are not less numerous than important; it is to be wished that such another man, with equal talent, industry, and judgment, could be found at the present day, to rescue the science of natural history from the confusion to which it is fast approaching.

1293. *Melianthus.* From μελι, honey, and ανθος, flower. A shrub, native of the Cape of Good Hope, the blossoms of which are a great attraction to bees. Both the known species are common in collections, but seldom flower.

1294. *Bignonia.* In memory of Abbé Bignon, librarian to Louis XIV., born 1662, died in 1743. He was the friend and patron of most of the learned men of his time, and especially of Tournefort, by whom this truly noble genus was named. The species are trees or shrubs, inhabitants of hot climates: the leaves are opposite, pinnate, ternate, or conjugate: the flowers in panicles, large, and handsome, of various colors, red, blue, yellow, or white, and eminently beautiful. The stove sorts grow freely in loam and peat, and young cuttings root in sand under a hand-glass. The hardy species grow in any soil, but will not flower well unless the situation be warm. They are increased by cuttings of the roots, by layers, or by young cuttings on gentle heat under a hand-glass or frame. B. radicans is a well known and much admired species, capable of living in the open air in this country against a wall.

1295. *Jacaranda.* The name of the tree in Brazil. Two kinds remarkable for the goodness of their wood, are described by Piso. Those in the gardens are lofty stove plants with fern-like, elegant leaves, and panicles of beautiful blue flowers. They grow with facility, but flower seldom.

8528 The only species

8529 Stipules solitary adhering to stalk, Leaves smooth
8530 Stipules twin distinct, Leaves hoary beneath

8531 Leaves conjugate cirrhose, Leaflets ovate acuminate, Peduncles axillary 1-flowered
8532 Leaves conjugate cirrhose, Leaflets ovate-lanceolate, Pedunc. 2-flowered, Pods linear

8533 Leaves conjugate, Leaflets elliptical entire coriaceous, Pedunc. 5-flowered axillary, Calyx entire
8534 Lvs. conjugate obl. smooth, Racemes term. Branches dichotomous, Corollas very soft and downy outside
8535 Leaves conjugate cordate ovate, Flowers racemose, Calyx with a double limb
8536 Leaves conjugate cirrhose: lower ternate, Leaflets ovate cord. acuminate, Racem. axill. Stem muricated
8537 Leaves conjugate quite smooth, Tendrils longer than petiole trifid at end hooked
8538 Leaves conjugate cirrhose, Leaflets cordate lanceolate, Lower leaves simple
8539 Leaves conjugate cirrhose, Leaflets cordate ovate downy beneath
8540 Leaves conjugate cirrhose, Leaflets elliptical blunt, Flowers racemose, Pedunc. 3-fl. Calyxes toothed
8541 Leaves conjugate cordate ovate smooth, Lower racemes leafy, Limb of calyx leafy entire
8542 Leaflets 9-lanceolate subserrate dotted beneath, Corollas ventricose bearded in the orifice
8543 Lvs. conjugate cirrhose, Leafl. obl acute at each end, Corymb trifid term. Ped. petioles and branches rough
8544 Climbing, Lvs. smooth upper conjugate cirrhose obl. ovate acumin. Peduncles corymbose many-flowered
8545 Lower leaves ternate, upper conjugate, Petioles dichotomous cirrhose, Fruit echinate
8546 Leaves ternate smooth, Leaflets ovate acuminate, Stem shrubby erect
8547 Leaves digitate, Leaflets entire obovate
8548 Leaves digitate, Leaflets lanceolate acuminate entire smooth, Flowers terminal solitary
8549 Lvs. pinnate, Leaflets ovate acuminate toothed, Corymb terminal, Tube of cor. thrice as long as calyx

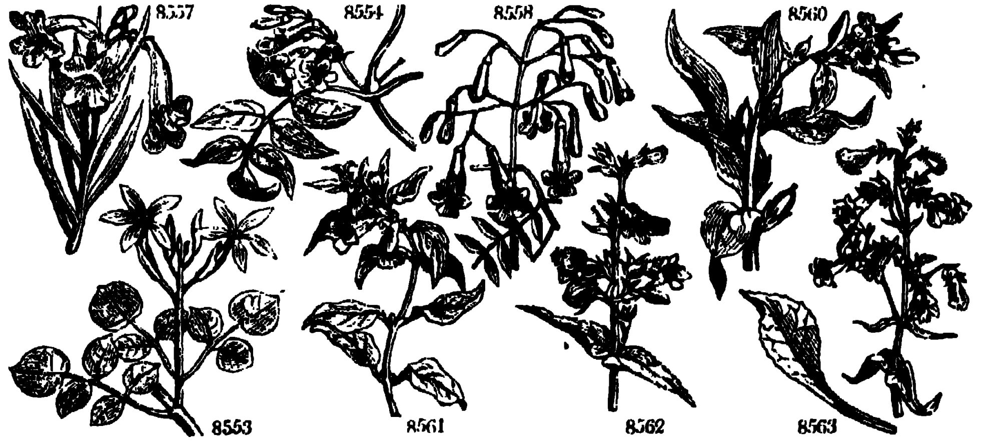
8550 Leaves pinnate, Leaflets ovate acuminate toothed, Panicle terminal, Tube of cor. the length of calyx
8551 Leaves pinnate, Leaflets oblong lanceolate serrate, Raceme simple terminal, Stem erect
8552 Leaves pinnate with an odd one, Leaflets ovate entire pubescent, Corollas bearded half pentandrous
8553 Leaves pinnate with an odd one, Leaflets ovate hirsute, Cal. 1-leaved spathaceous, Cor. hypocrateriform

8554 Leaves pinnate of four pair, Leaflets elliptical generally entire, Racemes compound
8555 Leaves bipinnate, Leafl. roundish ovate cordate acuminate, Fl. pentandrous, Calyx tubular, Cor. 5-fid
8556 Leaves bipinnate, Leaflets oblong obtuse, Panicle terminal, Peduncles with bractes, Pods oblong blunt
8557 Leaves simple linear acuminate, Flowers terminal subumbellate, Stem erect

8558 Leaves bipinnate, Leaflets lanceolate acute, Panicle terminal, Peduncle naked, Pods long emarginate
8559 Leaves bipinnate oblong villous oval oblong mucronate, Panicle large lax branched, Corollas silky

8560 Leaves ovate oblong entire
8561 Leaves ovate lanceolate: lower 3-lobed; upper undivided, Stem erect

8562 Stem smooth, Sterile filament bearded upwards, Leaves lanceolate acuminate all finely serrate
8563 Leaves polished ovate-oblong amplexicaul finely toothletted, lower entire, Flowers panicled
8564 Leaves serrulate lanceolate oblong sessile downy obscurely toothed narrow, Flowers panicled



and Miscellaneous Particulars.

1296. *Sesamum.* From the Arabic word *semsem.* Forskahl, p. 68. These plants were introduced into Jamaica by the Jews, and are now cultivated in most parts of the island. They are called *vanglo* or oil-plant. The seeds are frequently used in broths by many of the Europeans, but the Jews make them chiefly into cakes. Many of the oriental nations look upon the seed as a hearty wholesome food, and express an oil from them, not unlike, or inferior to, the oil of almonds. It has been also manufactured for salad oil in this country, but without much success.

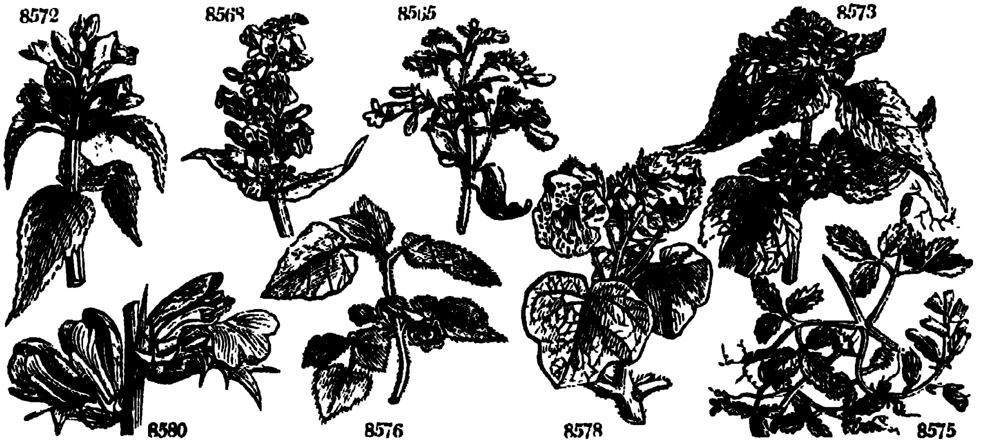
S. orientale is frequently cultivated in the Levant, and also in Africa, as a pulse: the seeds have been introduced in Carolina by the African negroes. An oil is extracted from the seeds which will keep many years, and not acquire any rancid smell or taste, but in two years become quite mild, so that when the warm taste of the seed, which is in the oil when first drawn, is worn off, it is used as salad oil, and for all the purposes of sweet oil.

The seeds are also used by the negroes for food: they parch them over the fire, then mix them with water, and stew other ingredients with them. A pudding is made with them, in the same manner as with millet or rice.

In Japan, China and Cochin-China, where they have no butter, they use the oil for frying fish, and in dressing other dishes; as a varnish; and medicinally as a resolvent and emollient. Nine pounds of the seed yield upwards of two pounds of neat oil.

1297. *Pentstemon.* From πεντε, five, and στημων, a stamen, because of the four perfect and one imperfect stamen of the genus. Beautiful herbaceous plants, deserving a place in every garden.

8565 pubéscens *W.*	broad-lv.-hairy	♃	△	or	1½	au.s	L.Pu	N. Amer.	1758.	D	p.l	Bot. mag. 1424
8566 erianthéra *Ph.*	dwarf	♃	△	or	½	au.s	Pu	Louisiana	1811.	D	p.l	
8567 angustifólia *Ph.*	narrow-leaved	♃	△	or	1½	jl.s	L.Pu	Louisiana	1811.	D	p.l	Bot. cab. 1420
8568 glábra *Ph.*	Nuttal's	♃	△	or	1½	jl.s	D.Pu	Louisiana	1811.	D	p.l	Bot. mag. 1672
8569 Bradbúrii *Ph.*	large-flowered	♃	△	or	2	jl.s	Pu	Louisiana	1811.	D	p.l	
8570 al'bidum *Nutt.*	whitish	♃	△	or	¾	jl.s	W	Missouri	1823.	D	p.l	
1298. CHELO'NE. *W.*	CHELONE.				*Scrophularineæ.*			*Sp.* 4—6.				
8571 glábra *W.*	white-flowered	♃	△	or	4	au.o	W	N. Amer.	1730.	D	p.l	Trew ehret. t.83
8572 oblíqua *W.*	red-flowered	♃	△	or	4	au.o	Pu	N. Amer.	1752.	D	p.l	Bot. reg. 175
8573 Lyóni *Ph.*	Lyon's	♃	△	or	4	jl.s	Pu	N. Amer.	1812.	D	p.l	Bot. mag. 1864
8574 barbáta *W.*	scarlet	♃	△	or	3	jn.s	O.s	Mexico	1794.	D	p.l	Bot. reg. 116
1299. TOURRET'TIA. *J.*	TOURRETTIA.				*Scrophularineæ.*			*Sp.* 1.				
8575 lappácca *W.*	scarlet-flowered	ʎ	○	cu	6	jn.au	R.o	Peru	1788.	S	s.l	Sal.stir. 5. t. 3
1300. MARTY'NIA. *W.*	MARTYNIA.				*Pedalinæ.*			*Sp.* 4—6.				
8576 diándra *W.*	two-stamened		[○]	or	1½	jl.au	R	New Spain	1731.	S	s.l	Bot. rep. 575
8577 Craniolária *W.*	white-flowered		[○]	or	1½	jl.au	W	S. Amer.	1733.	S	s.l	Jac. amer. t. 110
8578 proboscidea *W.*	horn-capsuled		[○]	or	¾	jn.au	L.B	America	1738.	S	r.m	Bot. mag. 1056
8579 longiflóra *W.*	long-flowered		[○]	or	2	jl.au	Pa.pu	C. G. H.	1781.	S	s l	Meerb. ic. 1. t. 7
1301. ACAN'THUS. *W.*	BEAR'S-BREECH.				*Acanthaceæ.*			*Sp.* 5—14.				
8580 móllis *W.*	smooth	♃	△	or	3	jl.s	P.w	Italy	1548.	D	co	Lam. ill. t. 550
8581 niger *Mill.*	shining-leaved	♃	△	or	3	jl.s	P.w	Portugal	1759.	D	co	
8582 spinósus *P. S.*	prickly-leaved	♃	△	or	3	jl.s	P.w	Italy	1629.	D	co	Bot. mag. 1808
8583 spinosissimus *P. S.*	white-spined	♃	△	or	3	jl.s	P.w	S. Europe	1629.	D	co	
8584 ilicifólius *W.*	Holly-leaved	ħ	▭	or	2	...	...	E. Indies	1759.	D	co	Rhee.mal.2. t.48
1302. BARLE'RIA. *W.*	BARLERIA.				*Acanthaceæ.*			*Sp.* 8—18.				
8585 longifólia *W.*	long-leaved	¥	[○]	or	2	jl.s	W	E. Indies	1781.	S	l.p	Pluk.al. t.133.f.4
8586 Prionítis *W.*	thorny	ħ	▭	or	3	jl.au	Or	E. Indies	1759.	C	p.l	Rhee.mal 9. t.41
8587 buxifólia *W.*	Box-leaved	¥	[△]	cu	2	jn.jl	W	E. Indies	1768.	D	l p	Rhee.mal.2 t.47
8588 purpúrea *Lodd.*	purple	ħ	▭	pr	2	s	Pu	E. Indies	1814.	D	l.p	Bot. cab. 344
8589 álba *Hort.*	white	ħ	▭	or	3	jn jl	W	N. Holl.	1815.	C	co	Bot. cab 360
8590 cristáta *W.*	*crested	ħ	▭	or	2	jn.s	B	E. Indies	1796	C	p.l	Bot. mag. 1615
8591 mitis *B. Reg.*	yellow-flowered	ħ	▭	or	3	jn.s	Y	E. Indies	1816.	C	p.l	Bot. reg. 191
8592 longiflóra *W.*	long-flowered	ħ	▭	or	3	jn.s	..	E. Indies	1816.	C	p.l	Vah.symb.1.t.16
1303 PHAYLOP'SIS. *Juss.*	PHAYLOPSIS.				*Acanthac.*			*Sp.* 1—6.				
8593 longifólia *Sims.*	long-leaved	ħ	▭	pr	2	ap.o	V	S. Leone	1822.	C	co	Bot. mag. 2433
1304. RUEL'LIA. *J.*	RUELLIA.				*Acanthaceæ*			*Sp.* 18—70.				
8594 ováta *W.*	oval-leaved	¥	[△]	pr	2	jl.au	D.B	Mexico	1800	D	l.p	Cav. ic. 3. t. 254
8595 strépens *W.*	whorl-flowered	¥	[△]	pr	2	jl.au	Pa.B	N. Amer.	1726.	D	l.p	Sch. han.2. t.177
8596 ocymoides *Cav.*	Basil-like	ħ	▭	pr	1½	jl au	B	Mexico	1815.	C	l.p	Cav. ic 5. t. 456
8597 pátula *W.*	spreading	ħ	▭	pr	1½	jl.au	Pa.V	E. Indies	1774.	C	l.p	Jac. ic. 1 t. 119
8598 láctea *W.*	white	¥	[△]	pr	2	jn au	Pa.V	Mexico	1796.	C	l.p	Cav. ic. 3. t. 255
8599 clandestína *W.*	three-flowered	¥	[△]	pr	2	jl.au	B	Barbadoes	1728.	C	l.p	Dil.el.t 248.f 320
8600 paniculáta *W.*	panicled	¥	[△]	pr	3	au	Pu	W. Indies	1768.	C	s.p	Slo.ja.1. t.100. f.2
8601 tuberósa *L.*	tuberous-rooted	¥	[△]	pr	2	jl.au	B	Jamaica	1752.	C	l p	Slo.jam.1.t.95.f 1
8602 biflóra *W.*	two-flowered	¥	[△]	pr	1	jl	Pa.B	Carolina	1765.	C	l.p	
8603 formósa *H. K.*	splendid	ħ	▭	pr	2	jn.s	S	Brazil	1808.	C	s.p	Bot. mag. 1400



History, Use, Propagation, Culture,

1298. *Chelone.* Χιλωνη signifies a tortoise, to the back of which the helmet of the present genus has been fancifully compared. The species are handsome border flowers, of easy culture in loamy soil, or loam and a little peat.

1299. *Tourrettia.* Named in honor of Marc Antoine Louis Claud la Tourrette, to whom some of Rousseau's Letters on Botany are addressed. A singular climbing annual plant, producing its flowers sparingly from the tips of the branches. Seldom preserved long in a garden, as it produces seed very sparingly.

1300. *Martynia.* In honor of John Martyn, F. R. S., professor of botany at Cambridge, author of Historia Plantarum Rariorum, and many other works: died in January, 1768. His son is the editor of the last edition of Miller's Dictionary. Handsome tropical annuals, remarkable for the size of their flowers compared with their leaves.

1301. *Acanthus.* From ακανθα, a spine: many of the kinds are very spiny. The species are generally large, with a single herbaceous stalk, and great pinnatifid leaves. The flowers are produced in terminating spikes. Some of the species are shrubby and thorny, with undivided leaves, toothed, and having a thorn at the end of the teeth.

A. mollis was formerly used in medicine under the name of *Branca ursina:* the root abounds in mucilage, and may be substituted for those of the marsh mallow. Virgil has two very different plants under the name of Acanthus: one a tree, supposed to be the Mimosa nilotica, which produces the gum Arabic: the other an

8565 Stem pubescent, Sterile filament bearded from the end to the middle
8566 Leaves oblong acute subhirsute, Flowers racemose, Leaves of calyx linear very hairy
8567 Stem smooth long linear entire, Flowers in racemose panicles, Leaves of calyx smooth
8568 Stem and lvs. smooth, Lvs. subamplex. ovate obl. ent. Barren filam. naked clav. Sepals roundish acuminate
8569 Very smooth, Lvs. subamplexicaul. ov. obl. ent. upper roundish, Barren filam. with a short beard at end
8570 Leaves ovate lanc. subserrulate smooth, Fl. fascicled axillary and terminal, Cor. equal 5-cleft spreading

8571 Leaves stalked lanceolate serrate: upper opposite
8572 Leaves lanceolate oblique stalked opposite finely serrated at edge
8573 Smooth much branched, Leaves stalked cordate ovate serrated, Spikes terminal dense
8574 Leaves opposite connate lanceolate entire, Lower lip of corolla bearded

8575 The only species. Leaves pinnated cut cirrhose

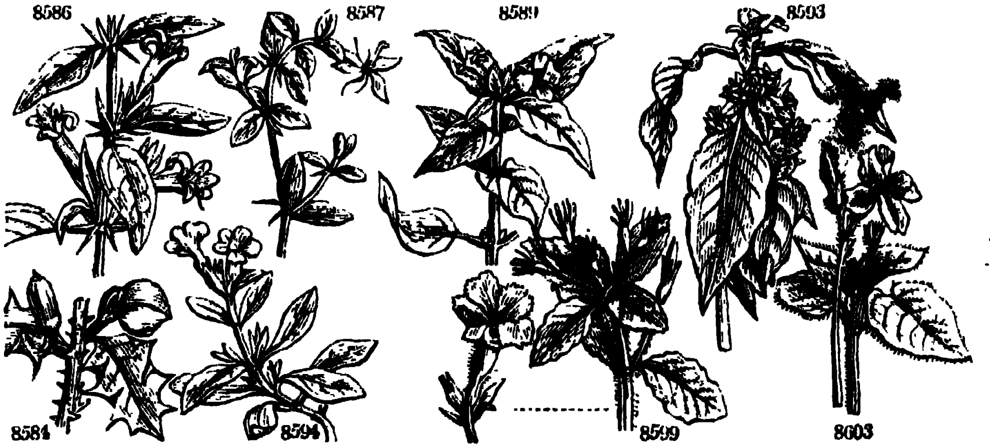
8576 Stem branched, Leaves opposite cordate toothed, Flowers diandrous
8577 Stem branched, Leaves opposite 5-lobed toothed
8578 Stem branched, Leaves alternate cordate entire
8579 Stem simple, Leaves roundish repand, Tube of cor. at base gibbous flattened

8580 Leaves sinuated unarmed
8581 Leaves sinuated unarmed glabrous shining green
8582 Leaves pinnated spiny
8583 Leaves laciniate pinnatifid blistered spiny, Spines white
8584 Leaves repand spiny-toothed, Stem shrubby prickly

8585 Spines of whorls 6, Leaves ensiform very long rough
8586 Spines axillary pedate in fours, Leaves quite entire lanceolate ovate
8587 Spines axillary opposite solitary, Leaves roundish entire
8588 Unarmed, Leaves lanceolate, Flowers axillary solitary sessile
8589 Leaves ovate lanceolate rough, Flowers capitate terminal, Bracteæ ciliate
8590 Leaves oblong entire, Two lateral leaves of calyx ciliated wider than the rest; two linear acute
8591 Unarmed, Leaves lanceolate hairy entire, Fl. aggregate terminal tubular, Bractes very narrow setose
8592 Unarmed, Leaves ovate silky, Bractes cordate scarious, Corollas very long

8593 Leaves lanceolate on long stalks, Flowers in terminal and axillary heads, Cor. small

8594 Leaves sessile oblong entire acute at each end villous, Fl. 3-subsessile, Stem ascending
8595 Leaves stalked ovate entire, Peduncles 3-flowered very short, Stem erect
8596 Subvillous, Stem dwarf branched erect, Leaves ovate concave entire
8597 Leaves stalked ovate very blunt entire pubescent, Flowers 3 subsessile, Stem erect divaricating
8598 Lvs. stalked obl. ovate ciliated somewhat toothed, Pedunc. very short about 3-fl. Stem very villous erect
8599 Leaves stalked oblong blunt attenuated at base somewhat toothed, Pedunc. 3-fl. shorter than leaf
8600 Leaves entire, Peduncles dichotomous lateral, Calyxes sessile, with the upper segment largest
8601 Leaves cuneate ovate crenated, Peduncles 3-parted, Stem simple
8602 Flowers twin sessile
8603 Leaves stalked entire ovate downy, Pedunc. axillary alternate few-flow. very long



herb, supposed to be this plant. Pliny mentions an Acanthus which covered part of his lawn, which some conjecture to be a moss, a thing very improbable in a climate and situation where the musci are seldom seen even in winter.

The leaf of Acanthus mollis is supposed to have furnished the ancients with the elegant Acanthus leaf of their architecture.

1302. *Barleria.* In honor of the Rev. James Barrelier, a Dominican, and M. D of Paris, who travelled from France into Spain and Italy, and died aged sixty-eight, 1673; author of Icones, 1714, Paris, folio, a useful work, containing, even at the present day, figures of many things which are to be found nowhere else. The species flower freely and are of easy culture: loam and peat, with a little rotten dung mixed with it, is the best soil for them. Cuttings root freely; they strike best from the young wood, under a hand-glass, in the same kind of soil as the plants grow in. (*Bot. Cult.* 21.)

1303. *Phaylopsis.* Named by Willdenow, from φαυλος, vile or contemptible, and οψις, aspect. Tropical weeds.

1304. *Ruellia.* In honor of John Ruelle, a native of Soissons, the physician of Francis I. He published a work De Natura Plantarum, in 1536, and Commentaries upon Dioscorides, in 1516. The species are pretty plants, free flowers, and of the easiest culture and propagation.

8604 fúlgida *H. K.*	bright-flowered	♄	□	pr	2	jl.au	Sc	W. Indies	1804.	C	l.p	Bot. rep. 527
8605 ciliáta *W. en.*	ciliated	♄	□	pr	2	jl	Pu	E. Indies	1806.	C	l.p	
8606 ríngens *W.*	gaping-flower'd	♄	□	pr	3	jl.au	Pu	E. Indies	1807.	C	l.p	Rhee. mal. 9. 64
8607 pubéscens *Pers.*	pubescent	♃	[△]	pr	2	jn.au	D.B	C. G. H.	1823.	C	l.p	
8608 fœ'tida *W. en.*	fœtid	♄	□	un	2	jn.au	B	S. Amer.	...	C	l.p	
8609 macrophýlla *Vahl.*	long-leaved	♃	[△]	pr	3	...	R	S. Martha	1824.	C	l.p	Vah.symb.2.t.59
8610 unduláta *Vahl.*	wavy	♃	[△]	pr	2	...	...	E. Indies	1824.	C	l.p	
8611 tetragóna *Link.*	four-cornered	♃	[△]	pr	2	jn.jl	B	Brazil	1824.	C	l.p	
1305. BLE'CHUM. *R. Br.*	Blechum.					*Acanthaceæ.*		*Sp.* 1—15.				
8612 Brównei *H. K.*	dense-spiked	♃	[△]	or	2	jn		W. Indies	1780.	C	l.p	Slo. ja. 1. t. 109. f. 1
1306. APHELAN'DRA. *R. Br.*	Aphelandra.					*Acanthaceæ.*		*Sp.* 1.				
8613 cristáta *H. K.*	dense-spiked	♄	□	spl	3	jn.s	S	W. Indies	1733.	C	l.p	Bot. mag. 1578
1307. CROSSAN'DRA. *P. L.*	Crossandra.					*Acanthaceæ.*		*Sp.* 1.				
8614 undulæfólia *P. S.*	wave-leaved	♄	□	spl	1½	ja.jn	Or.s	E. Indies	1800.	C	p.l	Bot. reg. 69
1308. THUNBER'GIA. *W.*	Thunbergia.					*Acanthaceæ.*		*Sp.* 2—7.				
8615 frágrans *W.*	twining	$	□	or	4	my.s	W	E. Indies	1796.	S	p.l	Bot. mag. 1881
8616 grandiflóra *R.*	large-flowered	$	□	or	6	my.s	B	E. Indies	1820.	C	p.l	Bot. mag. 2366
1309. HEBENSTRE'ITIA. *W.*	Hebenstreitia.					*Verbenaceæ.*		*Sp.* 8—12.				
8617 albiflóra *Lk.*	white-flowered	♄	□	pr	1	my.s	W	C. G. H.	1822.	C	p.l	
8618 chamædryfólia *Link.*	saw-leaved	♄	□	pr	2	my.s	W	C. G. H.	1822.	C	p.l	
8619 dentáta *W.*	toothed		[○]	pr	1	my.s	W	C. G. H.	1739.	S	p.l	Bot. mag. 483
8620 integrifólia *W.* *aúrea* B. Rep.	entire-leaved	♄	□	pr	1	my.jn	W	C. G. H.	1792.	C	p.l	Bot. rep. 252
8621 ciliáta *W.*	ciliated	♄	□	pr	1	my.jl	W	C. G. H.	1815.	C	p.l	
8622 spicáta *Thunb.*	spiked	♃	⊔△	pr	1	my.jl	W	C. G. H.	1815.	C	p.l	
8623 erinoídes *Th.*	Erinus-leaved	♄	⊔	pr	1	my.n	W	C. G. H.	1816.	C	p.l	
8624 cordáta *W.*	heart-leaved	♄	⊔	pr	1	jl.au	W	C. G. H.	1774.	C	p.l	
1310. HOS'TA. *Jac.*	Hosta.					*Verbenaceæ.*		*Sp.* 1.				
8625 cærúlea *Jac.*	blue-flowered	♄	□	or	4	...	B	S. Amer.	...	C	l.p	Jac. schœ. 1. t. 114
1311. GMELI'NA. *W.*	Gmelina.					*Verbenaceæ.*		*Sp.* 2.				
8626 asiática *W.*	oval-leaved	♀	□	or	10	...	Y	E. Indies	1792.	C	l.p	Lam. ill. t. 542
8627 parviflóra *Rox.*	obovate-leaved	♀	□	or	10	...	O	E. Indies	1817.	C	l.p	Roxb. cor. t. 162
1312. LANTA'NA. *W.*	Lantana.					*Verbenaceæ.*		*Sp.* 17—35.				
8628 míxta *W.*	Nettle-leaved	♄	□	or	5	au.o	R.y	W. Indies	1732.	C	p.l	Bot. cab. 68
8629 trifólia *W.*	three-leaved	♄	□	or	3	jn.s	Pu	W. Indies	1733.	C	p.l	Bot. mag. 1449
8630 ánnua *W.*	annual		[○]	or	3	jl.au	F	S. Amer.	1733.	C	p.l	Bot. mag. 1022
8631 strícta *W.*	narrow-leaved	♄	□	or	3	...	Pa.pu	Jamaica	1733.	C	p.l	Slo. ja. 2. t. 195. f. 4
8632 Rádula *W.*	Rasp-leaved	♄	□	or	3	...	Pu	W. Indies	1803.	C	p.l	
8633 Cámmara *W.*	various-colored	♄	□	or	6	ap.s	R.o	W. Indies	1691.	C	p.l	Dill. elt. t. 56. f. 65
8634 involucráta *W.*	round-leaved	♄	□	or	3	my.jl	Pk	W. Indies	1690.	C	p.l	Plu. alm. t. 114. f. 5
8635 récta *W.*	upright	♄	□	or	2	jn.au	Pu	Jamaica	1758.	C	p.l	Jac. schœ. 3. t. 360
8636 odoráta *W.*	sweet-scented	♄	□	or	2	my.n	W	W. Indies	1758.	C	p.l	Plum. ic. t. 71. f. 2
8637 melissifólia *W.*	Balm-leaved	♄	□	or	2	jl.s	Y	W. Indies	1732.	C	p.l	Dill. elt. t. 57. f. 66
8638 scábrida *W.*	rough	♄	□	or	2	s	...	W. Indies	1774.	C	p.l	Bot. cab. 1171
8639 nívea *Vent.*	white-flowered	♄	□	or	3	jl.s	W	E. Indies	...	C	p.l	Vent. malm. t. 8
8640 aculeáta *W.*	changeable-col.	■	□	or	10	ap.n	R	W. Indies	1692.	C	p.l	Bot. mag. 96
8641 fucáta *Ker.*	painted	♄	□	or	2	ap.n	Pk	S. Amer.	1822.	C	p.l	Bot. reg. 798
8642 salvifólia *W.*	sage-leaved	♄	□	or	3	ap.n	R	C. G. H.	1823.	C	p.l	Jac. scho. 3. t. 285
8643 braziliénsis *Link.*	Brazilian	♄	□	or	3	ap.n	W	Brazil	1823.	C	p.l	
8644 álba *Mill*	white	♄	□	or	3	ap.n	W	S. Amer.	...	C	p.l	
1313. ALOY'SIA. *Fl. Per.*	Aloysia.					*Verbenaceæ.*		*Sp.* 1—2.				
8645 citriodóra *Fl. Per.* *Verbéna triphýlla* B. M.	Lemon-scented	♣	⊔	or	3	my.s	Pa.pu	Chili	1784.	C	l	Bot. mag. 367

History, Use, Propagation, Culture,

1305. *Blechum.* Βληχων, was the Greek name of a plant resembling Marjoram. This genus has also the flowers in a dense bracteated spike. It has been separated from Justicia by Jussieu.

1306. *Aphelandra.* From ἀφελης, simple, and [illegible], a male, on account of the single cell of the anthers.

1307. *Crossandra.* From κροσσος, a fringe, and [illegible], a man; or, in botanical language, an anther, alluding to the fringed anthers. A fine shewy shrub with large orange flowers.

1308. *Thunbergia.* In honor of Charles Peter Thunberg, M. D., knight of the order of Vasa, professor of botany in the university of Upsal, member of several learned societies; author of Travels into Europe, Africa and Asia; Flor. Japonica, &c. Handsome climbing flowers with a fragrant odor.

1309. *Hebenstreitia.* John Ernest Hebenstreit, was a professor of botany in the university of Leipsig, and published, in 1728, a dissertation upon plants. Small Cape undershrubs, occasionally cultivated for the sake of their neat foliage and simple modest flowers. They require an airy greenhouse, and are easily propagated from cuttings.

1310. *Hosta.* After Dr. Nicholas Thomas Host, the author of the superb Gramina Austriaca, in four volumes, folio, and other important works. Smith thinks the genus the same as Linnæus's Cornutia pyramidata.

8604 Leaves stalked ovate acuminate wavy crenate, Fascicles axillary on long stalks
8605 Leaves ovate somewhat toothletted ciliated at edge on long stalks, Flowers solitary axillary sessile
8606 Leaves oblong entire, Flowers solitary sessile, Stem procumbent
8607 Leaves entire ovate subpubescent, Flowers solitary axillary, Stem erect
8608 Leaves ovate lanceolate entire stalked smooth, Fl. solitary axillary sessile, Branches warted
8609 Leaves ovate lanceolate acuminate entire, Peduncles long 2-flowered
8610 Leaves stalked oblong wavy, Heads axillary sessile, Stem erect
8611 Stem erect hairy, Leaves stalked ovate acuminate repand toothed hairy, Spike whorled

8612 Leaves ovate elliptical somewhat toothed, Spikes 4-cornered, Bractes ovate downy

8613 The only species

8614 The only species

8615 Leaves cordate acuminate somewhat angular at base, Stem climbing
8616 Leaves angular cordate, Inner calyx none, Anthers bearded spurred

8617 Leaves linear toothed, Bractes oval linear hairy
8618 Leaves sessile oblong lanceolate blunt serrated hairy at base, Bractes ciliated
8619 Leaves linear toothed, Spikes smooth
8620 Leaves linear quite entire

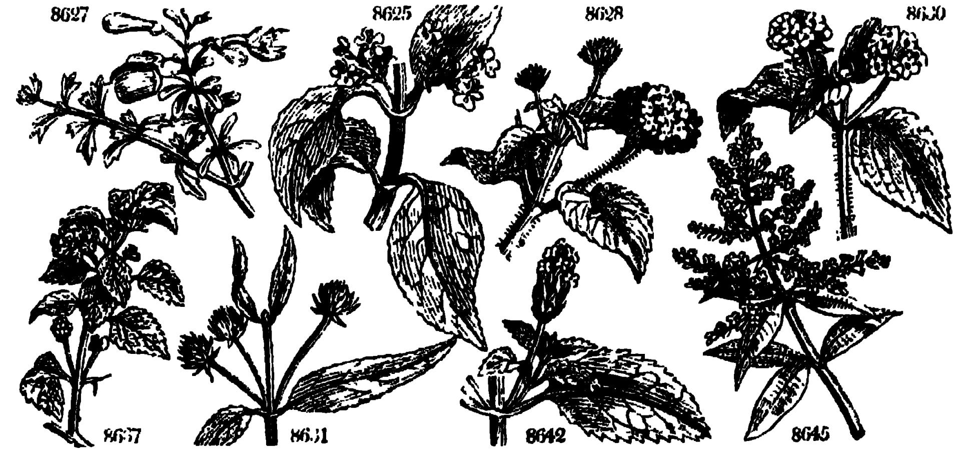
8621 Leaves linear toothed, Calyxes 3-valved ciliated
8622 Leaves linear toothed at end, Bractes ovate villous, Stem herbaceous
8623 Leaves lanceolate oblong serrated pilose, Bractes entire ciliated hispid
8624 Leaves cordate somewhat fleshy sessile

8925 Corymbs axillary trichotomous

8626 Spines opposite, Leaves ovate entire
8627 Leaves obovate subtrifid and simple, Prickles nearly straight, those of the stem alternate

8628 Leaves opp. ovate acute hairy, Stem prickly downwards, Heads round, Bractes lanceolate
8629 Leaves 3 or 4-ellipt. rugose above villous beneath, Stem unarmed, Spikes oblong imbricated
8630 Leaves opposite, Stem unarmed, Spikes oblong
8631 Leaves opp. oblong lanc. acute, Stem unarmed, Heads roundish, Bractes ovate-lanceolate and squarrose
8632 Lvs. opp. ov. acute serr. rugose rough hairy ben. Stem nearly unarm. rough, Heads obl. Bractes ovate acute
8633 Leaves opposite, Stem unarmed branched, Flowers in leafless capitate umbels
8634 Leaves opp. or in 3s rhomboid ovate blunt rugose downy, Stem unarmed, Heads squarrose, Bractes ovate
8635 Leaves opposite oval rugose, Stem unarmed, Heads squarrose, Bractes oblong, Pedunc. longer than leaf
8636 Lvs. opp. or in 3s ellipt. rugose, Stem unarmed, Heads squarrose with lanc. bractes, Ped. shorter than leaf
8637 Leaves opp. ovate obl. villous soft, Stem prickly, Spikes hemispherical, Bractes half as short as tube
8638 Lvs. opp. ovate ellipt. rough, Stem prickly, Spikes hemispherical, Bractes half as short as tube lanc. acute
8639 Leaves ovate lanceolate acuminate crenulate, Stem prickly, Head hemispherical, Bractes linear
8640 Leaves ovate subcordate softish beneath, Stem prickly, Bractes of heads linear cuneiform
8641 Lvs. ovate rugose crenate blunt downy running down the foot-stalk, Head depressed shorter than leaf
8642 Leaves opposite ovate rough above hoary beneath, Heads conical, Bractes squarrose ovate acute nerved
8643 Leaves narrowed from an ovate base sessile serrate pubescent, Bractes lanceolate concave
8644 Leaves ovate narrowed into the stalk acuminate acutely crenate pubescent, Outer bractes cordate

8645 Leaves linear lanceolate ternate, Stem shrubby



and Miscellaneous Particulars.

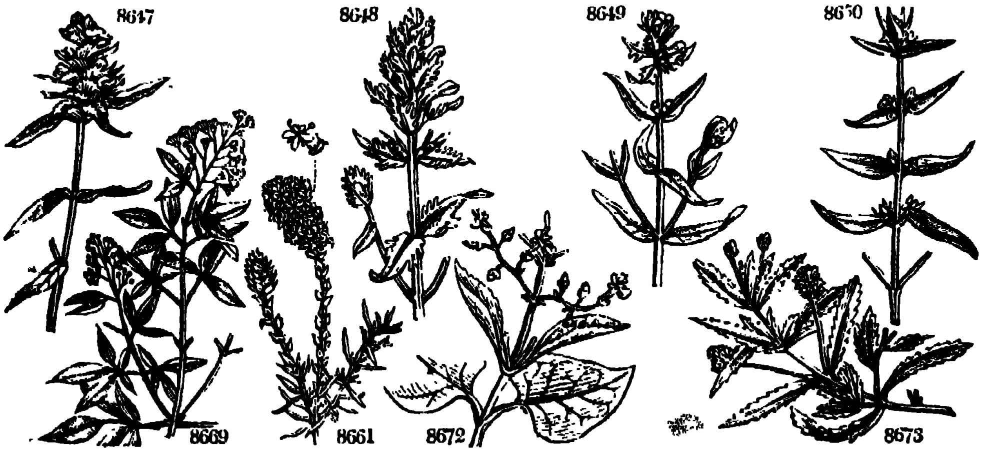
A small shrub rising to the height of four feet. Leaves opposite, ovate, acuminate, somewhat toothe smooth. Flowers blue, in axillary corymbs, which are shorter than the leaves; they are dotted all over wi minute white glandular spots.

1311. *Gmelina.* In honor of John George Gmelin, a German naturalist, professor of medicine and botany a Tubingen, who travelled in Siberia and Kamtchatka, by order of the Empress Anne of Russia. His Flora Sibirica, in four quarto volumes, is a book of continual reference. These are fine arborescent Indian plants with beautiful flowers, which are seldom produced in this country. They require the utmost heat of the stove.

1312. *Lantana.* One of the ancient names of the Viburnum, which this resembles a little in foliage. The species are rapid growers and free-flowerers, and readily increased by cuttings. They form small bushes with pink, yellow, orange, or changeable heads of flowers, and a peculiar aromatic odor.

1313. *Aloysia.* Named by Don Antonio Palau, professor of botany at Madrid, and author of an excellent translation of the Linnæus's Species Plantarum into Spanish, after her majesty Maria Louisa, queen of Spain, and mother of the reigning king, Ferdinand.

1314.	LIP'PIA. *L.*	LIPPIA.					*Verbenaceæ.*		*Sp.* 1—5.				*
8646	purpúrea *Jacq.*	purple	♄	□	or	3	jn.jl	R	Mexico	1823.	C	p.l	Jacq. ecl. t. 85
1315.	MELAMPY'RUM. *W.*	COW-WHEAT.					*Scrophularineæ.*		*Sp.* 4—7.				
8647	cristátum *W.*	crested		○	w	3	jl.au	Y	England	corn fi.	S	co	Eng. bot. 41
8648	arvénse *W.*	purple		○	w	3	jn.jl	Y	England	corn fi.	S	co	Eng. bot. 53
8649	praténse *W.*	common		○	w	3	jl.au	Y	Britain	woods.	S	co	Eng. bot. 113
8650	sylváticum *W.*	wood		○	w	3	jl.au	Y	Britain	m. wo.	S	co	Eng. bot. 804
1316.	SELA'GO. *W.*	SELAGO.					*Verbenaceæ.*		*Sp.* 13—40.				
8651	spinea *Link.*	spiny	♄	⊔	pr	3	...	Pu	C. G. H.	1824.	C	p.l	
8652	diffúsa *Th.*	spreading	♄	⊔	pr	1½	jl.au	Pu	C. G. H.	1807.	C	p.l	
8653	fulvo-maculáta *Link.*	spotted	♄	⊔	pr	2	...	V	C. G. H.	1824.	C	p.l	
8654	polygaloídes *L.*	Milkwort-like	♄	⊔	pr	½	jl.o	Pu	C. G. H.	1807.	C	p.l	
8655	spicáta *Link.*	spiked	♄	⊔	pr	½	jl.o	Pu	C. G. H.	1824.	C	p.l	
8656	spúria *W.*	linear-leaved	£	○⃞	pr	1	jl.o	V	C. G. H.	1779.	S	p.l	Bur. afr. t.42. f.3
8657	fasciculáta *W.*	cluster-flower'd	♄	⊔	pr	1½	jn.jl	Pu	C. G. H.	1774.	S	p.l	Bot. reg. 184
8658	lúcida *Vent.*	shining-leaved	♄	⊔	pr	1½	jn.jl	Pu	C. G. H.	1812.	C	l.p	Vent.malm. t. 26
8659	ramulósa *Link.*	branchy	♄	⊔	pr	1½	...	W	C. G. H.	1824.	C	p.l	
8660	teretifólia *Link.*	round-leaved	♄	⊔	pr	1½	jl.au	W	C. G. H.	1823.	C	p.l	
8661	ováta *W.*	oval-headed	♄	⊔	pr	1	jn.jl	D.Pu	C. G. H.	1774.	C	p.l	Bot. mag. 186
8662	canéscens *W.*	canescent	♄	⊔	pr	1½	jl.n	Pa.pu	C. G. H.	1812.	C	p.l	
8663	corymbósa *W.*	fine-leaved	♄	⊔	pr	2	jl.au	Pu	C. G. H.	1699.	C	p.l	Com.hort.2. t.40
1317.	VI'TEX. *W.*	CHASTE-TREE.					*Verbenaceæ.*		*Sp.* 8—15.				
8664	ováta *W.*	oval-leaved	♠	□	or	4	jl.au	Pu	China	1796.	C	l.p	
8665	altíssima *W.*	tall	♠	□	or	8	...	Pu	Ceylon	1802.	C	l.p	
8666	A'gnus-Cástus *W.*	common	♠	⊔	or	6	s	W.B	Sicily	1570.	C	co	Woodville t. 222
	β *latifólia*	*broad-leaved*	♠	⊔	or	6	s	W.B	Sicily	1570.	C	co	
8667	incísa *W.*	cut-leaved	♠	⊔	or	4	jl.s	Pu	China	1758.	C	p.l	Bot. mag. 364
8668	Leucóxylon *W.*	white-wooded	♠	□	or	4	...	Pu	Ceylon	1793.	C	l.p	
8669	Negúndo *W.*	quadrangular	♠	□	or	4	...	Pu	E. Indies	1812.	C	l.p	Rump.am.4.t.19
8670	bicolor *W. en.*	two-colored	♠	□	or	4	...	Pu	E. Indies	1810.	C	l.p	
8671	trifólia *W.*	three-leaved	♠	□	or	4	...	Pu	E. Indies	1759.	C	p.l	Bot. mag. 2187
1318.	CORNU'TIA. *W.*	CORNUTIA.					*Verbenaceæ.*		*Sp.* 1—2.				
8672	pyramidáta *W.*	pyramidal	♠	□	cu	4	...	B	W. Indies	1733.	C	l.p	Lam. ill. t. 541
1319.	ZAPA'NIA. *J.*	ZAPANIA.					*Verbenaceæ.*		*Sp.* 2—10.				
8673	stæchadifólia *P. S.*	oval-spiked	ℒ.	△⃞	un	1	au.s	Pu	W. Indies	1732.	C	l.p	Brow.jam.t.3.f.1
8674	nodiflóra *Ph.*	knot-flowered	ℒ.	⊔△	un	1	jl.au	Pu	America	1664.	C	l.p	Fl. græc. 553
1320.	PRI'VA. *P. S.*	PRIVA.					*Verbenaceæ*		*Sp.* 2—6.				
8675	mexicána *P. S.* *Verbéna mexicána* W.	Mexican	£	△⃞	pr	2	au.s	V	Mexico	1726.	C	l.p	Dil.el.t.302.f 389
8676	leptostáchya *P. S.* *Tortula aspera* W	rough	£	△⃞	pr	2	jl.au	V	E. Indies	1799.	C	l.p	Rox. cor.2. t.146
1321.	SPIELMAN'NIA. *W*	SPIELMANNIA.					*Verbenaceæ.*		*Sp.* 1.				
8677	africána *W.*	Ilex-leaved	♄	⊔	or	3	f.n	W	C. G. H.	1710.	C	r.m	Bot. mag. 1899
1322.	VERBE'NA. *L.*	VERVAIN.					*Verbenaceæ.*		*Sp.* 14—36.				
8678	bonariénsis *W.*	cluster-flower'd	♃	○	un	6	jl.o	B	B. Ayres	1732.	R	co	Dil.el.t.300.f.387
8679	hastáta *W.*	halberd-leaved	♃	△	un	5	jn.au	V	Canada	1710.	D	co	Her.parad t.242
8680	paniculáta *P. S.*	panicled	♃	△	un	3	jl.au	B	N. Amer.	1800.	D	co	Pot. reg. 1102



History, Use, Propagation, Culture,

A deciduous under shrub with a most agreeable odor of citrons, and of the easiest culture in any soil. In Jersey and Guernsey, it stands the winter in warm situations.

1314. *Lippia.* Named in honor of Augustine Lippi, a French physician, born in Paris of an Italian family. He accompanied the ill-fated embassy of Lenoir Duroule to the king of Abyssinia, in the beginning of the eighteenth century, and was assassinated along with the ambassador at Sennaar. His merits entitled him to a more interesting genus than this, which consists of obscure weedy shrubs of South America.

1315. *Melampyrum.* From *μελας*, black, and *πυρος*, wheat. Its grain resembles a grain of wheat, and gives a singularly black color to bread in which it is mixed. Smooth narrow-leaved weeds, not uncommon in corn fields and copses. M. pratense is considered nutritive, and was formerly cultivated by the Dutch and Flemish in the manner of Spurrey.

1316. *Selago.* This has nothing beyond its name in common with the Selago of the ancients; nor is it possible to imagine what induced Linnæus to apply it to the present plants, which are pretty half-shrubby Cape plants, with beautiful corymbs or spikes of flowers. Hardy greenhouse plants, propagated with facility by cuttings.

1317. *Vitex.* An ancient name applied to some plant of the [illegible] tribe. V. Agnus Castus is an autumn shrub, with whorled spikes of blue and white flowers from seven [illegible] fifteen inches long. The dried leaves have a powerfully aromatic odor. The seeds, from the time of Di[illegible]ides and Pliny, have been highly celebrated for securing chastity; hence the absurd officinal name of the shrub, Agnus castus; *αγνος*, in Greek, being the same with *castus* in Latin: and hence the Athenian matrons, in the sacred rites of Ceres, used to strew their

8646 Leaves oblong acute serrate rough above pubescent beneath, Heads globose, Bractes obl. lowest longest

8647 Spikes quadrangular, Bractes cordate compact toothletted imbricated
8648 Spikes conical lax, Bractes toothed setaceous colored, Teeth of calyx rough, Corolla closed
8649 Flowers axillary 1-sided, Corollas closed, Leaves lanceolate; floral hastate
8650 Flowers axillary 1-sided, Corollas gaping, All the leaves lanceolate

8651 Leaves linear acute entire reflexed rigid fleshy smooth, Spikes terminal
8652 Leaves linear smooth, Spikes terminal, Branches diffuse
8653 Leaves linear serrate toothed subciliated fleshy, Spikes corymbose
8654 Spikes terminal, Bractes and calyxes keeled rough, Leaves linear smooth reflexed at edge
8655 Leaves sessile linear lanceolate acute entire smooth, Spikes terminal solitary
8656 Spikes corymbose, Leaves linear toothletted
8657 Corymb multiplex, Leaves obovate smooth serrated
8658 Leaves obovate entire shining, Spikes rounded terminal, Stem shrubby
8659 Stem diffuse pubescent upwards, Lvs. lanceolate blunt finely serrate smooth, Spikes terminal subsolitary
8660 Lvs. rounded with a furrow on each side acutish somewhat toothed smooth fleshy, Spikes term. aggregate
8661 Spikes cone-like ovate terminal, Leaves scattered linear, Stem shrubby
8662 Spikes terminal, Leaves filiform fascicled smooth
8663 Leaves filiform fascicled smooth, Panicle compound

8664 Leaves simple ovate
8665 Leaves ternate entire, Panicle whorled, Berry 3-seeded
8666 Leaves digitate 7 or 5 lanceolate nearly entire, Spikes whorled panicled

8667 Leaves digitate 5, Leaflets cut-pinnatifid, Spikes somewhat whorled
8668 Leaves digitate 5, Leaflets stalked oblong entire, Panicle dichotomous, Berry 1-seeded
8669 Leaves quinate and ternate serrate, Flowers in panicled racemes
8670 Lvs. ternate and quinate, Leafl. lanc. acum. ent. beneath white with down, Branches of pan. dichotom.
8671 Leaves ternate and quinate, Leaflets ovate acute entire hoary beneath, Panicle with a straight rachis

8672 Panicle terminal naked elongated

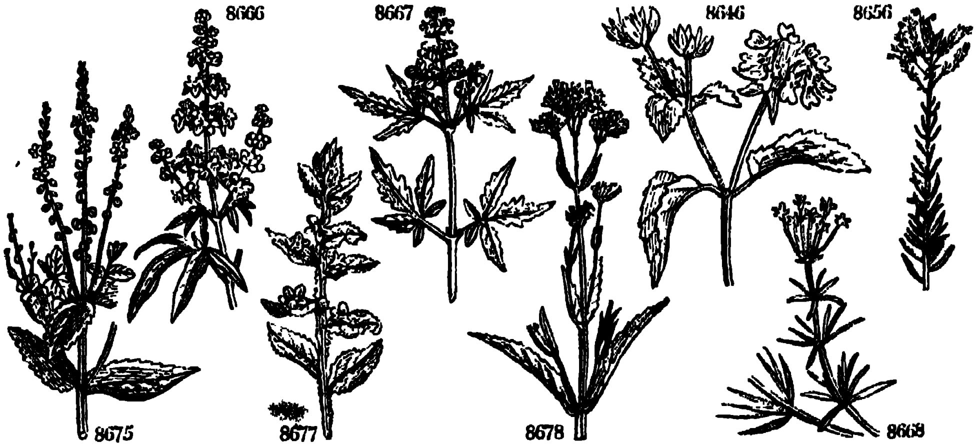
8673 Spikes ovate, Leaves lanceolate serrated plaited, Stem fruticose
8674 Spikes roundish conical, Leaves cuneiform toothed, Stem creeping

8675 Spikes lax, Cal. of fruit reflexed roundish didymous hispid

8676 Spikes filiform very long, Cal. of fruit reflexed hispid, Tube of corolla spiral

8677 The only species

8678 Spikes fascicled, Leaves oblong lanceolate stem-clasping, Stem very tall trichotomous at end
8679 Spikes long acuminate, Leaves hastate
8680 Spikes filiform panicled, Leaves lanceolate coarsely serrated



and Miscellaneous Particulars.

couches with the leaves. Hence also it has had the affected name of Piper eunuchorum and monachorum. The seeds of the chaste-tree are, however, so far from being thought antiaphrodisiac, that writers of later times have ascribed to them an opposite quality; their aromatic pungency seems to favor this opinion, and Bergius states them to be carminative and emmenagogue. (*Woodville.*)

The fruit of V. trifolia is reputed in the eastern countries to be warm, discutient, nervine, cephalic, and emmenagogue; and to be of service in paralysis, weakness, and pains of the limbs. It is in great use among the Indian practitioners, both internally and externally. The plant has a bitter taste, and a strong somewhat aromatic smell.

1318. *Cornutia.* So named after Jacques Cornut, a French physician, who travelled into Canada, and published an account of the plants of that country in 1635. Cornutia pyramidata is a shrub with square branches, elliptical ovate entire hoary leaves, and naked pyramidal terminal branches of flowers.

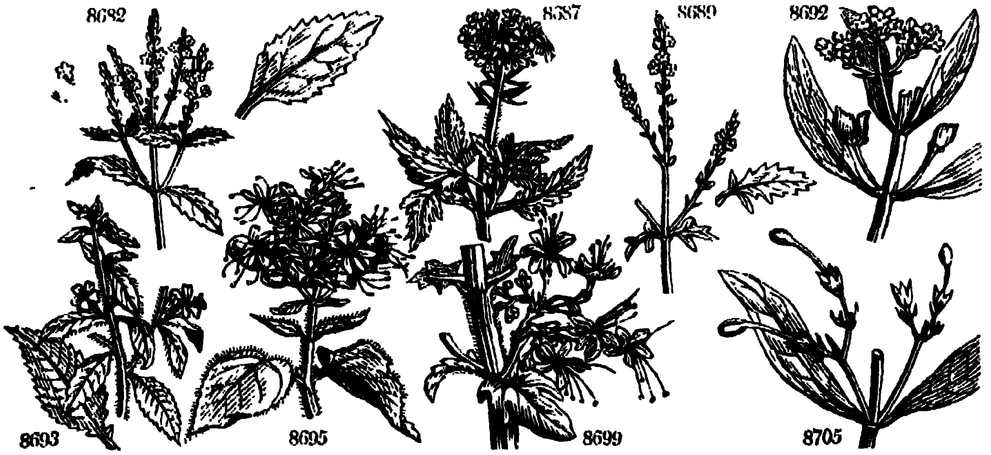
1319. *Zapania.* Named by Scopoli, after Paul Anthony Zappa, an Italian botanist.

1320. *Priva.* A genus of small Verbena-like herbaceous plants, with little blue flowers. The derivation of the name is unknown.

1321. *Spielmannia.* In honor of James [illegible] Spielmann, professor of medicine and botany at Strasburg, author of Prodromus Floræ Argentoratensis [illegible]armacopœia Generalis, &c. A shrub of easy culture in any light soil, and cuttings root freely under a glass.

1322. *Verbena.* Said by De Theis, to be derived from *ferfaen*, its name in Celtic. A genus of weedy plants,

8681 angustifólia *H. K.*	narrow-leaved	⚘	△	un	3	jn au	B	N. Amer.	1802.	D	co	
8682 caroliniána *W.*	Carolina	⚘	△	un	6	jn.s	W	N. Amer.	1732.	D	co	D.l.el.t.301.f.388
8683 urticifólia *W.*	Nettle-leaved	⚘	△	un	3	jl.s	W	N. Amer.	1683.	C	co	Rob. ic. 26
8684 stricta *Ph.*	upright	⚘	△	un	3	jl.au	B	N. Amer.	1802.	D	co	Bot. mag. 1976
8685 Aublétia *W.*	Rose	⚘	⊙	or	1	jn au	Pu	N. Amer.	1774.	S	r.m	Bot. mag. 308
8686 bracteósa *Ph.*	long-bracted	⚘	△	pr	¼	jl	Pu	N. Amer.	1812.	D	co	Bot. mag. 2910
8687 Lambérti *B. M.*	Lambert's	⚘	△	or	1½	jl	Pu	S. Amer.	...	D	co	Bot. mag. 2200
8688 spúria *Ph.*	jagged-leaved	⚘	⊙	un	2	jl.au	B	N. Amer.	1731.	C	p.l	
8689 officinális *W.*	common	⚘	△	un	2	jn.s	Pu	Britain	ro.sid.	D	co	Eng. bot. 769
8690 supína *W.*	trailing	✱	○	un	½	jn.jl	B	Spain	1640.	S	co	Park.the.675. f 2
8691 prostráta *H. K.*	prostrate	✱	△	un	½	jn.jl	B	N. Amer.	1794.	D	co	
1323. AVICEN'NIA. *L.*	AVICENNIA.					*Myoporineæ.*		*Sp.* 1—3.				
8692 tomentósa *L.*	downy-leaved	♠	☐	un	20	...	Pk	India	1793.	C	l.p	Fl. d'Owar.t.47
1324. CALDA'SIA *W.*	CALDASIA.					*Verbenaceæ.*		*Sp.* 1.				
8693 heterophýlla *W.*	blue	£	⊠	pr	2	my.d	B	New Spain	1813.	S	co	Bot. reg. 96
1325. CLERODEN'DRUM. *B. P.*	CLERODENDRUM.					*Verbenaceæ.*		*Sp.* 15—27.				
8694 frágrans *H. K.*	fragrant	♣	☐	or	6	au.d	W	China	1790.	R	s.p	Vent. malm. 70
β flore pleno	*double-flowered*	♣	☐	or	6	au.d	W	China	1790.	R	s.p	Bot. mag. 1834
8695 viscósum *H. K.*	clammy	♣	☐	or	6	my.au	W	E. Indies	1796.	C	s.p	Bot. mag. 1805
8696 infortunátum *P. S.*	long-flowered	♣	☐	or	6	...	...	E. Indies	...	C	l.p	
8697 fortunátum *W.*	spear-leaved	♣	☐	or	6	jl	W	E. Indies	1784.	C	l.p	Osb. it. t. 11
8698 squamátum *H. K.*	scarlet	♣	☐	or	10	jn s	S	China	1790.	R	s.p	Bot. reg. 649
8699 paniculátum *W.*	panicled	♣	☐	or	6	jl.o	W	Java	1809.	C	s.p	Bot. reg. 406
8700 trichótomum *W.*	three-forked	♣	☐	or	6	...	...	Japan	1800.	C	l.p	Kæm. ic. 22
8701 tomentósum *R. Br.*	downy	♣	☐	or	5	mr ap	W	N. S. W.	1794.	S	s.p	Bot. mag. 1518
8702 ligustrinum *H. K.*	Privet-leaved	♣	☐	or	3	au n	W	Mauritius	1789.	C	p.l	Jac.co.sup t5.f 1
8703 heterophýllum *H. K.*	various-leaved	♣	☐	or	3	au.s	W	Mauritius	1805.	C	l.p	Bot. rep. 554
8704 inérme *H. K.*	smooth	♣	☐	or	4	au n	W	E. Indies	1692.	C	p.l	Jac.co sup.t4 f 1
8705 Siphonánthus *H. K.*	whorl-leaved	♣	☐	or	6	...	W	E. Indies	1796.	C	p.l	Bur. ind. t.43.f 1
8706 macrophýllum *B. M.*	large-leaved	♣	☐	or	8	jl	W.n	E. Indies	1815.	C	p.l	Bot. mag. 2536
8707 phlomoídes *L.*	Phlomis-like	♣	☐	or	4	au s	W	E. Indies	1820.	C	p.l	Bur. ind. t.45 f.1
8708 costátum *R. Br.*	ribbed	♣	☐	or	6	...	...	N. Holl.	1823.	C	l.p	
1326. VOLKAME'RIA. *H. K.*	VOLKAMERIA.					*Verbenaceæ.*		*Sp.* 3—5.				
8709 aculeáta *H. K.*	prickly	♣	☐	or	4	au o	W	W. Indies	1739.	C	p.l	Bro.jam. t.20.f 2
8710 buxifólia *W. en.*	box-leaved	♣	☐	or	4	au	W	......	1820	C	p.l	
8711 japónica *Thunb.*	Japan	♠	☐	or	50	...	Pu.w	Japan	1820.	C	p.l	Vent. mal. 70
1327. HOLMSKIOL'DIA. *H. K.*	HOLMSKIOLDIA.					*Verbenaceæ.*		*Sp.* 1.				
8712 sanguínea *W.*	scarlet	♣	☐	or	4	...	S	India	1796.	C	p.l	Bot. reg. 692
1328 PETRE'A. *W.*	PETREA.					*Verbenaceæ.*		*Sp.* 1				
8713 volúbilis *W.*	climbing	ɫ	☐	or	20	jl.au	Pu	VeraCruz	1733.	C	r.m	Bot. mag. 628
1329. CITHAREX'YLUM. *W.*	FIDDLE-WOOD.					*Verbenaceæ.*		*Sp.* 5—9.				
8714 cinéreum *W.*	ash-colored	♠	☐	or	15	...	W	W. Indies	1739.	C	p.l	Jac. amer. t. 118
8715 caudátum *W.*	oval-leaved	♠	☐	or	20	...	W	Jamaica	1763.	C	l.p	Jac. ic. 3. t. 501
8716 villósum *W.*	hairy-leaved	♠	☐	or	10	...	...	S. Domin.	1784.	C	p.l	Jac. ic. 1. t. 118
8717 pentándrum *Vent.*	pentandrous	♣	☐	or	6	...	W	Porto Rico	1815.	C	l.p	Vent. cels. t. 47
8718 quadranguláre *W.*	square-stalked	♠	☐	tm	50	...	W	Jamaica	1759.	C	p.l	Jac. vind. l. t. 22
1330 DURAN'TA. *W.*	DURANTA.					*Verbenaceæ.*		*Sp.* 3—4.				
8719 Pluméri *W.*	smooth	♣	☐	or	15	o	B	S. Amer.	1733.	C	p.l	Bot. reg. 244
8720 Ellísia *W.*	prickly	♣	☐	or	6	au	B	W. Indies	1739.	C	p.l	Bot. mag. 1759
8721 microphýlla *W. en.*	small-leaved	♣	☐	or	3	...	B	......	1820.	C	p.l	



History, Use, Propagation, Culture,

with the exception of Verbena Aubletia and Lamberti. V. officinalis was held sacred among the ancients, and used in making leagues by ambassadors, sacrificial rites, incantations, &c.; and by the moderns as an amulet, and for medical purposes: it is now, however, entirely out of use.

1323. *Avicennia.* Named after Abu Vali Ibn Tsin, commonly called Avicennes, a Persian physician, born in 980, died in 1036. His Rules of Medicine were formerly the text-book of physicians, and have occupied the learning and time of many commentators.

1324 *Caldasia.* Named by Willdenow in compliment to Don Josef Caldas, an eminent botanist, native of Popayan, in New Grenada.

1325. *Clerodendrum.* From κληρος, accident, and δενδρον, a tree, in allusion to the various effects in medicine by its various species. Clerodendrum fortunatum is useful, C. calamitosum and infortunatum, dangerous. The species grow freely in light rich soil, composed of half loam, one-fourth of rotten dung, and one-fourth peat. They require a large pot to flower freely, and cuttings root readily under a hand-glass: the younger the shoots the better. The handsomest species are C. paniculatum and C. squamatum. (*Bot. Cult.* 41.)

C. inerme is hardy enough to live in the open air against a wall, but it must have the protection of a mat in winter.

1326 *Volkameria.* Named after John Christopher Volkamer, a German botanist, who died in 1720. John

8681 Spikes filiform, Leaves linear lanceolate subserrate
8682 Spikes filiform, Leaves lanceolate serrate bluntish subsessile
8683 Spikes filiform panicled, Leaves ovate serrate acute stalked
8684 Hoary, Spikes cylindrical upright, Leaves ovate serrate subsessile, Stem erect round
8685 Spikes solitary stalked, Leaves trifid cut
8686 Decumbent hirsute, Leaves cut, Flowers spiked, Bractes linear very long squarrose
8687 Spikes lax solitary, Stem hispid decumbent rooting, Leaves oblong cut-toothed entire at end
8688 Spikes filiform, Leaves multifid cut, Stems numerous
8689 Spikes filiform panicled, Leaves multifid cut, Stem subsolitary
8690 Spikes filiform solitary, Leaves bipinnatifid
8691 Hirsute, Spikes filiform solitary, Leaves serrate cut, Calyxes twice as long as fruit

8692 Leaves oblong blunt downy beneath

8693 The only species

8694 Leaves subcordate tooth-serrate pubesc. with 2 glands at base, Corymb terminal hemispherical compact

8695 Somewhat downy, Leaves cordate toothed, Cal. large 5-cornered viscid, Segm. of cor on one side
8696 Leaves subcordate entire, Cor. thrice as long as tube of calyx, Limb bilabiate
8697 Leaves lanceolate quite entire
8698 Leaves cordate obscurely angular, Panicles of branches dichotomous smooth
8699 Leaves 5-lobed toothletted smooth, Panicle brachiate, Axillæ woolly
8700 Leaves lobed and undivided broad ovate entire, Panicle trichotomous
8701 Leaves elliptical acute entire and calyxes downy, The calyx in fruit thickened colored, Corymbs clustered
8702 Leaves oblong lanceolate entire, Petioles peduncles and calyx hairy
8703 Leaves lanc. or lin. lanc. entire quite smooth, Corymbs axill. and term. Cal. 5-toothed and pedunc. smooth
8704 Leaves ovate entire shining, Petioles peduncles and calyxes smooth
8705 Leaves whorled long lanceolate entire smooth, Corymbs axillary few-flowered, Corollas very long
8706 Leaves broad-ovate acuminate serrate subsessile downy beneath, Cal. 5-toothed, Cor. labiate
8707 Leaves ovate entire toothed and angular, Peduncles axillary about 2-flowered
8708 Leaves ovate blunt downy beneath ribbed rugose, Corymb trichotomous

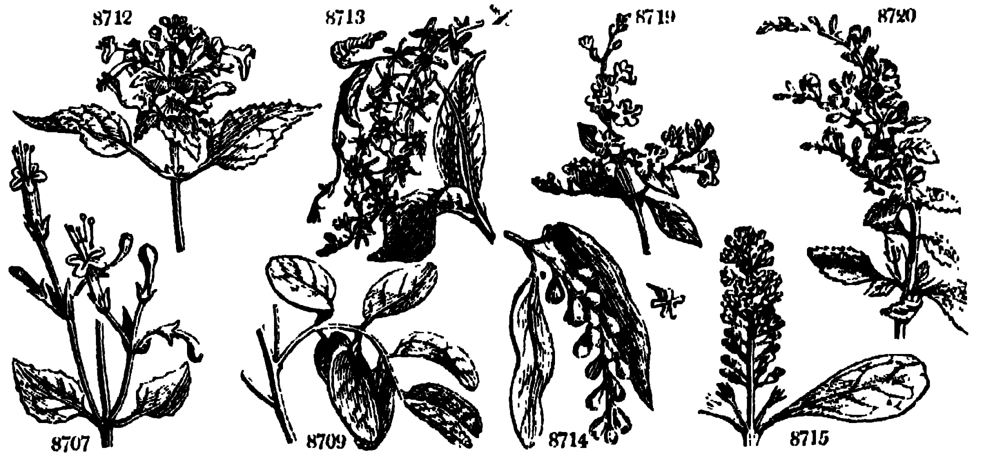
8709 Leaves oblong acute entire, Spines from the rudiments of petioles
8710 Leaves obovate entire retuse shining, Peduncles axillary about 1-flowered
8711 Unarmed, Leaves cordate ovate acute toothed, Racemes 1-sided

8712 Leaves stalked cordate crenate smooth

8713 Leaves ovate, Flowers thirsoid

8714 Branches round, Leaves oblong acuminate entire, Racemes pendulous, Calyxes toothed
8715 Branches round, Leaves elliptical emarginate blunt entire, Racemes erect, Calyxes somewhat toothed
8716 Branches square, Leaves obovate pubescent beneath somewhat toothed at end, Racemes nodding
8717 Branches bluntly 4-cornered, Leaves ovate obl toothed upwards pubesc. beneath Fl. bracteate pendulous
8718 Branches square, Leaves ovate acuminate entire, Racemes nodding

8719 Calyxes in fruit twisted, Leaves obovate oblong
8720 Calyxes in fruit erect, Leaves oblong lanceolate acuminate
8721 Spiny, Leaves 9 lines long 3 lines broad subserrate attenuated at each end, Teeth of cal. short subciliated



and Miscellaneous Particulars.

George Volkamer, his brother, born 1616, died in 1693, wrote many academical dissertations, and a Flora of Nuremberg, which was not published till after his death. The species are ornamental plants with the habit of the last genus.

1327. ***Holmskioldia.*** A Theodore Holmskiold, a Dane, published some obscure works upon Cryptogamous plants. A handsome herbaceous stove plant, remarkable for the large calyxes of a bright red color.

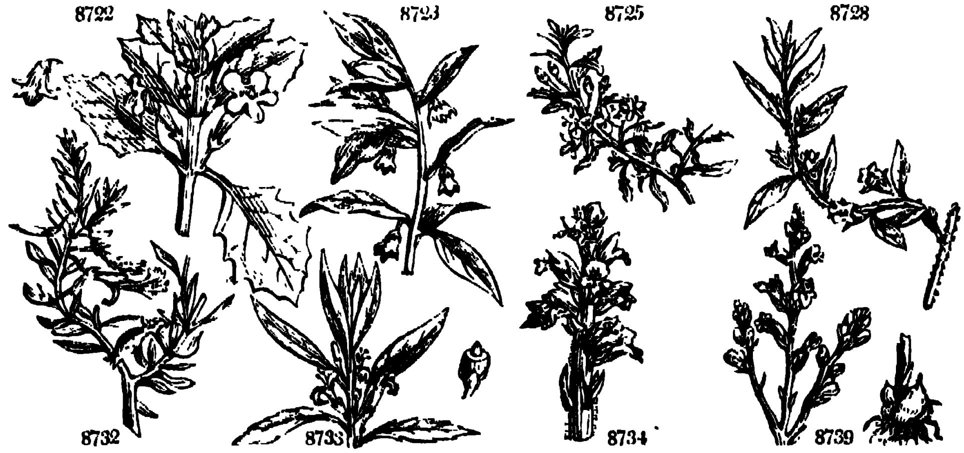
1328. ***Petrea.*** So called by Houstoun, in honor of Robert James Lord Petre, born in 1710, died in 1742. The famous Peter Collinson, in a letter to Linnæus, speaks of his death as the greatest loss that botany or gardening ever felt in this island. A climbing plant with blue flowers.

1329. ***Citharexylum.*** From κιθαρα, a lyre (hence guitar), and ξυλον, wood. This tree produces a wood which in America is very useful for carpenters' work. It is very hard, and has been supposed applicable to making musical instruments, a mistake which arose thus, C. melanocardium is called by the French *fidèle*, from its faithfulness or durability in building; the English have corrupted the name to fiddle-wood, as if it were used for making musical instruments, which is a mistake. (*Miller.*)

Cuttings root in sand under a hand-glass.

1330. ***Duranta.*** After Castor Durantes, physician to Pope Sixtus V., author of Herbarium, 1584, died in 1590. The species grow and flower freely in loam and peat, and cuttings root in sand under a hand-glass.

1331.	**PEDA'LIUM** *W.*	PEDALIUM.				*Pedalinæ.*		*Sp.* 1.				
8722	Múrex *W.*	prickly-fruited	⊡	cu	1½	au.s	W.pu	E. Indies	1778.	C	l.p	Lam. ill. t. 538
1332.	**MYOPO'RUM.** *Forst.*	MYOPORUM.				*Myoporinæ.*		*Sp.* 8.				
8723	ellipticum *R. Br.*	smooth-leaved	■ ⊔	or	2	ja mr	W	N. S. W.	1789.	C	l.p	Bot. rep. 283
8724	acuminátum *R. Br.*	acuminate	■ ⊔	pr	3	...	W	N. S. W.	1812.	C	l.p	
8725	parvifólium *R. Br.*	small-leaved	■ ⊔	pr	3	ja.d	W	N. Holl.	1803.	C	l.p	Bot. mag. 1693
8726	tuberculátum *R. Br.*	tuberculed	■ ⊔	pr	3	...	W	N. Holl.	1803.	C	l.p	
8727	viscósum *R. Br*	viscid	■ ⊔	pr	3	...	W	N. Holl.	1803.	C	l.p	
8728	débile *R. Br.*	procumbent	■ ⊔	pr	1½	my.au	W	N. S. W.	1793.	C	l.p	Bot. mag. 1830
8729	diffúsum *R. Br.*	diffuse	■ ⊔	pr	3	f au	W	N. Holl.	...	C	l.p	
8730	oppositifólium *R Br.*	opposite-leav'd	■ ⊔	pr	3	ja.d	W	N. Holl.	1803.	C	l.p	
1333.	**STENOCHI'LUS.** *R. Br.*	STENOCHILUS.				*Myoporinæ.*		*Sp* 2—3.				
8731	gláber *R. Br*	smooth-leaved	■ ⊔	or	2	ja.d	R	N. Holl.	1803.	C	s.p	Bot. mag. 1942
8732	maculátus *Ker*	spotted	■ ⊔	or	3	ap.my	S	N. Holl.	1820.	C	s.p	Bot. reg. 647
1334.	**BON'TIA.** *R. Br.*	BONTIA.				*Myoporinæ.*		*Sp.* 1.				
8733	daphnoides *W.*	Barbadoes	■ □	or	6	jn	Y.Pu	W. Indies	1690.	C	p.l	Dill.elt. t.49.f.57
1335.	**OROBAN'CHE.** *W.*	BROOM-RAPE.				*Orobancheæ.*		*Sp.* 6—20.				
8734	májor *W.*	greater	ℰ △	w	1½	jn.jl	Br	Britain	unc.pl.	S	s.l	Eng. bot. 421
8735	elátior *W.*	taller	ℰ △	cu	1½	jl.au	Y	Britain	clov.fi.	S	s.l	Eng. bot. 568
8736	minor *W.*	smaller	ℰ △	cu	½	jl.au	Y.w	Britain	clov.fi.	S	s.l	Eng bot. 422
8737	rúbra *E. B.*	red	ℰ △	cu	½	au	Pu	Britain	ir.roc.	S	s.l	Eng. bot. 1786
8738	cærúlea *W.*	blue	ℰ △	cu	½	jl	V	Britain	sea co.	S	s.l	Eng. bot. 423
8739	ramósa *W.*	branching	ℰ △	cu	1	au.s	Br.pu	Britain	hemp fi.	S	s.l	Eng. bot. 184
1336.	**CRESCEN'TIA.** *W.*	CALABASH-TREE.				*Solaneæ.*		*Sp.* 2.				
8740	Cujéte *W.*	oval-fruited	♀ □	cu	10	...	W	Jamaica	1690.	C	r.m	Jac. amer. t. 111
8741	cucurbitina *W.*	round-fruited	♀ □	cu	10	...	W	W. Indies	1733.	C	r.m	Plum. ic. t. 109
1337.	**CASTILLE'JA.** *Sm.*	CASTILLEJA				*Scrophularineæ.*		*Sp.* 1—10.				
8742	sessiliflóra *Ph.*	sessile-flowered	⚘ △	or	1½	jl.au	Pa.Y	Louisiana	1811.	D	l.p	
1338.	**HALLE'RIA.** *W.*	HALLERIA.				*Scrophularineæ.*		*Sp* 1—2.				
8743	lúcida *W.*	shining-leaved	■ ⊔	or	6	jn au	S	C. G. H.	1752.	C	p.l	Bot. mag. 1744
1339.	**LATHRÆ'A.** *W.*	TOOTHWORT.				*Orobancheæ*		*Sp.* 1—3.				
8744	squamária *W.*	scaly	ℰ △	cu	1	ap	Gr	Britain	dry wo	D	co	Eng. bot. 50
1340.	**RHINAN'THUS.** *W.*	YELLOW-RATTLE.				*Scrophularineæ*		*Sp.* 3—10.				
8745	crista-gálli *W.*	Cock's-comb	○	w	1	jn.au	Y	Britain	mea pa.	S	co	Eng. bot. 657
8746	alectorolóphus *Poll.*	wattled	○	pr	1½	jn.au	Y	Europe	1820.	S	co	
8747	Trixágo *L.*	inflated	○	pr	1	jn au	Y	Europe	...	S	co	Mor.h.3. t.24. f 8
1341.	**BART'SIA.** *W.*	BARTSIA.				*Scrophularineæ.*		*Sp.* 5—10.				
8748	coccínea *W.*	scarlet	⚘ △	or	½	jl	R.Y	N. Amer.	1787.	D	s.p	Pluk.al. t. 102 f.5
8749	pállida *W.*	pale-flowered	⚘ △	or	½	jn s	L.P	Siberia	1782.	D	s.p	Gmel sib.3. t. 24
8750	viscósa *W.*	yellow	○	or	½	jl.au	Y	Britain	mar.	S	m.s	Eng. bot. 1045
8751	Odontítes *H. K.*	red	○	or	¾	jl.s	Pk	Britain	mea.pa.	S	co	Eng. bot 1415
8752	alpína *W.*	Alpine	○	or	½	jl.au	Pu	Britain	alp.riv.	S	m.s	Eng. bot. 361



History, Use, Propagation, Culture,

1331. *Pedalium* Πηδαλιον, a Greek word signifying a nail or point. This plant produces a hard and nut-like fruit with four sharp points or horns.

1332. *Myoporum.* From μυω, to shut up, and πορος, a pore; the spots which cover the leaves being, as it were, pores closed with some semi-transparent substance.

1333. *Stenochilus.* From ϛενος, narrow, and χειλος, a lip; the narrow lip distinguishing this genus from some of its kindred. Very pretty New Holland small shrubs, with fine red flowers.

1334. *Bontia.* James Bont or Bontius was a Dutch physician, born at Batavia, published in 1658, a natural history of the East Indies, in the manner of Piso. A South American plant, with the appearance of a Daphne. The leaves are alternate, fleshy, and crenated, and the flowers axillary.

1335. *Orobanche.* So called from οροβος, a vetch, or other leguminous plant, and αγχειν, to strangle, in allusion to the well known effect of these parasites in destroying the plants upon which they grow. The species are fleshy herbs of a russet color, fastening themselves to the roots of other plants, and chiefly to Leguminosæ. The root is tuberous, imbricate with scales, and sends out fibres into the soil, the stem is without leaves, scaly, and generally simple: the flowers are in terminating spikes. The whole plant is acrid and astringent, and rejected by all animals, excepting the minuter tribes of Cimices and Thripses.

O. major adheres to the root of broom, furze, and clover, and is particularly destructive to the latter, especially in Flanders, where in some places it deters the farmer altogether from the culture of clover. It has a large, thick, fleshy, oval, scaly root, sometimes bulbous, and sending out fibres which are very brittle. The bulb adheres to the woody roots of furze or broom, and the fleshy root of clover, and the fibres clasp round them.

O elatior is commonly found adhering to the roots of Centaurea scabiosa and Trifolium pratense. It does

8722 Leaves truncate, Flowers with a strong smell of musk

8723 Leaves elliptical bluntish mucronate and branches smooth, Sepals lanc. very acute, Orifice of cor. villous
8724 Leaves broadish lanc. acumin. very acute and branches smooth, Sepals ovate lanc. Limb of cor. bearded
8725 Lvs. lin. bluntish sometimes toothed at end with the branches glandular, Peduncles occasionally 2-parted
8726 Leaves lanceolate acute serrated and branches warted with glands
8727 Leaves elliptical acute serrated reflexed and branches viscid with glands
8728 Leaves lanc. toothed at end entire at base, Drupes compressed shorter than calyx, Stem prostrate
8729 Leaves lanceolate at base with recurved teeth, Stems diffuse glandular, Peduncles solitary
8730 Leaves serrate cordate sessile

8731 Leaves lanceolate or elliptical entire sometimes toothed at end, Branches downy, Stem diffuse
8732 Stem silky, Leaves spatulate lanceolate much shorter than flower, Stamens a little protruded

8733 Leaves alternate, Peduncles 1-flowered

8734 Stem simple, Cor. 4-fid inflat. Stam. naked downw. Stigma 2-lobed, Lobes distant, Style pubesc. upwards
8735 Stem simple, Cor. 4-fid, Stamens hairy downwards, Stigma obcordate, Style smooth upwards
8736 Stem simple, Cor. 4-fid, Stamens hairy downwards, Stigma retuse, Style smooth upwards
8737 Stem simple, Corolla tubular, Segm. of lip blunt equal, Stamens fringed on one side at base
8738 Stem nearly simple, Cor 5-fid, Bractes 3, Calyx tubular half 4-cleft
8739 Stem branched, Cor. 5-fid, Bractes 3, Calyx short deeply 4-cleft

8740 Leaves cuneate lanceolate close together
8741 Leaves ovate subcoriaceous separate, Fruit ovate acuminate

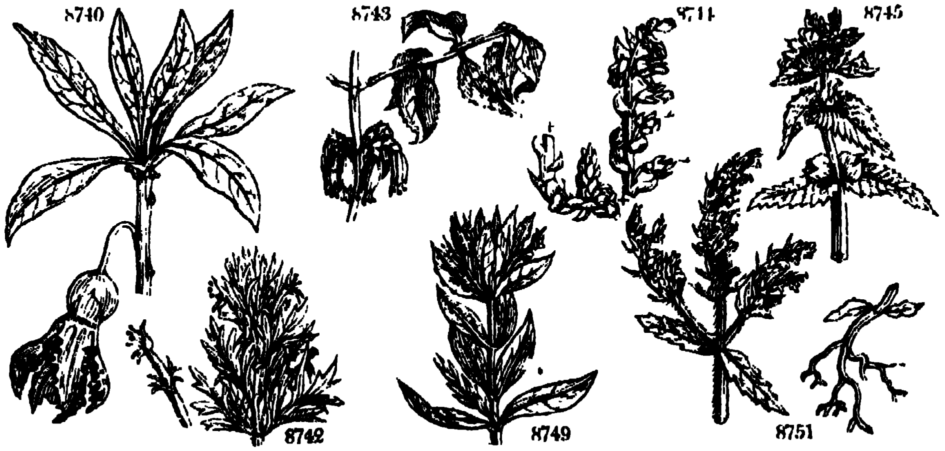
8742 Leaves at end palmate-cut, Flowers sessile

8743 Leaves ovate acuminate serrate, Corollas 2-lipped, Calyx 3-leaved, Stamens exserted

8744 Stem quite simple, Corollas pendulous with the lower lip trifid

8745 Upper lip of corolla emarginate 2-toothed, Middle segment of lower lip very short
8746 Upper lip of corolla compressed shorter, Calyxes villous
8747 Lower lip of cor. longer than upper, Middle segm. blunt longer than lateral, Cal. vill. Lvs. deeply toothed

8748 Leaves alternate linear 2-toothed on each side
8749 Leaves alternate lanceolate entire, Floral oval toothed
8750 Upper leaves alternate serrated, Flowers distant lateral
8751 Leaves linear lanceolate serrated, Segm. of lower lip of corolla blunt
8752 Leaves opposite cordate bluntly serrated



and Miscellaneous Particulars.

not appear among clover till the second year. On the borders of corn-fields it is found on Centaurea scabiosa and nigra, Scabiosa arvensis, &c.

O. minor also adheres to common red clover and to Hypochæris radicata. O. ramosa is found on Galeopsis tetrahit. Any of the species may be removed to the garden and planted by the whin or broom.

1336. *Crescentia.* In memory of Pietro Crescenti, of Bologna, author of various agricultural works in the thirteenth century. The fruits after the inside has been scooped out, are dried by the natives of the countries where they grow, and serve for containing water or other fluids.

1337. *Castilleja.* Named after one Castillejo, a Spanish botanist and friend of Mutis. Some of the species of this genus which have not yet been introduced, are very beautiful plants, and would amply repay a collector for his trouble in procuring them.

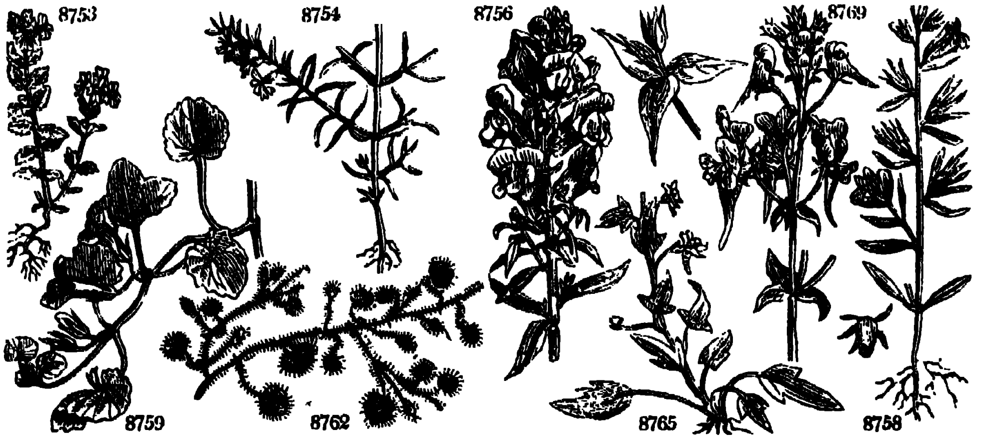
1338. *Halleria.* After the famous Albert Haller, author of Stirpes Helveticæ, and other considerable works on botany and medicine. A pretty stove plant, with long branches of red flowers. Surely so eminent an investigator of alpine vegetation as Haller was, should have had an alpine genus consecrated to him.

1339. *Lathræa.* Λαθραιος, concealed. The plant is only found in the most hidden recesses of the grove. A curious humble parasite without leaves, in the room of which it is covered with abundance of white fleshy scales.

1340. *Rhinanthus.* From ῥιν, a nose, and ανθος, a flower; because of its ringent corolla compressed, at the upper lip so as to resemble the snout of some animal.

1341. *Bartsia.* Named by Linnæus, in honor of his beloved friend John Batsch, M. D., of whom he gives an interesting and melancholy account in his Flora Suecica. Curious herbaceous plants of very difficult cultivation.

1342. EUPHRA'SIA. *W.*		EYE-BRIGHT.				*Scrophularineæ.*	*Sp.* 3—12.						
8753	officinális *W.*	common		○	w	½	jl.s	W	Britain	past.	S	co	Eng. bot. 1416
8754	lútea *W.*	yellow		○	or	1½	jl.s	Y	S. Europe	1816.	S	co	Jac. aust. t. 398
8755	latifólia *L.*	broad-leaved		○	or	1	jl.s	Pu	S. Europe	...	S	co	
1343. ANTIRRHI'NUM. *J.*		SNAP-DRAGON.				*Scrophularineæ.*	*Sp.* 5—9.						
8756	május *W.*	great	£	△	or	3	jn.au	Pk	England	old w.	S	co	Eng. bot. 129
	β coccineum	*scarlet-flower'd*	£	△	or	3	jn.au	S	England	old w.	S	co	
	γ bicolor	*two-colored*	£	△	or	3	jn.au	S.w	England	old w.	S	co	
	δ flore pléno	*double-flowered*	£	△	or	2	jn.au	F	England	old w.	C	co	
8757	síeulum *W.*	Sicilian	£	△	or	1½	jl.au	W	Sicily	1804.	D	l.p	
8758	oróntium *W.*	lesser		○	or	1	jl.s	F	Britain	san.fi.	S	s.l	Eng. bot. 1155
8759	Asarina *W.*	heart-leaved	∽	△]	or	½	jl	W	Italy	1699.	S	r.m	Bot. mag. 902
8760	mólle *L.*	soft-leaved	∽	⌴	or	½	jl.o	W	Spain	1752.	C	s.l	
1344. LINA'RIA. *J*		TOAD-FLAX.				*Scrophularineæ.*	*Sp.* 37—75.						
8761	Cymbalária *H. K.*	Ivy-leaved	∽	△	or	½	my.n	V	England	old w.	D	s.l	Eng. bot. 502
8762	pilósa *H. K.*	hairy-leaved	∽	△	or	½	jn.s	Pu	Pyrenees	1800.	D	s.l	Jac. obs. 2. t. 48
8763	Elátine *H. K.*	sharp-pointed	✱	○	or	½	jl n	Y	England	corn fl.	S	co	Eng. bot. 692
8764	spúria *H. K.*	round-leaved	✱	○	or	½	jl s	Y	England	corn fl.	S	co	Eng. bot. 691
8765	cirrhósa *H. K.*	tendrilled	✱	○	or	½	jl	Pa.B	Egypt	1771.	S	co	Jac. vind. 1. t.82
8766	ægyptiaca *H K.*	Egyptian		○	or	1½	jl	Y.Pu	Egypt	1771.	S	co	
8767	triphýlla *H. K.*	three-leaved		○	or	1	jn.s	Y.Pu	Sicily	1596.	S	s.l	Bot. mag. 324
8768	latifólia *H. K.*	broad-leaved		○	or	1	jn jl	Y	N. Amer.	1800.	S	co	Desf. atl.2. t.134
8769	triornithóphora *H. K*	three-bird	¥	△]	or	½	jn s	Pu	Portugal	1710.	C	s.p	Bot. mag. 525
8770	bipartita *P. S.*	two-parted	¥	△]	or	½	jn.s	Pu	Barbary	1815.	D	l p	Sweet fl. gard.30
8771	purpúrea *H. K.*	purple	¥	△	or	½	jl.s	Pu	S. Europe	1648.	S	co	Bot. mag. 99
8772	versicolor *H. K.*	various-colored		○	or	1	jl s	P.Y	France	1777.	D	s.l	Jac. ic. 1. t. 116
8773	répens *H. K.*	creeping-rooted	✱	△	or	½	jl.o	G	England	ch.hil.	S	co	Eng. bot. 1253
8774	Spártea *H. K.*	branching		○	or	1	jn.o	Y	Spain	1772.	S	s.l	Bot. mag. 200
8775	bipunctáta *H. K.*	two-spotted		○	or	1	jn au	Y	Spain	1749.	S	co	
8776	Hælava *W.*	hairy-calyxed		○	or	1	jl	Pu	Egypt	1803.	D	co	
8777	tristis *H. K.*	brown	¥	△]	or	1	jl.au	Br	Spain	1727.	S	s.l	Bot. mag 74
8778	supína *H. K.*	trailing	✱	○	or	½	jl	Y	Spain	1728.	S	s.l	
8779	símplex *P. S.*	upright		○	or	1	jl au	P.B	S. Europe	1816.	S	s.l	Jac. ic 3. t. 499
8780	arvénsis *P. S.*	corn		○	or	1	jl au	P.B	S. Europe	...	S	co	
8781	Pelisseriána *H. K*	violet-colored		○	or	1	jn.s	V	S. Europe	1640.	S	s.l	Barrel ic. 1162
8782	viscósa *H. K.*	clammy		○	or	1	jl	Br	Spain	1786	S	s.l	Bot. mag. 368
8783	multicaúlis *H. K.*	many-stalked		○	or	1½	my jl	W	Levant	1728.	S	s.l	Boc sic. t. 19. f 1
8784	reticuláta *H. K.*	net-flowered	¥	△]	or	1½	my jl	Pu	Algiers	1788.	D	l p	Smith ic. pict. 2
8785	glaúca *H. K.*	glaucous-leav'd		○	or	1	jn.au	Pu.Y	S. Europe	1806.	S	co	Buxb.cen 4. t 57
8786	alpína *H K.*	Alpine	✱	△]	or	1	jl.n	B	Austria	1570.	C	s.l	Bot mag. 205
8787	villósa *H. K.*	villous	¥	△]	or	1	jl.au	B	Spain	1786	D	l.p	Barrel. ic. 597
8788	origanifólia *H. K.*	Marjoram-lvd.	¥	△]	or	1	jn.s	B	S Europe	1785.	D	l.p	Barrel. ic 598
8789	minor *H. K*	least erect		○	w	½	jn n	V	England	san fi	S	s.l	Eng. bot. 2014
8790	dalmática *H. K.*	Dalmatian	m	⌴	cu	1½	jn.jl	Y	Levant	1731.	S	s.l	Buxb.cen.1. t 24
8791	hirta *H. K.*	shaggy-leaved		○	or	1	jn.s	Pu	Spain	1759.	S	co	Jac. ic. 1. t. 117
8792	macroúra *Bcb.*	long-horned	¥	△	or	1	jn.s		Crimea	1822.	D	co	
8793	genistifólia *H. K.*	Broom-leaved	¥	△	or	2	jl au	Y	Austria	1704	D	co	Bot. mag. 2183
8794	júncea *H K.*	Rush-stalked		○	or	1½	jl.au	Y.Br	Spain	1780.	S	co	
8795	vulgáris *H. K.*	yellow	¥	△	w	1	jn.s	Y	Britain	hed.	D	co	Eng bot. 658
	β Pelória	*regular-flower'd*	¥	△	cu	1	jn.s	Y	Britain	...	D	co	Eng bot. 260
8796	canadénsis *P. S*	Canada		○	or	1	jn.au	V	N. Amer.	1812.	S	co	Vent cels 49
8797	chalepénsis *H. K.*	white-flowered		○	or	1	jn jl	W	Levant	1680.	S	co	Mor. s.5 t.35. f.9
1345. ANARRHI'NUM. *Desf.*		ANARRHINUM.				*Scrophularineæ.*	*Sp.* 1—6.						
8798	bellidifólium *W.*	Daisy-leaved	¥	◐	pr	1½	jn.au	B	France	1629.	S	s.l	Bauh.prod.t.106
1346. NEME'SIA. *Vent.*		NEMESIA.				*Scrophularineæ.*	*Sp.* 3—5.						
8799	chamædrifólia *V.*	Chamædrys-lv.	£	△	or	2	ap.s	Pu	C. G. H.	1787.	D	co	
8800	fœ'tens *V.*	fœtid	£	△	or	2	ap.s	Pu	C. G. H.	1798.	D	co	Vent malm. t.41
8801	bicórne *P. S.*	horned		○	or	2	jl.au	Pu	C. G. H.	1774.	S	s.l	Bur. afr. t.75. f.3



History, Use, Propagation, Culture.

1342. *Euphrasia.* An abridgment of *Euphrosine*, the name of a woman, expressing joy or pleasure. This has been so called from the joyful effects of E. officinalis in disorders of the eyes, but it is now thought to be injurious rather than otherwise. Lightfoot states, that the Scotch Highlanders make an infusion of it in milk, and anoint the patient's eyes with a feather dipped in it.

1343. *Antirrhinum.* From αντι, similar, and ριν, a nose, because the flowers of most of the species bear a perfect resemblance to the snout of some animal. A. majus and its varieties are popular border flowers of the easiest culture in any dry soil; the other species are also pretty little plants.

1344. *Linaria.* The plant out of flower is very similar to Linum, Flax. The species are for the most part pretty annual plants; and some of them, as L. Cymbalaria, well adapted for growing in pots or for rock-work.

8753 Leaves ovate bluntly toothed, Segm. of lower lip of corolla emarginate
8754 Leaves linear serrated : upper entire, Lateral segments of lower lip of corolla toothletted
8755 Leaves ovate toothed palmate, Flowers spiked, Cor. tubular, Segm. of lower lip blunt

8756 Leaves lanceolate opposite, Flowers racemose, Sepals glandular hairy ovate blunt

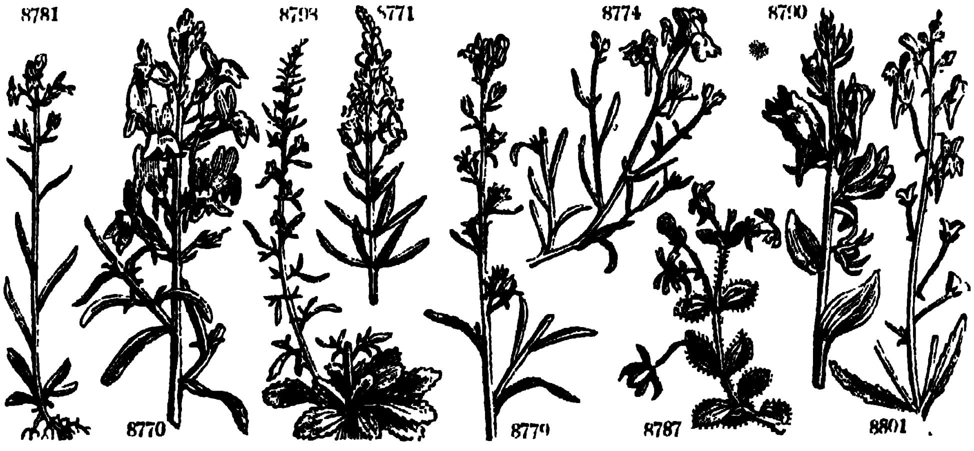
8757 Leaves linear lanceolate ternate, Flowers racemôse, Sepals glandular hairy lanceolate acute
8758 Leaves lanceolate : upper alternate, Flowers subsessile, Calyxes longer than corolla
8759 Leaves opposite cordate unequally crenate somewhat lobed hairy, Stems procumbent
8760 Leaves opposite ovate downy, Stems procumbent

8761 Leaves cordate 5-lobed alternate smooth, Stems procumbent
8762 Small, Leaves reniform repand very hairy alternate, Stems procumbent
8763 Leaves hastate alternate, Stems procumbent
8764 Leaves hairy alternate roundish ovate, lower obsoletely toothed : upper subsessile entire, Stem procumb.
8765 Leaves hastate alternate, Stems spreading, Petioles occasionally producing tendrils
8766 Leaves hastate alternate, Stem erect much branched, Peduncles stiff
8767 Leaves ternate ovate blunt 3-nerved rough at edge, Spike terminal, Flowers stalked
8768 Leaves ternate ovate lanceolate 3-nerved, Spike terminal, Flowers sessile
8769 Lvs. whorled lanc. 3-nerved, Stems decumbent, Raceme terminal few-flowered, Cor. very large stalked
8770 Leaves linear lanceolate : lower opposite ; upper alternate, Racemes lax, Helmet erect 2-parted
8771 Leaves 4 linear lanceolate, Flower-stem erect spiked
8772 Leaves linear lanceolate : lower ternate, Stem erect spiked
8773 Root creeping, Leaves linear close : lower 4, Calyx as long as capsule
8774 Leaves subulate channelled fleshy : lower 3, Stem panicled and corolla quite smooth
8775 Leaves linear smooth : lower 4, Stem erect panicled, Flowers in capitate spikes
8776 Leaves linear lanceolate : lower about 4 smooth, Flowers capitate, Calyxes hairy, Stem nearly simple
8777 Leaves linear scattered : lower opposite, Spur subulate, Flowers subsessile
8778 Leaves about 4 linear, Stem diffuse, Flowers racemose, Spur straight
8779 Leaves nearly linear : lower in fours, Calyxes pilose viscid, Fl. racemose, Spur straight, Stem erect
8780 Leaves nearly linear : lower in fours, Calyxes pilose viscid, Fl. racemose, Spur recurved, Stem erect
8781 Cauline leaves linear alternate : radical ovate lanceolate 3-5, Flowers corymbose
8782 Cauline leaves linear alternate : radical lanceolate 4, Cal. villous close to stem
8783 Leaves 5 linear fleshy, Flowers capitate
8784 Leaves linear channelled scattered upon the rootshoots in 5s, Calyx hairy, Pedunc. shorter than bractes
8785 Leaves 4 subulate fleshy, Stems erect, Flowers spiked
8786 Leaves 4 linear lanceolate glaucous, Stem diffuse, Flowers racemose, Spur straight
8787 Leaves all opposite villous, Stem simple, Flowers opposite lateral
8788 Leaves obovate opposite : floral alternate, Stem ascending pubescent, Spur straight
8789 Leaves mostly alternate lanceolate blunt, Stem much branched diffuse
8790 Leaves somewhat stem-clasping lanceolate scattered, Bractes longer than calyx, Stem ½ shrubby
8791 Leaves lanceolate hairy alternate, Flowers spiked : upper sepal very large
8792 Leaves alternate linear-subulate somewhat fleshy, Stem erect simple, Spike term. stalked
8793 Leaves lanceolate acuminate, Panicle twiggy flexuose
8794 Leaves linear alternate, Stem panicled twiggy, Flowers racemose
8795 Leaves lanceolate linear close, Stem erect, Spikes terminal sessile, Flowers imbricated

8796 Leaves alternate linear remote smoote smooth, Flowers racemose, Stem simple, Runners procumbent
8797 Leaves linear lanceolate alternate, Flowers racemose, Cal. longer than cor. Stem erect

8798 Very smooth, Radical leaves obovate lanceolate blunt serrate: cauline divided entire

8799 Leaves ovate serrated stalked, Peduncles axillary 1-flowered
8800 Leaves 4 linear lanceolate acute about 3-nerved smooth, Flowers racemose terminal with bractes
8801 Leaves oblong serrated, Stem erect herbaceous, Capsules 2-horned spreading



and Miscellaneous Particulars.

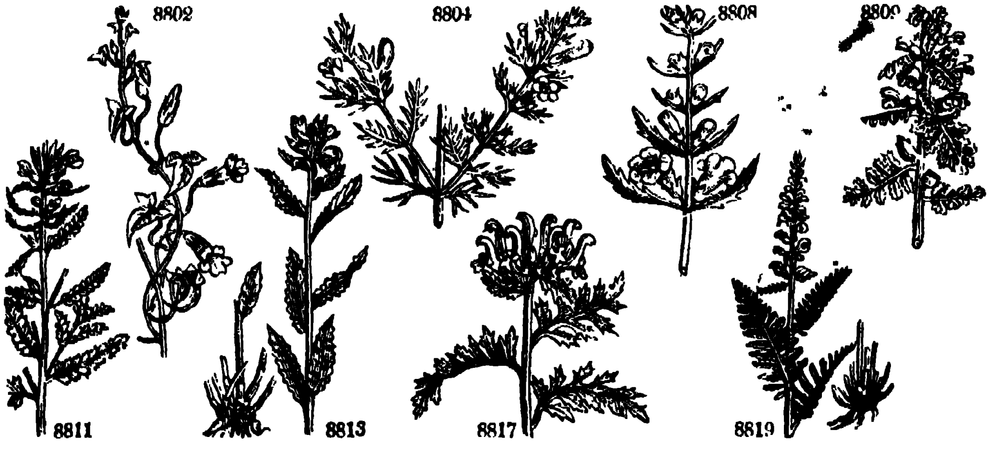
L. triphylla is a popular border annual. L. triornithophora is remarkable for the form of its flowers, which resemble three little birds seated in the spur.

L. vulgaris is a very shewy plant, but also a bad weed in sandy pastures.

1345. *Anarrhinum.* Named by Desfontaines, from α, privative, and ῥιν, nose, in contradistinction to Antirrhinum, because the plants of this genus have not the snout-like flowers of the latter. Plants resembling Linaria in habit.

1346. *Nemesia.* A name used by Dioscorides to designate a kind of Antirrhinum, to which genus this is nearly related.

1347.	**MAURAN'DYA.** *W.*	MAURANDYA.			*Scrophularineæ.*	*Sp.* 2.					
8802	semperflórens *W.*	red-flowered	♃ ⊔ or	10	ja.d	Pu	Mexico	1796.	C	l.p	Bot. mag. 460
8803	antirrhiniflóra *W.en.*	blue-flowered	♃ ⊔ or	10	ja.d	Pu	Mexico	1814	C	l.p	Bot. mag. 1643
1348.	**GERAR'DIA.** *W.*	GERARDIA.			*Scrophularineæ.*	*Sp.* 5—16.					
8804	delphinifólia *W.*	Larkspur-leav'd	[△] or	2	jn.jl	Pk	E. Indies	1800.	C	l.p	Rox. cor. 1. t. 90
8805	purpúrea *Ph.*	purple	○ or	1½	jl.au	Pu	N. Amer.	1772.	S	s.l	Bot. mag. 2048
8806	tenuifólia *Ph.*	slender-leaved	⊙ or	1	jl.au	Pu	N. Amer.	1812.	S	s.l	Pluk. al. t.12. f.4
8807	fláva *Ph.*	yellow	△ or	1½	jl.au	Y	N. Amer.	1796.	C	l.p	Plu.am. t.389. f.1
8808	quercifólia *Ph.*	Oak-leaved	△ or	4	jl.au	Y	N. Amer.	1812.	C	l.p	Pursh.amer.t.19
1349.	**PEDICULA'RIS.** *W.*	LOUSEWORT.			*Scrophularineæ.*	*Sp.* 16—40.					
8809	palústris *W.*	marsh	♃ △ pr	2	jn.jl	Pu	Britain	bog.m.	D	co	Eng. bot. 399
8810	sylvática *W.*	common	♃ △ pr	1	my.jl	Pk	Britain	m.hea.	D	co	Eng. bot. 400
8811	euphrasioídes *W.*	Eyebright-lvd.	♃ △| pr	1½	...	Pu	Siberia	1816.	S	p.l	Gmel. sib.3. t.43
8812	myriophýlla *W.*	Milfoil-leaved	♃ △| pr	1	my.jl	Y	Dauria	1816.	S	p.l	Pa.It.3.ap. t.8.f.1
8813	resupináta *W.*	resupinate	♃ △| pr	1	my.jl	Pu	Siberia	1816.	S	p.l	Gmel. sib. 3. t.44
8814	Scéptrum Carolinum *W.*	sceptred	♃ △| spl	5	au	Y	Sweden	1793.	S	p.l	Flor. dan. t. 26
8815	recutita *W.*	jagged-leaved	♃ △| pr	½	jl.au	Pu	Austria	1787.	S	p.l	Jac. aust.3. t.258
8816	foliósa *W.*	leafy	♃ △| pr	1	jl	Y	Austria	1786.	S	p.l	Jac. aust.2 t.139
8817	canadénsis *W.*	Canadian	♃ △ pr	½	jl.au	Y	N. Amer.	1800.	S	p.l	Sweet fl. gard.67
8818	incarnáta *W.*	flesh-colored	○ pr	½	jn.jl	Pk	Austria	1796.	S	p.l	Jac. aust.2. t.140
8819	uncináta *W.*	hooked-flower.	♃ △| pr	1	jl.au	Y	Siberia	1815.	S	p.l	Gmel. sib.3. t.45
8820	verticillata *W.*	whorled	♃ △| pr	1	my.jn	Y	Austria	1790.	S	p.l	Jac. aust.3. t.206
8821	flámmea *W.*	upright	♃ △| pr	1	jl	Y.s	Switzerl.	1775.	S	p.l	Hall.helv. t.8.f.3
8822	tuberósa *W.*	tuberous	♃ △| pr	1	jl.au	Y	Switzerl.	1799.	S	p.l	H.hel.n.323. t.10
8823	compácta *W.*	close-headed	♃ △| pr	1	jl.au	Y	Siberia	1815.	S	p.l	
8824	comósa *W.*	spiked	♃ △| pr	1	jl.au	Y	Italy	1775.	S	p.l	All ped.1. t.4. f.1
1350.	**ERI'NUS.** *W.*	ERINUS.			*Scrophularineæ.*	*Sp.* 4—12.					
8825	alpínus *P. S.*	smooth-leaved	♃ △| or	½	mr.ap	B	Pyrenees	1739.	C	s.l	Bot. cab. 969
8826	hispánicus *P. S.*	hairy-leaved	♃ △| or	¼	mr.ap	R	Spain	1739.	D	s.l	
8827	frágrans *W.*	fragrant	♄ ⊔ or	½	my.jn	Y	C. G. H.	1776.	C	s.l	Bur. afr. t 49 f.4
8828	Lychnídea *Thunb.*	pale	♄ ⊔ or	¼	my.jn	Y	C. G. H.	...	C	s.l	Bot. reg. 748
1351.	**MI'MULUS.** *W.*	MONKEY-FLOWER.			*Scrophularineæ.*	*Sp.* 5—12.					
8829	ringens *W.*	gaping	△ or	1	jl.au	L.P	N. Amer.	1759.	C	p.l	Bot. mag. 283
8830	glutinósus *W.*	Orange-flower.	⊔ or	½	ja.d	Or	California	1794.	C	r.m	Bot. mag. 354
8831	parviflórus *Lindl.*	small-flowered	○ or	¼	ja.d	Y	Chili	1824.	S	co	Bot. reg. 874
8832	alátus *W.*	oval-leaved	△	1	jl.au	L.P	N. Amer.	1783.	D	p.l	Bot. cab. 410
8833	lúteus *W.*	yellow-flowered	△|	2	jn.s	Y	America	1812.	D	p.l	Bot. mag. 1501
1352.	**HORNEMAN'NIA.** *W. en.*	HORNEMANNIA			*Scrophularineæ.*	*Sp.* 1—2.					
8834	bicolor *W. en.*	two-colored	[○] pr	½	jn.s	B	E. Indies	1816.	S	s.l	Rox. 2. t. 155
1353.	**MA'ZUS.** *Lour.*	MAZUS.			*Scrophularineæ.*	*Sp.* 1.					
8835	rugósus *H. K.*	China	○| pr	½	my.s	Y.Pu	China	1780.	S	s.l	Sweet fl. gard.36
1354	**ISOPLEX'IS.** *Lindl.*	ISOPLEXIS.			*Scrophularineæ.*	*Sp.* 2.					
8836	canariénsis *Lind.* *D. canariensis* L.	Canary	♄ ⊔ or	4	jn.jl	Br.o	Canaries	1698.	S	p.l	Lind. dig. 27
8837	scéptrum *Lind.* *D. sceptrum* L.	Madeira	♄ ⊔ or	4	jl.au	Br.o	Madeira	1777.	S	p.l	Lind. dig. 28



History, Use, Propagation, Culture,

1347. ***Maurandya.*** Named in honor of the lady of Dr. Maurandy, the botanical professor at Carthagena. An elegant greenhouse plant, native of Mexico, and flowering for months together in the summer.

1348. ***Gerardia.*** In honor of John Gerarde, our old English botanist, author of the Herbal, 1597, folio, and a great cultivator of exotic plants, of which he published a catalogue in 1596. These are handsome North American herbaceous plants, of such very difficult culture, that few persons have seen them in gardens. They deserve any pains which may be necessary to their successful cultivation.

1349. ***Pedicularis;*** of which the English word *lousewort* is a translation and explanation. The term lousewort is applied from a supposition that sheep which feed much on the plant become lousy; probably because the plants grow in very bad pastures, which may occasion the sheep to be in bad condition and to breed vermin. The species have their leaves very much cut, and that in a very regular manner. Their flowers are red, white, or yellow, and the mixture or shades of these three colors sometimes give the corolla the colour of fire. They grow in general at a considerable elevation; namely, more than a thousand toises above the level of the sea.

P. sceptrum Carolinum was so named by Rudbeck, in honor of Charles XII. It abounds in the north of Sweden and Lapland, where it was greatly admired by the traveller Dr. Clarke, who sent seeds of it to the Cambridge botanic garden, but they never came to any thing. The flowers grow in long whorled spikes, and

8802 Orifice of corolla pervious
8803 Orifice of corolla closed

8804 Leaves linear pinnatifid, Stem somewhat branching
8805 Stem oppositely much branched, Leaves linear, Flowers axillary opposite subsessile
8806 Branches panicled, Leaves linear, Peduncles axillary opposite longer than flower
8807 Pubescent, Stems nearly simple, Leaves subsessile lanceolate entire or toothed: lower pinnatifid cut
8808 Smooth, Stem panicled, Leaves stalked pinnatifid, Flowers axillary opposite stalked

8809 Stem branched, Lvs. pinnat. Pinnæ pinnatif. cut, Cal. inflated ovate 2-parted crest. Helmet blunt truncate
8810 Low tufted, Stem branch. at base, Lvs. pinnat. Pinnæ acute. cut, Cal. obl. infl. smooth uneq. 5-cleft crested
8811 Stem branched, Leaves pinnatifid toothed, Cal. tubular 2 parted truncate, Helmet 2-toothed
8812 Stem somewhat branched, Leaves pinnated, Pinnæ in 4s acutely pinnatifid, Helmet acute 2-toothed
8813 Stem nearly simple, Leaves lanc. toothed crenate, Cal. 2-fid truncate, Helmet acute
8814 Stem simple, Leaves pinnatifid, Pinnæ repand crenulate, Cal. 5-fid crested, Cor. closed
8815 Stem simple, Lvs deeply pinnatifid, Pinnæ lanc. pinnatifid toothed, Spike compact leafy
8816 Stem simple, Cauline leaves deeply pinnatifid, Pinnæ lanc. acuminate pinnatifid toothed, Spike leafy
8817 Stem simple, Spike somewhat leafy, Helmet setaceous 2-toothed, Cal truncate downwards
8818 Stem simple, Leaves deeply pinnatifid, Pinnæ unequally toothed linear-lanc. Calyxes villous 5-cleft
8819 Stem simple, Cauline lvs deeply pinnatifid, Pinnæ lin. lanc. doubly toothed, Cal round smooth 5-toothed
8820 Stem simple, Cauline leaves pinnatifid in fours, Pinnæ oblong blunt toothed, Spike capitate, Cal. hairy
8821 Stem simple, Lvs. pinnated, Pinnæ imbricated ovate blunt doubly toothed, Cal. 5-toothed, Helmet blunt
8822 Stem simple, Lvs. pinnated, Pinnæ deeply pinnatifid tooth. Cal. 5-fid somew. crested, Helmet uncinate
8823 Stem simple, Lvs. pinn. Pinnæ lanc. pinnatifid confluent at end, Spike capitate naked [acum emargi.
8824 Stem simple, Lvs. pinnate, Pinnæ pinnatifid somewhat toothed, Spike leafy, Helmet two-toothed

8825 Leaves cæspitose spatulate deeply serrated smoothish, Peduncles terminal subcorymbose
8826 Smaller branched villous, Leaves bluntly serrated, Flowers racemose
8827 Leaves lanceolate oblong toothed, Segm. of limb entire
8828 Leaves lanceolate smooth serrated at end, Stem herbaceous, Segm. of limb bifid

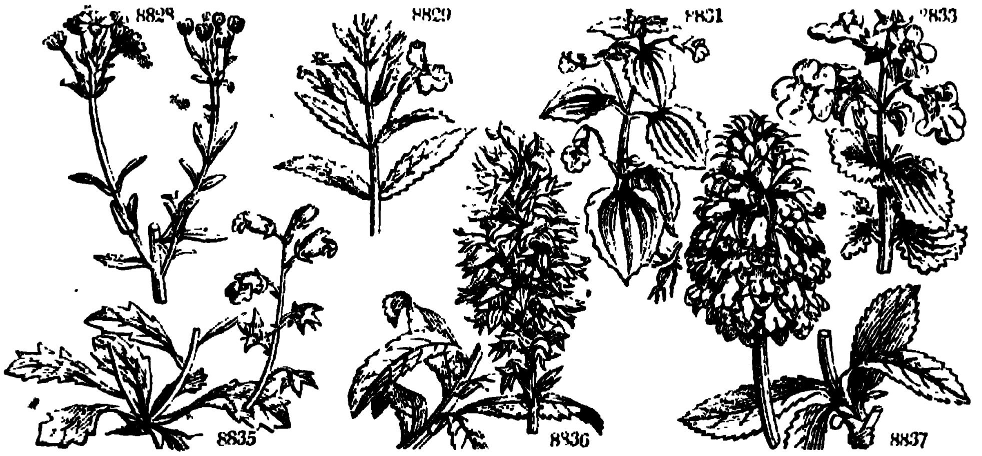
8829 Leaves lanceolate acuminate smooth sessile, Pedunc. longer than flower
8830 Leaves oblong bluntish clammy sessile, Peduncles shorter than flower
8831 Procumb. Stem round rooting hairy, Lvs cord.-ovate toothed 5-nerved, Pedunc. shorter than petioles
8832 Leaves ovate stalked, Stem square winged
8833 Leaves roundish ovate nerved; lower stalked, Stem creeping

8834 Leaves obovate entire at base, Calyxes spreading and peduncles smooth

8835 Raceme lax longer than the few-leaved stem, Calyxes pubescent in fruit increased in size

8836 Segments of cor. acute

8837 Segments of corolla blunt, Raceme comose



and Miscellaneous Particulars.

each represents a lion couchant. All the species are extremely difficult to keep in gardens. According to Sweet, they succeed best in peat soil and moist situations; the more tender species must be grown in pots in the same kind of soil, and should be protected under frames in severe weather: the best way of increasing them is by seed. (*Bot. Cult.* 404.)

1350. *Erinus.* A name under which Dioscorides describes an aquatic plant with a white flower, black seeds, and a milky stem. From the last circumstance it has derived its name, ερινεος signifying a wild fig tree. The plant of the ancients had no resemblance to that called Erinus by the moderns. Beautiful little alpine herbaceous plants, well adapted to rock-work in warm damp situations.

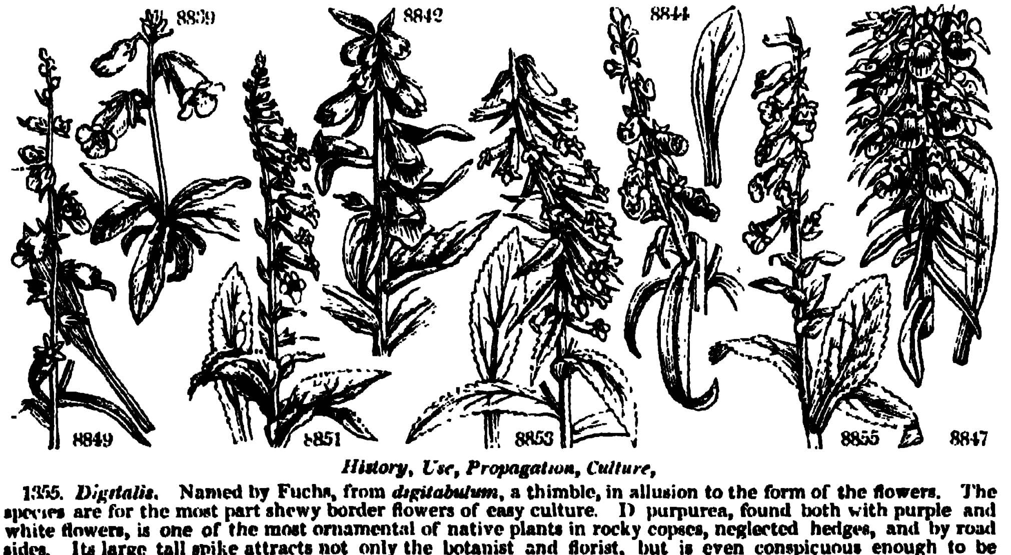
1351. *Mimulus.* From μιμω, an ape. The flower seeds in front resemble the face of a grinning monkey. The species are showy plants of the easiest culture in almost any soil or situation.

1352. *Hornemannia.* Named after Professor Hornemann, of Copenhagen, an eminent botanist, and the present editor of the Flora Danica. Little, inconspicuous, but curious annual plants.

1352. *Mazus.* From μαζος, a teat, on account of the little protuberances which close the mouth of the corolla. East Indian herbaceous plants, not unlike some kinds of Antirrhinum.

1354. *Isoplexis.* From ισος, equal, and πλεξις, segment, in allusion to the equal-sized divisions of the corolla.

1355.	DIGITA'LIS *W.*	Fox-glove					*Scrophularineæ.* *Sp.* 19—21.						
8838	purpúrea *L.*	purple	⚘	⊙	or	4	jn s	Pu	Britain	hed.b.	S	co	Lindl. dig. 2
	β *alba*	*white*	⚘	⊙	or	4	jl	W	Britain	hed.b.	S	co	
8839	minor *L.*	dwarf	⚘	△	or	¾	jn jl	Pu	Spain	1789.	D	s.l	Lindl. dig. 6
8840	Thápsi *L.*	Mullein	⚘	△	or	1½	my.au	Pu	Spain	1752.	D	co	Lindl. dig. 3
8841	ambigua *Murr.*	ambiguous	⚘	△	or	3	jl.au	L.Y	Switzerl.	1596.	D	co	Lindl. dig. 7
8842	ochroleúca *Jacq.*	great-yellow	⚘	△	or	4	jl.au	L.Y	Europe	...	D	co	Lindl. dig. 8
8843	fúlva *Lindl.*	fulvous	⚘	△	or	3	jl.au	Br	......	...	D	co	Lindl. dig. 9
8844	lævigáta *W. & K.*	shining-leaved	⚘	△	or	2	jl.au	Y	Hungary	1816.	D	co	Lindl. dig. 10
8845	ferrugínea *L.*	Iron-colored	⚘	△	or	4	jl.au	Br	Italy	1597.	D	co	Lindl. dig. 12
8846	aúrea *Lindl*	golden	⚘	△	or	3	jl.au	Br	Greece	1816.	D	co	Lindl. dig. 13
8847	leucophæ'a *Sibth.*	broad-lipped	⚘	△	or	2	jn.o	W.Br	Greece	1788.	D	co	Lindl. dig. 14
8848	lanáta *Ehr.*	woolly	⚘	△	or	2	jn.jl	W.Br	Hungary	1789.	D	co	Lindl. dig. 15
8849	orientális *Lam.*	eastern	⚘	△	or	1½	jn jl	W	Levant	1820.	D	co	Lindl. dig. 16
8850	parviflóra *Jacq.*	small-flowered	⚘	△	or	1½	jn.au	Br	......	1798.	D	co	Lindl. dig. 17
8851	rígida *Lindl.*	rigid	⚘	△	or	1½	jn.au	Y.R	......	...	D	co	Lindl. dig. 19
8852	purpuráscens *Roth.*	purple	⚘	△	or	2	jn.au	Pk	Germany	1776.	D	co	Lindl. dig. 20
8853	tubiflóra *Lindl.*	tube-flowered	⚘	△	or	2	jn.au	Y	......	...	D	co	Lindl. dig. 22
8854	lútea *L.*	small-yellow	⚘	△	or	2	jl.au	L.Y	France	1629.	D	co	Lindl. dig. 23
8855	lutes'cens *Lindl.*	pale-yellow	⚘	△	or	2	jl.au	Y	......	...	D	co	Lindl. dig. 21
8856	obscúra *L.*	Willow-leaved	♣	⌋	or	1	jl.au	Or	Spain	1778.	C	p.l	Lindl. dig. 26
1356	SCROPHULA'RIA. *W.*	Figwort.					*Scrophularineæ.* *Sp.* 29—35.						
8857	marilándica *W.*	Maryland	⚘	△	un	4	my jl	G Br	N. Amer.	1759.	D	l.p	
8858	nodósa *W*	knotty-rooted	⚘	△	un	2	my jl	Bd	Britain	woods.	D	co	Eng. bot. 1544
8859	aquática *W.*	water	⚘	△	un	4	my.jl	Bd	Britain	wat pl.	D	co	Eng. bot. 854
8860	appendiculáta *W.en.*	heart-leaved	⚘	△	un	3	jl	D.Pu	Morocco	1805.	D	co	Jac. sch. 3. t. 286
8861	auriculáta *W.*	ear-leaved	⚘	△	un	2	jl au	Br	Spain	1772.	D	co	Lob. ic. 533
8862	Scorodónia *W.*	Balm-leaved	⚘	△	un	3	jl.au	Pu	Britain	wat.pl.	D	co	Eng. bot. 2209
8863	glabráta *W.*	spear-leaved	⚘	[○]	un	2	ap.my	Pu	Canaries	1779.	S	l p	Jac schœ 2 t.209
8864	betonicifólia *W.*	Betony-leaved	⚘	△	un	2	jn.au	Pu	Spain	1752.	D	co	Barr. ic. 274
8865	biserráta *W. en.*	doubly-sawed	⚘	△	un	2	jn.au	Br	......	1816.	D	co	
8866	Scopólii *Hoppe.*	Scopoli's	⚘	△	un	2	jn.au	Br	Austria	1823.	D	co	Scop carn. t 32
8867	glandulósa *W. en.*	glandular	⚘	△	un	2	jn s	Br.pu	Hungary	1806.	D	co	Pl. rar.hun.t.214
8868	orientális *W*	Hemp-leaved	⚘	△	or	2	jl.au	Br	Levant	1710	D	co	
8869	adscéndens *W. en.*	ascending	⚘	△	un	2	...	Br	......	1816.	D	co	
8870	frutéscens *W*	shrubby	♣	⌋	un	2	jn au	D.Pu	Portugal	1768.	D	co	Herm. lug. t. 547
8871	altáica *W.*	white-flowered	⚘	△	un	½	my jn	Pa.Y	Siberia	1786.	C	co	Mur co.got 4 t 2
8872	vernális *W.*	yellow	⚘	⊙	or	2	mr.my	Y	Britain	m.sh pl	S	co	Eng. bot. 567
8873	argúta *W.*	slender-upright		[○]	un	1½	my jn	R	Canaries	1778.	S	co	
8874	trifoliáta *W*	three-leaved	⚘	⊙	un	2	my s	R.v	Africa	1731	C	co	Pluk.al t.313 f 6
8875	sambucifólia *W.*	Elder-leaved	⚘	⌊△⌋	un	3	jl s	R G	Spain	1640	D	co	Mill. ic. 2. t. 231
8876	laciniáta *W en.*	jag-leaved	⚘	△	un	3	jl	Br pu	Hungary	1806	D	co	Pl.rar hu 2 t 170
8877	lyráta *W en.*	lyrate-leaved	⚘	△	un	3	jl au	Br pu	Portugal	1816.	D	co	W ho.ber 1 t.55
8878	tanacetifólia *W. en.*	Tansy-leaved	⚘	△	un	3	jl s	Br pu	Tauria	1804.	D	co	W.ho ber.1.t.56
8879	mellifera *W.*	Barbary	⚘	⌊△⌋	un	3	jl au	Br pu	Barbary	1786.	D	co	Desf atl 2. t. 143
8880	canina *W.*	wing-leaved	⚘	△	un	3	jn.au	Br pu	S Europe	1683.	D	co	Lob. ic. 2. p 55
8881	lúcida *W.*	shining-leaved	⚘	△	un	2	jn.au	Br pu	Levant	1596.	D	co	W. hort. ber. 57
8882	variegáta *M B.*	variegated	⚘	△	un	2	jn au	Br pu	Casp. sho	1816.	D	co	
8883	multifida *W en*	multifid-leaved	⚘	△	un	3	jn.au	Br.pu	......	1816.	D	co	W. ho. ber.1.t 58
8884	chrysánthemifolia *W en.*	Chrysant.-lv	⚘	△	un	3	jn.au	Br pu	Tauria	1816.	D	co	W ho. ber 1.t.59
8885	peregrina *W.*	Nettle-leaved	⚘	⊙	un	2	jn.au	Pu	Italy	1640.	S	co	Camer.hort t.43
1357	VANDEL'LIA. *L.*	Vandellia.					*Scrophularineæ* *Sp.* 1—2.						
8886	diffúsa *L.*	diffuse		[▢]	cu	1	jl.au	W	S. Cruz	1824.	S	s.l	Marc.bras. 32.f.1



History, Use, Propagation, Culture,

1355. ***Digitalis.*** Named by Fuchs, from ***digitabulum***, a thimble, in allusion to the form of the flowers. The species are for the most part shewy border flowers of easy culture. D purpurea, found both with purple and white flowers, is one of the most ornamental of native plants in rocky copses, neglected hedges, and by road sides. Its large tall spike attracts not only the botanist and florist, but is even conspicuous enough to be introduced in the painter's landscape of such scenery. It is a violent poison; but also a valuable plant in medicine. The leaves are the parts of the plant used. They should be gathered when the plant is in flower, and those only which are fresh selected. The leafstalks and midrib should be rejected, and the remaining part be dried either in the sunshine, or on a tin-pan or pewter dish before the fire, or the plant be hung up, each leaf separate, in a warm kitchen. Practitioners ought annually to obtain a supply of the recent leaves in the month of July, and dry them themselves; as in the herb-shops they are often so ill dried as to appear black, in which state they are useless. The powder should be kept in closely stopped opaque phials.

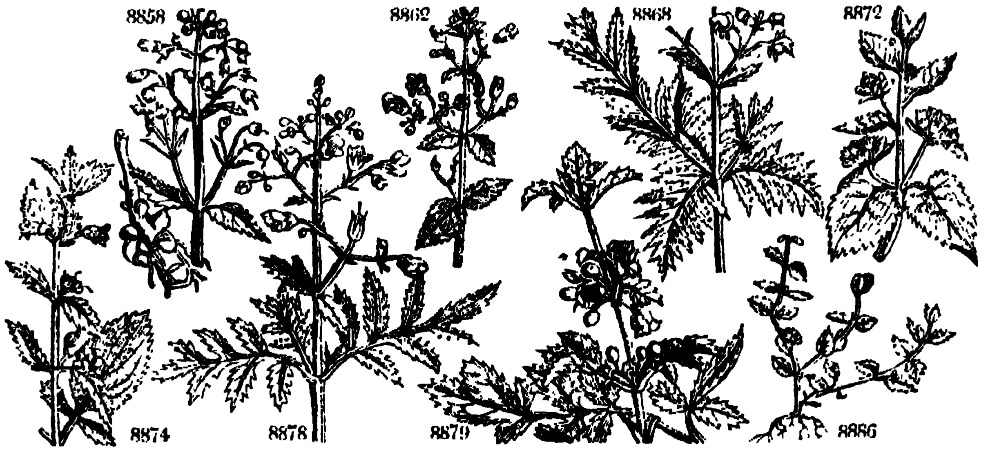
Digitalis is directly sedative and diuretic. It weakens the force of all the vital functions; and by a proper exhibition of it, the frequency of the pulse may be diminished any number of pulsations, and regulated at the pleasure of the practitioner; whilst at the same time it admits, to a certain extent, of the employment of such medicines as increase the firmness of the arterial action, and give tone to the habit. When given to the

8838 Lvs. obl. rugose crenate, Sepals ovate obl. Segm. of cor. transverse acute, Pedunc. straight as long calyx

8839 Lvs. obl. rugose crenate wavy decurrent, Sepals ovate, Segm. of cor. ovate rounded [as calyx
8840 Lvs. radical flat on the ground, Racemes few-fl. Segm. of cor. ov. round. smooth, Pedun. three times as long
8841 Lvs. ov. lanc. tooth. sess. nerved, Lower bractes as long as fl. Cor. downy netted, Segm. ov. transverse blunt
8842 Lvs. ov. lanc. acum. toothed and stem villous, Bractes twice as long as lower flowers, Cor. villous netted
8843 Lvs. lanc. ciliated, Bractes twice as short as flowers, Cor. downy netted, Segm. ov. acute, Lip bearded,
8844 Very smooth branched, Lvs. lin. lanc. Flowers scattered not downy [Stamens as long as tube
8845 Raceme dense pyramidal, Sepals edged, Lip of corolla ovate entire bearded
8846 Raceme many-flowered, Sepals edged, Corolla bowed, Lip ovate 3-toothed
8847 Raceme dense cylindrical many-fl. Lip of cor. clawed lunate, Bractes linear longer than flower
8848 Leaves oblong, Rachis woolly, Lip of cor. ovate
8849 Very smooth, Leaves linear, Flowers scattered, Lips of cor. oblong
8850 Lvs. obl. lanc. wavy deflexed ciliated entire, Raceme dense cylindrical, Segm. and sepals of cor. rounded
8851 Glandul. hairy, Lvs. obl. lanc. rugose wavy tooth. Raceme 1-sided many-fl. Cor pubesc. Segm. ov. glandul.
8852 Lvs linear lanc. serrated smooth, Raceme 1-sided, Cor. smooth, Segments rounded
8853 Segm. of cor. ovate obtuse, Flowers of distinct sexes [flowers
8854 Lvs. lanc. toothed smooth, Raceme 1-sided, Cor. smooth: segm ov. bearded, Lower bractes longer than
8855 Lvs. cordate oblong flat crenate not downy, Raceme 1-sided, Cor. smooth, Segm. very blunt
8856 Half shrubby, Leaves linear lanc. entire smooth, Corollas ventricose

8857 Leaves cordate serrate acute rounded at base, Stem with blunt angles
8858 Leaves cordate 3-nerved, Stem with blunt angles
8859 Leaves cordate stalked decurrent blunt, Stem with membranous angles, Racemes terminal
8860 Lvs. ovate cord. smooth cut serrate with appendages at base, Petioles dilated, Racemes term. compound
8861 Lvs. obl. cord hairy beneath doubly toothed with an appendage at base, Petioles equal, Racemes terminal
8862 Leaves cordate doubly serrate pubescent, Panicles terminal trichotomous with leaves between
8863 Lvs. obl. lanc. cord. doubly serrated smooth, Panicles racemose terminal 3-chotomous, Stem ½ shrubby
8864 Leaves cordate obl. toothed: teeth entire those at base deepest
8865 Leaves obl. lanc. deeply cordate finely and doubly serrated smooth, Pan. racem term. Ped. 3-chotomous
8866 Lower lvs. tern. cord. cren. toothed; upper entire, Fl. racemose panicled, Bractes ovate lanc. entire at end
8867 Leaves cordate 3-nerved pubesc. on each side, Petioles ciliated, Pedunc. and bractes with glandular hairs
8868 Leaves lanceolate serrated stalked: cauline in 3s; and the branches opposite
8869 Lvs. lanc. narrowed at each end deeply unequally and doubly toothed smooth, Racemes terminal
8870 Lvs. somew. fleshy: upper sessile toothed smooth recurved at end, Pan. racem. Pedunc bifid many-flow.
8871 Lvs. cord. doubly toothed: lower teeth bent backwards, Raceme terminal compound, Ped. 2-3-fl. altern.
8872 Leaves cordate pubescent doubly serrated, Panic. axillary dichotomous, Bractes ovate serrate
8873 Leaves cordate smooth doubly serrated, Panic axillary dichotomous, Capsules acuminate
8874 Leaves smooth: lower ternate pinnate blunt; upper simple, Pedunc. about 3-fl. axillary
8875 Leaves interruptedly pinnate cordate unequal, Raceme terminal, Pedunc. axillary twin dichotomous
8876 Lvs. obl. cord lobed at edge naked as long as pet. Rac. term comp. Branch. and ped with glandular hairs
8877 Lvs interruptedly pinnate oblong subcordate unequal at base, Panicle terminal, Pedunc. dichotomous
8878 Leaves pinnated, Leaflets oblong cut toothed, Panicle terminal, Peduncles dichotomous
8879 Leaves smooth: lower interruptedly pinnate, upper ternate, Leaflets oblong, Flowers axillary
8880 Leaves pinnated, Raceme terminal naked, Peduncles bifid, Calyxes scarious
8881 Lower leaves bipinnate somewhat fleshy very smooth, Racemes bipartite
8882 Stems woody at base, Leaves bipinnatifid pubescent, Racemes long, Pedicels short villous
8883 Leaves bipinnate, Pinnæ acutely cut toothed, Panicle terminal, Peduncle dichotomous
8884 Lvs. smooth: rad. bipinnat. caul. pinnate, Panicle leafy, Ped dichotomons, Lat. seg. of lower lip emargin.
8885 Leaves cordate lined shining, Pedunc. axillary 2-flowered, Stem hexangular

8886 Leaves roundish subsessile



and Miscellaneous Particulars.

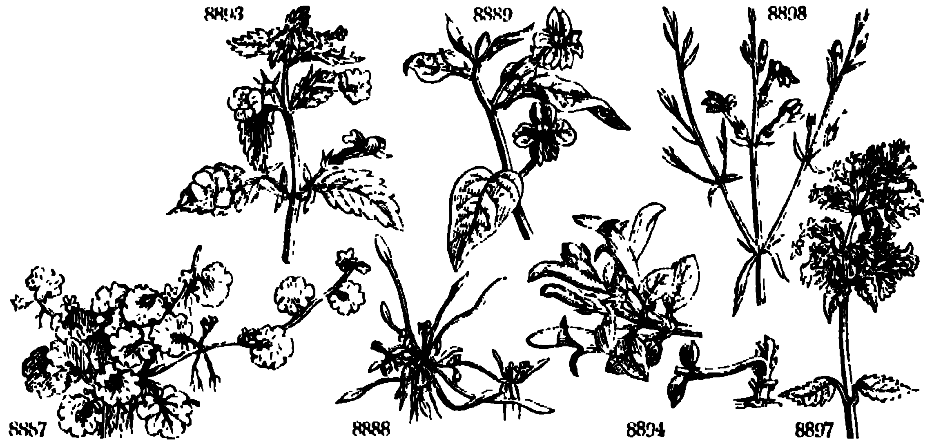
full extent of which the system can admit, the pulse intermits, and vertigo, indistinct vision, and nausea, with vomiting or purging, occur; and if, after these indications, the quantity be still increased, or if any considerable portion of the recent herb be inconsiderately swallowed, it produces delirium, hiccough, cold sweats, convulsions, syncope, and death. (*London Dispensatory*, 287.)

1356. *Scrophularia.* So named from the roots having a resemblance to *scrophulous* tumours, which they were, by the peculiar mode of induction of the dark ages, therefore supposed to cure. S. nodosa has the name of figwort from its knobbed roots: it has a rank smell like elder, and a bitter taste; swine that have the scab are cured by washing them with a decoction of the leaves. Wasps resort greatly to the flowers. Goats eat the plant; but cows, horses, sheep and swine refuse it

The same observations apply to S. aquatica, which in French is called *Herbe du Siege*, because at the celebrated siege of Rochelle by Cardinal Richelieu in 1628, the garrison was reduced to the necessity of supporting life upon the roots of the plant.

1357. *Vandellia.* Louis Vandelli, a Portuguese, was professor of botany in the garden of Coimbra. He published in 1788, an essay on the plants of Portugal and Brazil, a work which is little known, on account of its extreme rarity.

1358.	**SIBTHOR'PIA.** *W.*	Sibthorpia.					*Scrophularineæ.* *Sp.* 1—2.						
8887	europæ'a *W.*	Cornish	♃	△	cl	¼	jl.au	Y	England	w.sh.p.	D	s.l	Eng. bot. 649
1359.	**LIMOSEL'LA.** *W.*	Mudwort.					*Scrophularineæ.* *Sp.* 1—5.						
8888	aquática *W.*	water	♃	○	pr	¼	jl s	F	Britain	mud.pl.	S	s.l	Eng. bot. 357
1360.	**BROWAL'LIA.** *W.*	Browallia.					*Scrophularineæ.* *Sp.* 2.						
8889	demíssa *W.*	spreading	♃	[○]	or	¾	jn.s	B	S. Amer.	1735.	S	s.l	Bot. mag. 1136
8890	eláta *W.*	upright		[○]	or	1½	jn.s	B	Peru	1768.	S	s.l	Bot. mag. 34
1361.	**STEMO'DIA.** *W.*	Stemodia.					*Scrophularineæ.* *Sp.* 2—8.						
8891	parviflóra *H. K.*	small-flowered		[○]	cu	½	jl.au	W	S. Amer.	1759.	S	p.l	
8892	verticilláris *Link.*	whorled		[○]	cu	¼	jl.au	Pu	Brazil	1825.	S	p.l	
1362.	**TREVIRA'NA.** *W. en.*	Trevirana.					*Scrophularineæ.* *Sp.* 1.						
8893	coccínea *W. en.* *Cyrilla pulchel'la* B. M.	scarlet	£	[△]	spl	1½	au.o	Sc	Jamaica	1778.	C	l.p	Bot. mag. 374
1363.	**COLUM'NEA** *W.*	Columnea.					*Scrophularineæ.* *Sp.* 3—8.						
8894	scándens *H. K.*	climbing	£	□	or	6	au.s	Sc	W. Indies	1759.	C	s.p	Bot. reg. 805
8895	hirsúta *W.*	hairy	£	□	or	4	au n	Pa.pu	Jamaica	1780.	C	s.p	Bro.jam t. 30 f.3
8896	trifoliáta *Link.*	three-leaved	♄	□	or	3	au n	B	......	1823.	C	s p	
1364.	**RUSSE'LIA.** *W.*	Russelia.					*Scrophularineæ.* *Sp.* 1—4.						
8897	multiflóra *B. M.*	many-flowered		□	or	4	jn.au	R	S. Amer.	1812.	C	s p	Bot. mag. 1528
1365	**DODAR'TIA.** *W.*	Dodartia.					*Scrophularineæ.* *Sp.* 1—2						
8898	orientális *W.*	oriental	♃	△	un	1½	jl.au	Pu	Levant	1752.	C	s.p	Lam. ill. t. 530
1366.	**LINDER'NIA.** *R. Br.*	Lindernia.					*Scrophularineæ.* *Sp.* 1—3						
8899	Pyxidária *W.*	European		○	un	1	jn.au	B	S. Europe	1789.	S	s.l	Lam. ill. t. 522
1367	**HERPES'TIS.** *R. Br.*	Herpestis.					*Scrophularineæ.* *Sp.* 3—7.						
8900	Monnie'ria *R. Br.*	Thyme-leaved	♃	[△]	pr	½	jl.s	L B	India	1772.	D	l p	Rox. cor. 2 t.178
8901	cuneifólia *Ph.*	wedge-leaved	♃	△	pr	¼	au	B	N. Amer.	1812	D	l.p	
8902	stricta *Schrad*	upright	♃	[△]	pr	1	au	B	......	1824.	D	l p	
1368.	**CAPRA'RIA.** *P. S.*	Capraria.					*Scrophularineæ.* *Sp.* 5—9						
8903	biflóra *W.*	shrubby Goatw.	♄	□	un	2	jl.au	W	S. Amer.	1752.	C	l p	Lam ill.t.534.f.2
8904	cuneáta *H. K.*	wedge-leaved	♄	□	un	2	...	W	S. Amer.	1759	C	p.l	
8905	lanceoláta *W.*	spear-leaved	♄	⊔	un	2	...	W	C. G. H	1774	C	p l	
8906	unduláta *W.*	wave-leaved	♄	⊔	un	2	mr jl	W	G. H.	1774	C	p l	Bot. mag. 1556
8907	húmilis *W.*	dwarf		[○]	un	1	jl.au	W	Indies	1781.	C	p.l	
1369	**BUCHNE'RA.** *B. P.*	Buchnera.					*Scrophularineæ.* *Sp.* 1—13.						
8908	americána *W.*	American	♃	△	cu	1½	jn.au	B	N. Amer	1733.	D	l.p	
1370	**MANU'LEA.** *W. en*	Manulea.					*Scrophularineæ.* *Sp* 10—40.						
8909	fœ'tida *Thunb.*	stinking		[○]	pr	1½	jn s	W	C. G. H.	1794.	S	s p	Bot. rep. 80
8910	villósa *Thunb* *Buchnéra capénsis* W.	villous		[○]	pr	1	jn.jl	W	C. G. H.	1783.	S	s p	Bur. afr. t. 50.f 2
8911	pedunculáta *Thunb.*	solitary-flower.	♄	⊔	pr	1½	jn n	W	C. G. H.	1790.	C	p l	Bot rep. 84
8912	viscósa *W. en*	clammy	♄	⊔	pr	1	jn n	Pk	C. G. H.	1774.	C	p.l	Bot. mag. 217
8913	rúbra *Thunb.*	red	♄	⊔	cl	1½	ap.s	R	C. G. H.	1790.	C	p l	
8914	tomentósa *Thunb.*	woolly	♄	⊔	cl	1	my.n	Y	C. G. H.	1774.	C	s.p	Bot. mag. 322
8915	Cheiránthus *Thunb.*	Wall-flower	£	[○]	cl	1	jn au	Or	C. G. H.	1795.	S	s.p	Com. hort. 2.t.42
8916	argéntea *Thunb.*	silvery		[○]	cl	1½	jl n	Y	C. G. H.	1801.	S	s.p	
8917	rhynchan'tha *Link*	tail-flowered	£	[△]	cl	1	jl n	Y	C. G. H.	1823	C	s p	
8918	violácea *Link*	Violet	£	[△]	cl	2	jl.n	V	......	1824.	C	s.p	



History, Use, Propagation, Culture,

1358. *Sibthorpia.* In honor of Humphry Sibthorp, M. D., professor of botany at Oxford, who travelled into Greece, for the purpose of collecting materials for a classical Flora Græca, in which he succeeded even beyond his own hopes. After his death the publication of his materials was confided to Sir James Edward Smith, under whose care the work has reached to five hundred figures in folio, of the most magnificent kind; five hundred more have yet to be published. A little trailing plant.

1359. *Limosella.* From *limus*, mud. The plant grows by the edge of puddles and in muddy places.

1360. *Browallia.* Named by Linnæus, in honor of John Browallius, bishop of Aboa, who defended the sexual system against Siegesbeck, in a book entitled Examen epicriseos, &c., Aboa, 1739, octavo. Handsome plants with blue flowers, often cultivated as tender annuals.

1361. *Stemodia.* From *στημων*, a stamen, and *δις*, double. Each of the stamens supports two anthers.

1362. *Trevirana.* Named after Dr. Treviranus, a German botanist. This beautiful plant, which is commonly called Cyrilla pulchella, is one of the prettiest of the old inhabitants of the stove.

1363. *Columnea.* In honor of Fabius Columna, or Fabio Colonna, of the noble family of Colonna in Italy, born in 1567. He published his Phytobazanos in 1592, and his Ecphrasis in 1606, both works of high reputation in their day. One species, C. scandens, is common in hothouses, where it is cultivated for the neatness of its foliage and the beauty of its scarlet blossoms.

8887 Leaves reniform subpeltate crenate

8888 Leaves lanceolate spatulate, Scapes shorter than leaf

8889 Peduncles 1-flowered
8890 Peduncles 1 many-flowered

8891 Leaves opposite and ternate stalked
8892 Leaves opposite and ternate stem-clasping

8893 Leaves ternate ovate hairy

8894 Leaves ovate acute entire subvillous, Sepals entire and corollas pubescent, Upper lip undivided
8895 Leaves ovate acuminate serrate hairy above, Sepals toothletted and corollas hairy
8896 Leaves 3 subsessile oblong acutely crenate pubescent, Cor. hairy, Galea dilated reflexed

8897 Leaves ovate acuminate stalked, Raceme terminal whorled, Peduncles cymose

8898 Leaves linear smooth entire, Stem nearly naked

8899 Leaves oblong ovate entire 3-nerved sessile, Pedunc. axillary 1 flowered, Stem procumbent

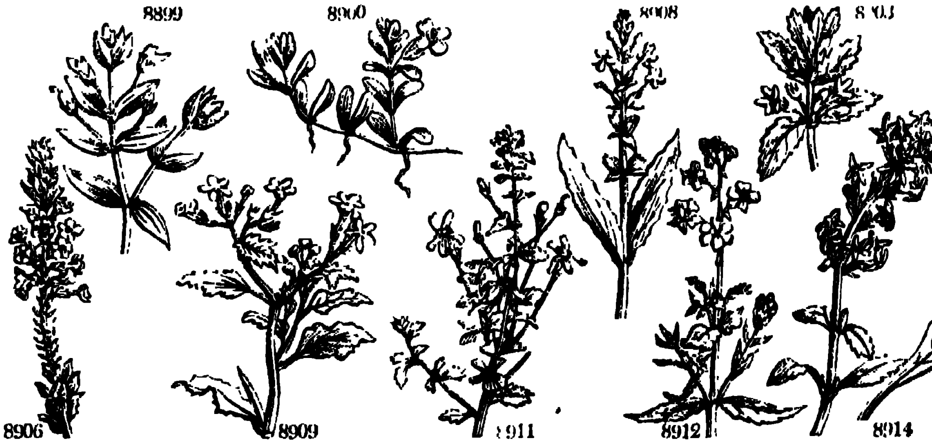
8900 Leaves oblong entire, Peduncles longer than leaf, Stem declinate
8901 Very smooth, Leaves cuneate oblong upwards obsoletely crenate, Pedunc. nearly as long as leaf
8902 Stem erect, Leaves lanceolate acute doubly serrated smooth, Flowers whorled

8903 Leaves ovate serrated alternate, Flowers twin
8904 Hairy, Leaves alternate rhomboid cuneiform cut serrate, Flowers twin, Sepals linear
8905 Leaves opposite linear entire, Racemes compound terminal
8906 Leaves opposite ovate-oblong entire wavy: upper subcordate whorled, Racemes spiked
8907 Pubescent, Leaves opposite and ternate ovate serrate stalked, Pedunc. axillary shorter than petiole

8908 Leaves toothed lanceolate 3-nerved

8909 Leaves opposite ovate jagged, Flowers somewhat umbelled terminal
8910 Leaves linear toothed villous, Cal. hairy, Branches subfastigiate

8911 Upper leaves opposite sessile tooth-sinuated, Flowers solitary on long stalks
8912 Leaves opp. lin lanc. acute at each end toothletted, Raceme terminal, Stamens exserted
8913 Leaves lanc. toothed villous, Racemes of flowers remote
8914 Leaves obovate crenate downy, Stem decumbent
8915 Leaves obl. serrated hairy, Stem nearly leafless, Flowers alternate remote
8916 Leaves ovate toothed silky beneath dotted with silver, Flowers axillary stalked
8917 Leaves wedge-shaped serrated pubescent, Segm of cor. with very long points
8918 Leaves opp. stalked oblong blunt tooth-serrated when old smooth, Segm. of cor rounded



and Miscellaneous Particulars.

1364. ***Russelia.*** In honor of Alexander Russel, M. D. F. R. S., born in Scotland; died 1768; author of the natural history of Aleppo, London, 1756. His brother Patrick, published a second edition in 1794, and a work on serpents in 1796, folio.

1365. ***Dodartia,*** by Tournefort, after M. Dodart, member of the academy of sciences at Paris; and an eminent physician. An ugly, leafless, almost flowerless plant, of much rarity and little beauty.

1366. ***Lindernia.*** Named after Francis Lindern, an obscure Swiss botanist. Pyxidaria is so called from *πυξος*, the box, which it resembles in foliage.

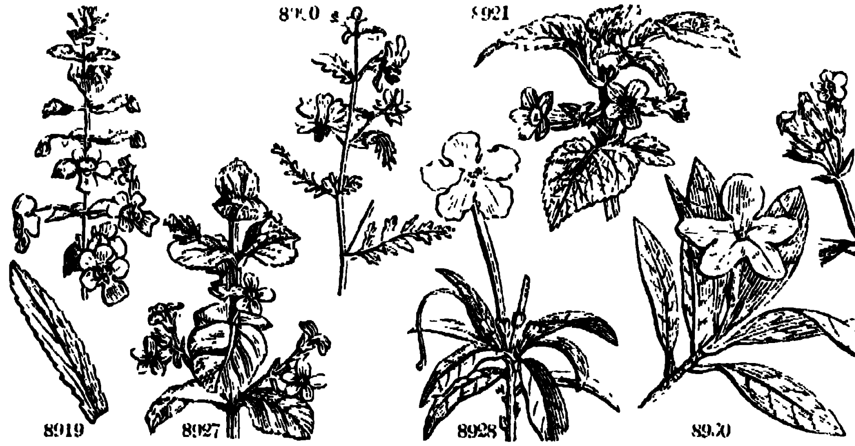
1367. ***Herpestis.*** From *ἑρπηστης*, any thing which creeps. An exotic genus of herbs, with opposite leaves and axillary flowers, each of whose stalks bears a pair of bracteæ. Herpestis Monniera is a beautiful aquatic.

1368. ***Capraria.*** So named from ***capra***, a goat, the leaves being much liked by that animal.

1369. ***Buchnera.*** Named after John Godfrey Buchner, a German botanist, who published in 1743, his Observations upon the Plants of Saxony. Small Cape shrubs of little interest or beauty. Their leaves are generally small, and their flowers white.

1370. ***Manulea.*** Derived from ***manus***, the hand. The five divisions of the flower, in some species, from their form and relative position, resemble an open hand. Handsome Cape shrubs of humble growth. They are rare in collections, but deserving of being very generally cultivated.

1371. ANGELO'NIA. *Kunth.*	Angelonia.					*Scrophularineæ.* *Sp.* 1.						
8919 salicariæfólia *Kunth.*	violet	¥	Δ	cl	3	au	L.B	S. Amer.	1818.	C	co	Bot. reg. 415
1372. SCHIZAN'THUS. *R. & P.*	Schizanthus.					*Scrophularineæ.* *Sp.* 1.						
8920 pinnátus *R. & P.*	pinnated		○̲	cl	2	f.n	L.B	Chili	1822.	S	co	Hook. ex. fl. t.73
.. β *por'rigens* Hook. ex. fl. t. 86.												
1373. BESLE'RIA *W.*	Besleria.					*Scrophularineæ.* *Sp.* 5—10.						
8921 melittifólia *W.*	Balm-leaved	ħ	□	or	3	jn.jl	Or	Guiana	1739.	C	s.p	Exot. bot. 1. t.54
8922 lútea *W.*	yellow-flowered	ħ	□	or	3	jl au	Y	Guiana	1739.	C	l.p	Plum. ic. 49. f. 1
8923 serruláta *W.*	saw-leaved	ħ	□	or	6	...	P.Y	W. Indies	1806.	C	l p	Jac. sch. 3. t. 290
8924 pulchélla *H. K.*	striped-flower'd	ħ	□	or	3	jl.au	Y	Trinidad	1806.	C	l p	Bot. mag. 1146
8925 cristáta *W.*	crested	ħ	□	or	3	jn.au	Y	W. Indies	1739.	C	l.p	Jac. amer. t. 119
1374. TEE'DIA. *P. S.*	Teedia.					*Scrophularineæ.* *Sp.* 2.						
8926 lúcida *P. S.*	shining	¥	⊙	or	2	ap.jl	Pu	C. G. H.	1774.	C	p.l	Bot. reg. 209
8927 pubéscens *B reg.*	pubescent	¥	⊙	or	2	my.o	Pu	C. G. H.	1816.	C	p.l	Bot. reg. 214
1375. BRUNSFEL'SIA. *W.*	Brunsfelsia.					*Solaneæ.* *Sp.* 3.						
8928 unduláta *W.*	wave-flowered	♣	□	or	4	jn.jl	W	Jamaica	1780.	C	r.m	Bot. reg. 228
8929 americána *W.*	American	♣	□	or	4	jn.jl	Pa.Y	W. Indies	1735.	C	r.m	Bot. mag. 393
α *latifólia*	*broad-leaved*											
β *angustifólia*	*narrow-leaved*											
8930 violácea *Lodd.*	violet	♣	□	cu	3	jl.au	Ld	W. Indies	1815.	C	r.m	Bot. cab. 792
1376 CEL'SIA. *W.*	Celsia.					*Solaneæ.* *Sp.* 7—10.						
8931 orientális *W.*	oriental		○	or	2	jl.au	Br.Y	Levant	1713.	S	co	Lam. ill. t. 532
8932 Arctúrus *W.*	scallop-leaved	¥	○̲	or	4	jl s	Y	Candia	1780.	S	p l	Bot. mag. 1962
8933 coromandeliana *W.*	Coromandel		⊙	or	4	jl.au	Y	E. Indies	1783.	S	p.l	
8934 viscósa *W. en.*	clammy		⊙	or	3	jl.au	Y	......	1816.	S	p.l	
8935 crética *W.*	great-flowered	¥	○̲	or	6	jl.s	Y	Crete	1752.	S	p.l	Bot. mag. 964
8936 lanceoláta *P. S.*	spear-leaved	¥	○̲	or	3	jl.s	Y	Levant	1816.	S	p l	Vent. cels. t. 27
8937 sublanáta *Jacq.*	woolly	¥	Δ	or	2	jl.s	Y	......	1818.	S	p.l	Bot. reg. 438
1377. ALONSO'A. *H. K.*	Alonsoa.					*Solaneæ.* *Sp.* 4—8.						
8938 acutifólia *P. S.*	acute-leaved	ħ	⊔	or	3	my.o	Sc	Peru	1790.	C	l p	
8939 incisifólia *H. K.*	Nettle-leaved	ħ	⊔	or	2	my o	Sc	Chili	1795.	S	s p	Bot mag. 417
Hemimeris urticifólia W.												
8940 lineáris *H. K.*	linear-leaved	ħ	⊔	or	2	my.o	S	Peru	1790	C	s.p	Bot. mag. 210
8941 caulialáta *R. y P.*	wing-stemmed	¥	Δ̲	or	3	my.o	S	Chili	1823.	C	co	
1378 ANTHOCER'CIS *R. Br.*	Anthocercis					*Solaneæ* 2—3.						
8942 littórea *R. Br.*	yellow	♣	⊔	or	3	my au	P.Y	N. Holl.	1803.	C	s p	Bot. reg. 212
8943 viscósa *R. Br.*	viscid	♣	⊔	or	3	...	P. Y	N. Holl.	1822.	C	s.p	Bot. mag 2961
1379. CYMBA'RIA. *W.*	Cymbaria.					*Scrophularineæ.* *Sp.* 1.						
8944 daúrica *W.*	Daurian		Δ			jn.jl	Y	Dauria	1796.	D	co	Amm.rut.t.1.f 2



History, Use, Propagation, Culture,

1371 ***Angelonia.*** *Angelon* is the name of the plant among the Spanish colonists of Caraccas, where it grows. A very beautiful stove herbaceous plant, with large light-blue flowers.

1372. ***Schizanthus.*** From σχιζω, to cut, and ανθος, a flower, in allusion to the numerous divisions of the beautiful purple and yellow flowers. Tender annual plants, with finely cut pale green leaves, and terminal panicles of elegant flowers.

1373. ***Besleria.*** After Basil Besler, an apothecary at Nuremberg, joint editor with Jungermann, of a sumptuous work entitled Hortus Eystettensis, 1613. The garden belonged to Bishop Conrad, of Eichstedt, and the plates were engraved at his expense.

1374. ***Teedia.*** So named by Persoon, but the meaning is unknown. Pretty herbaceous plants, with bright purple flowers and dark berries.

1375. ***Brunsfelsia.*** In memory of Otho Brunsfels, of Mentz, a Carthusian monk, and afterwards a physician, author of Figures of Plants in 1530. He died in 1534. The species are handsome tropical shrubs, with neat foliage and shewy white or purple flowers. Cuttings with a little ripened wood strike root freely in heat.

8919 The only species

8920 The only species

8921 Peduncles branched, Leaves ovate
8922 Peduncles simple clustered, Leaves ovate-lanceolate serrated
8923 Peduncles simple solitary, Calyxes serrated, Cor. smooth with a serrulated limb
8924 Leaves obl. ovate rugose crenate decurrent down the petiole, Cal. serrulate colored
8925 Peduncles simple solitary, Calyxes colored serrated, Cor. hairy with an entire limb, Leaves ovate

8926 Leaves opp. obl. finely serrulate smooth
8927 Leaves downy

8928 Leaves ovate-lanceolate narrowed at each end, Tube of cor. curved, Limb wavy
8929 Leaves obovate acuminate longer than petiole, Tube of cor. straight, Limb entire

8930 Leaves and leafstalks deeply stained with purple

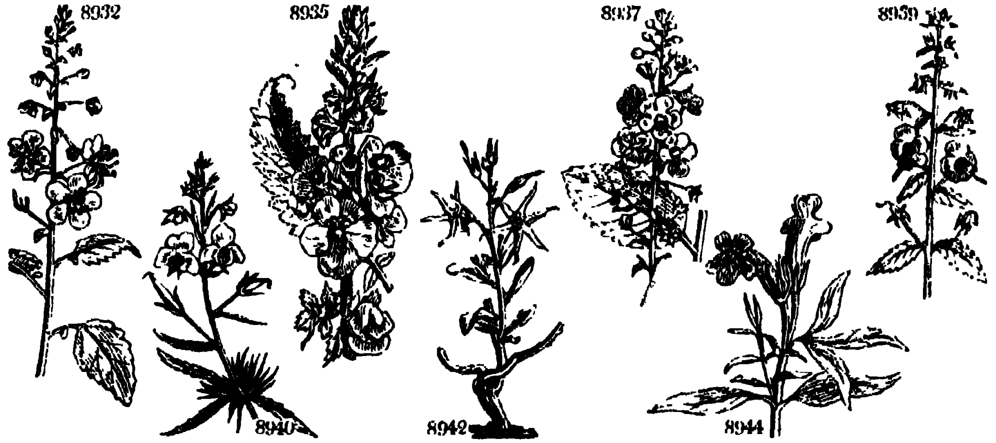
8931 Cauline leaves bipinnate
8932 Rad. leaves lyrate: upper oblong, Pedicels longer than bractes, Sepals linear entire
8933 Radical leaves lyrate: upper ovate, Bractes longer than pedicels, Sepals linear oblong entire
8934 Radical leaves lyrate: floral cordate half stem-clasping, Peduncles as long as flower
8935 Radical leaves lyrate: upper oblong, Flowers subsessile the length of bractes, Cal. ovate serrated
8936 Somewhat downy, Leaves lanceolate, Flowers axillary solitary
8637 All over wool, Leaves oval oblong blunt crenate, Stamens bearded with capitate hairs

8938 Leaves ovate lanceolate deeply serrated
8939 Leaves ovate acute cut serrated

8940 Leaves ternate remotely toothletted
8941 Leaves ovate acute serrated, Stem winged at angles

8942 Leaves obovate smooth, Segments of cor. length of tube
8943 Leaves obovate dotted with glands downy

8944 Flowers large yellow spotted



and Miscellaneous Particulars.

1376. *Celsia.* In honor of Olaus Celsius, D D, surnamed the northern Pliny, professor of the oriental languages in the university of Upsal. His Hierobotanicon, or History of the Plants of Scripture, appeared in 1745. There was also another Swedish botanist called Magnus Nicolaus Celsus, who died in 1679. Besides these moderns, the name is rendered familiar to classical scholars by the recollection of the famous Aurelius Cornelius Celsus, who wrote upon agriculture and medicine, and whose purity of style procured him the name of the Cicero of medicine.

1377. *Alonsoa.* Named by the authors of the Flora Peruviana, after Zanoni Alonso, at the time of the publication of that work, Spanish secretary for the kingdom of Santa Fé, and a great patron of objects connected with natural history. Sir James Smith considers the genus the same as Hemmeris.

1378. *Anthocercis.* From *ανθος*, a flower, and *κερκις*, a ray, the narrow divisions of the corolla spreading in a radiant manner, like the spokes of a wheel.

1379. *Cymbaria.* From *κυμβη*, a boat, in allusion to the shape of the fruit. A small pubescent hoary plant, native of mountainous rocky places in Siberia.

Class XV. — TETRADYNAMIA. Stamens 6, of which four are longer than the rest.

This class consists, with the exception of Cleome, entirely of the natural order Cruciferæ, and has lately been the subject of the most acute and successful investigation of many botanists of celebrity. Our countryman, Mr Brown, led the way to the improvements which have been made in the genera, in the second edition of the Hortus Kewensis, in which, discarding the uncertain and unnatural characters derived from variations in the floral envelopes, he took a new course, and by indicating with great precision the curious modifications of the seeds and seed-vessels, led the way to an entirely new arrangement of the class. The principles thus developed have been adopted by M Decandolle, whose learned treatise upon Cruciferæ is here followed without variation

The difference between the genera with a long pod (*Siliquosæ*), and those with a short one (*Siliculosæ*), has given rise to two orders in the Linnean system But these are not only ambiguous, but interfere so much with a distribution of the genera according to their natural affinities, that they have been rejected here, and the divisions of M Decandolle, depending upon variation in the relative position of the various parts of the seed, have been substituted

The plants of this class have always been celebrated for their antiscorbutic qualities. These seem to reside in an acrid, oily, volatile principle, not yet determined by chemists, and varying in the degree of abundance in which it is found in different species. It is particularly abundant in the seeds of mustard and garden rocket, in the roots of the horse radish, and in the foliage of the Lepidium latifolium, which, administered inwardly, act powerfully upon the gastric organs, or, applied externally, inflame the skin and operate nearly as severely as blisters A slighter degree of acrimony is found in the foliage of the scurvy grass, the roots of the garden radish, &c ; and these, therefore, operate more gently, and perhaps more safely, when eaten, scarcely at all when applied outwardly. Whatever the degree of acrimony may be in these plants, they all appear, when eaten, to produce some specific action upon the digestive organs, and thence upon scorbutic humours, for which reason, the horse radish, water-cress, radishes, and even cabbages are eminently antiscorbutic. They are also admitted by physicians as diuretic, sialagogue, and diaphoretic. It is only when the acrid principle is diffused over a considerable quantity of fleshy and watery substance, that cruciferous plants become eatable, as in the leaves and stems of cabbages and sea-kail, and in the roots of radishes and turnips. Even in these plants, the proportion of acrid principle is much diminished by exclusion from light. Plants of this class are also remarkable for containing a larger quantity of azote than most vegetables; for which reason ammonia is generally evolved in their fermentation or putrefaction: to which circumstance it is possible that the two remarkable phænomena are to be attributed, viz ; that cruciferous plants contain a greater portion of nutritive matter than most herbaceous plants; and that they require either a very rich soil manured with animal substances, or at least a situation near the habitations of men. The embryos of all these plants are filled with oil, and the seeds of Camelina sativa, Brassica campestris, some species of Rocket, &c. are cultivated in many parts of Europe for the sake of their expressed oil, which is used either for culinary purposes or for lamps

Cruciferous plants are chiefly natives of temperate climates, those which are found within the tropics being in all cases mountain plants, and are nearly all cultivable in the open air, they are mostly found in open sandy plains; some on the tops of the highest mountains at the utmost limits of vegetation. Nine hundred species are now described, of which not more than twenty-two are to be found in the works of Hippocrates, Theophrastus, Dioscorides, or Pliny.

A. *Cotyledons four, spirally twisted. Petals 4, cruciate.*

1380. *Schizopetalon.* Petals pinnatifid.

B. *Cotyledons two. Petals 4, cruciate.*

1. *Cotyledons flat, accumbent. Radicle lateral. Seeds compressed.* (O=) Pleurorhizeæ, *Dec.*

* *Silique opening; with a linear dissepiment more or less wide than seeds. Seeds oval, compressed; often margined. Cotyledons flat, accumbent, parallel with the dissepiment.* Arabideæ, *Dec.*

1381. *Mathiola.* Silique roundish. Stigmas connivent, thickened or cornute at back. Calyx bisaccate at base

1382. *Cheiranthus.* Silique round or compressed. Stigmas 2-lobed or capitate. Calyx bisaccate at base.

1383. *Nasturtium.* Silique roundish, shortened or declinate. Stigma nearly 2-lobed. Calyx equal at base, spreading.

1384. *Leptocarpæa.* Silique roundish, very slender. Stigmas sessile, 2-lobed Calyx spreading, equal.

1385. *Notoceras.* Silique 4-cornered, 2-edged, the valves elongated at end into a horn or mucro.

1386 *Barbarea.* Silique 4-cornered, 2-edged, the valves not elongated at end. Calyx equal at base.

1387. *Braya.* Silique oblong, subcylindrical, with flattish valves and a sessile stigma. Seeds few, ovate Calyx equal at base.

1388. *Parrya.* Silique linear with veiny valves. Seeds in two rows, with a loose wrinkled skin. Stigmas approximating Filaments not toothed.

1389. *Turritis.* Silique linear with flat valves. Seeds in two rows in each cell.

1390. *Arabis.* Silique linear with flat valves, 1-nerved in the middle. Seeds in one row in each cell.

1391. *Macropodium.* Silique pedicellate, linear, with flat valves, 1-nerved in middle.

1392. *Cardamine.* Silique linear with flat nerveless valves, often opening with elasticity. Funicles of the hilum slender.

1393. *Pteroneuron.* Silique lanceolate with flat nerveless valves, often opening with elasticity: placentas with winged nerves. Funicles dilated.

1394 *Dentaria.* Silique lanceolate with flat nerveless valves, often opening with elasticity: placentas not winged. Funicles dilated.

** *Silicle opening lengthwise, with a broad oval membranous dissepiment, and flat or concave valves. Seeds compressed, frequently margined. Cotyledons flat, accumbent, parallel with the dissepiment.* Alyssineæ, *Dec.*

1395. *Lunaria.* Silicle pedicellate, elliptical or lanceolate with flat valves. Funicles long, adhering to the dissepiment Calyx somewhat bisaccate. Petals nearly entire. Stamens not toothed

1396 *Ricotia.* Silicle sessile, oblong, when ripe losing its dissepiment and becoming 1-celled: valves flat. Calyx with two prominences at base. Petals emarginate. Stamens not toothed.

1397. *Farsetia.* Silicle sessile, oval or orbicular, with flat valves. Seeds winged. Calyx bisaccate at base. Petals entire.

1398. *Berteroa.* Silicle sessile, elliptical or obovate, with flat or concave valves. Calyx equal at base. Petals 2-parted The small stamens toothed.

1399. *Aubrietia.* Silicle oblong with convex valves. Seeds not edged. Calyx bisaccate at base. Petals entire. Smaller stamens toothed.

1400. *Vesicaria.* Silicle globose inflated with hemispherical valves. Seeds more than 8. Petals entire.

1401. ***Alyssum.*** Silicle orbicular or elliptical, with valves flat or convex in centre. Seeds 2-4 in each cell. Calyx equal at base. Petals entire. Some the stamens toothed.

1402. ***Clypeola.*** Silicle orbicular, 1-celled, 1-seeded, with flat valves Calyx equal. Petals entire. Stamens toothed.

1403. ***Peltaria.*** Silicle orbicular, 1-celled, 1-4-seeded, with flat valves Seeds two in each cell: funicles adhering to the dissepiment.

1404. ***Petrocallis.*** Silicle sessile, oval, with flattish valves. Seeds two in each cell: funicles adhering to the dissepiment.

1405. ***Draba.*** Silicle sessile, oval or oblong, with flat or convex valves. Seeds many, not edged. Calyx equal Petals entire. All the stamens without teeth.

1406. ***Erophila.*** Silicle oval or oblong, with flat valves. Seeds many, not edged. Calyx equal. Petals 2-parted. Stamens without teeth.

1407. ***Cochlearia.*** Silicle sessile, ovate-globose or oblong, with ventricose valves. Seeds many, not edged. Petals entire. Stamens without teeth.

**** Silicle opening, with a very narrow dissepiment, and keeled navicular valves. Seeds oval, sometimes margined. Cotyledons flat, accumbent, contrary to the dissepiment.* THLASPIDEÆ, *Dec.*

† *Cells of silicle 2-many-seeded.*

1408. ***Thlaspi.*** Silicle emarginate at end, with navicular valves, winged at back. Cells two, many-seeded.

1409. ***Capsella*** Silicle triangular, cuneate at base, with navicular valves, not winged. Cells many-seeded.

1410. ***Hutchinsia.*** Silicle elliptical, with navicular valves, not winged. Cells 2-seeded, rarely many-seeded.

1411. ***Teesdalia.*** Silicle oval, emarginate at end, with navicular valves and 2-seeded cells. Stamens having a scale inside at their base.

†† *Cells of silicle 1-seeded.*

1412. ***Iberis.*** Two outer petals largest. Silicle compressed, truncate, emarginate.

1413 ***Biscutella.*** Silicle flat, biscutate, with the cells laterally united to the axis. Style long, persistent. Embryo inverted.

***** Silicle not opening, with concave indistinct valves, and sometimes with scarcely any trace of a dissepiment. Seeds oval, very few. Cotyledons flat, accumbent, parallel with dissepiment.* EUCLIDIEÆ, *Dec.*

1414. ***Euclidium*** Silicle drupaceous, ovate, with manifest sutures. Style subulate. Cells 1-seeded.

1415. ***Ochthodium.*** Silicle coriaceous, subglobose. Stigma sessile. Dissepiment thick. Cells 1-seeded.

****** Silicle opening lengthwise, with concave valves, bearing internally transverse horizontal dissepiments separating the seeds. Seeds not margined. Cotyledons flat, accumbent, parallel with the dissepiment.* ANASTATICEÆ, *Dec.*

1416. ***Anastatica.*** Silicle ventricose, with valves bearing an appendage outside at the end.

******* Silique or silicle separating across into 1-2-celled, 1-2-seeded joints Seeds not edged Cotyledons flat, accumbent, parallel with the dissepiment when there is any.* CAKILINEÆ, *Dec.*

1417. ***Cakile.*** Silicle 2-jointed, compressed: the upper joint ensiform. Seeds solitary in the cells: upper erect; lower pendulous.

1418 ***Rapistrum.*** Silicle 2-jointed: the upper joint ovate, rugose. Seeds solitary in the cells: upper erect, lower pendulous.

1419. ***Chorispora.*** Silique roundish, with many equal joints. Seeds all pendulous.

2 *Cotyledons flat, incumbent. Radicle dorsal. Seeds ovate, not margined.* (O||) NOTORHIZEÆ, *Dec*

* *Silicle 2-celled, opening lengthwise, with concave or keeled valves Seeds ovate or oblong, not margined. Cotyledons flat, incumbent, contrary to the dissepiment.* SISYMBRIEÆ, *Dec.*

1420. ***Malcomia.*** Silique roundish. Stigma simple much pointed.

1421. ***Hesperis.*** Silique roundish, or about 4-cornered. Stigmas 2, erect, conniving. Calyx bisaccate at base

1422. ***Sisymbrium.*** Silique roundish, sessile upon the torus. Stigmas 2, somewhat distinct or connate in a head. Calyx equal at base.

1423. ***Alliaria.*** Silique roundish, 4-cornered, with prominent nerves. Calyx lax.

1424. ***Erysimum.*** Silique 4-cornered. Calyx closed.

** *Silicle with concave valves, and with a dissepiment elliptical in its greatest diameter. Seeds ovate. Cotyledons flat, incumbent, contrary to dissepiment.* CAMELINEÆ, *Dec.*

1425 ***Camelina.*** Silicle obovate or subglobose, with ventricose valves and many-seeded cells. Style filiform.

1426. ***Neslia.*** Silicle subglobose, with concave valves, 1-celled, 1-seeded, indehiscent.

*** *Silicle with a very narrow dissepiment, and with keeled or very convex valves. Seeds solitary or few in the cells, ovate, not margined. Cotyledons flat, incumbent, parallel with the dissepiment.* LEPIDINEÆ, *Dec.*

1427. ***Coronopus.*** Silicle twin Valves ventricose or subcarinate, scarcely dehiscent, 1-seeded.

1428. ***Lepidium.*** Silicle ovate or subcordate, with carinate or rarely ventricose valves, opening with 1-seeded cells.

1429. ***Æthionema.*** Silicle oval, generally emarginate, with navicular valves, and 1-2-seeded cells. Larger stamens either united or toothed.

**** *Silicle with indistinct or indehiscent keeled valves, 1-celled, 1-seeded, with an obliterated dissepiment. Seeds ovate, oblong. Cotyledons flat, incumbent, apparently in the same direction as the dissepiment should be.* ISATIDEÆ, *Dec.*

1430. ***Isatis.*** Silicle elliptical, flat, 1-celled, 1-seeded, with carinate navicular valves, which are scarcely dehiscent.

1431. ***Myagrum*** Silicle compressed, almost cuneate, with two empty hollows at end, and at base 1-celled, 1-seeded.

3. *Cotyledons incumbent, folded together, or plaited lengthwise through their middle, and enwrapping the radicula. Style generally enlarged, with a cell and seed at its base. Seeds generally globose, never margined.* (O>>) ORTHOPLOCEÆ, *Dec.*

* *Silique with valves opening lengthwise, and a linear dissepiment. Cotyledons folded together.* BRASSICEÆ, *Dec.*

1432. ***Brassica.*** Silique roundish. Style small, short, obtuse. Seeds in one row. Calyx closed.

1433. ***Sinapis.*** Silique roundish, with nerved valves. Style small, short, acute. Seeds in one row. Calyx spreading.

1434. ***Moricandia.*** Silique 4-cornered, sowewhat 2-edged. Seeds in two rows. Calyx bisaccate at base.

1435. ***Diplotaxis.*** Silique compressed, linear. Seeds in two rows. Calyx equal at base.

1436. ***Eruca.*** Silique roundish. Style large, ensiform or conical. Seeds in one row. Calyx equal at base.

** *Silicle with concave valves, opening lengthwise, with an elliptical dissepiment. Cotyledons folded together.* Vellеæ, *Dec.*

1437. *Vella.* Larger stamens connate. Style ovate, flat, at the end of a tongue-shaped silicle.
1438. *Carrichtera.* Stamens all free. Style ovate, flat, foliaceous.
1439. *Succowia.* Stamens all free. Style slender, conical. Valves of the silicle echinate.

*** *Silicle indehiscent, ovate or globose, 1-celled, 1-seeded, with indistinct valves. Seeds globose. Cotyledons folded together.* Zilleæ, *Dec.*

1440. *Zilla.* Silicle 2-celled. Cells 1-seeded.
1441. *Calepina.* Silicle 1-celled, 1-seed. Seed pendulous. Outer petals rather the largest.

**** *Silicle or silique dividing across into one or few-seeded joints or cells. Seeds globose. Cotyledons folded together.* Raphaneæ, *Dec.*

1442. *Crambe.* Silicle with two joints, of which the lower is abortive, the upper globose 1-seeded.

1380.	SCHIZOPETALON. *Sims.*	Schizopetalon.					*Cruciferæ.*		*Sp.* 1.					
8945	Walkéri *Sims*	Walker's		◯]	cu	2	my.jl	W	Chili	1822.	S	p.l	Bot. mag. 2379
1381	MATHIOLA. *R. Br.*	Stock.					*Cruciferæ*		*Sp.* 11—26.				
8946	incána *R. Br.*	Pu. Gilly Flow.	♄	⊔	or	2	my.n	Pu	England	cliffs.	C	l.p	Eng. bot. 1935
	multiplex	*double*											
	β *coccinea*	*Brompton*											
	γ *alba*	*white-branching*											
8947	ánnua *Sweet.*	ten weeks		○	or	2	my.n	St	S. Europe	1731.	S	l.p	Dalec.lug.802.t1
8948	glábra *Dec.*	smooth	♄	⊔	or	2	my.n	W	......	...	C	l.p	Mo.ox.s 3. t.8 f.2
8949	græ'ca *Sweet*	Wall-fl.-leav'd		○	or	2	my.n	W	S. Europe	...	S	l p	
8950	fenestrális *R. Br.*	window	♃	[◯]	or	1	jl.au	Pu	......	1759.	S	l p	Jac.vind.2. t.179
8951	sinuáta *R. Br.*	greater sea	♃	◎	or	1	my.au	V	England	sea sh.	S	l.p	Eng. bot. 462
8952	odoratíssima *R. Br.*	Persian	♄	⊔	or	2	jn.jl	Ld	Persia	1797.	C	r.m	Bot. mag. 1711
	β *frágrans* Fisch.	*short-podded*	♄	⊔	or	2	jn.jl	Ld	Crimea	1823.	C	r m	
8953	vária *Dec.*	variable	♃		or	½	jn.jl	Ld	Levant	1820.	C	r m	Fl. græc. t. 636
8954	trístis *R. Br.*	dark-flowered	♄	⊔	or	1½	my.jl	Ld	S. Europe	1768.	S	s l	Bot. mag. 729
8955	tricuspidáta *R. Br.*	three-forked		○	pr	1	jl	Pu	Barbary	1739.	S	s l	Lam.ill. t.564.f.2
8956	parviflóra *R. Br.*	small-flowered		○	pr	½	jl.au	Pu	Morocco	1799.	S	s.l	
1382.	CHEIRANTHUS. *L.*	Wall-Flower.					*Cruciferæ.*		*Sp.* 7—17.				
8957	cheiri *L.*	garden	♄	⊔	or	2	ap.jl	Or	S. Europe	1573	S	r m	Bull. herb. t. 349
	β *fruticulósus* L.	*wild*	♄	⊔	or	1½	ap.jl	Y	Britain	old wa.	S	co	Eng. bot. 1934
8958	ochroleúcus *Hall.*	pale yellow	♃	△	or	¾	ap.jl	Pa.Y	Switzerl.	1820.	D	co	Hal.hel.449 t.14
8959	tenuifólius *Lher.*	fine-leaved	♄	⊔	or	2	my.jn	Y	Madeira	1777.	C	l p	
8960	mutábilis *Lher*	changeable	♄	⊔	or	3	mr.my	Y.Pu	Madeira	1777.	C	l p	Bot. mag. 195
	β *longifólius* Vent.	*long-leaved*	♄	⊔	or	3	s.d	W.pu	Madeira	1815.	C	co	Vent.malm. t.83
8961	scopárius *W.*	rock	♄	⊔	or	3	my.o	W.pu	Teneriffe	1812.	C	r m	
	β *chamæleo* Ker	*Chamæleon*	♄	⊔	or	3	my.o	Y.Pu	Teneriffe	1812.	C	r m	Bot. reg. t. 219
8962	semperflórens *Schon.*	ever-blowing	♄	⊔	or	2	ja.d	W	Barbary	1815.	C	s l	
	β *frutéscens* Pers.	*entire-leaved*	♄	⊔	or	2	mr.jl	W	Teneriffe	1815.	C	co	
8963	linifólius *Pers.*	Flax-leaved	♄	⊔	or	2	mr.au	Pu	Spain	1815.	C	s.l	
1383.	NASTURTIUM. *R. Br.*	Nasturtium.					*Cruciferæ.*		*Sp.* 10—24.				
8964	officinále *R. Br.*	Water Cress	≛	△	cul	1	my.jl	W	Britain	rivul.	D	co	Eng. bot. 855
8965	sylvéstre *R. Br.*	creeping	≛	△	w	1	jn.s	Y	Britain	wat.pl.	D	co	Eng. bot. 2324
8966	terréstre *R. Br.*	marsh	≛	○	w	1	jn.s	Y	Britain	wat.pl.	S	co	Eng. bot. 1747
8967	sagittátum *R. Br.*	arrow-leaved	♃	△	un	½	my.jn	Pa.Y	Siberia	1780.	D	co	Jac. ic. 1. t. 122
8968	Lippizénse *Dec.*	Lippa	♃	△	un	¾	my.jn	Y	Carinthia	...	D	co	Dale. lug 653.f.3

8945

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History, Use, Propagation, Culture,

1380. *Schizopetalon.* A curious genus of Chilian plants, with pinnatifid petals, whence the name has been formed, from σχιζω, to divide. A plant of difficult cultivation. It is raised from seeds, which it produces sparingly, and only in a well-aired cool greenhouse.

1381. *Mathiola.* Named after Peter Andrew Matthioli, an Italian physician, born in 1500, died in 1577. He was first physician to Ferdinand of Austria, and author of a laborious commentary upon Dioscorides. Herbs, or rarely shrubs, nearly all covered with a white stellate soft down. M. incana, annua, græca, and fenestralis are popular border flowers, especially the first; the leaves of all the species, and also of Cheiranthus, and many other plants of this class, may be used as potherbs or salads.

1382. *Cheiranthus.* So called from the Arabic *kheyry*, the name of a plant with red sweet-scented flowers. Herbs, or occasionally shrubs, with entire or toothed leaves, and flowers of various colors. C. Cheiri is a

1443. *Raphanus.* Silique transversely many-celled or dividing into several joints.

4. *Cotyledons incumbent, linear, spirally or rather circinately twisted.* (O || ||) SPIROLOBEÆ, *Dec.*

1444. *Bunias.* Silicle nucamentaceous, indehiscent, 2-4-celled. Cotyledons twisted spirally.

1445. *Erucaria.* Silique lomentaceous, 2-jointed; the lower joint having two cells, the upper being ensiform. Cotyledons replicate, somewhat spiral.

5. *Cotyledons incumbent, linear, with two legs, or a double plait, that is to say, plaited twice crosswise. Seeds depressed.* (O,|| || ||) DIPLECOLOBEÆ, *Dec.*

1446. *Heliophila.* Silique elongate or rarely oblong or oval. Dissepiment linear or oval. Valves flat, or in the long siliques somewhat convex. Calyx equal at base.

1447. *Subularia.* Silicle oval. Dissepiment elliptical. Valves convex. Cells many-seeded. Stigma sessile.

C. *Cotyledons 2. Petals 4, not cruciate. Thalamus large, hemispherical or elongated. Stamens 4-6-00.*

1448. *Cleome.* A honey gland at each division of the calyx, except the lowest. Calyx 4-leaved. Petals ascending.

8945 Stem weak cœsious, Petals pinnatifid quickly perishable

8946 Stem shrubby at base erect branched, Leaves lanceolate entire hoary, Pods subcylind. without glands

8947 Stem herbaceous erect branched, Leaves lanceolate blunt hoary, Pods subcylindrical without glands
8948 Stem half shrubby erect branched, Leaves lanceolate smooth, Pods somewhat compressed without glands
8949 Stem herbaceous erect branched, Leaves lanceolate smooth, Pods somewhat compressed without glands
8950 Stem ½ shrubby erect simple, Leaves close obovate downy, Pods downy without glands broadest at base
8951 Stem somewhat erect herbaceous branch. Lvs. obl. downy; lower sinuated, Pods comp. velvety and gland.
8952 Stem erect branched, Leaves downy or pubescent toothed or pinnatifid, Pods compressed downy
β Pods twice as short as α
8953 Stem erect nearly simple naked, Leaves linear blunt hoary entire, Flowers subsessile, Pods compressed
8954 Stem ½ shrubby at base branched erect, Leaves downy linear entire or toothed, Fl. subsess. Pods roundish
8955 Stem suberect branched; Leaves sinuate pinnatifid, Pods with three acute nearly equal points
8956 Stem suberect branched, Leaves downy lanceolate repand toothed, Fl. sessile, Middle point of pod longest

8957 Leaves lanc. entire, Hairs 2-parted appressed or none, Pods linear, Stigmas with recurved lobes

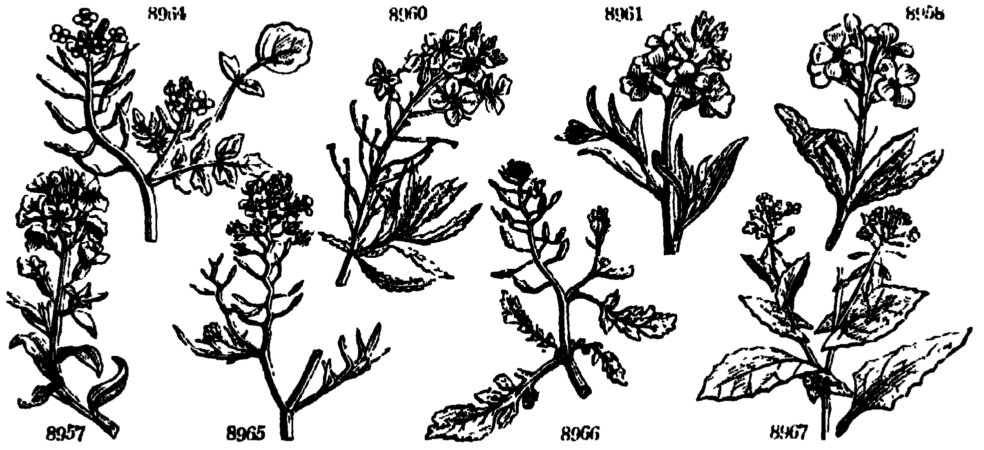
8958 Lvs. obl. lanc. somew. toothed, Hairs 2-parted or none, Stem decum. branch. Pet obov. Pods erect pointed
8959 Leaves linear entire somewhat silky, Stem half shrubby
8960 Leaves linear-lanceolate acuminate finely serrated downy with 2-parted hairs, Stem shrubby branched

8961 Leaves linear-lanceolate acuminate entire downy with appressed 2-parted hairs, Stem shrubby branched

8962 Leaves lin. lanc. entire roughish, Stem shrubby branched, Pods compressed, Pedic. half as short as calyx

8963 Leaves linear entire rough clustered, Stem shrubby branched, Pods roundish 3 times as long as calyx

8964 Leaves pinnatifid, Segments ovate subcordate repand
8965 Leaves pinnatifid, Segments lanceolate serrate or cut
8966 Leaves pinnated-lobed, lobes confluent toothed smooth, Root fusiform, Petals as long as calyx
8967 Downy, Rad. lvs toothed backwards, cauline sagittate oblong blunt, Stems erect branched from the base
8968 Radical leaves stalked obovate toothed or lyrate: upper pinnatifid, Lobes linear entire

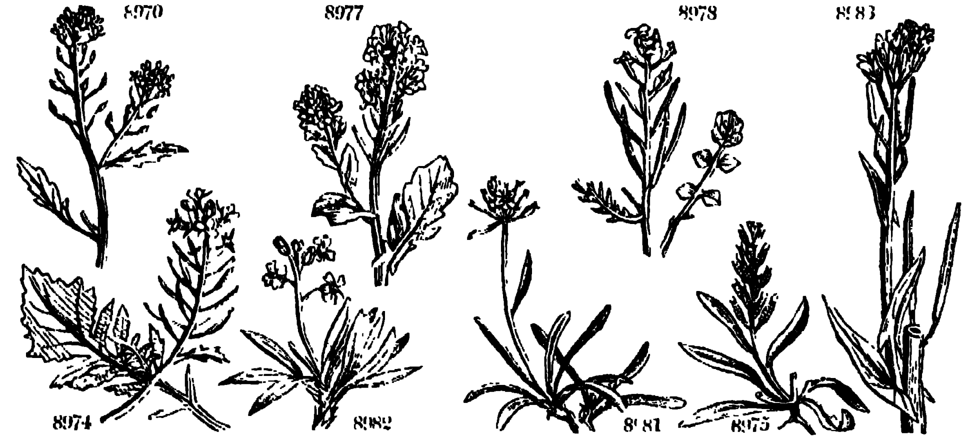


and Miscellaneous Particulars

popular flower of long standing, admired for its various colors and agreeable odor. Being an acrid and hardy evergreen, it is sometimes sown in pastures, along with parsley, thyme, &c. as a preventative of the rot in sheep.

1383. *Nasturtium*, is said to have been so called from the effect its acrimony produces upon the muscles of the nose; *nasus tortus* signifying a convulsed nose. *Pliny.* N. officinale is a well known popular salad, gathered wild in most parts where it is found, and since 1808, cultivated to a considerable extent in the neighbourhood of London. A running stream of clear water is essential to its cultivation; in the bed of this stream the plants are inserted in rows in the direction of the current, and all that is necessary is to take up and replant occasionally, and to keep up the plants free of mud or any accumulation of extraneous matters, and to see that other plants, especially the Sium nodiflorum, a poisonous plant resembling the water-cress, do

8969	pyrenǽicum *R. Br.*	Pyrenean	£	△	un	½	my.jn	Y	Pyrenees	1775.	D	co	Act. helv. 4. t. 15
8970	amphíbium *R. Br.*	amphibious	≛	△	w	1½	jn.au	Y	Britain	riv.ba.	D	co	Eng. bot. 1840
8971	benghalénse *Dec.*	Bengal		○	un	2	jn.au	Y	E. Indies	...	S	co	
8972	microspérmum *Dec.*	Chinese		○	un	¾	jn.au	W	China	1820.	S	co	
8973	índicum *Dec.*	doubtful		○	un	½	jn.au	Ap	China	...	S	co	
1384.	LEPTOCARPÆA. *Dec.*	LEPTOCARPÆA.					*Cruciferæ.*		*Sp.* 1.				
8974	Loeséli *Dec.* *Turritis Loeselii* R. Br.	Loesel's		○	w	1½	au	Y	Germany	1683.	S	co	Jac. aust. 4. t. 324
1385.	NOTO'CERAS. *R. Br.*	NOTOCERAS.					*Cruciferæ.*		*Sp.* 2—4.				
8975	canariénse *R. Br.*	Canary		[○]	un	½	au.s	Y	Canaries	1779.	S	co	Jacq. ecl. t. 111
8976	hispánicum *Dec.*	Spanish		[○]	un	½	au.s	Y	Spain	1821.	S	co	
1386.	BARBARE'A. *R. Br.*	WINTER CRESS					*Cruciferæ*		*Sp.* 4—6.				
8977	vulgáris *R. Br.*	common	£	△	cul	1½	my.au	Y	Britain	rub.	D	co	Eng. bot. 443
8978	præ'cox *R. Br.*	Belleisle Cress	£	△	cul	1	ap.o	Y	England	brooks.	D	co	Eng. bot. 1129
8979	ibérica *Dec.*	Barbarea-lvd.	£	△	un	1	my.au	Y	Iberia	1816.	C	l.p	
8980	plantaginea *Dec.* *Sisymb. barbareæ* L.	Wintercress-lv.	£	△	un	½	jl.s	Y	Levant	1799.	D	co	
1387.	BRAY'A. *Stern.*	BRAYA.					*Cruciferæ.*		*Sp.* 1.				
8981	alpina *Stern*	alpine		○	cu	½	jn	Pu	Carinthia	1823.	S	p.l	Hook. fl. ex. t. 121
1388.	PAR'RYA *R. Br.*	PARRYA.					*Cruciferæ.*		*Sp.* 1.				
8982	árctica *R. Br.*	northern		[○]	cu	½	...	Pu	Melville I.	1820.	S	p.l	Parry's append.
1389.	TURRI'TIS. *R. Br.*	TOWER MUSTARD.					*Cruciferæ.*		*Sp.* 1—3.				
8983	glábra *L.*	long-podded		○	w	1½	my.jn	W	England	gr.pa.	S	co	Eng. bot. 777
1390.	AR'ABIS. *L.*	WALL CRESS.					*Cruciferæ.*		*Sp* 32—65.				
8984	vérna *R. Br.*	vernal		○	w	1	my.jn	Pu	France	1710.	S	s.l	Barr. ic. 476
8985	alpina *L.*	Alpine	£	△	pr	¾	mr.my	W.Y	Switzerl	1596.	D	p.l	Bot. mag. 226
8986	álbida *Sted.* *A. caucásica* W.	early-flowering	£	△	pr	¾	ja.o	W	Caucasus	1798	D	s.l	Jacq. ecl. t. 71
8987	toxophýlla *Bieb.*	bow-leaved	£	⊙	pr	1	jl.au	W	Volga	1823.	S	co	
8988	auriculata *Lam.*	auricled		○	un	¾	my	W	S. Europe	...	S	co	W. & Kit. 1. t. 59
8989	saxátilis *All.*	stone	£	⊙	un	¾	my	W	Switzerl	...	S	co	Vill. dauph. 3. t. 37
8990	crispáta *W.*	crisp	£	△	pr	1	my	W	Carniola	1816.	D	co	
8991	sagittáta *Dec.*	sagittate	£	⊙	un	1	my.jl	W	S. France	...	S	co	
8992	hirsúta *Scop.*	hairy	£	△	w	1	my.jl	W	Britain	rocks.	D	s.l	Eng. bot. 587
8993	Allióni *Dec.* *Turritis stricta* W.	upright	£	△	w	2	my.jn	W	Italy	1804.	D	co	
8994	murális *Bert*	wall	£	△	un	½	my.jn	W	Italy	1824.	D	co	
8995	stricta *Huds.*	Bristol	£	△	pr	½	my	Cr	England	rocks.	D	s.l	Eng. bot. 614
8996	ciliáta *R. Br.*	ciliated	£	⊙	pr	½	jn.jl	W	Ireland	ir.sh.	S	s.l	Eng. bot. 1746
8997	incána *Roth.*	hispid-stalked	£	⊙	un	1	my.jn	W	Switzerl.	1816	S	s.l	
8998	Thaliána *L.*	common		○	w	1	ap.my	W	Britain	walls.	S	s.l	Eng. bot. 901
8999	serpyllifólia *Vill.*	thyme-leaved	£	⊙	un	½	jn.jl	W	S. France	1823.	S	co	Vil. dauph. 3. t. 37
9000	pubéscens *Desf.*	pubescent	£	⊙	un	1½	ap.my	W	Barbary	1825	S	co	Desf. atl. t. 163
9001	præ'cox *W. & K.*	early	£	△	un	¾	jn.jl	W	Hungary	1820.	D	co	
9002	hispida *L.*	short-podded	£	△	w	½	my.jl	Pu	Britain	al.roc.	D	s.l	Eng. bot. 469
9003	lyráta *L.*	lyrate		○	un	¾	my.jl	W	N. Amer.	...	S	co	
9004	arenósa *Scop.*	purple		○	pr	½	jn.jl	Pk	Germany	1798.	S	s.l	Scop. carn. t. 40



History, Use, Propagation, Culture,

not find their way into the plantation. Near Rickmansworth, in Hertfordshire, there is a fine stream of water on a chalky bottom, in which one cultivator grows five acres, and sends a supply to London every day in the year, Sundays excepted. There are also large plantations at Uxbridge, Gravesend, and other places.

Some market-gardeners, who can command a small stream of water, grow the water-cress in beds sunk about a foot in a retentive soil, with a very gentle slope from one end to the other. Along the bottom of this bed, which may be of any convenient length and breadth, chalk or gravel is deposited, and the plants are inserted about six inches distance every way. Then, according to the slope and length of the bed, dams are made six inches high across it, at intervals; so that when these dams are full, the water may rise not less than three inches on all the plants included in each. The water, being turned on, will circulate from dam to dam, and the plants, if not allowed to run to flower, will afford abundance of young tops in all but the winter months. A stream of water no larger than what will fill a pipe of an inch bore, will, if not absorbed by the soil, suffice to irrigate in this way an eighth of an acre. As some of the plants are apt to rot off in winter, the plantation should be laid dry two or three times a year, and all weeds and decayed parts removed, and vacancies filled up. Cress grown in this way, however, is far inferior to that grown in a living stream flowing over gravel or chalk.

The water-cress has lately been cultivated in the neighbourhood of Paris, and also near Edinburgh.

1384. *Leptocarpæa.* From λεπτος, slender, and καρπον, fruit. A genus distinguished from Sisymbrium by its accumbent cotyledons.

8969 Radical leaves stalked obovate or lyrate, Cauline amplexicaul pinnatifid, Lobes linear entire
8970 Leaves obl. lanc. pinnatifid or serrated, Root fibrous, Petals larger than calyx, Silicules ellipsoid
8971 Leaves obovate cuneate toothed at end, Pods roundish subturgid, Bractes a little shorter than pods
8972 Lvs. smooth : rad. stalked pinnatif.; caul. stem-clasping cut serr. Pods roundish, Pedic. bracteate very short
8973 Lvs. ovate lanc. toothed backwards acuminate at each end smooth, Pods roundish 4 times as long as stalk

8974 The only species. Leaves stalked pinnatifid sublyrate with cut toothed acuminate lobes

8975 Pods 2-horned, Petals equal, Leaves entire, Hairs strigose fixed by their middle 2-parted appr. scattered
8976 Pods 2-horned, Petals unequal, Leaves ent. Hairs strigose fixed by their middle 2-parted very numerous

8977 Lower leaves lyrate : terminal lobe roundish ; upper obovate toothed
8978 Lower leaves lyrate : terminal lobe ovate ; upper pinnatifid with linear oblong entire lobes
8979 Radical and lower leaves pinnatifid-lyrate : lateral lobes ovate ; terminal cordate entire
8980 Lower leaves toothed lyrate : lateral lobes dentiform ; terminal very large subcordate, upper ovate

8981 Leaves linear narrowed at base smooth acute

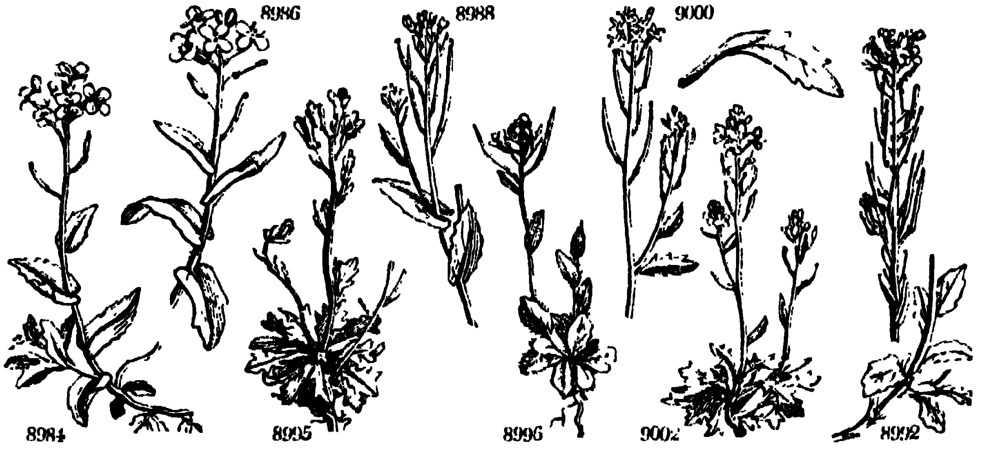
8982 Pods lin.-oblong, Anthers oval, Leaves entire, Peduncles smooth

8983 Rad. leaves toothed hairy : cauline stem-clasping entire smooth, Pods erect 6 times as long as stalk

8984 Cauline lvs. cord. stem-clasping rough with 3-parted down, Pedicels shorter than cal. Stigma somew. emarg.
8985 Leaves many-toothed villous with branched hair lanc. acute : rad somew stalked ; caul cord stem-clasp.
8986 Leaves few-toothed hoary with branched hairs : rad. obov. oblong ; cauline cordate sagitt. stem-clasping

8987 Lvs. pubesc. with minute stellate down : rad. obl. stalked sinuate toothed ; cauline sagittate lanceol entire
8988 Lvs. somew. toothed rough with branch. hair : lower oval narr into a stalk ; cauline bluntly cord -auricled
8989 Lvs. somew. toothed rough with branch hair : lower oval narr. into a stalk ; cauline acutely cord.-auricled
8990 Lvs. acutely toothed lanc stem-clasping wavy rough with branching hairs : rad. narrowed into the stalk
8991 Lvs. somew. toothed rough : rad. ovate or obl narrowed into the stalk ; cauline lanceol. sagittate cordate
8992 Lvs toothed rough with generally branched hairs : radical obov obl. narr into the stalk ; caul. ovate lanc.
8993 Lvs. smooth : radical ovate-oblong somewhat toothed narrowed at base ; cauline sessile ovate serrated

8994 Leaves hairy with branched pubescence : radical spatulate bluntly toothed ; cauline ovate acutely toothed
8995 Leaves rough with scattered bifid down : radical obov toothed ; cauline obl. nearly entire, Raceme erect
8996 Leaves somewhat toothed smooth ciliated : radical subsessile oval oblong ; cauline oblong, Raceme erect
8997 All the lvs. sessile somew. toothed hoary with branched hairs. radical obov obl. ; cauline obl. Rac. erect
8998 Leaves hairy somewhat toothed : radical stalked ovate oblong, Stem branched, Pods ascending
8999 Leaves nearly entire rough with branched hairs : radical and caul oval narrowed at base, Raceme lax
9000 Lvs. pubesc. coarsely toothed : rad. spatulate lanc. narrowed into the stalk ; caul. lanc. Pods pubescent
9001 Leaves oblong acute sessile entire smooth, Stems strigose, Runners creeping, Pods spreading
9002 Leaves nearly smooth : radical cut ; cauline oblong linear entire, Stem generally branched
9003 Rad leaves lyrate pinnatifid smooth or ciliated : cauline linear, Stem hispid at base somewhat branched
9004 Lvs. vill. with forked down · rad. lyrate pinnat. ; caul. cut toothed, Stem branched hisp. with simple hairs



and Miscellaneous Particulars.

1385. *Notoceras.* From νωτος, the back, and κερας, a horn. The structure of the pod of this genus is intermediate between Erysimum and Capsella. The species are small annuals, with very minute flowers, which are sometimes apetalous.

1386. *Barbarea.* A name used by Dodoens, because the plant had been called the herb of St. Barbara by some preceding botanists. B. vulgaris is sometimes cultivated as a spring salad, but is much less delicate than the common cress, and has nothing in flavor to recommend it. B. præcox, the American or Belleisle cress of gardeners, is preferred to the other, and cultivated in a number of gardens.

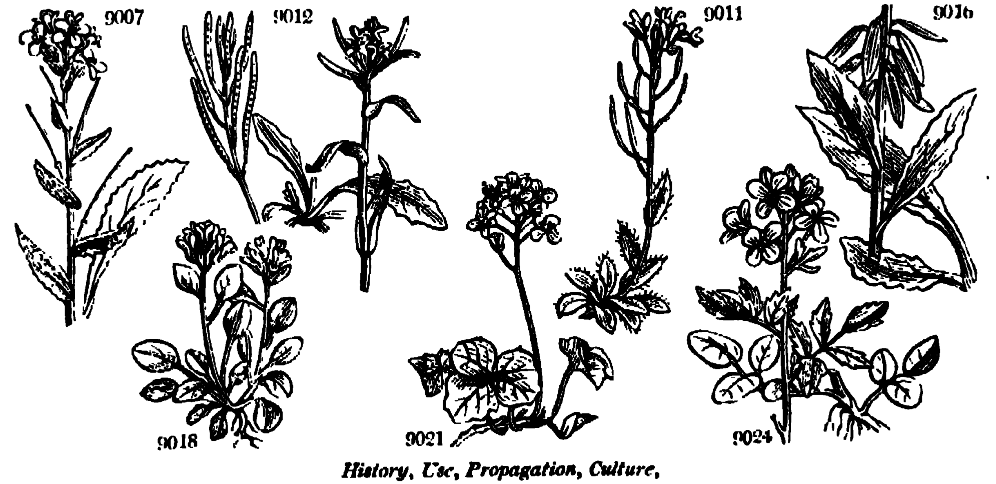
1387. *Braya.* A curious little plant, with the habit of Arabis cærulea. Leaves are linear, racemes terminal, flowers purple. The genus is not completely known; but it appears to be intermediate between Siliquosæ and Siliculosæ; related to Draba on one hand, and Arabis on the other. It is a native of the Carinthian alps, where it was found by Dr. Hoppe, who named it after Count Bray, a German nobleman

1388. *Parrya.* Named by Mr. R. Brown, after Captain Edward Parry, the commander of the British expeditions to discover the north-west passage round America. It was found upon Melville island, and once was raised from seeds brought home by some of the officers, but it never flowered, and is now lost.

1389. *Turritis.* From *turris*, a tower; the leaves and seeds giving the stem a pyramidal form. This genus is principally distinguished from Arabis by its seeds being in two rows, and by its habit.

1390. *Arabis.* Native of *Arabia*, according to De Theis; but this is a forced explanation, and scarcely the true root of the word. Distinguished from all the neighbouring genera by its linear compressed siliques, and flat valves.

9005 **Halléri** *L.*	Haller's	£	⊙	un	1	jn.jl	W	Switzerl.	...	S	co	Wal.&Kit. t.120
9006 cebennénsis *Dec.*	Montpellier	£	⊙	un	1½	jn.jl	Pa.pu	S. France	1820.	S	co	
9007 Turrita *L.*	tower Mustard	£	⊙	w	1½	ap my	Sul	England	walls.	S	s.l	Eng. bot. 178
9008 péndula *L.*	pendulous		○	un	1	my jl	W	Siberia	1759.	S	s.l	Jac. vind. 3. t. 34
9009 lævigáta *Dec.*	polished	£	△	un	1½	my.jn	W	N. Amer	1821.	D	co	
9010 canadénsis *L.*	sickle-podded	£	△	un	2	my.jl	W	N. Amer.	1768.	D	s.l	Plu. alm. t.86.f.8
9011 nútans *W.*	nodding	£	△	pr	½	mr.ap	W	Switzerl.	1658.	D	co	Jac. aust.3. t 281
9012 bellidifólia *Jacq.*	Daisy-leaved	£	△	pr	½	my.jn	W.y	Switzerl.	1773.	D	p.l	Jac. aust.3. t.280
9013 cærúlea *Wulf.*	blue	£	△	pr	½	jn jl	Pa.B	Switzerl.	1793.	D	co	Al.ped.1. t.40.f 2
9014 collina *Ten.*	hill	£	△	un	½	jn jl	W	Naples	1824.	D	co	Bot. mag. 3021
9015 lúcida *L.*	shining-leaved	£	△	pr	½	jn.jl	W	Hungary	1790.	D	p.l	
1391. MACROPO'DIUM. *R Br.*	Macropodium.					*Cruciferæ.*	*Sp.* 1.					
9016 nivále *R. Br.*	Siberian	£	△	pr	1	jn.s	W	Siberia	1796.	D	co	Pall. it.2. ap. t.U
1392. CARDA'MINE. *L.*	Lady's Smock.					*Cruciferæ.*	*Sp.* 16—55.					
9017 asarifólia *L*	Kidney-leaved	£	△	pr	½	jn jl	W	Italy	1710.	D	p.l	Bot. mag. 1735
9018 bellidifólia *Crantz.*	Daisy-leaved	£	△	pr	½	ap jn	W	Scotland	sc.al.	D	s.l	Eng. bot. 2355
9019 resedifólia *L*	Rocket-leaved		○	un	½	jl	W	Germany	1658.	S	co	Al.ped.1. t.57.f.2
9020 africána *L.*	African	£	△	un	1	my.jn	W	C. G. H.	1691.	D	co	Her. parad. 202
9021 trifólia *L.*	three-leaved	£	△	pr	1½	mr.ap	W	Switzerl.	1629.	D	p.l	Bot. mag. 452
9022 chiléns*is* *Dec.*	Chili	£	△	un	½	mr ap	W	Chile	1825.	D	co	
9023 granulósa *All*	granular	£	△	un	1	ap my	W	Italy	1820.	D	co	
9024 amára *L.*	bitter	*	△	pr	½	ap.my	W	Britain	wat pl.	D	p.l	Eng. bot. 100
9025 prórepens *Fisch.*	creeping	£	△	un	½	ap.my	W	Siberia	1821.	D	co	
9026 praténsis *L.*	Cuckoo-flower	*	△	pr	1	ap my	Pu	Britain	me pa.	D	m.s	Eng. bot. 776
β plena	*double-flowered*	*	△	pr	1	ap my	L P	......	...	D	co	
9027 pennsylvánica *L.*	Pennsylvanian	£	△	un	1	my jn	W	N. Amer.	1818.	D	co	
9028 hirsúta *L.*	hairy		○	un	1	ja.d	W	Britain	mo.s.p.	S	m.s	Eng. bot. 492
9029 parviflóra *L.*	small-flowered		○	un	1	ap my	W	France	...	S	co	Gmel. sib. t 64
9030 impátiens *L.*	impatient		○	un	1	ap jn	W	Britain	al. roc.	S	co	Eng. bot. 80
9031 latifólia *Vahl.*	broad-leaved	*	⊙	or	1½	jn au	Pu	Spain	1710.	S	co	Her. parad 203
9032 chelidónia *L.*	Celandine-lvd.	£	△	or	1	jn au	Pu	Italy	1739.	D	co	Pl rar.hu.2.t.140
1393. PTERONEU'RON. *Dec*	Pteroneuron.					*Cruciferæ.*	*Sp* 1—2.					
9033 græ'cum *Dec* *Cardámine græ'ca* L.	Grecian		○	un		jn jl	Pa	S. Europe	1710.	S	co	Boc. sic. t. 44. f.2
1394 DENTA'RIA. *L.*	Dentaria.					*Cruciferæ.*	*Sp.* 7—!					
9034 enneaphýlla *L.*	nine leaved	✱	△	el	1	my jn	Pa Y	Austria	1656.	D	s.p	Jac aust 4. t.316
9035 diphylla *Mich.*	two-leaved	✱	△	el	¾	my jn	W.pu	N. Amer.		D	s p	Bot mag. t.1465
9036 máxima *Nutt*	large	✱	△	el	2	my jn	Pa.pu	N. Amer.	1823.	D	s p	
9037 trifólia *W. & K.*	three-leaved	✱	△	el	1	my.jn	W	Hungary	1824.	D	s p	Wal.&Kit. t.139
9038 pentaphýlla *Scop.*	five-leaved	✱	△	el	1½	my jn	Pa pu	Switzerl.	1656	D	s p	Garid. prov. t 29
9039 pinnáta *Lam.*	seven-leaved	✱	△	el	1	my.jn	Pa pu	Switzerl	1683.	D	s p	Garid prov. t 28
9040 bulbífera *L*	bulbiferous	✱	△	el	1½	ap my	Pu	England	sha.pl.	D	s p	Eng. bot. 309
1395. LUNA'RIA. *L.*	Honesty.					*Cruciferæ.*	*Sp.* 2.					
9041 redivíva *L.*	perennial	£	△	or	3	my.jn	L.P	Germany	1596.	D	co	Lam.ill.t.561.f 1
9042 biénnis *Dec.* *ánnua* L.	annual	£.	⊙	or	4	my jn	L.P	Germany	1570.	S	co	Lam.ill.t.561.f 2
1396. RICO'TIA. *L.*	Ricotia.					*Cruciferæ.*	*Sp.* 1.					
9043 ægyptiaca *L.*	Egyptian		○	cu	½	jn jl	L.P	Egypt	1757.	S	s.p	Bot. reg. 49
1397. FARSE'TIA. *Turr.*	Farsetia.					*Cruciferæ.*	*Sp.* 4—7.					
9044 cheiranthoides *R Br.*	stock	☗	⊔	cu	1	jn jl	W.pu	Levant	1788.	C	co	Desf. atl.2. t 160
9045 suffruticósa *Dec.*	half-shrubby	£	△	or	1	ap	V	Persia	1823.	C	co	Vent. cels t 19
9046 lunarioides *R. Br.*	oriental	☗	⊔	or	1	jn.jl	Y	Archipel.	1731.	D	co	Tour. it.1. p.242
9047 clypeáta *R. Br.*	buckler-podded		○	or	1½	jn.jl	Y	S. Europe	1596.	S	co	Dal. lug.1141.f.1



History, Use, Propagation, Culture,

1391 *Macropodium.* So named because the pod is elevated above the receptacle upon a stalk; μακρος, long, and πους, a foot or stalk. A genus differing from Arabis chiefly in its stalked pod, and its calyx being a little thickened at the base. A little, smooth, erect, simple herb, with ovate, lanceolate, acuminate leaves, and white flowers.

1392. *Cardamine.* From καρδια, the heart, and δαμαω, to strengthen, in allusion to its supposed stomachic qualities. The leaves of C. pratensis were formerly used in salads. C. impatiens is so named from the sudden bursting of the seed pods, being ripe and pressed between the fingers. C. pratensis frequently has double flowers. C. hirsuta and, it is said, other species, produce young plants from the leaves. All that is necessary is to lay the leaf on a moist grassy surface, or on moss kept moist. The plant propagates itself extensively in this way in moist soils.

1393. *Pteroneuron.* From πτερον, a wing, and νευρον, a nerve, in allusion to the winged nerves of the pods, by which it is distinguished from Dentaria and Cardamine.

9005 Lower lvs. stalked lyrate : terminal lobe ovate ; upper lanceolate cut, Stem branched weak softly villous
9006 Leaves all stalked ovate acumin. coarsely toothed velvety with very fine down, Pedic. and pods spreading
9007 Lvs. stem-clasping acum. somewhat toothed pubescent, Pedicels length of calyx, Pods 1-sided decurved
9008 Leaves stem-clasping toothed oblong dilated and cordate at base, Stem furrowed hispid, Pods pendulous
9009 Cauline leaves linear sessile smooth : lower somewhat toothed ; radical obovate, Pods erect
9010 Cauline leaves sessile oblong lanceolate acuminate somewhat toothed, Pods pendulous falcate [stalk
9011 Lvs. roughish nearly ent. : rad. obov. ; caul ov. or obl. Rac. nodding, Pods erect 3 times as long as their
9012 Lvs. smooth nearly entire : rad. obovate ; cauline ovate, Raceme erect, Pods 4 times as long as their stalk
9013 Leaves smooth nearly entire : rad. oblong obovate ; cauline few oblong, Raceme nodding, Pods. erect
9014 Lvs. hoary with stellated down obl. sinuate toothed : rad. stalked ; caul. sess. Pods 8 times as long as their
9015 Leaves stem-clasping shining [stalk

9016 Leaves ovate lanceolate acuminate subserrate, Raceme terminal long

9017 Lvs. smooth stalked cordate roundish subsinuate toothed, Stem erect, Pods erect twice as long as stalk
9018 Leaves smooth thickish : radical stalked ovate entire ; cauline few entire or 3-lobed, Pods erect
9019 Leaves smooth membranous stalked : radical undivided ; lower cauline 3-fid, upper 5-lobed, Pods erect
9020 Leaves smooth 3-fid, Segments stalked ovate acuminate toothed, Pods spreading
9021 Lvs. smoothish 3-fid, Segm. sess rhomb roundish tooth. Scape naked, Lower branches root-like creeping
9022 Leaves above downy trifid, Segments somewhat stalked ovate lanceolate crenate, Stem ascending
9023 Radical leaves stalked ovate subcordate · cauline pinnatifid with oblong entire lobes, Root granular
9024 Leaves pinnatifid, Segments of radical roundish ; of cauline toothed angular, Stem rooting at base
9025 Lvs. pinnatifid, Segm. ovate nearly entire : term. round 3-lobed, Runners creeping, Stem ascend. pubesc.
9026 Lvs. pinnatifid, Segm of rad. roundish : of cauline linear or lanc. entire, Style very short, Stigma capitate

9027 Leaves pinnatifid or lyrate, Lobes oval angular toothed blunt, Stem erect, Petals oblong linear
9028 Leaves pinnatifid, Segm. of radical roundish mucronate stalked, of the upper oblong subsess. Petals obl.
9029 Leaves pinnatifid, Lobes sessile obl. linear entire the lowest distant from the stem, Petals oblong linear
9030 Leaves pinnatifid, Segm oval oblong somewhat toothed, lowest close to the stem acute stipule-like
9031 Leaves pinnatifid smooth, Segm. 3-7 roundish toothed angular, Pods erect a little longer than stalk
9033 Leaves pinnatifid nearly smooth, Segm. stalked ovate toothed lower pinnatifid, Segm. 3-4

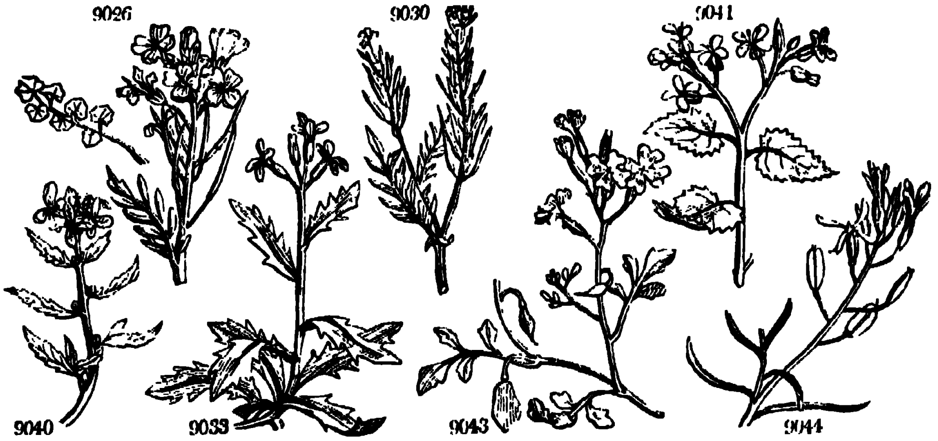
9033 Segm. of leaves somewhat stalked roundish tooth-lobed nearly equal

9034 Leaves 3 whorled stalked trifid, Segm. oval lanceolate acuminate serrated, Stamens length of petals
9035 Leaves 1-2 alternately shortly stalked 3-fid, Segm ovate lanceolate coarsely and unequally serrate lobed
9036 Leaves many alternate stalked trifid, Segm broad oval cut toothed, Axillæ without glands
9037 Leaves many alternate stalked trifid, Segm. ovate-lanceolate remotely toothed, Axillæ with glands
9038 Caul lvs many alternate stalked palmate 5-lobed, Segm. oblong lanceolate acuminate coarsely serrated
9039 Cauline leaves alternate stalked pinnatifid, Segm oblong acuminate serrate toothed
9040 Cauline leaves alternate pinnatifid : upper undivided mostly bearing bulbs in the axillæ

9041 Pods lanceolate narrowed at each end
9042 Pods elliptical blunt at each end

9043 Leaves sub-bipinnatifid, Lobes oblong sinuate angular

9044 Stem shrubby erect, Leaves linear with close hairs
9045 Stem half-shrubby at base erect, Leaves lanceolate downy
9046 Stems half-shrubby ascending, Leaves oblong obovate stalked and pods hoary with down
9047 Stems herbaceous erect, Leaves oblong repand, Pods velvety with short down, Stigma capitate



and Miscellaneous Particulars.

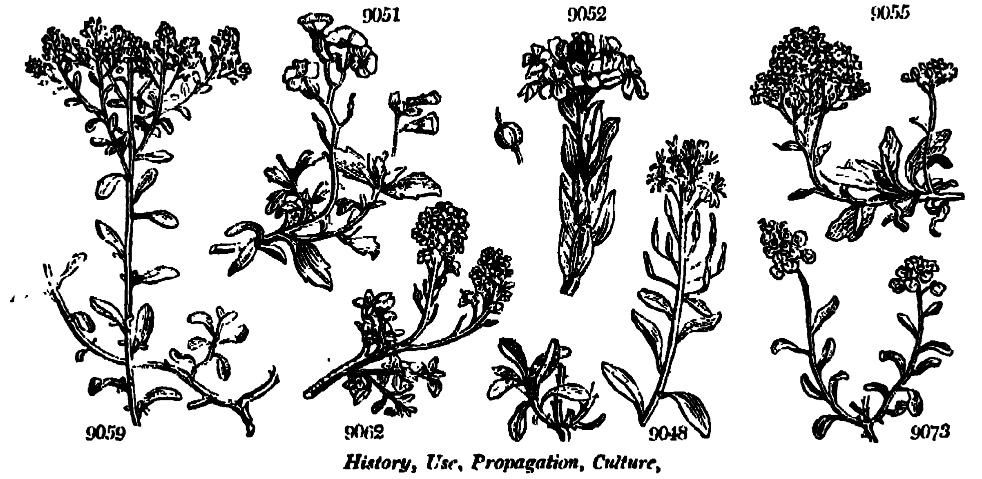
1394. *Dentaria.* From *dens*, a tooth ; its roots are furnished with projecting angles, which resemble the molar teeth of quadrupeds. Plants with broad palmate or pinnate leaves, and shewy white, yellowish, or purple flowers. The dried root of D. diphylla is used instead of mustard by the Americans, under the name of *pepper root.*

1395. *Lunaria.* Derived from *luna*, the moon, in allusion to the broad round silvery silicles. Large hairy plants, with alternate or opposite cordate leaves, and large lilac flowers.

1396. *Ricotia.* A word, the meaning of which is no where explained. It was probably formed after some obscure botanist. Small weak branched annual plants, with variously lobed foliage, and pale lilac flowers.

1397. *Farsetia.* In memory of Philip Farseti, a noble Venetian, celebrated for his botanical erudition. A small genus, with hoary entire leaves, and yellow or dirty-white flowers.

1398. **BERTERO'A.** *Dec.*	Berteroa.					*Cruciferæ.*		*Sp.* 3—5.				
9048 incána *Dec.*	hoary	£	⊙	or	1½	jl.s	W	Europe	1640.	S	s.l	Dal. lug.1181. f.2
Farsétia incána R Br.												
9049 mutábilis *Dec.*	changeable	£	△	or	1½	jl.au	W.pk	Levant	1802.	D	co	Vent. cels. 85
Farsétia mutábilis R. Br.												
9050 obliqua *Dec.*	oblique	ħ	⌋	or	1	jl	W	Sicily	1823.	C	co	Flora Græca, 623
1399. **AUBRIE'TIA.** *Adans.*	Aubrietia					*Cruciferæ.*		*Sp.* 1—2.				
9051 deltoidea *Dec.*	purple	£	△	or	½	mr.my	Pu	Levant	1710.	C	p.l	Bot. mag. 126
Farsetia deltoidea R. Br.												
1400. **VESICA'RIA** *Lam.*	Vesicaria.					*Cruciferæ.*		*Sp.* 3—10.				
9052 utriculáta *Lam.*	smooth	£	△	or	1	ap.jn	L.Y	Levant	1739.	D	s.l	Bot. mag. 130
9053 sinuáta *Poir.*	sinuate-leaved	¥	⊙	or	1	ap.jn	L.Y	Spain	1596.	C	s.l	Clu. his. 2. 134. f 1
9054 crética *Poir.*	Cretan	ħ	⌋	or	½	my.au	Y	Crete	1739.	D	s.l	Alp. exot. t. 118
1401. **ALYS'SUM.** *L.*	Madwort.					*Cruciferæ.*		*Sp.* 18—52.				
9055 saxátile *L*	rock	ħ		or	1	ap my	Y	Candia	1710.	C	s.l	Bot. mag. 159
9056 Gemonénse *L.*	Austrian	ħ		or	1	ap my	Y	Europe	...	C	co	Jac. ic. 3 t. 503
9057 argénteum *W.*	silvery	¥	△	or	1	ap.my	Y	Switzerl.	...	D	co	All. ped. t.54. f.3
9058 Bertolónii *Desv.*	Bertoloni's	¥	△	or	1	ap.my	Y	Switzerl.	1823.	D	co	
9059 murále *W. & K.*	wall	¥	△	or	1	ap my	Y	Hungary	1820.	D	co	Wal. & Kit 1.t.6
9060 tortuósum *W. & K.*	twisted	£	△	cu	1	jn jl	Y	Hungary	1804.	D	s l	Wal. & Kit. t.91
9061 alpestre *L.*	alpine	¥	△	cu	1	jn jl	Y	S. Europe	1825	D	co	All ped. t. 18. f 2
9062 montánum *L.*	mountain	£	△	or	½	jl.au	Y	Germany	1713.	D	s.l	Bot. mag. 419
9063 rostrátum *Stev*	beaked		○	un	¾	my jl	Y	Crimea	1823.	S	co	St.ac p.3.t.15. f.1
9064 micropétalum *Fisch*	small-petaled		○	un	1	my jl	Y	Siberia	1823.	S	co	
9065 campéstre *L.*	field		○	un	1	jl au	L.Y	France	1768.	S	s p	Barr ic t.912 f.2
9066 calycínum *L.*	calycine		○	un	1	jl.au	L Y	Austria	1740.	S	s p	Jac. aust. t. 338
9067 mínimum *W.*	small		○	un	½	jl	L.Y	Spain	1791.	C	s.l	Tratt. thes. t 35
9068 edéntulum *W. & K.*	toothless	£	⊙	un	1	jl	Y	Hungary	1820.	S	co	Wal.& Kit 1.t.92
9069 marítimum *Lam.*	sweet	ħ		un	1	jn s	W	England	sea co	C	s.l	Eng. bot. 1729
9070 rupestre *Tenore.*	rock	ħ	⌋	un	¼	jn.s	W	Naples	1825.	C	co	Tenore nap. t.60
9071 halimifólium *W.*	purslane-leav'd	ħ	⌋	un	¾	jn.s	W	S Europe	1820.	C	co	Bocc. mus t. 39
9072 spinósum *L.*	thorny	ħ	⌋	un	½	jn.au	W	S. Europe	1683.	C	s.l	Barr. ic. 808
1402. **CLYPE'OLA.** *W.*	Treacle Mustard					*Cruciferæ.*		*Sp* 1—3.				
9073 Ion Thlaspi *L.*	annual		○	cu	¼	my.jl	Y	S Europe	1710.	S	co	Cav. ic. 1. t. 34. f.2
1403. **PELTA'RIA.** *L.*	Peltaria.					*Cruciferæ.*		*Sp* 3.				
9074 alliácea *L.*	Garlic-scented	¥	△	pr	1	my jl	W	Austria	1601.	D	s l	Jac. aust.2. t.123
1404 **PETROCAL'LIS.** *R. Br.*	Petrocallis					*Cruciferæ.*		*Sp* 1.				
9075 pyrenáica *R Br.*	Pyrenean	£	△	cu	¼	my jn	Pk	Pyrenees	1759.	D	s.l	Bot. mag. 713
1405. **DRA'BA** *L.*	Whitlow Grass.					*Cruciferæ.*		*Sp.* 11—60.				
9076 aizoídes *L.*	sea-green	¥	△	pr	¼	f.ap	Y	Wales	rocks.	D	s.l	Eng bot 1271
9077 ciliáris *L*	ciliate-leaved	¥	△	pr	¼	f ap	W	Switzerl	1731.	D	s.l	Ger. gal. 1311
9078 aizóon *Wahl.*	evergreen	¥	△	pr	¼	my	Y	Carinthia	1823.	D	co	
9079 alpína *L.*	alpine	£	△	pr	⅛	ap my	Y	Lapland	1820.	D	co	Wah.lap.t.11 f.4
9080 hirta *L.*	hairy	¥	△	pr	¼	my.jl	W	N. Europe	1823.	D	co	Wah.lap.t.11.f.3
9081 rupestris *R Br.*	rock	¥	△	pr	¼	my jl	W	Scotland	al roc.	D	s.l	Eng. bot. 1338
9082 stellata *Jacq.*	stellate	¥	△	pr	½	my.jl	W	Pyrenees	1820.	D	co	
9083 incána *L.*	twisted-podded	¥	⊙	pr	¾	my.jn	W	Britain	al.roc.	S	s.l	Eng. bot. 388
9084 confúsa *Ehr*	confused	£	⊙	pr	¼	my.jn	W	N Europe	...	S	co	Flora Dan t 130
9085 nemorális *Ehr.*	wood		○	pr	½	my jn	Y	Europe	1759.	S	s.l	Ho sys.4 t 60.f 1
9086 murális *L*	Speedwell-lvd.		○	pr	¼	my	W	England	moun.	S	s.l	Eng. bot. 912
1406 **ERO'PHILA.** *Dec.*	Erophila.					*Cruciferæ.*		*Sp.* 1—5.				
9087 vulgáris *Dec.*	common		○	w	¼	mr.ap	W	Britain	walls.	S	s.l	Eng. bot. 586
Draba verna L.												



History, Use, Propagation, Culture,

1398. *Berteroa.* Named after Charles Joseph Bertero, a pupil of Balbis, and a friend of M. Decandolle, who speaks in high terms of his merits. A genus distinguished from its allies by its bifid petals and peculiar habit.

1399. *Aubrietia* Named by Adanson, after Aubriet, the famous French botanical draughtsman. A genus very distinct in habit, and sufficiently different from Berteroa in its entire petals, and from Alyssum in its bisaccate calyx and oblong fruit.

1400. *Vesicaria.* From *vesica*, a blister or bladder. The silicles of this genus are inflated like small bladders. This is a genus which combines species with bisaccate and an equal calyx, with entire and toothed stamens, with edged or not edged seeds, and with a deciduous or persistent calyx. It will, therefore, require division hereafter.

1401. *Alyssum.* From *α*, privative, and *λυσσα*, rage; the Alyssum passed among the ancients for a plant which possessed the properties of allaying anger. The *αλυσσον* of Dioscorides is referred by Sprengel to A. alpestre. The species are shewy plants, of easy culture. A. saxatile is very ornamental early in the season.

9048 Silicles pubescent somewhat ventricose

9049 Silicles compressed flat elliptical smooth

9050 Silicles flat elliptical downy

9051 Pedicels longer than calyx

9052 Calyx bisaccate, Leaves oblong entire smooth ; lower ciliate subspatulate
9053 Calyx equal somewhat spreading and leaves velvety oblong entire or sinuate toothed, Stem herbaceous
9054 Calyx deciduous, Leaves oblong entire or repand wavy hoary with down

9055 Stems ½ shrubby at base subcorymbose, Leaves lanc. entire downy, Pods obov. orb. 2-seeded, Seeds edged
9056 Stems ½ shrubby at base panic. Leaves lanc. nearly entire velvety, Pods roundish 2-4-seeded, Seeds edged
9057 Stems ½ shrubby at base hoary with stellate down, Lvs. obl. spatul. silvery beneath, Pods ovate roundish
9058 Stems ½ shrubby at base hoary with stellate down, Leaves obl. obov. silvery beneath, Pods elliptical
9059 Stems ½ shrubby at base hoary with stellate down, Leaves obl. nearly acute whitish beneath, Pods ovate
9060 Stems ½ shrubby at base twisted diffuse hoary, Leaves hoary sublanceolate, Racemes corymbose
9061 Stems ½ shrubby at base diffuse hoary, Leaves obovate hoary, Racemes simple, Pods ovate oblong
9062 Stems diffuse pubescent, Leaves hoary : lower obovate ; upper oblong, Racemes simple
9063 Stem erect, Flowering branches panic. Lvs. lanceol. downy, Pods roundish elliptic. little longer than style
9064 Stem erect, Leaves lanceolate, Pods hirsute in long racemes twice as long as style
9065 Stems diffuse, Leaves lanceolate or somewhat linear hairy, Pods roundish rough 6 times as long as style
9066 Stems diffuse, Leaves linear lanceolate hoary, Cal. persistent, Pods four times as long as style
9067 Stems diffuse, Leaves linear lanceolate hoary, Pods roundish emarginate smooth
9068 Stem erect, Leaves velvety oblong sinuated : upper linear, Cal. spreading, Petals bifid
9069 Stems half shrubby at base procumbent, Leaves lin. lanceol. acute somewhat hoary, Pods oval smooth
9070 Stems half shrubby at base somewhat erect, Rad. lvs. obl.-lanc. acute silvery : caul. few lin. Pods woolly
9071 Stems ½ shrubby ascend. Lvs. obl. obt. narrowed at base scaly, Pods roundish smooth twice as long as style
9072 Stem shrubby, Branches and old peduncles spiny, Leaves obl. linear silvery, Pods round smooth

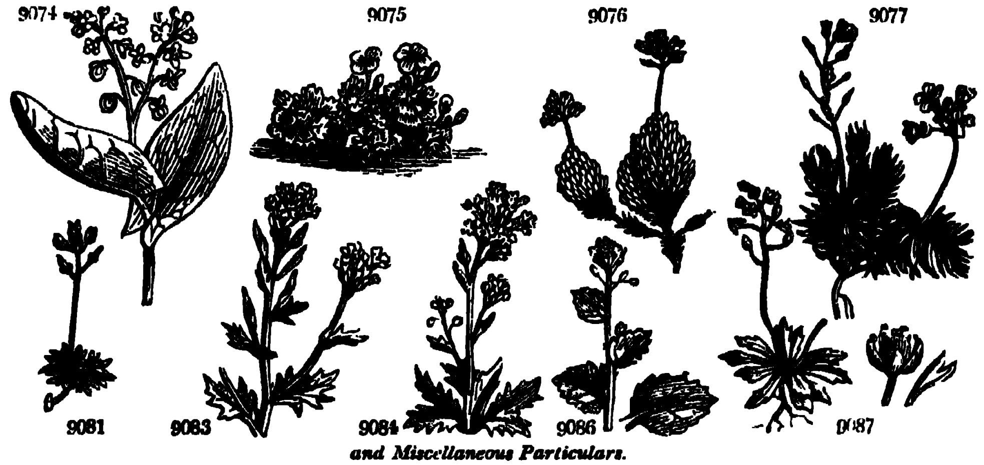
9073 Stems diffuse or ascending

9074 Cauline leaves sagittate stem-clasping, Pods flat smooth

9075 Leaves sessile 3-5-fid at end cuneate at base

9076 Scapes naked smooth, Leaves rigid linear lanceolate keeled ciliated, Stamens as long as petals
9077 Scapes naked smooth, Leaves long linear keeled ciliated, Stamens scarcely as long as calyx
9078 Scapes naked smooth, Leaves linear keeled rigid ciliated, Style as broad as hairy pod but twice as short
9079 Scapes naked downy, Leaves lanceolate flat hairy, Hairs branched, Pods oblong, Style very short
9080 Scapess downy with 2 toothletted leaves, Rad leaves obl. nearly entire downy, Pods smooth
9081 Scapes naked or 1-leaved downy, Leaves lanc. hairy nearly entire, Pods lanceol. pubescent
9082 Scapes 1-leaved pubescent, Leaves ovate obl. with a short starry down, Pedicels downy, Pods oblong
9083 Stem leafy branched velvety with starry down, Leaves ovate toothed, Pod obl. smooth somewhat twisted
9084 Stem leafy branched velvety with starry down, Leaves obl somewhat toothed, Pods obl. pubescent
9085 Stem branched leafy downy, Leaves ovate toothed downy, Pods ellipt. obl. many-seeded (32-36) velvety
9086 Stem branched leafy downy, Lvs. ovate toothed subcord. stem-clasping somewhat hairy, Pods smooth few-
[seeded (12-16)

9087 Pods elliptical shorter than stalk, Scapes 5-15-flowered



and Miscellaneous Particulars.

1402. *Clypeola.* From *clypeus*, a buckler, in allusion to the form of its silicle. A little annual plant, hoary, with stellate pubescence.

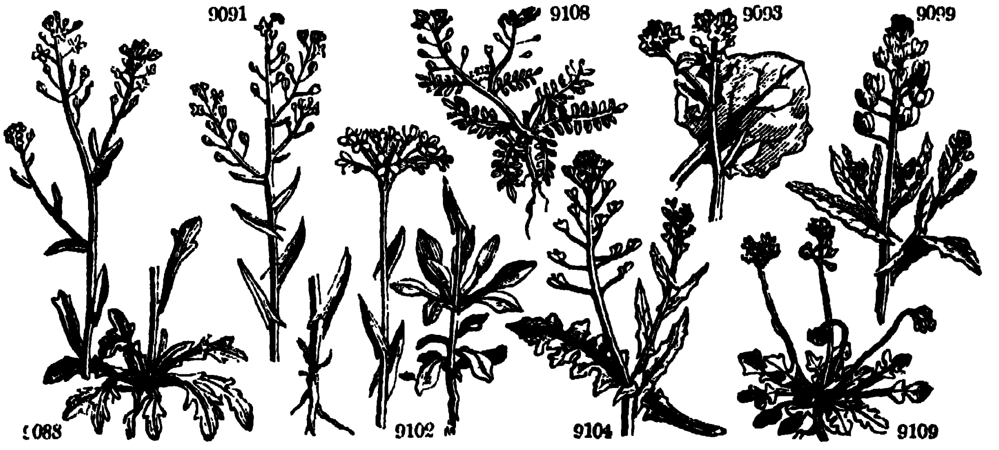
1403. *Peltaria.* A name with the same meaning and application as the last; πελτη signifies in Greek a small buckler.

1404. *Petrocallis.* From πετρον, a rock, and καλος, beautiful, in allusion to the rocky places where it grows, and which it enlivens with its elegant tufts of rose-colored flowers.

1405. *Draba.* From δραβη, acrid, biting, according to Linnæus. Little annual or perennial plants, found, for the most part, in the cold mountainous countries of Europe; a few are also found in America. Some of the species have siliques, others silicles.

1406. *Erophila.* A genus divided from Draba, on account of its bifid petals; and deriving its name from ηρ, the spring, and φιλεω, to love, in allusion to the time of the year when it appears.

1407.	COCHLEA'RIA. *L.*	Scurvy Grass.					*Cruciferæ.*		*Sp.* 9—30.				
9088	saxátilis *R. Br.*	rock	♃	△	un	½	jn.jl	W	Austria	1775.	D	s.l	Jac. aust. 2. t.128
9089	Armorácia *L.*	Horse-radish	✱	△	cul	3	my	W	England	wat.pl.	D	s.l	Eng. bot. 2223
9090	macrocárpa *W.&K.*	large-capsuled	✱	△	un	3	jl	W	Hungary	1806.	D	s.l	Wal.&Kit. t.184
9091	glastifólia *L.*	Woad-leaved	♃	○)	un	1½	my.jl	W	Germany	1648.	S	co	Mo.his.2. t.21.f.3
9092	ánglica *L.*	English		○	ec	½	my	W	Britain	sea sh.	S	co	Eng. bot. 552
9093	officinális *L.*	common		○	ec	½	ap.my	W	Britain	sea sh.	S	co	Eng. bot. 55
9094	gronlándica *L.*	Greenland	♃	△	ec	½	my.jn	F	Scotland	sc. al.	D	co	Eng. bot. 2403
9095	dánica *L.*	Danish		○	ec	¼	my.jn	W	Britain	sea sh.	S	co	Eng. bot. 696
9096	acaúlis *Desf.*	stemless	♃	△	un]	½	ja.ap	W	Portugal	1824.	D	co	Jacq. ecl. t. 132
1408.	THLASPI. *L.*	Shepherd's Purse.					*Cruciferæ.*		*Sp.* 7—17.				
9097	latifólium *Bieb.*	broad-leaved	♃	△	un	1	mr.ap	W	Crimea	1822.	D	co	
9098	ceratocárpon *L.*	Siberian		○	w	1½	jl	W	Siberia	1779.	S	co	Scop. ins. 1. t. 4
9099	arvénse *L.*	Penny-Cress		○	w	½	jn.jl	W	Britain	corn fi.	S	co	Eng. bot. 1659
9100	alliáceum *L.*	Garlic-scented		○	w	½	my.jl	W	S. Europe	1714.	S	co	Jac. ic. 1. t. 121
9101	perfoliátum *L.*	perfoliate	♃	△	w	½	ap.jl	W	England	sto.pa.	D	s.l	Eng. bot. 2354
9102	montánum *L.*	mountain	♃	○)	w	½	jl	W	Austria	...	S	s.l	Jac. aust.3. t.237
9103	alpéstre *L.*	alpine	♃	△	w	½	my.jl	W	England	m.pas.	D	s.l	Eng. bot. 81
1409.	CAPSEL'LA. *Mönch.*	Shepherd's Purse.					*Cruciferæ.*		*Sp.* 1.				
9104	búrsa pastóris *Mön.*	common		○	w	1½	f.n	W	Britain	road si.	S	co	Eng. bot. 1485
1410.	HUTCHINSIA. *R. Br.*	Hutchinsia.					*Cruciferæ*		*Sp.* 4—11.				
9105	rotundifólia *R. Br.*	round-leaved	♃	△	pr	¼	my.jl	W.pu	Switzerl.	1759.	D	co	All.ped.1.t.55.f.2
9106	stylósa *Dec.*	long-styled	♃	○)	pr	1in	my.jl	W	S. Europe	1824.	D	co	Bot. mag. 2772
9107	alpina *R. Br.*	Alpine	♃	△	pr	¼	ap.jn	W	Germany	1775.	D	co	Jac. aust.2. t.137
9108	petræ'a *R. Br.*	rock		○	pr	¼	mr.my	W	England	rocks.	S	co	Eng. bot. 111
1411.	TEESDA'LIA. *R. Br.*	Teesdalia.					*Cruciferæ.*		*Sp.* 2.				
9109	nudicaúlis *R. Br.*	naked-stalked		○	pr	½	my.jl	W	Britain	gra.pa.	S	co	Eng. bot. 327
9110	reguláris *Sm.*	regular		○	pr	¼	f.my	W	S. Europe	1824.	S	co	
1412.	IBE'RIS. *L.*	Candy-Tuft.					*Cruciferæ.*		*Sp.* 16—24.				
9111	semperflórens *L.*	broad-leaved	ħ	⊔	ft	1½	ja.d	W	Sicily	1679.	C	r.m	Zanon.hist.t.165
9112	gibraltárica *L.*	Gibraltar	ħ	⊔	or	1	my.jn	W.pk	Spain	1732.	C	co	Bot. mag. 124
9113	saxátilis *L.*	rock	ħ		or	¾	ap.jn	W	S. Europe	1739.	C	co	Garid.prov.t.101
9114	pubéscens *W.*	pubescent	ħ		or	½	ap.jn	Pa.V	......	...	C	co	
9115	sempervirens *L.*	narrow-leaved	ħ		or	¾	ap.jn	W	Candia	1731.	C	co	Riv. tetr. 224. f.2
9116	amára *L.*	bitter		○	or	1	jn.jl	W	England	chal fi	S	co	Eng. bot. 52
9117	intermédia *Dec.*	intermediate	£	○)	or	1	jn.jl	W	France	1823.	S	co	Bul.ph. n.82.t.21
9118	pinnáta *L.*	wing-leaved		○	ft	1	jn.au	W	S. Europe	1596.	S	co	Lob. ic. 218
9119	odoráta *L.*	sweet-scented		○	ft	1	jl.au	W	Geneva	1806.	S	co	Clu.his. p.132.f.1
9120	umbelláta *L.*	purple		○	or	1	jn.jl	Pu	S. Europe	1596.	S	co	Bot. mag. 106
9121	linifólia *L.*	Flax-leaved	£	○)	or	1½	jl.au	Pu	S. Europe	1759.	C	p.l	Garid. pro. t.105
9122	ciliáta *All.*	ciliate-leaved	£	△]	or	¾	jn.jl	W	Caucasus	1802.	C	co	Bot. mag. 1030
9123	taúrica *Dec.*	Taurian	£	○)	or	¾	jn.jl	W	Caucasus	1823.	S	co	
9124	violácea *R. Br.*	blunt-lvd.-purp.		○	or	¼	jn.jl	Pu	......	1782.	S	co	
9125	nána *All.*	dwarf		○	or	¼	jn.jl	Pu	Dauphiny	1822.	S	co	All. auct. t.2. f.1
9126	Tenoreána *Dec.*	Tenore's	£	△	or	½	jn.jl	Pa.pu	Naples	1823.	D	co	Swt. fl. gar. 88
1413.	BISCUTEL'LA. *L.*	Buckler Mustard.					*Cruciferæ.*		*Sp.* 14—25.				
9127	auriculata *L.*	ear-podded		○	un	1½	jn.jl	Pa.Y	S. Europe	1683.	S	co	Lam.ill. t.560.f.2
9128	erigerifólia *Dec.*	Erigeron-leav'd		○	un	1½	jn.jl	Pa.Y	S. Europe	...	S	co	
9129	híspida *Dec.*	hispid		○	un	1½	jn.jl	Y	S. Europe	1824.	S	co	Barr. ic. t.230
9130	lyráta *L.*	lyre-leaved		○	un	1½	jn.jl	Y	Spain	1799.	S	co	
9131	raphanifólia *Poir.*	radish-leaved		○	un	1½	jn.jl	Y	Sicily	1822.	S	co	



History, Use, Propagation, Culture,

1407. *Cochlearia.* From *cochlear*, a spoon. The leaves are hollowed and concave like the bowl of a spoon. The annual species were formerly used as spring salads and antiscorbutics, but are now generally neglected.

C. armoracia, the horse radish, is cultivated as a condiment to roast beef. It is called upon the continent *Cran*, *Cran de Bretagne*, *Raifort*, *Reerrdyck*, &c. &c. Two excellent modes of cultivating it have lately been described in the Horticultural Transactions, by Knight, a nurseryman, and Judd, a gardener. Both agree in trenching the soil to a considerable depth, and putting the manure at the bottom of the trench; but Knight plants the sets on the surface, and calculates on the root that strikes down to the dung for produce. Judd, on the other hand, makes holes quite to the bottom of his trenched soil, and in each drops a set, filling up the hole with wood ashes, rotten tan, or sand, calculating for produce on the shoot made from the set at the bottom of the hole, up through the sand or ashes to the surface. Judd's mode is the most ingenious, and appears the best, but either will do extremely well. A moist soil increases the bitter and alkaline flavor of this and all the Cruciferæ.

Common scurvy-grass has powerful medical properties, as antiscorbutic and sialagogue, and stimulating the digestive organs. For ample details respecting its qualities, consult *Wier Cochl. Descr.* lib. 1., Basileæ, 1567. *Mœllenbroch Cochl. Cur.*, Lipsiæ, 1674. *Murr. App. Med.* 2. p. 420, &c.

9088 Pods lentiform smooth, Rad. leaves obl. toothed hairy ; cauline linear oblong
9089 Pods ellipsoid, Rad. leaves obl. crenate ; cauline long lanceolate toothed or cut, Root large fleshy
9090 Pods ellipsoid, Rad. lvs. obl. crenate ; cauline lanc. toothed, Teeth cartilaginous, Root fleshy, Sepals erect
9091 Pods roundish, Cauline leaves cordate sagittate stem-clasping acuminate entire
9092 Pods ovate roundish with netted veins twice as short as stalk, Rad. leaves stalked ovate entire ; caul. obl.
9093 Pods ovate globose twice as short as stalk, Rad. leaves stalked cordate ; cauline ovate toothed angular
9094 Pods ovate the length of stalk, Rad. leaves stalked reniform entire ; cauline scarcely any
9095 Silicles ellipsoid the length of pedicel, Leaves all stalked subdeltoid
9096 Silicles roundish emarginate, Pedicels and petioles radical long, Leaves ovate rounded entire

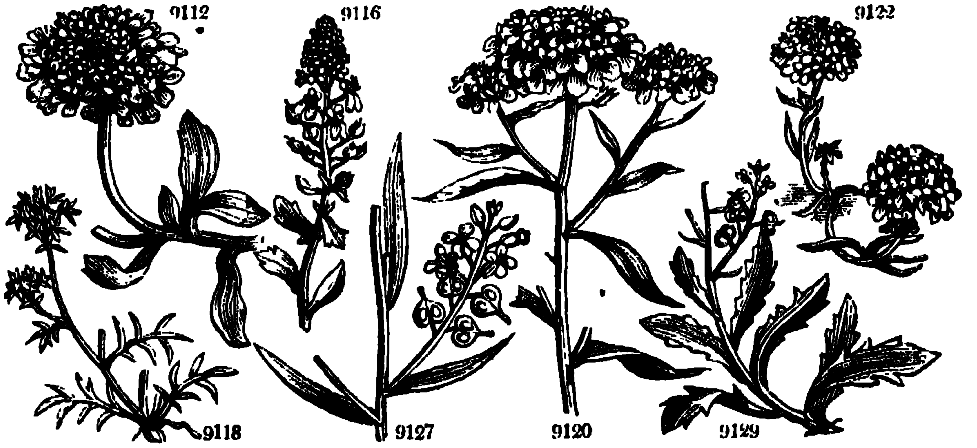
9097 Radical leaves on long stalks cordate repand-toothed ; cauline ovate cordate on short stalks
9098 Rad. lvs. somewhat stalked obovate-obl. ; cauline oblong at the base hastate stem-clasp. with acute auricles
9099 Leaves oblong toothed, Stems erect, Silicles obovate orbicular shorter than pedicel
9100 Lvs. obl. tooth. blunt : lower stalked ; upper sagit. stem-clasp. with acute auricles, Silicles subov. ventricose
9101 Lvs. somew. tooth. : rad. stalk. ; caul. cord. stem-clasp. Stem branch. Pet. length of cal. Silicles obcordate
9102 Lvs.somew. fleshy ent.: rad. obov. stalk.; caul. obl. sagitt. stem-clasp. Pet. larg. than cal. Silic. obc. 4-seeded
9103 Lvs. nearly entire : rad. ovate stalked ; caul. obl. stem-clasp. Pet. as long as cal. Silic. obcord. 8-12-seeded

9104 Radical leaves pinnatifid, Silicles obcordate

[twice as short as silicle
9105 Lvs. somew. fleshy entire : lower stalk. obov. ; caul. ovate obl. somewhat stem-clasp. Stam. petals and style
9106 Lvs. somew. fleshy : lower stalk obov. obl. entire ; caul obl. Stamens petals and style about length of silicle
9107 Lvs. pinnated smooth, Pet. twice as long as decid. cal. Silicles acute at each end, Style very short exserted
9108 Lvs. pinnated, smooth, Pet. scarcely longer than calyx, Silicles blunt at each end 4-seeded, Stigmas sessile

9109 Petals unequal : outer largest
9110 Petals equal

9111 Shrubby, Lvs. cuneate or spatul. blunt ent. smooth, Flowers corymbose, Silicles truncate subemarg. at end
9112 Shrubby, Leaves cuneiform obtuse somewhat toothed at end a little ciliated, Flowers corymbose
9113 Shrubby, Leaves linear entire somewhat fleshy rather acute smooth or ciliated, Flowers corymbose
9114 Shrubby, Leaves ciliated blunt linear spatulate ; lower somewhat toothed at end, Flowers corymbose
9115 Shrubby, Lvs. obl blunt narrowed at base smooth, Fls. in long racemes, Silic. emarg. with a narrow recess
9116 Herbaceous, Lvs. lanc. acute somew. toothed, Fls. corym. becoming racem. Silic. obcord. narrowly emarg.
9117 Herbaceous, Lvs. lanc. blunt smooth entire or the rad. somew. toothed, Fls finally racem. Silic. ovate trun.
9118 Herbaceous smooth, Leaves pinnatifid, Racemes corymbose but little elongated after flowering [style
9119 Herb. smooth, Lv lin. tooth ciliat. at base dilat. at end, Silic. round. Lobes of end acute spread. short. than
9120 Herbaceous smooth, Leaves lanc. acuminate : lower serrate ; upper entire, Silicles umb. acutely 2-lobed
9121 Herbaceous smooth, Leaves linear entire : radical somewhat toothed, Silicles corymbose 2-toothed
9122 Herb. smoothish, Lvs. lin. entire ciliated at base, Silic. corymb. emargin. with blunt lobes as long as styles
9123 Herb smoothish, Leaves ciliat. somew. fleshy : lower spatul. 2-tooth. at end ; upp. lin. Silic. corymb. emarg.
9124 Herb. smoothish, Lvs. stalked spat. blunt toothed and ent. ciliat. Corymb somew. umbel. Cal. hairy at back
9125 Herbaceous smooth, Lvs round. spatul. ent. rather fleshy, Silic. corymb. emarg. with a broad blunt recess
9126 Half-shrubby at base pub. Lvs. rather fleshy cren. : lower ob. narr. at base ; upp. obl lin. Sil. somew. corymb.
[emarginate
9127 Cal. bluntly 2-spurred, Silicles smooth rough with elevated dots in centre, Lobes of end meeting over style
9128 Cal. bluntly 2 spurred, Silicles smooth even, Lobes at the end somewhat meeting over the style
9129 Cal. acutely 2-spur. Silic smooth with elevat. rough points on disk, not overhang style at end, Stem hispid
9130 Silicles hispid on each disk, Radical leaves lyrate
9131 Silicles smooth even, Radical leaves lyrate



and Miscellaneous Particulars.

1408. *Thlaspi.* From θλαω, to compress. The Thlaspi, says Pliny, bears seeds like the lentil, and compressed, whence its name. T. arvense, when rubbed, has the smell of garlic.

1409. *Capsella.* A diminutive of *capsula.* This, which is the common shepherd's-purse, has been separated from Thlaspi on account of its valves not being winged at back.

1410. *Hutchinsia.* Named after Miss Hutchins, to whom Sir James Smith was indebted for many communications of submarine algæ during the progress of his English Botany.

1411. *Teesdalia.* Named after Mr. Robert Teesdale, author of a Catalogue of the Plants growing about Castle Howard, in the North Riding of Yorkshire, published in the Transactions of the Linnean Society. Small annual smooth herbs, with revolute leaves, and simple scapes of small white flowers

1412. *Iberis* From the country called *Iberia,* now Spain. Most of the species grow in such countries. They are generally pretty plants, and some of them are commonly cultivated in gardens as hardy annuals, under the name of Candy-tuft ; a name which was originally applied to the I. umbellata only, which was first discovered in Candia, and called Thlaspi Candiæ by Lobel and Dodonæus.

1413. *Biscutella.* From *bis scutella,* a double shield, in allusion to the form of its seed-vessel when bursting. Small annual or perennial hispid plants, with small bright yellow flowers. The species are nearly related to each other, and difficult to distinguish.

9132 maritima *Tenore.*	sea-coast		○	un	1½	jn.jl	Y	Naples	1824.	S	co	Ten. nap. t. 61
9133 ciliáta *Dec.*	ciliated		○	un	1	jn.jl	Y	S. France	1820.	S	co	Dec. ic. gall. t.39
9134 Colum'næ *Tenore.*	Columna's		○	un	1	jn.jl	Y	S. Italy	1823.	S	co	Col.ecp. t.284.f.1
9135 A'pula *L.*	spear-leaved		○	un	1	jn.jl	Y	Italy	1710.	S	co	Lam.ill. t.560.f.1
9136 lævigáta *L.*	smooth-podded	¥	△	un	1	jn.jl	Y	Italy	1777.	D	co	Jac. aust.4. t.339
β *alpéstris* W. & K.	*Hungarian*	¥	△	un	1	jn jl	Y	Hungary	1816.	D	co	Pl.rar.hu.3.t.228
9137 coronopifólia *All.*	buck's-horn-lv.	¥	△	un	½	jn.jl	Y	Italy	1790.	D	co	Dec. diss. t. 18
9138 ambigua *Dec.*	doubtful	¥	△	un	¾	jn.jl	Y	S. Italy	1820.	D	co	Dec.diss. t.11.f.1
9139 saxátilis *Dec.*	stone	¥	△	un	¼	jn.jl	Y	S. Europe	1821.	D	co	
9140 sempervirens *L.*	downy-leaved	£	△	un	½	jn.jl	Y	Spain	1784.	C	s.l	Barr. ic. t. 841
1414. EUCLI'DIUM. *R. Br.*	Euclidium.				*Cruciferæ.*			*Sp.* 1—2.				
9141 syriacum *R. Br.*	Syrian		○	cu	¾	jl.au	W	Levant	1778.	S	co	Jac. aus. 1. t. 6
1415. OCHTHO'DIUM. *Dec.*	Ochthodium.				*Cruciferæ.*			*Sp.* 1.				
9142 ægyptiacum *Dec*	Egyptian		○	cu	¾	au	Y	Egypt	1787.	S	co	Jac.vind.2. t.145
Bunias ægyptiaca L												
1416. ANASTA'TICA. *L.*	Rose of Jericho.				*Cruciferæ.*			*Sp.* 1.				
9143 Hierochun'tia *L.*	common		△	cu	½	jn.au	W	Levant	1597.	D	co	Jac. vind. 1. t. 58
1417. CAKI'LE. *Tourn.*	Cakile.				*Cruciferæ.*			*Sp.* 1—3.				
9144 maritima *Scop.*	Sea Rocket		○	un	¾	jn.s	Pu	Britain	sea sh.	S	s.l	Eng. bot. 231
1418. RAPIS'TRUM. *Desv.*	Rapistrum.				*Cruciferæ.*			*Sp.* 3—5.				
9145 perénne *Dec.*	perennial	£	△	un	1½	jl	Y	Germany	1789.	D	s.l	Jac. aust.5. t.414
Cakile perennis Lher.												
9146 rugósum *All.*	wrinkled		○	un	1½	jn.jl	Y	S. Europe	1739.	S	s.l	All. ped. 1. t. 78
Cakile rugosa Lher.												
9147 orientále *Dec.*	oriental		○	un	1	jl	Y	Levant	1795.	S	co	Flo. Græca, t.612
Myagrum orientale L.												
1419. CHORISPO'RA. *Dec.*	Chorispora.				*Cruciferæ.*			*Sp.* 2—4.				
9148 tenélla *Dec.*	purple		○	un	½	jn.jl	Pu	Siberia	1780.	S	co	Pall. it. 3. t.L. f.3
γ *arcuáta*	*bowed*		○	un	¼	jn.jl	Pu	Siberia	...	S	co	
Raphanus arcuatus W.												
9149 sibírica *L.*	Siberian		○	un	½	jn.jl	Y	Altai	1823.	S	co	Mur. 1775. 48 11
1420. MALCO'MIA. *R. Br.*	Malcomia.				*Cruciferæ.*			*Sp.* 9—15.				
9150 africána *R. Br.*	African		○	or	¾	jn.jl	Pu	Africa	1747.	S	s.l	Bocc.sic. t.42. f.1
9151 taráxacifólia *Dec.*	Dandelion-lvd.		⊙	or	¾	jn	Pu	Siberia	1795.	S	l.p	
9152 láxa *Dec.*	lax		○	or	2	jn	Pu	Siberia	1820.	S	co	
9153 Chia *Dec.*	dwarf branching		○	or	1	jn	Pu	Chio	1732.	S	s.l	Dil el.t.148.f.178
9154 maritima *R. Br.*	dwarf annual		○	or	¾	my.jn	V	S. Europe	1713.	S	s.l	Bot. mag. 166
9155 arenária *Dec.*	sand		○	or	¾	jn jl	V	Algiers	1804.	S	s.l	Desf. atl. 2. t.162
9156 parviflóra *Dec.*	small-flowered		○	or	½	jn.jl	V	S. Europe	1823.	S	co	Dec. ic. gall. t.35
9157 lyráta *Dec.*	lyrate		○	or	¼	jn.jl	Pu	Cyprus	1820.	S	co	Flor. Græc. t.635
9158 littórea *R. Br.*	small sea		○	or	1	jn.n	W.y	S. Europe	1683.	S	s.l	Lob. ic. t.331. f.1
1421. HES'PERIS. *L.*	Rocket.				*Cruciferæ.*			*Sp.* 6—20.				
9159 tristis *L.*	night-smelling	£	⊙	or	1	ap jn	D.Pu	Austria	1629.	S	s.l	Bot. mag. 730
9160 laciniáta *All.*	jagged	£	⊙	or	1½	my.jn	Pu	S France	...	S	co	All. ped. t.82. f.1
9161 runcináta *W. & K.*	runcinate	£	⊙	or	1½	jn.jl	W.pu	Hungary	1804.	S	s.l	Pl. rar. h.2. t.200
β *bituminósa* Savi.	*clammy*	£	⊙	or	1½	jn.jl	W.pu	......	1816.	S	s.l	
9162 matronális *L.*	common	£	△	or	4	my.au	Pu	Italy	1597.	D	p.l	Lam.ill. t.564.f.1
β *inodóra* L.	*scentless*	£	△	or	4	my jn	Pk	Britain	past.	S	s.l	Eng. bot. 731
9163 aprica *Poir.*	exposed	£	△	or	½	my.jn	Pu	Siberia	1822.	S	co	
9164 arabidiflóra *Dec.*	naked-stalked	£	△	or	¼	mr.my	Pu	Siberia	1798.	D	s.l	Amæ.ac. t.4.f.20
Arabis grandiflóra L.												

History, Use, Propagation, Culture,

1414. ***Euclidium.*** From ευ, well, and κλειδοω, to shut up, because of the firmly closed seed vessel.

1415. ***Ochthodium.*** So called from οχθωδης, warted, in allusion to the surface of the pods.

1416. ***Anastatica.*** Derived from αναστασις, resurrection. This plant has been so called because it has the curious property of recovering its original form, however dry it may be, upon immersion in water. The common people believe that if you put this in water at the time when a woman first experiences the pains of childbirth, it will expand at the precise moment when the infant is brought into the world. Commonly called Rose of Jericho. It grows in the arid wastes of Arabia and Palestine, where it is called *kaf maryam*, that is to say, Mary's hand.

1417. ***Cakile.*** An Arabic word employed by Serapio. Smooth fleshy annual plants, with pinnatifid leaves, and white or purple flowers. They all grow upon the sandy coasts of the northern hemisphere. C. maritima is said by Anguillara to be a powerful cathartic.

9132 Silicles even ciliated at edge, Radical leaves lyrate
9133 Silicles even ciliated at edge, Stem erect elongated leafy, Leaves sessile oblong remotely toothed [at base
9134 Sil. rough on edge and disk with a very fine down, Rad. lvs. obov. cun. acute tooth. Stem somew. nak. hisp.
9135 Silicles rough on the edge and disk with a very fine down, Leaves lanc. serrate, Stem leafy branched hairy
9136 Silicles smooth even, Rad. leaves rough with hair oblong narrowed into stalk : cauline linear few entire

9137 Silicles smooth even, Leaves rough with hairs, generally radical pinnatifid with 2-3 rem. lobes on each side
9138 Sil. smth. even, Lvs. rough with hairs : rad. sin.-tooth. narr at base ; caul. very few cord. at base ½ stem-clasp.
9139 Silicles smooth rough with elevated dots on the disk, Leaves hairy generally radical oblong
9140 Silicles smooth rough with elevated dots on disk, Lvs. mostly radical erect linear lanc. hoary nearly entire

9141 Silicles scabrous with a persistent subulate style, Cauline leaves stalked lanceolate

9142 The only species

9143 The only species

9144 Upper joint of the silicle ensiform

9145 Silicles smooth : upper joint ovate longer than style, Leaves pinnatifid, Lobes toothed cut acute

9146 Silicles downy : upper joint round rugose shorter than style, Leaves blunt toothed ; radical sublyrate

9147 Silicles furrowed smooth, Leaves oblong toothed sinuated

9148 Silique and leaves smooth : upper lanceolate toothed ; lower pinnatifid

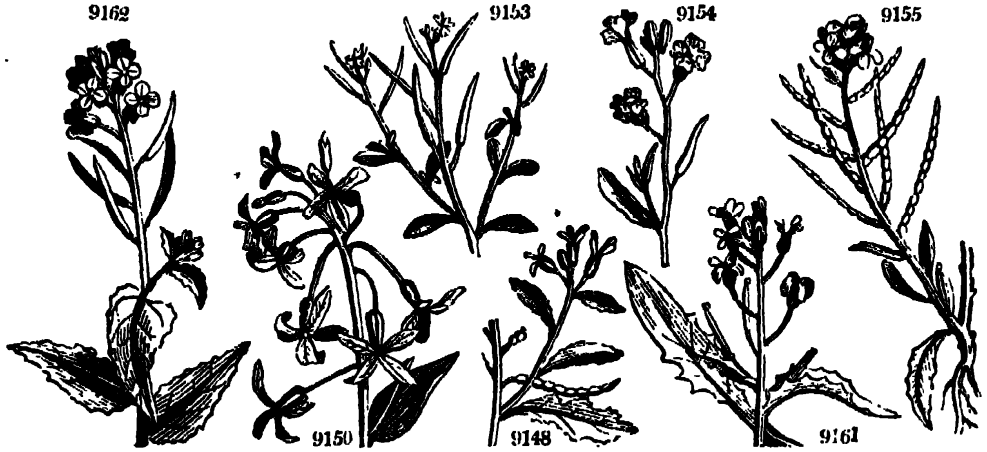
9149 Siliques and leaves nearly smooth, Leaves all sinuate pinnatifid

9150 Stem branched diff. Lvs. lanc. somew. toothed, Down 2-4-parted, Pedi. shorter than persist. cal. Siliq. rough
9151 Stem erect simple, Lvs. obl. cut tooth. Down 3-parted, Pedi. shorter than decid. cal. Siliq. smth. about 4-cor.
9152 Stem branched somew. hairy at base, Lvs. ov. acute toothed angul. and siliq. smooth, Pedi. shorter than cal.
9153 Stem erect branch. Lvs. obov. ent. Down 2-parted app. Pedi. length of cal. Siliq. round. pub. Style very short
9154 Stem erect branched, Lvs. ellipt. blunt ent. narr. at base, Down appr. 2-4-parted, Pedicels shorter than cal.
9155 Stem erect branched, Lvs. lanc. acute : lower toothed sess. Down stel. Pedi. very short, Pods torulose subul.
9156 Stem erect branched, Lvs. obl. blunt nearly ent. Down tom. stel. Pedicels finally as long as cal. Pods pubesc.
9157 Stem erect branched, Lower lvs. lyrate stalked blunt, Down app. 2-part. Pedicels length of cal. Pods pubesc.
9158 Stem compound erect, Leaves lanceolate linear nearly entire hoary, Pedicels length of cal. Pods hoary

9159 Pedicels very long spreading stiff as broad as silique which is thickened at each edge, Petals obl. oblique
9160 Pedicels shorter than cal. Petals obovate oblong, Leaves obovate cut-toothed, Stem hispid
9161 Pedic. longer than cal. Petals obov. somew. pointed, Lvs. downy : lower lyrate runcinate ; upper lanc. acum.

9162 Pedicels length of cal. Petals obov. Siliq. erect torose smooth not thickened at edge, Lvs. ovate lanc. toothed

9163 Pedicels glandular hairy length of cal. Petals obovate, Leaves oblong blunt and stem simple ciliate hispid
9164 Pedic. scarcely so long as cal. Petals obovate, Leaves somewhat radical somewhat fleshy lanc. Scape simple



and Miscellaneous Particulars.

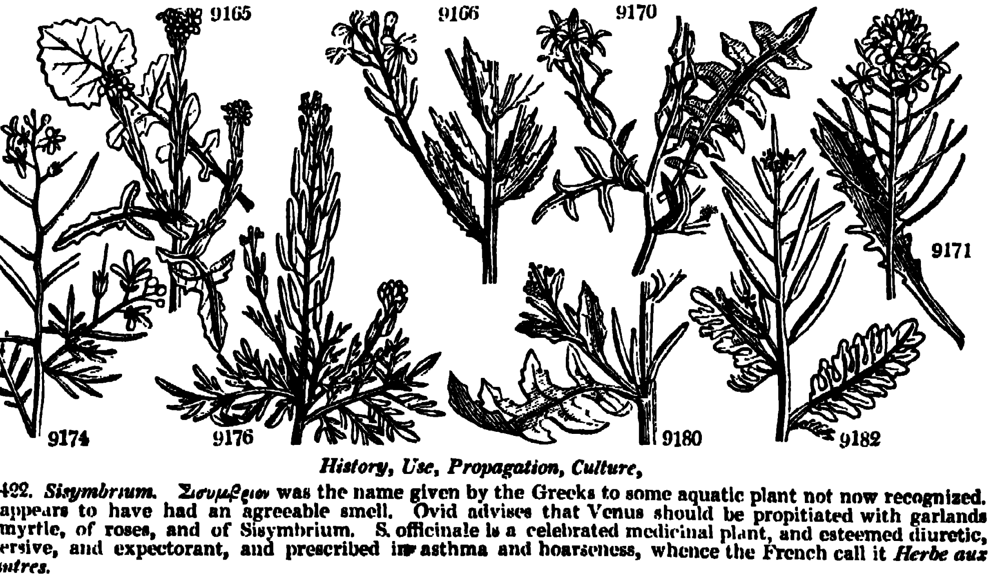
1418. *Rapistrum;* that is to say, resembling *Rapa.* A genus very near Cakile, from which it differs in having yellow flowers, and leaves not fleshy, and more or less hairy.

1419. *Chorispora.* From χωρις, separately, and σπερμα, seed; each seed being enclosed separately in the pod. This differs from Raphanus in having flat decumbent cotyledons, not folded incumbent ones. Little annual plants.

1420. *Malcomia.* Named after Mr. William Malcolm, an eminent nurseryman in the neighbourhood of London, and a person of some botanical acquirements. M. maritima is a common annual, which, sown at different times, or left to sow itself, will be in flower nearly all the year.

1421. *Hesperis.* From ἑσπερος, the evening. The flower is more fragrant towards evening than at other periods of the day. H. matronalis, in its double varieties, is rather difficult to keep, and requires to be yearly renewed by cuttings. It prefers a strong loamy soil; and it has been remarked, that it neither thrives in the neighbourhood of London or Paris.

1422.	**SISYM'BRIUM.** *L.*	Sisymbrium.					*Cruciferæ.*		*Sp.* 20—53.				
9165	officinále *Scop.*	Hedge-Mustard		○	w	1½	my.jl	Y	Britain	was.gr.	S	co	Eng. bot. 735
9166	strictíssimum *L.*	spear-leaved	£	△	un	3	jn.au	Y	Switzerl.	1658.	D	co	Jac. aust.2. t.194
9167	júnceum *Bieb.*	rushy	£	⦶	un	2	my.jn	Y	Hungary	1820.	S	co	Wal.&Kit. t.234
9168	hispánicum *Jacq.*	Spanish	£	⦶	un	1½	my.jn	Y	Spain	...	S	co	Jac.ic.ra.1. t.124
9169	obtusan'gulum *W.*	obtuse-angled		○	un	1½	my.au	Y	Switzerl.	1823.	S	co	Mor. s.3. t.5. f.10
9170	sinapoídes *R. Br.*	Pyrenean	£	⦶	un	1½	jn.jl	Y	Pyrenees	1791.	S	co	Jac. vind. 3. t. 97
9171	austríacum *Jacq.*	Austrian		○	un	1½	jn.au	Y	Austria	1799.	S	co	Jac. aust.3. t.262
	β *Eckartsbergénse* W.	*Austrian*	£	⦶	un	1½	jn.jl	Y	Austria	1799.	S	co	
9172	I'rio *L.*	London Rocket		○	w	1½	my.au	Y	England	walls.	S	co	Eng. bot. 1631
9173	Colum'næ *Jacq.*	Columna's		○	un	2	jn.jl	Y	Italy	1796.	S	co	Jac. aust.4. t.323
	β *altissimum* L.	*tall*		○	un	2	au	Y	Siberia	1759.	S	co	Walth.hort.t.22
	γ *orientále* L.	*oriental*		○	un	2	jl.au	Y	Levant	1739.	S	co	
9174	pannónicum *Jacq.*	Hungarian		○	un	2	jl.au	Pa.Y	Hungary	1787.	S	co	Jac. ic. 1. t 123
9175	ásperum *L.*	rough-podded		○	un	¾	my.jn	Y	S. France	1778.	S	co	Bauh.his.2858.3
9176	Sophia *L.*	Flix-weed		○	un	1	jl	Y	Britain	was.gr.	S	co	Eng. bot. 963
9177	millefólium *H. K.*	Milfoil-leaved	ɯ	⊔	pr	1½	my.s	Y	Canaries	1779.	C	co	Jac. ic. 1. t. 127
9178	tanacetifólium *L.*	Tansy-leaved	£	△	un	3	jn.jl	Y	Italy	1731.	D	co	Zanon.hist. t 72
9179	supinum *L.*	dwarf		○	un	½	jn.jl	W	S. Europe	1778.	S	co	Isn.act. par. t.18
9180	polycerátium *L.*	Dandelion-lvd.		○	un	¾	jn.jl	Y	S. Europe	1633.	S	co	Jac. vind. 1. t.79
9181	rígidum *Bieb.*	stiff		○	un	½	jn.jl	W	Crimea	1824.	S	co	
9182	bursifólium *L.*	various-leaved		○	un	¾	jn.jl	W	S. Europe	1732.	S	co	Dil.el.t.148.f.177
9183	pinnatífidum *Dec.*	pinnatifid	£	△	un	½	jn.jl	W	S. Europe	1820.	D	co	All. ped. t.57. f.3
9184	integrifólium *L.*	entire-leaved	£	◑	un	½	jn	W.pu	Siberia	1822.	S	co	
1423.	**ALLIA'RIA.** *Adans.*	Hedge Garlic.					*Cruciferæ.*		*Sp.* 2.				
9185	officinális *Andrz.*	common	£	△	w	3	my	W	Britain	hed.	D	co	Eng. bot. 796
	Erysimum Alliaria L.												
9186	brachycárpa *Bieb.*	short-fruited	£	△	un	1	jl.au	W	Iberia	1824.	D	co	
1424.	**ERY'SIMUM.** *L.*	Hedge-Mustard.					*Cruciferæ.*		*Sp.* 15—41.				
9187	sessiliflórum *R. Br.*	sessile-flowered	£	△	un	2	jn.jl	Y	Siberia	1794.	D	co	L'He.stir 1 t.44
9188	angustifólium *Ehr.*	narrow-leaved		○	un	2	jl.au	Y	Hungary	1800.	S	co	Pl rar.hung. t.98
9189	cuspidátum *Dec.*	cuspidate	£	⦶	un	2	my jn	Y	Hungary	1822.	S	co	Bux. cen.t.33.f.1
9190	odorátum *R. Br.*	fragrant		○	un	1½	jl.au	Y	Austria	1795.	D	co	
9191	virgátum *Roth.*	twiggy	£	⦶	un	1½	jl	Y	Portugal	1807.	D	co	
9192	ibéricum *Dec.*	Armenian	£	△	or	1	my	Y	Armenia	1803.	C	l.p	Bot. mag. 835
	Cheir. armeniacus Sims.												
9193	cheiranthoídes *L.*	treacle		○	un	1½	jl.au	Y	Britain	fields.	S	co	Eng. bot. 942
9194	repándum *L.*	small-flowered		○	un	1	my.jn	Y	Spain	1772.	S	co	Jac. aust. 1. t. 22
9195	helvéticum *Dec.*	Swiss	£	⦶	un	1½	my.jn	Y	Switzerl.	1793.	S	s p	Jac. vind. 3 t. 9
9196	diffúsum *Ehr.*	Alpine	£	△	un	1½	my.jl	Y	S. Europe	1731.	D	co	Jac. aust. 1. t. 75
9197	lanceolátum *R. Br.*	spear-leaved	£	○	un	1	my.jl	P.Y	S. Europe	1597.	S	co	Jac. aust. 1. t. 74
9198	dúbium *Dec.*	doubtful	£	○	un	1½	my jl	Y	......	1823.	S	co	
9199	ásperum *Dec.*	rough	£	○	un	1½	my.jn	Y	N. Amer.	1822.	S	co	
9200	alpinum *Baumg.*	Alpine	£	△	un	1½	my.jn	W	Germany	1793.	D	s.l	Vil dauph.3.t 36
	Brassica alpina L.												
9201	orientále *R. Br.*	Hare's Ear		○	un	1	jn	W	England	cliffs.	S	co	Eng. bot. 1804
	austriacum Baumg.												
1425.	**CAMELI'NA.** *Crantz.*	Gold of Pleasure.					*Cruciferæ.*		*Sp* 3—6.				
9202	sativa *Crantz.*	cultivated		○	cc	1	my.jl	Y	Britain	corn fi.	S	s.l	Eng. bot. 1254
9203	dentáta *Pers.*	tooth-leaved		○	un	1	my.jl	Y	Europe	1806.	S	s.l	Bauh. his. 2. 893
9204	austríaca *R. Br.*	Austrian		○	un	1	jn.jl	Y	Austria	1795.	S	s.l	Jac. aust. 2.t.111
1426.	**NES'LIA.** *Desv.*	Neslia.					*Cruciferæ.*		*Sp.* 1.				
9205	paniculáta *Desv.*	panicled		○	un	1½	jl.au	Y	Europe	1683.	S	co	Gært. sc. 2. t.141
	Myagrum paniculatum L.												
1427.	**CORO'NOPUS.** *Smith.*	Wart Cress.					*Cruciferæ.*		*Sp.* 2.				
9206	didyma *Sm.*	lesser		○	w	¼	jl.au	W	England	rubbish.	S	co	Eng. bot. 248
9207	Ruel'lii *All.*	Star of the Earth		○	w	½	jn.au	W	Britain	ro. si.	S	co	Eng. bot. 1660



History, Use, Propagation, Culture,

1422. *Sisymbrium.* Σισυμβριον was the name given by the Greeks to some aquatic plant not now recognized. It appears to have had an agreeable smell. Ovid advises that Venus should be propitiated with garlands of myrtle, of roses, and of Sisymbrium. S. officinale is a celebrated medicinal plant, and esteemed diuretic, detersive, and expectorant, and prescribed in asthma and hoarseness, whence the French call it *Herbe aux chantres.*

1423. *Alliaria.* From *allium*, garlic, in allusion to the smell of the leaves of this plant, for the sake of which it was formerly used in salads.

1424. *Erysimum.* From ερυω, to cure, on account of the salutary effects of this plant in medicine. It is even now reckoned a powerful cure for the sore throat. The plant of the ancients appears to have been our garden cress; for Pliny says the Gauls called his Erysimum *velar*, and the garden cress is to this day called *vilhar* in

9165 Leaves runcinate hairy, Stem hairy, Siliques subulate appressed to the rachis
9166 Leaves lanceolate stalked toothed pubescent
9167 Leaves smooth glaucous: lower stalked runcinate pinnatifid; upper linear lanceolate entire
9168 Leaves lanc. toothed sessile smooth, Stem branched divaricating, Siliques erect roundish smooth [base
9169 Leaves pinnated, Lobes oval oblong blunt sinuate-toothed with rounded recesses, Stem hispid backward at
9170 Stem and lvs. smth.: rad. runcin.; caul. pinnatifid, Lobes and recesses acute, Cal. much spread. Pods rough
9171 Stem pods and lvs. smooth: rad. runcin.; cauline cut or pinnatifid, Lobes and recesses acute, Cal. spreading

9172 Stem and leaves smooth runcinate pinnate, Lobes toothed terminal elongated, Cal. and pods spreading erect
9173 Stem villous somew. hoary, Leaves runcinate pubes. Lobes toothed or ent. acute, Pods nearly erect, Cal. lax

9174 Lower leaves runcin. hispid with toothed lobes: upper pinnated smooth with lin. ent. lobes, Pods spreading
9175 Lvs. smth. pinnat. with obl. blunt somew. tooth. lobes, Pedic. very sh. Pods muric. rough point. with sh. style
9176 Leaves bipinnate with oblong linear cut lobes, Pedicels 4 times as long as calyx, Petals smaller than calyx
9177 Leaves about 3-pinnate hoary with very small blunt lobes, Stem ½ shrubby, Petals larger than calyx
9178 Lvs. pinnated, Segm. lanc. cut serrated: outer confluent, Petals larger than calyx, Pods shorter than stalk
9179 Pedic. axillary very short solitary, Pods erect downy, Leaves sinuate pinnatifid, Stem downy backwards
9180 Pedic. about 3 axill. very short, Pods erect smooth, Lvs. sinuate runcin. Lobes acute toothed lowest largest
9181 Pedic. very short axill. or naked, Pods and stems erect hispid, Leaves smoothish obl. acutely runcin.-pectin.
9182 Leaves lyrate pinnatifid smooth, Stem erect leafy, Pedicels thick shorter than calyx
9183 Rad. leaves lyrate: cauline pinnat. Lobes linear ent. term. largest, Pedic. slender almost shorter than calyx
9184 Leaves linear entire, Branches and pedicels glandular and hairy, Pods glandular

9185 Leaves cordate, Pods prismatical much longer than pedicel

9186 Leaves ovate roundish, Pods lanceolate the length of their stalk

9187 Pods length of style: when young covered by the persistent calyx, Fl sessile, Leaves linear entire
9188 Pods much longer than style when young having a persistent calyx, Fl. subsessile, Leaves linear entire
9189 Pods thrice as long as style 2-edged naked, Fl. on short stalks, Leaves oblong lanceolate sinuate toothed
9190 Leaves lanc. toothed pubescent with a 3-parted down, Stem branched, Pods lax, Stigma 2-lobed [of pod
9191 Lvs. obl. lanc. somew. tooth. pub with 3-part. down, Stem straight round, Length of style great. than breadth
9192 Lower leaves runcinate toothed: upper lanc. undivided, Fl. branches and pods comp. 4-cor. erect spreading

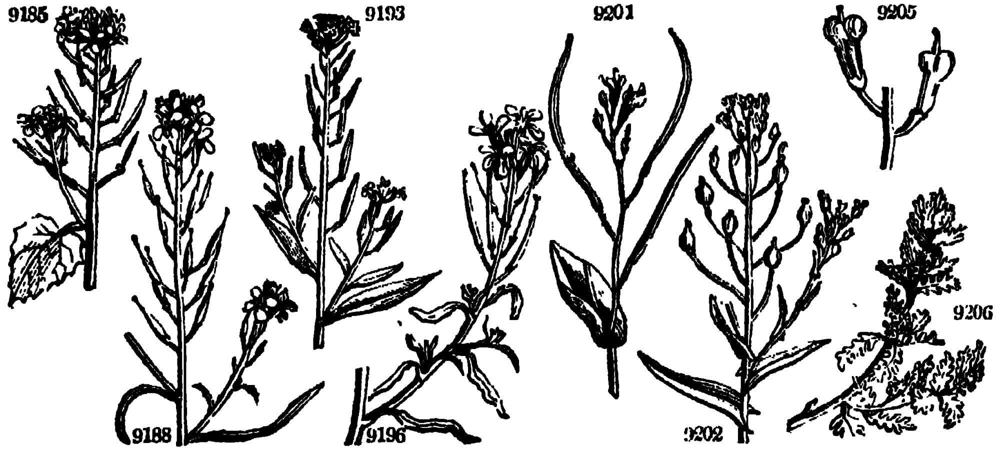
9193 Lvs. lanc. somew. toothlet. roughish green, Pods erect spread. twice as long as stalk, Stigma small subsessile
9194 Leaves linear lanc. repand-toothed, subpubes. Pods spreading torulose scarcely thicker than short pedicel
9195 Lvs. lin. entire and stem cinereous with appressed 2-parted hair, Pods somew. erect, Stigma stalked emarg.
9196 Lvs. lin ent. or somew. tooth. somew. hoary with 2-part. hair, Claws long. than cal. Pods erect, Stig. near sess.
9197 Lower lvs. lanc. toothed: upper somewhat linear entire, Petals roundish obovate, Claws longer than calyx
9198 Leaves lanceolate toothed narrowed at base, Petals obovate oblong, Pods spreading, Style scarcely any
9199 Leaves lin obl.: lower toothed runcin. and stem pubesc. rough, Pods spreading, Style very short and thick
9200 Leaves membranous smoothed: cauline cordate sagittate stem-clasping oblong; radical stalked ovate

9201 Rad. lvs. obov.: cauline cordate stem-clasping, all blunt smooth glauc. Sides of square stalk without nerves

9202 Pods cuneate pyriform with 4 ribs and a longish style, Leaves lanceolate nearly entire
9203 Pods roundish pyriform with 4 ribs and a longish style, Leaves repand toothed
9204 Pods globose, Leaves oblong serrate toothed bluntly stem-clasping at base, Stem smooth

9205 The only species

9206 Leaves pinnatifid, Lobes oblong toothed or cut, Pods compressed twin netted
9207 Lvs. pinnatifid, Lobes ent. toothed or pinnatifid, Pods somew. acute compressed with crested rugose valves



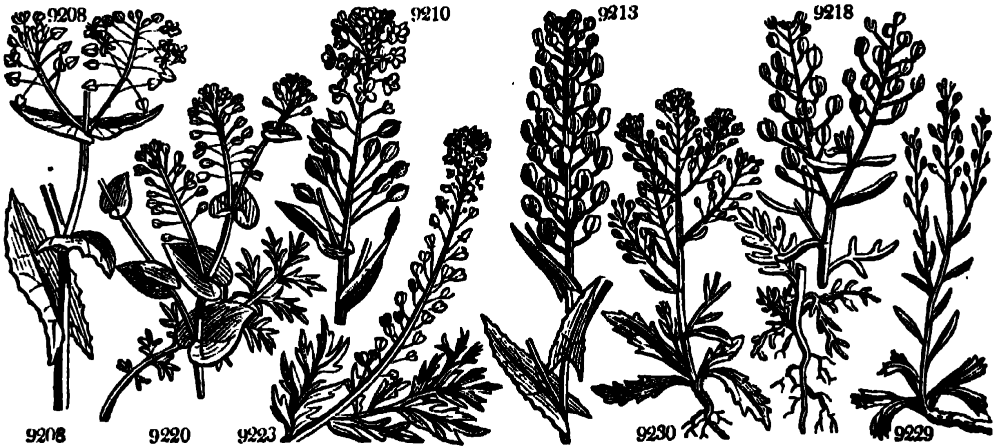
the Basque tongue, and in other dialects of France *beler* or *veler*. From the seeds of E. perfoliatum, a plant not known in this country, oil for lamps is expressed in Japan.

1425. *Camelina;* that is to say, *chamæ-linum*, dwarf flax. C. sativa is cultivated in many parts of Europe for the seeds, from which oil is obtained. For the method of its culture see Parmentier, in Roz. *Cours d'Agric.*, *v.* xi. *p.* 291. Bosc. *Dict. d'Agr.* 3. *p.* 45. Galliz. *Bot. Agr.* 3. *p.* 170.

1426. *Neslia.* A name first employed by M. Desvaux, but not explained by him. A genus allied to Camelina, but well distinguished by its one-seeded indehiscent silicles.

1427. *Coronopus.* From *κορωνη*, a crow, and *πους*, a foot. The leaves are deeply cut, and resemble the feet of a bird. Coronopus Ruellii was formerly gathered and used as a salad, but has long since been deservedly neglected. C. niloticus is said, by Delile, to be used in Egypt for the same purpose.

1428.	**LEPIʹDIUM.** *L.*	**Pepperwort.**					*Cruciferæ.*	*Sp.* 23—56.					
9208	Drába *L.*	Whitlow	⚘	△	un	1	my.jn	W	Europe	1596.	D	co	Jac. aust. 4.t.315
9209	chalepénse *L.*	Aleppo		○	un	1	my.jl	W	Aleppo	1798.	S	co	
9210	glastifólium *Desf.*	woad-leaved		○	un	1½	my.jl	W	Barbary	1823.	S	co	Desf. atl. t. 147
9211	coronopifólium *Fisch.*	Buckshorn-lv.	⚘	△	un	¾	my.jl	W	Siberia	1824.	D	co	
9212	sativum *L.*	common Cress		○	cul	1½	jn.jl	W	......	1548.	S	co	Zorn. ic. 16
9213	campéstre *R. Br.*	hoary field		○	un	¾	jn.jl	W	Britain	fields.	S	co	Eng. bot. 1385
9214	hirtum *Smith.*	hairy	⚘	◎	w	1	jn.jl	W	Britain	fields.	S	co	Eng. bot. 1803
9215	spinósum *L.*	prickly		○	un	1	s	W	Levant	1787.	S	co	
9216	virginicum *L.*	Virginian		○	un	1	jn.jl	W	America	1713.	[illegible]	co	Sch. han. 2.t.180
9217	subulátum *L.*	awl-leaved	⊥	⊔	un	¾	jl.au	W	Spain	1739.	S	p.l	D. Asso ar.t.6.f.3
9218	ruderále *L.*	narrow-leaved		○	un	1	jn.jl	W	Britain	sea co.	S	co	Eng. bot. 1595
9219	vesicárium *L.*	bladdery		○	un	1½	ap.au	W	Crimea	1820.	S	co	Bux. cent. 1.t.26
9220	perfoliátum *L.*	various-leaved		○	un	¾	jl	W	Austria	1640.	S	co	Jac. aust. 4. t.346
9221	Cardámines *L.*	Spanish Cress	£	◎	un	1½	jn jl	W	Spain	1789.	C	co	Arduin sp.1.t.18
9222	divaricátum *H. K.*	close-spiked	⊥	⊔	un	1½	my.au	W	C. G. H.	1774.	C	p.l	
9223	bonariénse *L.*	Buenos Ayres		○	un	2½	my.jn	W	S. Amer.	1732.	S	co	Dil.el.t.286.f.370
9224	piscidium *Forst.*	Fish-poison		○	ec	1	s	W	Society Isl.	1779.	S	co	
9225	oleráceum *Forst.*	eatable		○	cul	3	s	W	N. Zeal.	1824.	S	co	
9226	lyrátum *L.*	lyrate		○	un	2½	jn jl	W	Levant		S	co	
9227	latifólium *L.*	broad-leaved	£	△	un	2	jn.jl	W	Britain	sea co.	D	co	Eng. bot. 182
9228	crassifólium *W.&K.*	thick-leaved	£	△	un	¾	my.jn	W	Hungary	1820.	D	co	W. et kit. 1. t. 4
9229	graminifólium *Cav.*	bushy	£	△	un	2	au.s	W	Europe	1683.	D	co	Cav. ic. 151. f. 2
9230	Iʹberis *L.*	diandrous		○	un	1½	jl.au	W	Germany	1793.	S	co	Lob. ic. 223
1429.	**ÆTHIONEʹMA.** *R. Br.*	**Æthionema.**					*Cruciferæ.*	*Sp.* 3—9.					
9231	saxátile *R. Br.*	rock		○	cu	⅓	jn jl	F	S. Europe	1759.	S	co	Jac. aust.3.t.236
9232	Buxbaúmii *Dec.*	Buxbaum's		○	cu	½	jn.jl	Pa.pu	Levant	1823.	S	co	Bu. cen. 1.t.5.f. 1
9233	monospérmum *R. Br.*	one-seeded	⚘	◎	cu	½	jl.au	Pa.pu	Spain	1778.	S	co	
1430.	**ISAʹTIS.** *L.*	**Woad.**					*Cruciferæ.*	*Sp.* 9—17.					
9234	arména *L.*	Armenian		○	or	1½	jl.au	Y	Levant	1825.	S	co	Desv. 3. t. 25. f.6
9235	lusitánica *Brot.*	Portugal		○	or	1	my	Y	Portugal	1822.	S	co	
9236	alpina *All.*	Alpine	⚘	△	or	½	jn.jl	Y	Italy	1800.	D	s.l	All. ped. t. 86.f.2
9237	præcox *Kit.*	early	⚘	◎	or	1½	my.jn	Y	Hungary	1822.	S	co	
9238	littorális *Stev.*	sea side	⚘	△	or	1½	my.jn	Y	Tauria	1823.	D	co	
9239	tinctória *L.*	common dyer's	⚘	◎	ag	4	my jl	Y	England	corn fi.	S	s.l	Eng. bot. 97
9240	campéstris *Stev.*	field	⚘	△	or	1½	my jn	Y	[illegible]	1824.	D	co	
9241	canéscens *D. C.*	hoary	⚘	◎	or	1	my jn	Y	S Europe	1822.	S	co	Buxb cent. 1.t.5
	β *ibérica* Stev.	*Iberian*	⚘	◎	or	1	my jn	Y	Iberia	1823.	S	co	
9242	aléppica *Scop.*	oriental		○	or	1	jn.jl	Y	Levant	1739.	S	s.l	Scop. ins. 2. t. 16
1431.	**MYAʹGRUM.** *L.*	**Myagrum.**					*Cruciferæ.*	*Sp.* 1.					
9243	perfoliátum *L.*	perfoliate		○	pr	½	jn jl	Pa.Y	France	1648.	S	co	Sch. han. 2.t.178
1432.	**BRASʹSICA.** *L.*	**Cabbage.**					*Cruciferæ.*	*Sp.* 12—34.					
9244	olerácea *L.*	common	£	◎	cu	2	ap.jn	Y	England	cliffs.	S	r.m	Eng. bot. 637



History, Use, Propagation, Culture.

1428. *Lepidium.* From λεπις, a scale. The form of the silicles is that of little scales. L. piscidium is used by the natives of the Society Islands for the purpose of catching fish by inebriating them. It was used by the English voyagers as a salad, but it was very pungent. L. oleraceum is a powerful antiscorbutic, and is found of great service to the crews of ships visiting New Zealand; it resembles lettuce in taste, and acts as a moderate aperient. L. sativum, the common garden cress, is a salad-plant known to every one, and which even the cook can cultivate on moistened cloth or wool in a moist heat. Watering with water, impregnated with muriatic acid gas, or electrifying, will facilitate the germination and developement of the seeds.

1429. *Æthionema.* So named by Mr. R. Brown, apparently in allusion to some tawny or sunburnt tinge in the stamens. From αιθω, to scorch, and νημα, a stamen. *Smith.*

1430. *Isatis.* From ισαζω, to render equal. The plant was believed to destroy, by its simple application, all roughness and inequalities of the skin. It was formerly called *glastum*, from the Celtic *glas*, blue, whence *Glastonbury* derived its name. The ancient Britons colored themselves with the blue preparation obtained from this plant, whence they received their appellation, *Britho* being the Celtic word for to paint. The Picts were so named by the Romans for the same reason. On account of the brightness of its manufactured colors the Celts called it *gwed* (*guesde*, French, at this day), whence the Anglo-Saxons obtained their name of *waad* or *wad*, and the English the word *woad*. I. tinctoria is in occasional cultivation for its leaves, from which a dye, as a substitute for indigo, is obtained. The seeds are sown on well prepared land in good heart; fresh broken old pasture land is preferred; and the great object is to have large leaves; for which purpose, as Miller observes, the culture given by the best gardeners to spinage should be imitated, that of sowing on a very rich well pulverised soil, thinning the plants so as they may not touch each other, keeping them perfectly clear of weeds, and frequently stirring the soil between the plants. The culture applied to the turnip in Northumberland would succeed well with woad. The seeds are sown in July, and the plants, when they come up, weeded and thinned; next July, or earlier, the first crop of leaves may be gathered, and two or three others will be ob-

9208 Pods cordate somewhat turgid entire at the end exceeded by the style, Leaves stem-clasping lanc. toothed
9209 Pods elliptical twice as long as stalk, Style filiform, Leaves with acute stem-clasping lanceolate auricles
9210 Pods ellipt. smooth shorter than stalk, Style filif. Leaves with blunt stem-clasping obl. bluntly toothed auric.
9211 Pods ellipt. ent. somew. downy pointed with style, Cal. somew. persistent, Rad. lvs. pinnat. : caul. lin. ent.
9212 Pods orbicular winged, Leaves variously divided and cut, Branches not spiny
9213 Pods ovate winged emarginate scaly, Cauline leaves sagittate toothed
9214 Pods ovate winged emarginate hairy, Cauline leaves sagittate villous nearly entire
9215 Pods oblong winged emarginate about 2-horned smooth, Radical leaves pinnatifid with cut lobes
9216 Pods orbic. emarg. shorter than stalk, Flowers with 2-4-stamens, Caul. lvs. lin. lanceol. cut-serrate smooth
9217 Pods ovate somewhat emarginate, Leaves subulate entire, Stem ½ shrubby
9218 Pods ovate emarg. spreading shorter than stalk, Leaves smooth : radical pinnatifid, Fls. diandrous apetal.
9219 Pods elliptical slightly emarginate, Leaves pinnatifid, Lobes linear, Joints of stem inflated
9220 Pods ellipt. slightly emarg. Lower lvs. stalked pinnatifid with multifid lobes : upper cord. amplexicaul entire
9221 Pods oval somewhat emarginate, Leaves pinnatifid with oval entire lobes : terminal large roundish
9222 Pods oval somew. emarg. approximat. Lower leaves pinnatl. with spread. acute lobes, Stem much branched
9223 Pods orbicular emarginate, Flowers diandrous, Leaves all pinnately multifid minutely ciliated
9224 Pods oblong obovate emarginate, Stigma exserted, Leaves oval-oblong toothed outwardly or entire
9225 Pods ovate acutish, Leaves smooth ellipt.-oblong deeply serrated : upper entire somewhat serrated at end
9226 Pods ovate pointed with stigma, Lower lvs. stalked lyrate pinnatifid, Lobes cut toothed : term. very large
9227 Pods ovate pointed with the stigma, Leaves ovate lanceolate undivided subserrate, lowest on long stalks
9228 Pods ovate pointed with stigma, Leaves smooth somew. fleshy entire, Rad. stalked ovate : caul. sess. sagitt.
9229 Pods elliptical pointed with stigma, Stems ½ shrubby, Radical lvs. obov. obl. toothed : cauline linear entire
9230 Pods ovate pointed with stigma, Rad. leaves cut or pinnatifid : cauline linear entire, Stem much branched

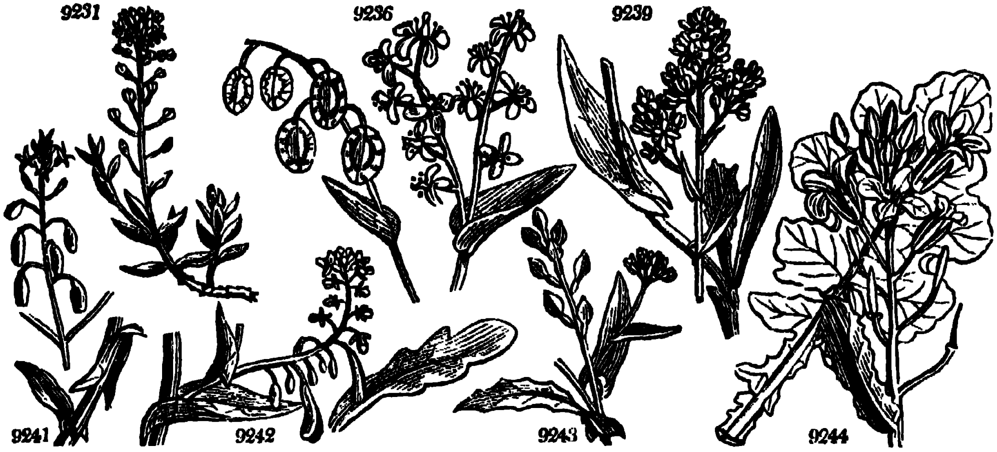
9231 Silicles 2-celled many-seeded obcordate, Valves winged at back and entire, Racemes in fruit lax
9232 Silicles 2-celled 2-seeded round emarg. at base and end, Racemes very close, Valves winged at back and ent.
9233 Silicles 1-celled 1-seeded not opening emarginate at end, Leaves oval or obovate

9234 Silicles round cordate at base with a wide margin pointed with the style
9235 Silicles obov. with a broad edge cuneate at base very blunt and emarginate at end, Stem and leaves smooth
9236 Silicles oval-oblong blunt at each end with a leafy winged margin 3 times as long as broad
9237 Silicles elliptical blunt at each end with a coriaceous winged edge three times as long as broad
9238 Silicles obl. cuneate very blunt truncate emarginate narrowed at base, three times as long as broad
9239 Silicles cuneate accuminate at base somewhat spatulate at end very blunt three times as long as broad
9240 Silicles oblong narrowed at base bluntish at end four times as long as broad [at end
9241 Silicles elongate-cuneate downy four times as long as broad and twice as long as the stalk which is obconical

9242 Silicles lin. blunt vill. with reversed down eight times as long as broad and three times as long as their stalk

9243 The only species

9244 Lvs. covered with glaucous pollen somew. fleshy repand or lobed even in their youngest state quite smooth



and Miscellaneous Particulars.

tained during the season. The end of the second year the plants may be ploughed down, as the third year they will run to seed, and yield but small leaves. The leaves are pressed, and the juice treated as in making indigo (see *Indigofera*); but such is the cheapness of the latter article, that no British farmer can afford to raise any sort of substitute.

1431. *Myagrum*. An ancient plant, so named from its properties of catching flies, which the modern plant does not possess; μυια, a fly, αγρα, capture.

1432. *Brassica*. The etymology of this word has been explained with great learning and ingenuity by Vossius, Ray, Dalechamp, and others. It comes, however, from the Celtic *bresic*, which signifies a cabbage. This genus affords the well known pot herbs and roots, and also the oil plant rape, extensively cultivated in agriculture. There is scarcely an instance in the vegetable kingdom of a plant that produces varieties so different in appearance and qualities as the B. oleracea; comparing the original plant as it is found on our shores, with wavy sea-green leaves, no appearance of a head, and flowering like wild mustard or charlock, with the red cabbage or cauliflower, the difference is astonishing. A new arrangement of the cultivated species of Brassica has been made by Professor Decandolle (*Hort. Trans.* vol. 1., and in his *Reg. Veg.*), whose varieties, or races of B. oleracea, are stated above.

The *colza* of the Dutch he makes a distinct species (B. campestris), and also the turnip (B. rapa); the rape (B. napus), and the summer rape of the Germans (B. præcox).

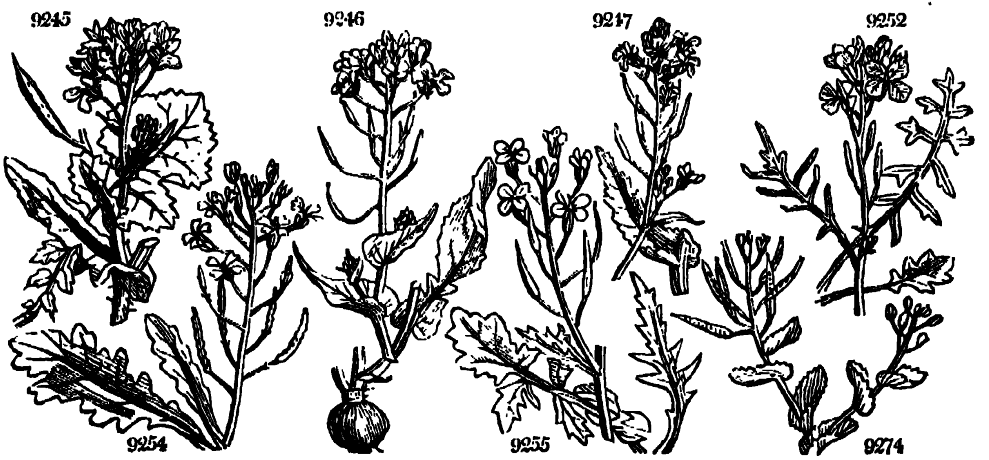
In Hungary, in the territory of Alba, the B. elongata is cultivated for its oil, for which purpose it is said to be better adapted than any other species.

The culture of all the Brassica tribe is so universally known that it would be a waste of space in a work of this sort to enlarge on it. They all prefer a loamy soil, well enriched with manure; and manures of the strongest kind, as nightsoil, offals from the shambles, blood, &c. are not found too powerful for common cabbage or cauliflower. The turnip prefers a lighter soil than the cabbage tribe, but it must be well manured, and if the

Garden Varieties.

β *acephala* Dec.	Borecole	γ *costata* Dec.	δ *bullata* Dec.
Cavalier Cabbage	Chou de Milan	Chou à grosses côtes	Savoy Cabbage
Thousand-headed Cabbage	Chou Palmier, &c.	Cove tronchuda	Brussels Sprouts, &c.
Chou möellier	&c.		&c.

9245 campéstris *L.*	field		○	ag	2	jn	Y	England	fields.	S	s.l	Eng. bot. 2234
β *rutabága* Dec.	*Swedish Turnip*	✱	○	ag	1½	jn	Y	Sweden	...	S	co	
9246 Rápa *L.*	Turnip	✱	⊙	cul	2	ap	Y	England	corn fi.	S	r.m	Eng. bot. 2176
9247 Nápus *L.*	Rape	£	⊙	ag	2	my	Y	Britain	dit. ba.	S	co	Eng. bot. 2146
9248 præ′cox *W. & K.*	Kohl-reps	✱	○	ag	2	my	Y	Europe	1812.	S	co	
9249 chinénsis *L.*	Chinese		○	cul	4	jl	Y	China	1770.	S	s.l	
9250 repánda *Dec*	repand	£	△	un	¾	jn.au	Y	S. Europe	...	D	co	Vil. dauph. 3. 39
9251 Richérii *Vill.*	Richer's	£	△	un	1	jl	Y	S. Europe	...	D	co	Vil.dauph.3.t.36
9252 monénsis *Huds.*	Isle of Man		○	un	½	jn.au	Y	Britain	sea sh.	S	s.l	Eng. bot. 962
9253 erucástrum *L.*	runcinate-leav'd		○	un	1	jn.au	Y	S. Europe	1790.	S	s.l	Bull.herb.331
9254 elongáta *Ehr.*	stalk-leaved	£	⊙	un	3	my.jn	Y	Hungary	1801.	S	s.l	Pl. rar. hu.1.t.28
9255 cheiranthiflóra*Dec.* *Ráphanus cheir.* W.	stock-leaved	£	⊙	un	1	jn.au	Y	Spain	1806.	S	co	W.hort.ber. t.19
1433. SINA′PIS. *L.*	Mustard.						*Cruciferæ.*	*Sp.* 18—51.				
9256 nigra *L.*	common		○	ag	4	my.jn.	Y	Britain	corn fi.	S	r.m	Eng. bot. 969
β *túrgida* Pers.	*turgid*		○	ag	4	my.jn	Y	Britain	corn fi.	S	r.m	
9257 lævigáta *L.*	smooth	£	⊙	un	2	jn.jl	Y	Spain	1769.	S	co	
9258 integrifólia *W.*	entire-leaved		○	un	1½	jl.au	Y	E. Indies	1804.	S	co	Wil.hor.ber.t.14
9259 júncea *L.*	fine-leaved		○	un	1½	jn.jl	Y	China	1710.	S	co	Jac. vind.2.t.171
9260 chinénsis *L.*	Chinese		○	cul	1½	jl	Y	China	1782.	S	co	Ard. spec. 1. t.10
9261 brassicáta *L.*	cabbage-leaved		○	un	1½	jn.jl	Y	China	1801.	S	co	
9262 pubéscens *L.*	downy	£	△	un	2	jn.jl	Y	Sicily	1789.	D	r.m	Ardui.spec 1.t.9
9263 arvénsis *L.*	Charlock		○	w	1½	my.jl	Y	Britain	corn fi.	S	s.l	Eng. bot 1748
9264 orientális *L.*	oriental		○	un	1½	jn.jl	Y	Levant	1778.	S	s.l	Sch. han. 1.t.186
9265 Káber *Dec.*	Persian		○	un	1	jn.jl	Y	Persia	...	S	co	
9266 Alliónii *Jacq*	Allioni's		○	un	2	jn.jl	Y	......	1789.	S	co	Jac. vind.2.t.168
9267 incána *L.*	hoary-jointed	£	⊙	un	3	jl	Y	S. Europe	1771.	S	co	Jac. vind.2.t.169
9268 heterophýlla *Lag.*	various-leaved	£	○	un	1½	my.jn	Y	Spain	1822.	S	co	
9269 álba *L.*	white		○	ag	3	jn.jl	Y	Britain	corn fi.	S	r.m	Eng. bot. 1677
9270 híspida *W.*	hispid		○	un	2	jl	Y	Morocco	1804.	S	r.m	Scho. Maroc. t.4
9271 dissécta *Lag.*	cut		○	un	1	mr.ap	Y	Spain	...	S	co	
9272 foliósa *W.*	leafy		○	un	1	ap.my	Y	Levant	1820.	S	co	
9273 frutéscens *H. K.*	shrubby	♄	⊔	cu	1½	jn.d	Y	Madeira	1777.	C	s.l	
1434. MORICAN′DIA. *Dec.*	Moricandia.						*Cruciferæ.*	*Sp.* 1—3.				
9274 arvénsis *Dec.* *Brássica arvénsis L.*	cabbage-flower.	£	△	w	1½	jn	V	S. Europe	1739.		co	Boc.sic.t.25.f.3,4
1435. DIPLOTAX′IS. *Dec.*	Diplotaxis.						*Cruciferæ.*	*Sp.* 9—13.				
9275 pendúla *Dec.*	pendulous		○	un	1½	f.mr	Y	Barbary	1823.	S	co	Desf. atl. t. 156
9276 híspida *Dec.*	hispid		○	un	¾	ap.my	Y	Egypt	...		co	Deless. 89
9277 erucoídes *Dec.* *Sinápis erucoides L.*	dwarf		○	un	1	jn.jl	W.pu	S. Europe	1736.		r.m	Jac. vind. 2.t.170



History, Use, Propagation, Culture,

manure be well fermented, so much the better for the garden turnip; in the fields, where it is buried in rows or drills, more littery dung will succeed.

The field culture of the turnip is become an important part of the agriculture of light soils; the best mode is by drills, as in Berwickshire and Northumberland, where are produced crops of treble the weight of those grown in the broad-cast manner in Norfolk. In the latter county a crop weighs from five to fifteen tons per acre; in Northumberland from twenty-five to thirty tons; and in Ayrshire as many as sixty tons have been raised on the statute acre. (*Encyc. of Agric.*)

The cabbage has been tried as a field plant; but, though it has been said by Sinclair (*Hortus Gram. Wob.*) to produce more nutritive matter than either turnips or field beet, professional farmers have not found it to answer.

Of all the Brassica tribe it may be observed, that they attain to much the greatest perfection in temperate climates, such as those of Britain and Holland. Without constant and liberal supplies of water, they are small in size, and rigid or stringy in texture. In France and in Italy, and warm climates, it is only the cauliflower and brocсoli that attain a large size; and that, in Italy at least, is during the coldest months of the year, and aided by liberal waterings. But in Tarragona the cauliflower is said to reach the enormous weight of 40 lbs.

1433. *Sinapis*. In Greek *σιναπι*, said to be derived from *nap*, the Celtic designation of all plants resembling the turnip or cabbage. Our English word *mustard*, and the French *moutarde*, are modernizations of *mustum ardens*, hot must; the sweet must of new wine being one of the ingredients of the French mustard for the table. The seeds of all the species are hot, acrid, and will afford an oil by expression, and a powder or meal by drying and grinding, which might serve as the condiment mustard. S nigra is more particularly adapted for the latter purpose, though it is often mixed with the seeds of S. alba and arvensis, and often with those of the

Garden Varieties.

ε *capitata* Dec.
Battersea Cabbage
Early York Cabbage
Early Dwarf Cabbage
Sugar-loaf Cabbage
Penton Cabbage
Red Cabbage, &c. &c.

ζ *caulo-rapa* Dec.
Chou-rave, or
Kohl Rabi
Chou-rave crêpue,
&c. &c.

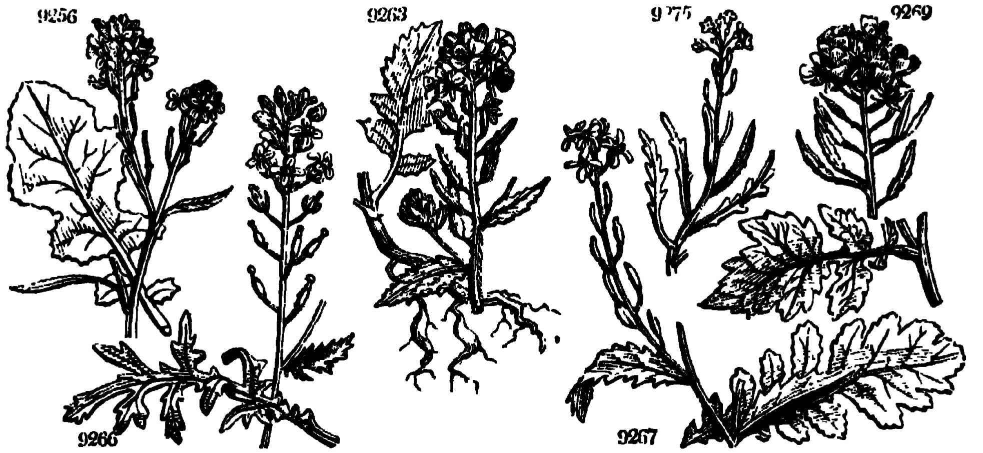
η *botrytis* Dec.
Cauliflower
Brocoli, &c. &c.

9245 Lvs. fleshy with glaucous bloom: the lower when young somew. hispid or ciliat. lyrate toothed; the others
[cordate amplexicaul acum.
9246 Rad. leaves lyrate without glauc. bloom rough; cauline cut: upper entire
9247 Lvs. smooth cœsious: radical lyrate; cauline pinnatifid and cren. cord.; upper lanc. stem-clasping
9248 Lvs. smooth cœsious: radic. and lower cauline lyrate; upper cord. lanc. stem-clasping cren. Pods erect
9249 Lvs. oval nearly entire: floral amplexicaul lanc. Cal. longer than the claw of the petals
9250 Radic. leaves fleshy smooth repand toothed, Scapes naked, Style slender distinct from silique
9251 Leaves smooth: lower stalked obl. somewhat toothed; upper linear lanc. few
9252 Leaves smooth somewhat fleshy glauc. pinnated with linear distant somewhat toothed lobes
9253 Leaves runcinate somewhat smooth, Lobes unequal bluntly sinuated, Stem hispid at base
9254 Leaves stalked: lower sinuate pinnatifid hispid; upper smooth toothed, Stem smooth
9255 Rad. leaves stalked lyrate pinnatifid somewhat hispid: cauline few with entire acute lobes

9256 Pods smooth about 4-cornered pressed to the peduncles, Lower lvs. lyrate: upper lanc. entire
β Pods turgid veiny diverging with a conical striated beak
9257 Smooth, Lvs. stalked lyrate pinnatifid with acute lobes, Petiole not auricled at base
9278 Smooth, Lvs. ovate lanc. undivided acutely toothed, Pods erect torose with a subulate style
9259 Smooth, Lower leaves ovate lanc. coarsely serrated: upper lanc. entire, Branches fascicled
9260 At the base and nerves hairy, Lvs. blunt cut pinnatifid, Lobes toothed, Pods erect pointed with the style
9261 Smooth, Caul. lvs. cord. amplexicaul obl. entire: lower lyrate pinnatifid toothed, Pods spreading with a
9262 Lvs. pubesc. villous lyrate pinnatifid, Terminal lobe large ovate, Pod hairy [conical beak
9263 Pods smooth with many angles torulose three times as long as their slender two-edged beak, Stem and lvs.
9264 Pods hairy backwards about 4-cornered torulose shorter than the slender beak [hairy
9265 Pods smooth round with smooth valves twice as long as the conical beak
9266 Pods smooth ovate-oblong, Valves smooth scarcely longer than conical beak
9267 Pods smooth appressed to the raceme somew. torose, Stem branch. rough at base, Lvs. lyrate rough
9268 Pods downy appressed to raceme somew. torose, Stem bran. rough at base, Lvs. lyrate pinn. hispid on nerves
9269 Pods hispid spreading a little narrower than the ensiform beak, Lvs. lyrate and stem nearly smooth
9270 Pods hispid spreading a little narrower than the ensiform beak, Lvs. lyrate rough, Stem hispid backwards
9271 Pods suberect torulose shorter than the ensiform beak, Lvs pinnat. Lobes narr. cut-toothed or pinnatifid
9272 Beak compressed very rough longer than the hispid pod, Lvs. lyrate repand angular smooth
9273 Calyx bisaccate, Lvs. coriaceous: lower oblong lanc. narrowed at base somewhat toothed

9274 Pods about 4-cornered, Cauline leaves cordate amplexicaul entire

9275 Pods pendulous stalked, Cauline leaves oblong hispid coarsely cut-toothed
9276 Pods pendulous sessile, Leaves obovate coarsely toothed hispid
9277 Pods sessile nearly erect, Style ensiform, Leaves sessile runcinate lyrate toothed



and Miscellaneous Particulars.

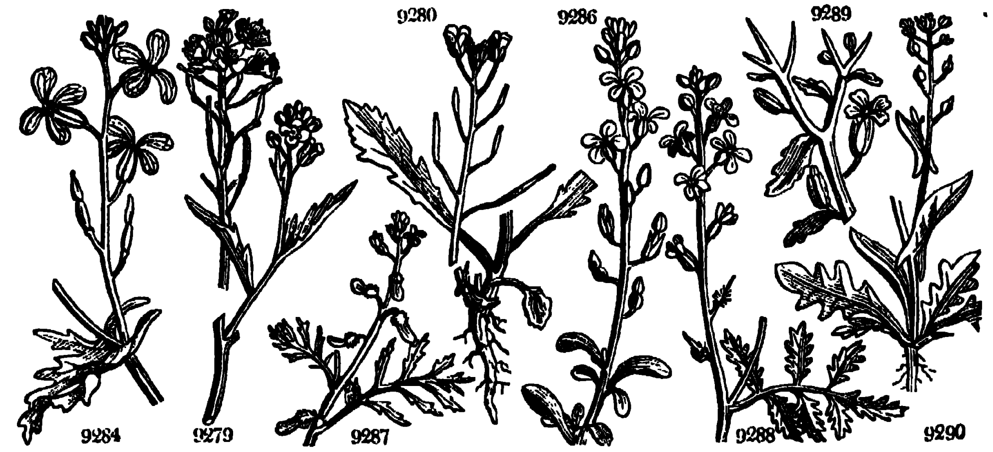
Brassica and Raphanus genera. Both S. alba and nigra are grown as small salads to be eaten with cress; they are sown as thick as the seeds will lie, in pots or boxes, or in the area of forcing-houses, in the winter season, and forced, or in beds in the open air, and cut as soon as the seed leaf is fully expanded. For flower of mustard, or for the seed for oil or medical purposes, both white and black sorts are sown in the fields in rich well pulverized soil, in March or April, and kept free of weeds. The crop ripens in July and August, and is either threshed immediately or stacked like other grain. It is like other oleiferous seeds, exhausting for the soil, and such seeds as drop and are buried, will retain their vegetative qualities for an unknown length of time; so that where mustard has once been grown, it will come up occasionally for a century or more afterwards.

If the seeds, Dr. Cullen observes, be taken fresh from the plant and ground, the powder has little pungency, but is very bitter; by steeping in vinegar, however, the essential oil is cooled, and the powder becomes extremely pungent. In moistening mustard-powder for the table, it may be remarked, that it makes the best appearance when rich milk is used; but the mixture in this case does not keep good for more than two days. The seeds of both the black and white mustard are often used in an entire state medicinally. Half or a quarter of a wine glass of mustard seeds, swallowed fasting, about five in the morning, is the most powerful tonic and strengthener of the digestive organs which is known.

1434. *Moricandia.* Named by Decandolle, after his friend Stephen Moricand, author of the Flora Veneta, and an excellent Italian botanist. M. hesperidiflora is a favourite food of the camel, notwithstanding its intense acridity.

1435. *Diplotaxis.* From διπλος, double, and ταξις, arrangement, on account of the double rows of seeds in each cell.

9278	cathólica *Dec.*	Spanish		○	un	1	ap.my	Y	Spain	1822.	S	co	
9279	tenuifólia *Dec.* *Sisym'brium tenuifólium* L.	fine-leaved	⚘	△	un	1½	jl.o	Y	England	walls.	D	s.l	Eng. bot. 525
9280	murális *Dec.* *Sisym'brium murale* L.	sand		○	un	1½	jl.s	Y	England	san.pl.	S	co	Eng. bot. 1090
9281	Barreliéri *Dec.*	small		○	un	½	jn.jl	Pa.Y	S. Europe	1770.	S	co	Barr. ic. 1016
9282	viminea *Dec.*	twiggy		○	un	½	my	Y	S. Europe	...	S	co	Bocc. sic. 10
9283	saxátilis *Dec.*	rock	⚘	△	un	½	jn	Y	S. Europe	...	D	co	
1436.	ERU'CA. *Tourn.*	ROCKET.					*Cruciferæ.*		*Sp.* 2—3.				
9284	sativa *Lam.*	stripe-flowered		○	cul	1½	jl	Pa.Y	S. Europe	1573.	S	s.l	Sch. han. 2. t. 186
9285	vesicária *Cav.*	bladdery		○	un	1½	jl	Pa.Y	Spain	1820.	S	co	Asso arr. t. 4
1437.	VEL'LA. *L.*	CRESS-ROCKET.					*Cruciferæ.*		*Sp.* 1.				
9286	pseudocýtisus *L.*	shrubby	♣	└┘	or	3	ap.my	Y	Spain	1759.	C	co	Cav. ic. 1. t. 42
1438.	CARRICHTE'RA. *Adans*	CARRICHTERA.					*Cruciferæ.*		*Sp.* 1.				
9287	Vellæ *Dec.* *Vella annua* L.	annual		○	w	½	jn.jl	Pa.Y	England	san.fi.	S	s.l	Eng. bot. 1442
1439.	SUCCO'WIA. *Mönch.*	SUCCOWIA.					*Cruciferæ.*		*Sp.* 1.				
9288	balcárica *R. Br.*	Minorca		○	pr	½	jn.jl	Y	Minorca	1781.	S	s.l	Jac. vind. 2. t. 144
1440.	ZIL'LA. *Forsk.*	ZILLA.					*Cruciferæ.*		*Sp.* 1.				
9289	myagroides *Forsk.*	spiny	♣	└┘	cu	2	mr	Li	Egypt	1822.	C	co	Vent. malm. t. 16
1441.	CALEPI'NA. *Adans.*	CALEPINA.					*Cruciferæ.*		*Sp.* 1.				
9290	Corvini *Desv.*	rugose		○	cu	1½	ap.jn	W	S. Europe	...	S	co	Brot. phyt. t. 42
1442.	CRAMBE. *W.*	SEA KAIL.					*Cruciferæ.*		*Sp.* 10—13.				
9291	maritima *L.*	common	✱	△	cul	1½	my.jn	W	Britain	sea sh.	D	r.m	Eng. bot. 924
9292	pinnatifida *R. Br.*	smooth-winged	✱	△	un	1	jn.jl	W	Siberia	1759.	D	s.l	Jac. ic. 1. t. 128
9293	orientális *L.*	oriental	✱	△	un	1	jn.jl	W	Levant	1752.	D	s.l	
9294	Tatária *Jacq.*	Tartarian	✱	△	cul	3	jn.jl	W	Siberia	1789.	D	s.l	Jac. ic. 1. t. 129
9295	áspera *Bieb.*	rough	✱	△	un	1	my	W	Tauria	1820.	D	co	
9296	cordáta *W.*	gigantic	✱	△	or	6	my	W	Caucasus	1822.	D	co	
9297	hispánica *L.*	Spanish		○	un	1½	jn.jl	W	Spain	1683.	S	s.l	Sch. han. 2. t. 189
9298	filifórmis *Jacq.*	Patagonian	⚘	△	un	1½	jl.au	W	Patagonia	1796.	D	s.l	Jac. ic. 3. t. 504
9299	fruticósa *L.*	Madeira	♣	└┘	un	2	my.n	W	Madeira	1777.	C	s.l	
9300	strigósa *Lher.*	Canary	♣	└┘	un	1½	my.jn	W	Canaries	1779.	C	s.l	Jac. ic. 1. t. 120
1443.	RA'PHANUS. *L.*	RADISH.					*Cruciferæ.*		*Sp.* 5—9.				
9301	sativus *L.*	common	✱	○	cu	3	my.jn	W.pu	China	1548.	S	r.m	Lam. ill. t. 566
	α radicula Dec.	*long*	✱	○	cu	3	my.jn	W.pu	China	1548.	S	r.m	
	β oblon'gus Dec.	*Turnip*	✱	○	cul	3	my.jn	W.pu	China	1548.	S	r.m	
	γ oleifera Dec.	*Oil-seed*		○	ec	3	my.jn	W.pu	China	1548.	S	r.m	
	δ niger Dec.	*Black Spanish*	✱	○	cul	3	my.jn	W.pu	China	1548.	S	r.m	
9302	caudátus *L.*	long-podded	✱	○	cu	1½	my.au	Pa.pu	Java	1815.	S	co	Linn. dec. 3. t. 10
9303	Raphanistrum *L.*	wild		○	w	1½	jn.jl	Y	Britain	corn fi.	S	co	Eng. bot. 856
9304	Landra *Morett.*	yellow-flowered	¥	○	cu	3	jn.jl	Y	Italy	1820.	S	co	
9305	maritimus *Sm.*	sea	✱	△	w	3	my.jl	Y	Britain	sea co.	D	co	Eng. bot. 1643



History, Use, Propagation, Culture,

1436. ***Eruca.*** The meaning of this word is involved in obscurity. According to Isidore, of Seville, a learned Spaniard, who died in 636, and left a book of etymologies, *cruca* is an alteration of *urica*, derived from *uro*, to burn. From *cruca*, the Italians formed *ruchetta*, the French *roquetta*, and the English *rocket*. E. sativa is very pungent in the foliage, and is used as a salad in the South of Europe for its aphrodisiacal powers:

> " *Excitat ad venerem tardos Eruca maritos.*"

1437. ***Vella.*** Latinized from *valer*, the Gallic name of the cress. A pretty low shrub, with beautiful yellow flowers appearing in the early spring. It is hardy enough to live through the winter in a dry warm south border.

1438. ***Carrichtera.*** An unexplained name, first used by Adanson. A small annual plant, with pinnated leaves, and long erect racemes opposite to the leaves. Flowers small, pale yellow.

1439. ***Succowia.*** In honor of Professor Suckow, a learned botanist of Heidelberg. An annual, with the habit of the last, from which it differs in its subulate style and solitary seeds.

1440. ***Zilla.*** The Egyptian name of the plant, which is a large glabrous herb, with round white branches and oblong toothed leaves, which are boiled and eaten by the Arabs like those of cabbage.

1441. ***Calepina.*** A name used by Adanson, the meaning of which is unknown. This plant has been transferred by one author or another to almost every genus of Siliculosæ, but appears to be really akin to Crambe only, from which it differs in its sessile and purely unilocular silicle, in its stamens having no teeth, and in the outer petals being larger than the others.

1442. ***Crambe.*** One of the names applied by the Greeks to the cabbage, and especially to the marine cabbage. C. maritima grows on sandy shores in the west of England, and there the common people have from time immemorial been in the practice of watching when the shoots and leafstalks begin to push up the sand

9278 Pods sess. nearly erect, Style roundish 1-2-seed. Lvs. pinnatif. with cut lobes and lin. sinuate toothed segm.
9279 Pods somewhat stalked erect, Style filif. short without seeds, Upper lvs. entire lower pinnatifid compound

9280 Pods sess. erect, Style short somew. filif. Rad. lvs. toothed or lyrate smooth, Stems nearly naked ascending

9281 Pods sess. erect, Style short somew. filif. Rad. lvs. runcinate toothed hispid, Stems naked erect
9282 Pods sess. erect, Style short somew. filif. Rad. lvs. lyrate very blunt smooth, Stems naked decumbent
9283 Pods sess. erect narrowed at base, Style short conical, Rad. lvs. pinnatifid thickish with entire lobes

9284 Lvs. lyrate pinnated with toothed acute lobes, Stem hirsute, Pedicels shorter than deciduous calyx
9285 Lvs. pinnatifid, Lobes acute nearly entire, Stem hirsute, Calyx persistent somewhat bladdery

9286 The only species

9287 The only species

9288 The only species

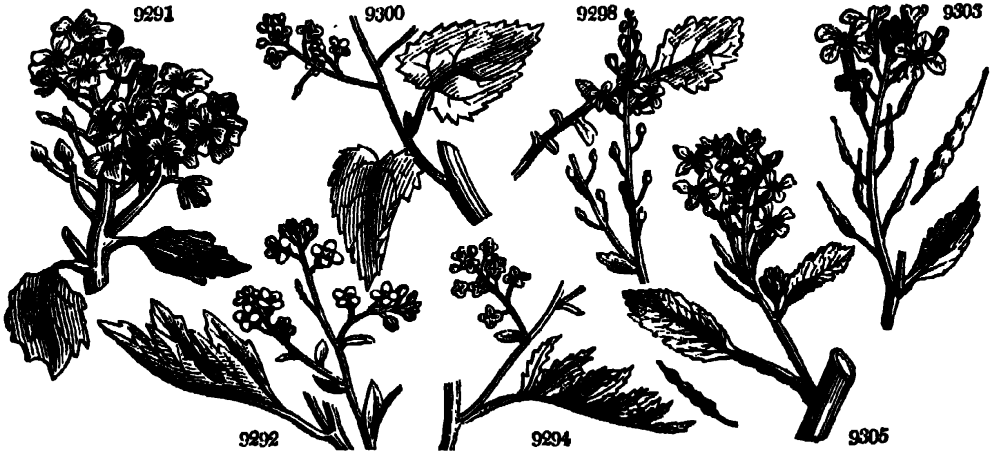
9289 The only species

9290 The only species

9291 Long filaments forked, Pod blunt, Leaves roundish sinuated wavy toothed glauc. and stem quite smooth
9292 Long filaments forked, Pod blunt, Leaves pinnatifid with obl. acute toothed lobes, Stem smooth
9293 Long filaments forked, Pod blunt smooth, Leaves pinnatifid toothed rough, Stem smooth [smoothish
9294 Long filam. forked, Pod blunt, Rad. lvs. decompound, Pinnæ cut toothed: younger rough; old and stem
9295 Long filam. forked, Pod blunt rugose, Lvs. pinnated with obl. lin. toothed lobes and stem rough
9296 Long filam. forked, Pod nearly blunt, Lvs. stalked toothed: lower cord.; upper ov. and stem nearly smooth
9297 Long filam. toothed, Pod blunt, Lvs lyrate rough, Terminal lobe cord. orbicular
9298 Long filam. scarcely toothed, Pod blunt, Lvs. pinnate-lyrate hairy, Terminal lobe ovate
9299 Long filam. toothed on one side, Pod mucronate, Lvs. lyrate pinnatifid toothed hoary
9300 Filam. not toothed, Pod mucronate, Lvs. ov. toothed unequal and somew. auricled at base and stem hispid

9301 Pods round torose acuminate scarcely longer than stalk

9302 Pods depressed acuminate decumbent longer than the whole plant
9303 Pods 1-celled jointed striated 3-8-seeded longer than the style, Lvs. simply lyrate
9304 Pods 1-celled jointed substriated 2-6-seeded longer than the subulate style, Lvs. interruptedly lyrate
9305 Pods 1-celled jointed striated 2-6-seeded, Style conical shorter than the last joint, Lvs. interrupted. lyrate



and Miscellaneous Particulars.

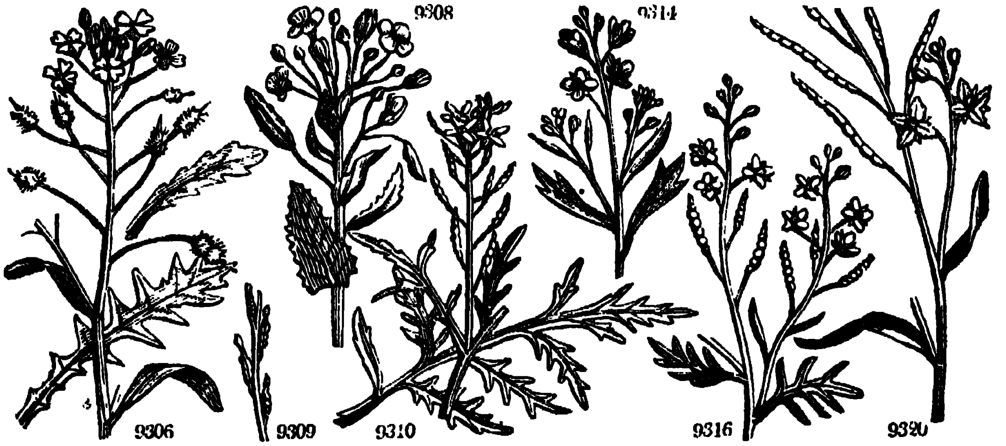
and gravel, in March and April; when they cut them off under ground, as is done in gathering asparagus, and boil them as greens. About the middle of the last century the plant was first introduced into gardens, grown on deep sandy soil, and blanched either by sand, ashes, litter, or by covering with flower pots, earthen pots made on purpose, or any opaque cover. It is now almost as universal in good gardens as asparagus, and like it is forced either by taking up the roots and planting them on a hotbed, or in the border of a forcing house, or by covering or surrounding them with litter in the open garden. Before covering a bed with warm litter, each plant or stool of plants is covered with an earthenware blanching pot, or a wicker case, to keep off the dung from the young shoots, and to ensure their being blanched. No plant is so easily forced; and, unlike asparagus, it yields produce the first spring after raising from seed.

C. tataria is called by the Hungarians *Tatar-Kenyer* or Tartarian bread, and its root, stripped of the bark and sliced, is eaten with oil, vinegar, and salt. The boiled root is sweet, and eaten by children. The young shoots are boiled like those of sea kail, and have an excellent taste, but are stringy, which they would not be if well cultivated, which the plant appears to deserve.

1443. *Raphanus.* From *ῥα*, quickly, and *φαινομαι*, to appear, on account of the rapidity of its germination and arriving at perfection. R. sativus is a well known salad root, requiring a deep sandy soil to attain a large size. There are several varieties both of the spindle-shaped and globular rooted kinds, and a very distinct sort known as the black or Spanish radish. In the Horticultural Transactions, sixteen varieties are mentioned besides subvarieties, arranged as spring, summer, turnip, autumn, and winter radishes. They are all of easy culture, and the spring, summer, and turnip sorts force well on hot-beds, or on dung-beds covered with mats.

R. caudatus, or tree radish, is remarkable for the length of its pod, which is greater than the whole height of the plant. The young leaves of R. Landra are eaten by the inhabitants of Insubria as salad.

1444.	**BU'NIAS.** *L.*	Bunias.					*Cruciferæ.*		*Sp.* 3.				
9306	Erucágo *L.*	prickly-podded		○	un	1½	jn.jl	Y	Austria	1640.	S	co	Jac. aust.4. t.340
9307	áspera *Retz.*	rough		○	un	1½	jn	Y	Portugal	...	S	co	
9308	orientális *L*	oriental	£	△	un	1½	my.jl	Y	Levant	1731.	D	co	Gmel. sib. 3. t.57
1445.	**ERUCA'RIA.** *Gærtn.*	Erucaria.					*Cruciferæ.*		*Sp.* 2—5.				
9309	alep'pica *Gærtn.*	Aleppo		○	un	1	jl.au	W.pu	Levant	1680.	S	s.l	Gæ.se.2.t.143.f.9
9310	crassifólia *Del.*	thick-leaved		○	un	¾	jn.d	W.pu	Egypt	1823.	S	co	Del.egyp.t.34.f.1
1446.	**HELIO'PHILA.** *L.*	Heliophila.					*Cruciferæ.*		*Sp.* 11—47.				
9311	filifórmis *L.*	awl-podded		[○]	pr	1½	jl.au	Pa.pu	C. G. H.	1786.	S	s.p	Lam. il. 563. 3
9312	amplexicaúlis *L.*	opposite-leaved		○	pr	¾	jn.s	W.pu	C. G. H.	1774.	S	s.p	Jac. fr. 46. 2
9313	pinnáta *Vahl.*	wing-leaved		○	pr	1½	jn.s	Y.Br	C. G. H.	1792.	S	s.p	Ven.malm.t.113
9314	pilósa *Lam.*	hairy		○	pr	1	my.s	B	C. G. H.	1768.	S	s.p	Jac. ic. 3. t. 506
9315	digitáta *L*	digitate		○	pr	1	my.s	B	C. G. H.	...	S	s.p	
9316	coronopifólia *L.*	Buck's-horn-lv.	£	[○]	pr	1½	jn.jl	V	C. G. H.	1778.	S	s.p	Her. lugd. t. 367
9317	fœniculácea *R. Br.*	Fennel-leaved		○	pr	1½	jn.s	Pu	C. G. H.	1774.	S	s.p	
9318	crithmifólia *W.*	Samphire-leav.		○	pr	½	jn.s	V	C. G. H.	1816.	S	s.p	
9319	platysiliqua *R. Br.*	broad-podded	♄	⊔	pr	1	jl.au	Pu	C. G. H.	1774.	C	s.p	
9320	incána *H. K.*	hoary	♄	⊔	pr	2	my.au	Pu	C. G. H.	1774.	C	s.p	
9321	cleomoides *Dec.*	upright	♄	⊔	pr	1	jl	Y	C. G. H.	1802.	S	co	
	Cheiranthus strictus L.												
1447.	**SUBULA'RIA.** *L.*	Awlwort.					*Cruciferæ.*		*Sp.* 1.				
9322	aquática *L.*	water	≛	○	cu	¼	jl	W	Britain	al.lak.	S	m.s	Eng. bot. 732
1448.	**CLEO'ME.** *W.*	Cleome.					*Capparideæ.*		*Sp.* 15—53.				
9323	Chelidónii *W.*	Celandine-flow.		[○]	pr	1½	jn.jl	R	E. Indies	1790.	S	s.p	
9324	viscósa *W.*	viscid		[○]	pr	2	jn.jl	F	Ceylon	1730.	S	s.p	Rhee.mal.9. t.23
9325	dodecándra *W.*	three-leaved		[○]	pr	1½	jn.jl	W	India	1795.	S	s.p	Bur.zey t.100.f.1
9326	pentaphýlla *W.*	five-leaved		[○]	pr	2	jn.jl	W	India	1640.	S	s.p	Jac. vind. 1. t. 21
9327	gigantéa *W.*	gigantic	♄	□	pr	6	jn.jl	G	S. Amer.	1774.	C	s.p	Jac. obs 4. t. 76
9328	spinósa *W.*	white-fl. prickly	£	[○]	pr	2	jn.jl	W	W. Indies	1731.	S	s.p	Marcg.bras. t.34
9329	púngens *W.*	red-fl. prickly	£	[○]	pr	2	jl.au	R	W. Indies	1812.	S	s.l	W.ho ber.1. t.18
	spinósa B. M. 1640.												
9330	Houstóni *H. K.*	Houstoun's		[○]	pr		jl		W. Indies	1730.	S	s.l	
9331	violácea *W.*	violet-colored		○	pr	1	jn.jl	Pu	Portugal	1776.	S	s.l	Sc.han 2 t.189.b.
9332	rósea *Dec.*	rose-colored		[○]	pr	1½	jn.jl	Pk	Brazil	1825.	S	co	Bot. reg 960
9333	ornithopodioides *W.*	bird's-foot		○	pr	1	jn.jl	W.y	Levant	1732.	S	s.l	Dil.el t.266.f.345
9334	arábica *W.*	Arabian		○	pr	2	jn.jl	Y	Arabia	1794.	S	s.l	Lin fil fasc. t. 8
9335	monophýlla *W.*	simple-leaved		[○]	pr	½	jn jl	Y	E. Indies	1759.	S	s.l	Bur.zey t.100.f.2
9336	procúmbens *W.*	procumbent	£	[△]	pr	½	jn.jl	Y	W. Indies	1798.	D	s.l	Jac. amer t. 120
9337	pubéscens *B. M.*	pubescent		○	pr	1½	jl	W	......	1815.	S	s.l	Bot mag. 1857



History, Use, Propagation, Culture,

1444. *Bunias.* From βουνος, a hill, because the plants grow upon exposed open situations. *Linn.*

1445. *Erucaria.* See Eruca, No. 1437. Plants with the habit of Cakile.

1446. *Heliophila.* From ἥλιος, the sun, and φιλεω, to love; a plant loving heat. All the species grow upon dry hot plains at the Cape of Good Hope. These are mostly beautiful annual or perennial plants.

9306 Pods 4-cornered: angles crested, Radical leaves runcinate
9307 Pods 4-cornered: angles crested, Leaves all lanceolate
9308 Pods ovate 2-celled not crested somewhat warted

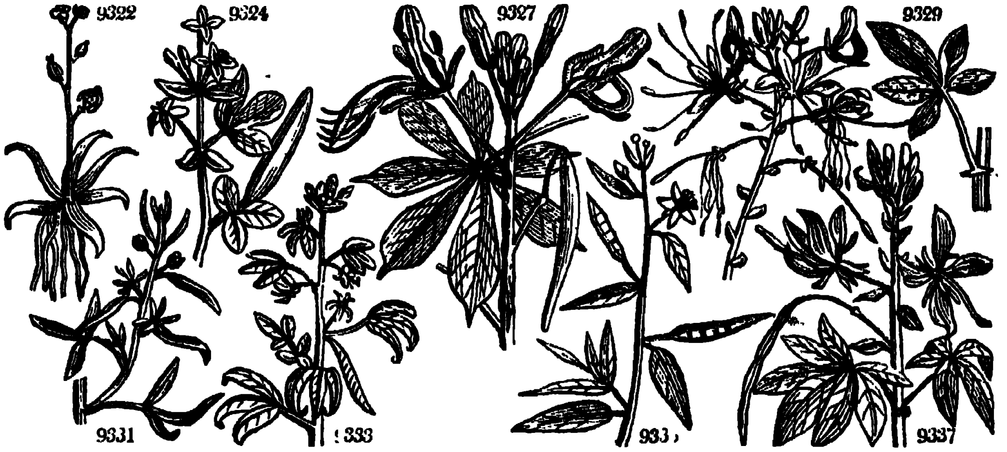
9309 Pod style-bearing, Lvs. pinnated, Lobes linear: of the lower pinnatifid; of the upper entire
9310 Stigma sessile, Beak longer than pod, Lvs. pinnated thick, Lobes linear

9311 Smooth, Pods rounded narrowed at each end, Leaves linear subulate
9312 Smooth, Pods monilliform, Lower lvs. opp.: upper altern. cord. stem-clasping obl. entire
9313 Smooth, Pods moniliform pendulous, Lvs. pinnated in 3-5-pairs, Lobes linear entire
9314 Hispid, Pods linear, Lvs. hairy either linear entire or trifid at end and cuneate at base
9315 Hispid, Pods linear, Lvs. oval entire or here and there coarsely cut-toothed
9316 Smooth, Pods linear, Leaves pinnated, Lobes and rachis linear entire
9317 Downy, Pods linear spreading, Lvs. pinnated or bipinnated: lobes filiform
9318 Velvety, Pods linear nodding, Lvs. pinnated somewhat fleshy: lobes subfiliform furrowed above
9319 Smooth, Pods linear erect or pendulous, Lvs. fleshy half round
9320 Pods linear compressed velvety, Style thick conical smooth, Leaves oblong
9321 Pods compressed stalked, Leaves linear lanceolate

9322 The only species

9323 Polyandrous hairy, Lvs. 5-7 cuneiform rough, Racemes term. Pods filiform
9324 Flowers dodecandrous, Leaves quinate and ternate
9325 Flowers dodecandrous, Leaves ternate
9326 Flowers gynandrous, Leaves quinate, Stem unarmed
9327 Flowers hexandrous, Leaves 7, Stem unarmed
9328 Flowers hexandrous, Leaves 7-5, Stem spiny
9329 Flowers hexandrous, Leaves quinate viscid, Stem spiny

9330 Prickly hexandrous, Leaves quinate and ternate: floral simple, Stigma dilated
9331 Flowers hexandrous, Leaves ternate and solitary, Leaflets lanc lin. entire
9332 Unarmed, Lvs. 5: lower and floral 3; upper sessile ovate, Pod smooth as long as its stalk
9333 Flowers hexandrous, Leaves ternate, Leaflets oval lanceolate
9334 Flowers hexandrous, Leaves ternate lanceolate blunt, Pods fusiform viscid
9335 Flowers hexandrous, Leaves simple ovate-lanceolate stalked
9336 Flowers hexandrous, Leaves simple lanceolate stalked, Stems procumbent
9337 Unarmed pubescent, Leaves 5-7: floral simple cordate, Pod the length of the stalk



and Miscellaneous Particulars.

1447. *Subularia.* From *subula*, an awl, on account of the form of the leaves. A curious little aquatic, not of common occurrence.

1448. *Cleome.* A name employed by Octavius Horatius, a Latin physician, who lived in the fourth century, to designate a plant resembling Sinapis, and growing in humid places. It appears to have had no relation to the modern plant.

CLASS XVI. — MONADELPHIA.

THIS class is distinctly characterized by the filaments being united together throughout the whole or a part of their length; and for the most part consists of plants belonging to the natural orders of Malvaceæ and Geraniaceæ. Of the former, the major part are of little moment, consisting, in a great measure, of weeds or worthless shrubs of various parts of the world. Among them, however, are some plants both of interest and ornament, especially the beautiful Astrapæa, and the various species of Bombax and Hibiscus. The Gossypium, so important as producing the material of cotton, and the Adansonia or Baobab tree of Africa, remarkable for its immense size and use as an article of food, are found in this class. The Geranium, Camellia and Passion flower are also genera of much beauty; the latter yielding the well known West Indian fruit called the Granadilla. The common Tamarind, with which this class commences, would more properly be placed in the next, and the succeeding genera of Patersonia, Tigridia, Ferraria, and Galaxia, are in every respect, except the union of their filaments, referable to the third class.

Order 1. TRIANDRIA. Stamens 3.

1449. *Tamarindus.* Petals 3, ascending. Three filaments longer than the others and fertile. Legumen 1-3-celled, pulpy inside.

1450. *Patersonia.* Cor. tubular. Limb 6-parted, with 3 small segments. Caps. 3-celled, inferior.

1451. *Ferraria.* Spatha 2-leaved. Cal. O. Petals 6, wavy, curled. Filaments united at base. Style 1. Caps. 3-celled, inferior.

1452. *Tigridia.* Spatha 2-leaved. Cal. O. Petals 6, the 3 outer large. Filaments united into a very long tube.

1453. *Galaxia.* Spatha 1-leaved. Cal. O. Corolla monopetalous, 6-cleft, with a long tube. Style 1. Capsule 3-celled, inferior.

Order 2. PENTANDRIA. Stamens 5.

1454. *Waltheria.* Cal. 5-fid, with a lateral deciduous 3-leaved involucre. Petals 5. Style 1. Stigma pencilled. Caps. 1-celled, 2-valved, 1-seeded.

1455. *Hermannia* Cal. nearly naked, campanulate, 5-fid. Pet. 5 Stamens 5. Filaments united at base, lanceolate, frequently winged. Styles 5, cohering in one. Caps. 5-celled, 5-valved, many-seeded.

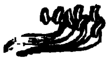
1456. *Melochia.* Cal. 5-fid, naked, or with 1-3 bracteæ. Petals 5, spreading. Stam. 5, monadelphous at base. Styles 5. Caps. 5-celled. Seeds 1-2 in each cell.

1457. *Melhania.* Cal. 5-parted, persistent, with a 3-leaved involucre on one side. Pet. 5. Stam. 10, alternately sterile: the fertile ones bearing from 1-2 anthers each.

1458. *Ochroma.* Cal. double, outer 3-leaved. Petals 5. Anthers anfractuose. Capsule 5-celled, many-seeded. Seeds involved in wool.

1459. *Passiflora.* Cal. 5-parted, colored. Petals 5 or O, inserted in the calyx. Crown of many filiform rays. Fruit stalked, fleshy.

1460. *Erodium.* Cal. 5-leaved. Petals 5. Scales 5, alternate, with filaments and honey glands at the base of the stamens. Cocci 5, 1-seeded, awned, at the base of a rostrate receptacle.

Order 3. HEPTANDRIA.  Stamens 7.

1461. *Pelargonium.* Cal. 5-parted, the upper segment ending in a nectariferous tube running down the peduncle. Cor. 5-petalous, irregular.

Order 4. OCTANDRIA. Stamens 8.

1462. *Aitonia.* Cal. 4-parted. Cor. 4 petals. Style 1. Berry dry, quadrangular, 1-celled, many-seeded.

Order 5. DECANDRIA. Stamens 10.

1463. *Geranium.* Cal. 5-leaved. Petals 5, regular. Glands 5, honey-bearing, united to the base of the longer filaments. Cocci 5, 1-seeded, awned, at the base of a beaked receptacle.

Order 6. DODECANDRIA. Stamens 12.

1464. *Brownea.* Cal. tubular, bifid. Cor. double: outer 5-fid; inner of 5 petals. Legumen 1-celled.

1465. *Monsonia.* Sepals 5. Pet. 5. Stamens 15, united; their cup 5-fid. Style 5-fid. Cocci 5, 1-seeded awned, at the base of a beaked receptacle.

1466. *Helicteres.* Cal. tubular, obliquely 5-fid. Petals 5. Germen on a long stalk. Style about 5-fid. Caps. 5, 1-celled, many-seeded, spirally twisted.

1467. *Dombeya.* Cal. double, outer 3-leaved, deciduous. Petals 5. Stamens 20, of which 5 are sterile. Style 5-fid. Caps. 5, united, 1-celled, 1-many-seeded.

1468. *Pentapetes.* Cal. double, outer 3-leaved, deciduous. Petals 5. Stamens 20, of which 5 are barren. Style obsoletely 5-toothed. Caps. 5-celled, many-seeded, with contrary dissepiments.

1469. *Astrapæa.* Flowers umbellate, with an involucre. Involucre many-leaved, unequal. Cal. simple, 5-leaved, with 1 bract. Petals 5, convolute-closed. Stamens 25, united into a tube bearing the corolla: 5-sterile.

1470. *Pterospermum.* Cal. simple, 5-parted. Petals 5. Stamens 20, of which 5 are sterile. Style cylindrical, Stigma thickish, Caps. woody, 5-celled. Seeds winged.

Order 7. POLYANDRIA. Stamens indefinite in number.

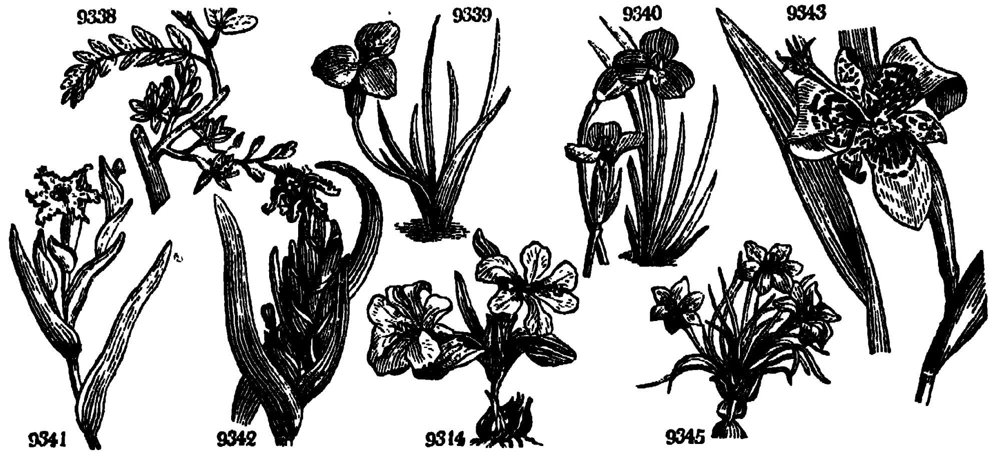
1471. *Malope.* Cal. double, outer 3-leaved. Capsules heaped without order, 1-seeded.
1472. *Malva.* Cal. double, outer 3-leaved. Capsules many, 1-seeded.
1473. *Kitaibelia.* Cal. double, outer 7-9-fid. Caps. clustered in a 5-lobed head, 1-seeded.
1474 *Althæa.* Cal. double, outer 6-9-fid. Capsules many, 1-seeded.
1475. *Lavatera.* Cal. double, outer 3-fid. Capsules many, 1-seeded.
1476. *Malachra.* Common calyx 3-leaved, many-flowered, large. Caps. 5, 1-seeded.
1477. *Urena.* Cal. double, outer 5-fid. Capsule 5-celled, 5-partible, with close 1-seeded cells.
1478. *Pavonia.* Cal. double, outer many-leaved. Stigmas 10. Capsules 5, 2-valved, 1-seeded.
1479. *Achania.* Cal. double, outer many-leaved. Cor. convolute, closed. Stigmas 10. Berry 5 celled, 5-seeded.
1480. *Hibiscus.* Cal. double, outer many-leaved. Stigmas 5. Capsule 5-celled, many-seeded.
1481. *Gossypium.* Cal. double, outer 3-fid. Caps. 5-celled. Seeds enwrapped in wool.
1482. *Redoutea.* Cal. 5-parted, surrounded by a 10-12-leaved involucre. Stigmas 3. Capsules 3-celled, 3-valved, many-seeded, with three placentas alternate with the valves, and bearing on each side woolly seeds.
1483. *Palavia.* Cal. naked, 5-fid. Capsules many, 1-seeded, united in a head without order.
1484. *Cristaria.* Cal. naked, 5-fid. Fruit orbicular, depressed, covered with a skin, and consisting of several carpella, 2-winged in the centre, and many-seeded.
1485. *Anoda.* Cal. naked, 5-fid. Lobes acuminate, much spreading in fruit. Caps. hemispherical beneath, depressed and stellate above, many-celled, with 1-celled, 1-seeded divisions.
1486. *Periptera.* Cal. naked, 5-fid. Petals erect, spirally twisted in the tube, at length distinct. Capsule stellate, many-celled, with 1-seeded cells.
1487. *Sida.* Cal. simple, angular. Style many-parted. Capsules several, 1 or 3-seeded.
1488. *Lagunæa.* Cal. simple, 5-fid. Style 5-fid? Capsule 5-celled, with contrary dissepiments.
1489. *Ruizia.* Cal. double, outer 3-leaved. Styles 10. Caps. 10, 1-celled, 2-seeded, closely cohering.
1490. *Carolinea.* Cal. simple, subtruncate. Filaments branched. Style very long. Stigmas 6. Caps. woody, 1-celled, many-seeded.
1491. *Adansonia.* Cal. simple, deciduous. Style very long. Stigmas many. Caps. woody, 10-celled, many-seeded, with a farinaceous pulp.
1492. *Bombax.* Cal. 5-fid. Stamens 5, or many. Caps. woody, 5-celled, 5-valved. Seeds woolly. Receptacle 5-cornered.
1493. *Myrodia.* Cal. naked, tubular, 4-5-toothed, bursting laterally. Petals oblong, linear. Stamens with a long column. Anthers 10-15. Capsule drupaceous, 2-3-celled, with 1-seeded cells.
1494. *Gordonia.* Cal. simple. Style 5-cornered, with a 5-fid stigma. Caps. 5-celled. Seeds twin, with a leafy wing.
1495. *Stuartia.* Cal. simple, rotate. Petals 5. Styles 5, united or distinct. Caps. 5-celled, 5-valved. Seeds solitary or twin.
1496. *Camellia.* Cal. imbricated, many-leaved, the inner leaflets largest.
1497. *Barringtonia.* Cal. 2-leaved, superior. Petals 4. Drupe dry, large, quadrangular, with a 4-celled nut.
1498. *Gustavia.* Cal. 4-6-fid. Petals 4-6. Berry dry, 4-5-celled.
1499. *Careya.* Cal. superior, 4-fid. Petals 4. Berry many-seeded. Seeds nestling in pulp.

TRIANDRIA.

1449.	**TAMARIN'DUS.** *W.*	TAMARIND TREE.					*Leguminosæ.*	*Sp.* 1.					
9338	indica *W.*	common		☐	fr	60	jn.jl	Y	India	1633.	C	r.m	Jac. amer. t. 10
1450.	**PATERSO'NIA.** *R. Br.*	PATERSONIA.					*Irideæ.*	*Sp.* 2—7.					
9339	sericea *R. Br.*	silky		⌊△⌋	or	1½	my.jl	B	N. S. W.	1803.	R	s.p	Bot. mag. 1041
9340	glabráta *R. Br.*	smooth		⌊△⌋	or	1½	my.jl	Pu	N. S. W.	1814.	C	s.p	Bot. reg. 51
1451.	**FERRA'RIA.** *Ker.*	FERRARIA.					*Irideæ.*	*Sp.* 2—4.					
9341	unduláta *W.*	curled	♉	⌊△⌋	or		mr.ap	G.Br	C. G. H.	1755.	O	s.p	Bot. mag. 144
9342	antherósa *Ker.*	variegated	♉	⌊△⌋	or		mr.jl	G.Br	C. G. H.	1800.	O	s.p	Bot. mag. 751
1452.	**TIGRI'DIA.** *J.*	TIGER FLOWER.					*Irideæ.*	*Sp.* 1—2.					
9343	Pavónia *P. S.*	Mexican	♉	△	or		my.s	O.R	Mexico	1796.	O	s.p	Bot. mag. 532
	β *leóna* Hort.	*whole-colored*	♉	△	or		my.s	O.R	Mexico	1823.	O	s.p	
1453.	**GALAX'IA.** *W.*	GALAXIA.					*Irideæ.*	*Sp.* 2—3.					
9344	ováta *W.*	oval-leaved		⌊△⌋	or		my.s	D.Y	C. G. H.	1799.		s.p	Bot. rep. 94
	β *grandiflóra* B. R.	*great-flowered*		⌊△⌋	or		my.s	D.Y	C. G. H.	1799.		s.p	Bot. rep. 164
	γ *mucronuláris* Sal.	*mucronated*		⌊△⌋	or		my.s	Pu	C. G. H.	1799.		s.p	J.ic. t.291.f.in.si.
	δ *versicolor* Sal.	*various-colored*		⌊△⌋	or		my.s	Pu	C. G. H.	1799.		s.p	Jac. f. inf. dextr.
9345	gramínea *W.*	narrow-leaved		⌊△⌋	or		jl.au	L.Y	C. G. H.	1795.		s.p	Bot. mag. 1292

PENTANDRIA.

1454.	**WALTHE'RIA.** *W.*	WALTHERIA.					*Byttneriaceæ.*	*Sp.* 4—12.					
9346	americána *W.*	American	£	☐	un	2	my.o	Y	S. Amer.	1691.	C	l.p	Jac. ic. 1. t. 130
9347	indica *W.*	Indian	♄	☐	un	9	jn.au	Y	E. Indies	1799.	L	p.l	Burm. zeyl. t. 68
9348	elliptica *W.*	woolly	♄	☐	un	3	...	Y	E. Indies	1812.	C	s.p	Ca.dis.6.t 171.f.2
9349	læ'vis *Schrank.*	smooth	♄	☐	un	3	jl	Y	Guadalou.	1823.	C	s.p	Schrank mon.55
1455.	**HERMAN'NIA.** *W.*	HERMANNIA.					*Byttneriaceæ*	o 34—42.					
9350	althæifólia *W.*	Althæa-leaved	♄	⊔	or	2½	mr.jl	Y	C. G. H.	1728.	C	l.p	Bot. mag. 307
9351	plicáta *W.*	plaited-leaved	♄	⊔	or	2	n.d	Y	C. G. H.	1774.	C	l.p	Jac.schœ.2.t.213
9352	glandulósa *Link.*	glandular	♄	⊔	or	2	...	...	C. G. H.	1822.	C	l.p	
9353	cándicans *W.*	white	♄	⊔	or	2	ap.jn	Y	C. G. H.	1774.	C	l.p	Jac.schœ.1.t.117
9354	dísticha *W.*	round-leaved	♄	⊔	or	2	my.au	Y	C. G. H.	1789.	C	l.p	Jac.schœ.1.t.118
9355	salvifólia *W.*	Sage-leaved	♄	⊔	or	2	ap.jn	Y	C. G. H.	1795.	C	l.p	Ca.dis.6.t 180.f.2
9356	micans *W.*	glittering	♄	⊔	or	2	my.au	Y	C. G. H.	1790.	C	l.p	Jac.schœ.1 t.119



History, Use, Propagation, Culture,

1449. *Tamarindus.* Latinized from the Arabic name *Tamer-hindy*, or Indian date. This tree is a native of the East and West Indies, of Arabia, and Egypt. It is a large beautiful spreading tree. The leaves are abruptly pinnate, composed of sixteen or eighteen pairs of sessile leaflets, half an inch only in length, and one sixth of an inch broad, of a bright green color, downy, oblong, entire, and obtuse: the flowers are in loose bunches of five or six, which come out from the sides of the branches: the calyx is of a straw yellow color, and deciduous: the petals also yellowish, and beautifully variegated with red veins; ovate, concave, acute, indented, and plaited at the edge; and the filaments purplish, bearing incumbent brownish anthers: the pods are thick, compressed, and of a dull brown color when ripe: those from the West Indies from two to five inches long, with two, three, or four seeds: those from the East Indies are twice as long, and contain five, six, or seven seeds: the seeds in both are flat, angular, shining, and lodged in a dark pulpy matter.

In the West Indies, the pods are gathered in June, July, and August, when fully ripe; and the fruit being freed from the shelly fragments, is placed in layers in a cask, and boiling syrup poured over it, till the cask is filled; the syrup pervades every part quite down to the bottom; and when cool the cask is headed for sale. (*Long's Jamaica*, iii. 729.) The East India tamarinds are darker colored and drier, and are said to be preserved without sugar. Tamarinds are inodorous, and have an agreeable acid sweetish taste. The acid taste chiefly depends on the citric acid, the quantity of that being greater than of the other. The pulp is refrigerant, and gently laxative. The simple infusion of the pulp in warm water, or a whey made by boiling it in milk, forms a very grateful refrigerant beverage, which is advantageously used in febrile diseases. The dose of the simple fruit required to act upon the bowels is so large, that it is seldom given alone as a purgative, but is generally combined with cassia or manna, the action of which it augments, or with such of the neutral purgative salts as are not decomposed by it; which is the case with those that have potass for their base, and are therefore incompatible in mixtures with this fruit. (*Thompson's London Dispensatory*, 534.)

The plants thrive in loam and peat, and root under a glass in sand. They form handsome objects, but in our stoves are seldom allowed sufficient room to flower. Miller says, he had several plants twenty years old, and upwards, of fifteen feet high, which never had shewed blossoms.

TRIANDRIA.

9338 The only species

9339 Stigma deflexed, Scape and spathes silky, Leaves ensiform straight striated
9340 Stigma deflexed, Scape and spathes smooth shining, Keel of leaves woolly at base

9341 Stem branched, Leaves equitant ensiform equal wavy; inner twice as narrow as the outer
9342 Stem simple, Leaves equitant ensiform; lower narrow

9343 Stem simple wavy, Leaves ensiform nerved, Petals flat; inner small panduriform

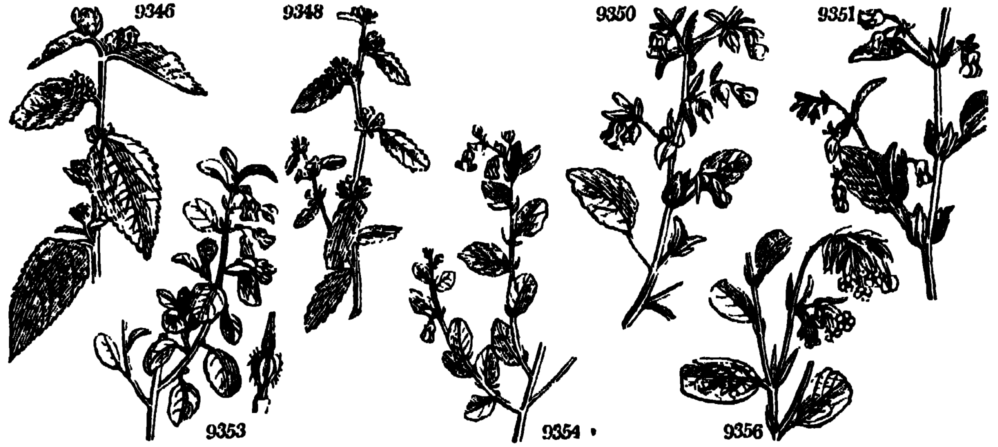
9344 Almost stemless, Leaves oblong, Spathe 1-valved 1-flowered

9345 Almost stemless, Leaves linear filiform dilated at base, Spathe 1-valved 1-flowered

PENTANDRIA.

9346 Leaves oval plicate acutely and unequally toothed downy, Heads stalked
9347 Leaves oval plicate bluntly toothed downy, Heads sessile
9348 Leaves lanceolate oblong blunt plicate toothed downy, Heads sessile
9349 Leaves ovate mucronate serrate and stem quite smooth, Heads stalked, Calyxes ciliated

9350 Leaves ovate downy plicate crenate, Lower stipules ovate; upper broad lanceolate, Cal. angular
9351 Lvs. downy hairy ovate subcord. rugose denticulate, Stipules ovate acute, Cal. in fl. cylind. finally inflated
9352 Leaves oval unequally crenate subpubescent, Stipules ovate acute often cut, Stem glandular pubescent
9353 Leaves whitish downy round ovate crenate, Stipules lanceolate subulate, Cal. campanulate spreading
9354 Leaves hispid-villous roundish-ovate blunt toothed, Stipules subovate acuminate, Cal. angular
9355 Leaves downy hispid rugose oblong blunt entire subsessile, Stipules long lanceolate subulate, Fls. naked
9356 Lvs. downy hispid somew. rugose obl. very blunt a little toothed at end with short stalks, Stip. lanc. subul.



and Miscellaneous Particulars.

1450. *Patersonia.* Named after Colonel William Paterson, a gentleman whose remarks on the Cape of Good Hope, New Holland, and Norfolk Island, have been of much service to botany. Handsome plants, which grow readily in loam and peat, and are increased like other herbaceous vegetables.

1451. *Ferraria.* Named after Jean Baptiste Ferrari, an Italian botanist, author of a work on the culture of flowers, published in 1633, &c. According to Sweet, "a mixture of sandy loam and peat is the best soil for the species, and they should be kept without water, after they have done growing, till they begin to grow again, when they may be planted in fresh pots and regularly watered: they are increased by offsets from the bulbs, or by seeds." (*Bot. Cult.* 192.)

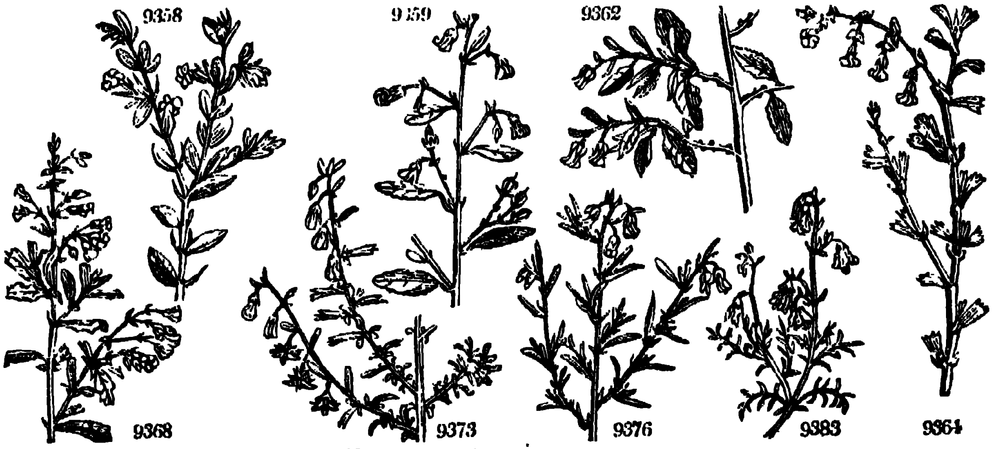
1452. *Tigridia.* In allusion to the spotted flowers, which are marked something like the skin of a tiger. Splendid plants, and tolerably hardy. They do best when planted in the soil and protected by a frame or hand-glass; but will also thrive in sheltered borders, provided they are protected from the winter's frost. They ripen seeds, from which, or from offsets, they may be readily increased.

1463. *Galaxia.* Thunberg, the author of the name, has not explained its meaning. Like other plants of the bulbous kind, these should be kept dry after flowering and seeding. At the return of the growing season, they should be fresh potted, and kept in a cool part of the greenhouse till they are well rooted, when they may be put into a warmer situation and regularly watered. They seed freely.

1454. *Waltheria.* In memory of Augustin Frider. Walther, professor of medicine at Leipsic; author of Hortus Proprius, 1735. The species grow in any light rich soil, and are readily propagated. They are of no importance.

1455. *Hermannia.* In memory of Paul Hermann, who practised physic in Ceylon, and at the Cape of Good Hope, and was afterwards professor of botany at Leyden. He was born in 1640, at Halle, in Saxony, and died in 1695. The species are low shrubs, for the most part, with wrinkled leaves and yellow flowers, which they produce in abundance. They grow freely in any light rich soil, and are readily increased in the same soil.

9357 frágrans *Link.*	fragrant	♄	⊔	or	2	...	...	C. G. H.	1822.	C	l.p	
9358 involucráta *W.*	involucred	♄	⊔	or	2	my.jn	Y	C. G. H.	1794.	C	l.p	Ca.dis.6.t.177.f.1
9359 scordifólia *W.*	Germander-lv.	♄	⊔	or	2	ap.n	Y	C. G. H.	1794.	C	l.p	Jac.schœ.1.t.120
9360 mol'lis *W.*	soft-leaved	♄	⊔	or	2	my.jn	Y	C. G. H.	1814.	C	l.p	
9361 denudáta *W.*	smooth	♄	⊔	or	2	my.jl	Y	C. G. H.	1774.	C	l.p	Jac.schœ.1.t.122
9362 disermæfólia *W.*	simple-flower'd	♄	⊔	or	2	mr.ap	Y	C. G. H.	1795.	C	l.p	Jac.schœ.1.t.121
9363 alnifólia *W.*	Alder-leaved	♄	⊔	or	7	f.my	Y	C. G. H.	1728.	C	l.p	Bot. mag. 299
9364 cuneifólia *W.*	wedge-leaved	♄	⊔	or	2	au.s	Y	C. G. H.	1791.	C	l.p	Jac.schœ.1.t.124
9365 holosericea *W.*	velvet-leaved	♄	⊔	or	2	my jn	Y	C. G. H.	1792.	C	l.p	Jac.schœ.3.t.292
9366 decúmbens *W. en.*	decumbent	♄	⊔	or	1	my.jn	Y	C. G. H.	1821.	C	l.p	
9367 hirsúta *W.*	hairy-branched	♄	⊔	or	2	my.jn	Y	C. G. H.	1790.	C	l.p	Schr. s. han.1.t.4
9368 scábra *W.*	rough-leaved	♄	⊔	or	3	mr.ap	Y	C. G. H.	1789.	C	l.p	Jac.schœ.1.t.127
9369 multiflóra *W.*	many-flowered	♄	⊔	or	3	mr.my	Y	C. G. H.	1791.	C	l.p	Jac.schœ.1.t.128
9370 flámmea *W.*	flame-flowered	♄	⊔	or	3	ja.d	Or	C. G. H.	1794.	C	l.p	Bot. mag. 1349
9371 anguláris *W.*	angular	♄	⊔	or	3	ap.my	Y	C. G. H.	1791.	C	l.p	Jac.schœ.1.t.126
9372 hyssopifólia *W.*	Hyssop-leaved	♄	⊔	or	7	ap.jn	Str	C. G. H.	1725.	C	l.p	Ca.dis.6 t 181.f.3
9373 trifurcáta *W.*	three-forked	♄	⊔	or	3	ap.jl	B	C. G. H.	1789.	C	l.p	Jac.schœ.1.t.125
9374 odoráta *W.*	sweet-scented	♄	⊔	or	3	f.o	Y	C. G. H.	1780.	C	l.p	
9375 lavandulifólia *W.*	Lavender-leav.	♄	⊔	or	1½	my.s	Y	C. G. H.	1732.	C	l.p	Bot. mag. 304
9376 filifólia *W.*	thread-leaved	♄	⊔	or	1½	my.au	Y	C. G. H.	1816.	C	l.p	Jac.schœ.1.t.123
9377 trifoliáta *W.*	three-leaved	♄	⊔	or	2	my.au	Y	C. G. H.	1752.	C	l.p	Ca.dis.6.t.182.f.1
9378 procúmbens *W.*	procumbent	♄	⊔	or	1½	my.jn	Y	C. G. H.	1792.	C	l.p	Ca.dis.6.t.177.f.2
9379 grossularifólia *W.*	gooseberry-lvd.	♄	⊔	or	2	ap.my	Y	C. G. H.	1731.	C	l.p	Cav. dis. 6. 178. 1
9380 pulverulénta *B R.*	powdered	♄	⊔	or	2	my.au	Y	C. G. H.	1800.	C	l.p	Bot. rep. 161
9381 incísa *W.*	cut-leaved	♄	⊔	or	2	ju jl	Y	C. G. H.	1806.	C	l.p	
9382 coronopifólia *Link.*	buckshorn-lvd.	♄	⊔	or	2	jn jl	Y	C. G. H.	1823.	C	l.p	
9383 tenuifólia *B. M.*	slender-leaved	♄	⊔	or	2	jn jl	Y	C. G. H.	...	C	l.p	Bot. mag. 1348
1456. MELO'CHIA. *W.*	MELOCHIA.					*Byttneriaceæ.*		*Sp.* 4—28.				
9384 pyramidáta *W.*	pyramidal	♄	□	or	1	jl.au	Pu	Brazil	1768.	C	p.l	Jac. vind. 1. t 30
9385 tomentósa *W.*	downy	♄	□	or	2	my jn	Pu	W. Indies	1768.	C	p l	Ca.dis.6 t.172.f.2
9386 caracásana *Jacq.*	Caraccas	♄	□	or	2	my.jn	Y	Caraccas	1820.	C	p.l	Jacq. ic. 507
9387 corchorifólia *W.*	Corchorus-lvd.		▣	or	1	jl.au	Y	E. Indies	1732.	S	l.p	Dil.el.t.176.f.217
1457. MELHA'NIA. *J.*	MELHANIA.					*Byttneriaceæ.*		*Sp.* 2—6.				
9388 Erythróxylon *H. K.*	red-wood	🌳	□	or	20	my.au	W	St. Helena	1772.	C	s.l	Bot. mag. 1000
9389 Melanóxylon *H. K.*	black-wood	🌳	□	or	20	jl.au	W	St Helena	1800.	C	s.l	Plu.ma. t.333.f.5
1458. OCHRO'MA. *W.*	OCHROMA.					*Bombaceæ.*		*Sp*				
9390 tomentósa *W. en.*	woolly-leaved	🌳	□	or	20	...	W	S. Amer.	1816.	C	l.p	
9391 Lagópus *W. en.*	downy-leaved	🌳	□	or	20	...	W	Jamaica	1802.	C	p.l	Cav. dis. 5. t.153
1459 PASSIFLO'RA. *W.*	PASSION FLOWER.					*Passifloreæ.*		*Sp.* 44—95.				
9392 serratifólia *W.*	notched-leaved	♄ʃ	□	or	20	my.o	G.Pk	W. Indies	1731.	C	p.l	Bot. mag 651
9393 cúprea *W.*	copper-colored	♄ʃ	□	or	20	jl au	Or	Bahama I.	1724.	C	p.l	Jac. ic. 3. t. 606
9394 malifórmis *W.*	Sweet Calabash	♄ʃ	□	fr	20	jl n	G.R	W Indies	1731.	C	p.l	Bot. reg. 94
9395 racemósa *Brot.*	racemose	♄ʃ	□	or	20	mr.o	S	Brazil	1815.	C	p.l	Bot mag 2001
9396 quadranguláris *W.*	square-stalked	♄ʃ	□	fr	20	au.s	G.B.R	Jamaica	1768	S	r m	Bot. reg 14



History, Use, Propagation, Culture,

1456. *Melochia* According to Forskahl, it is an alteration of the Arabic name *melochich*, or *melokhieh.* Light rich soil suits all the species, and they strike readily in moist heat.

1457. *Melhania,* A plant which grows upon Mount *Melham*, in Arabia. Pretty plants, which grow in sandy loam, and root in sand under cover. Sweet observes, that "they are very apt to become covered with insects."

1458. *Ochroma.* From ωχρος, yellow, the flowers being of that color, according to Schreber O. Lagopus is a very large tree, with divaricating branches, and leaves more than a foot long. The wood is white, tender, and so light, that it is used instead of corks to nets. The capsules contain a very soft fine rufous down, in which the seeds are involved, and which down is said to be used in the manufacture of English beavers. (*Desportes Plantes de S. Domingue*, iii. 16.)

1459. *Passiflora.* This genus has been so named, on account of its being supposed to represent, in the appendages of its flower, the passion of Jesus Christ. A beautiful genus of climbers, partly herbaceous, but chiefly suffrutescent or woody; and all of them exotics and very ornamental. Some species are odoriferous; others bear edible fruits, fleshy juicy berries of considerable size, though not rich in flavor. Of late, a number of hybrid sorts have been raised, some of which, as P. cæruleo-racemosa, are considered more beautiful than almost any of the natural species.

P. maliformis, the sweet calabash of the West Indies, produces large flowers, red, white, and blue, but of short duration. They are succeeded by fruit, roundish, the size of a large apple, yellow when ripe, having a thicker rind than any of the other sorts; inclosing a sweetish pulp, in which are lodged many oblong black seeds, of a brownish color, a little rough to the touch. It grows naturally in the West Indies, where the inhabitants call it Granadilla. The fruit is served up there in desserts. It has borne fruit in the garden of the Bishop of Durham in Oxfordshire, and at Vere's, Kensington Gore. (*Hort. Trans.* iii. 101.)

P. quadrangularis, the Granadilla vine of the French, has leaves five or six inches long, and luxuriant four-

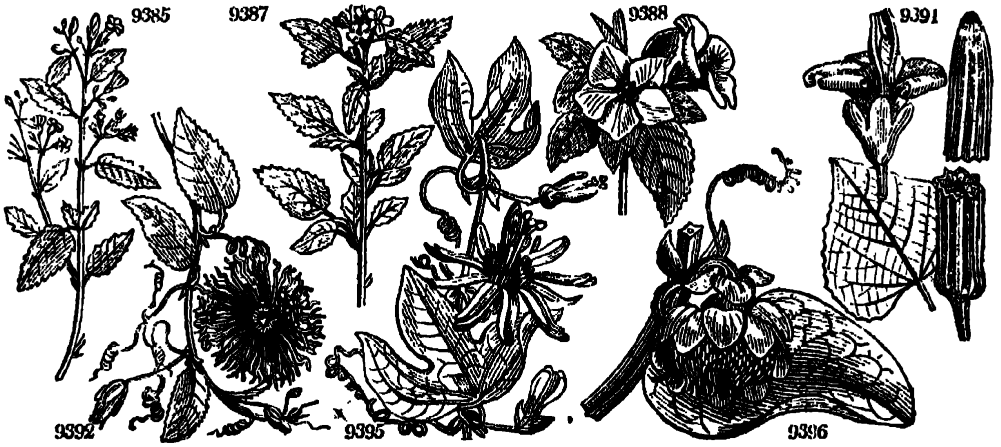
9357 Leaves stalked oval blunt wavy crenate and stem hairy, Stipules lanceolate
9358 Leaves downy hispid oblong acutish entire subsessile, Stipules lanceolate subulate, Flowers aggregate
9359 Leaves downy beneath oblong blunt crenate stalked, Stipules subulate, Pedic. 1-2-fl. Calyxes spreading
9360 Leaves soft with down whitish obl. blunt toothed cuneate at base entire, Pedunc. 2-fl. Cal. campan. velvety
9361 Leaves smooth lanceolate serrate at end acute, Stipules ovate acuminate, Pedic. 2-4-flowered
9362 Leaves white with down lanceolate serrate bluntish wavy at edge, Stipules subul. Pedunc. 1-fl. very short
9363 Leaves smooth broadly obovate cuneiform very blunt crenate emarginate plicate, Stip. lanc. subulate
9364 Leaves pubescent obovate cuneiform truncate emarginate toothed, Stipules ovate acute
9365 Leaves soft white with down oblong cuneiform rounded at end toothed, Stipules lanceolate
9366 Leaves pubescent downy oblong unequally toothed rounded at each end, Stipules ovate somew. toothed
9367 Leaves beneath white with down oblong obov. cuneiform unequally toothed at end, Stip. ½ cord. acum.
9368 Leaves rough above downy beneath cuneif obl. unq toothed entire at base, Stip. half cordate acuminate
9369 Leaves smoothish cuneiform oblong truncate toothed at end, Stipules oblong acute, Racemes few-flow.
9370 Leaves smooth cuneiform lanceolate truncate toothed at end, Calyxes reflexed
9371 Leaves smooth above hairy beneath cuneiform lanceolate truncate toothed at end
9372 Leaves pubescent cuneiform lanceolate blunt toothed at end, Calyx inflated downy
9373 Leaves velvety cuneiform linear blunt entire or 3-toothed at end, Cal campanulate
9374 Leaves velvety cuneiform lanceolate blunt: upper entire; lower 3-5-toothed at end, Stipules lin. subul.
9375 Leaves velvety lanceolate blunt entire, Stipules linear subulate, Calyxes angular
9376 Leaves smooth rough at edge linear 3-cornered entire, Stipules large lanceolate
9377 Leaves white with down sess. cuneate obcord. somew. crenate at end, Stip. obl. blunt resembling lat. lvs.
9378 Leaves smoothish oblong toothed pinnatifid: lower ovate; upper elongate, Stem procumbent
9379 Leaves rough with scattered down linear-cuneiform coarsely toothed, Stipules linear entire
9380 Leaves roughish white bipinnatifid, Pedunc. 2-flowered very long
9381 Leaves pinnatifid with linear lanceolate entire segments, Petals cut-toothed
9382 Leaves linear pinnatifid fleshy smoothish, Stem pubescent
9383 Leaves pinnatifid with linear entire acute lobes

9384 Leaves ovate lanc. toothed smooth, Pedunc. 5-6-fl. longer than petiole, Branches downy in decurrent lines
9385 Lvs. uneq. sided ovate obl. acutely crenate plaited hoary on each side, Umbels 5-8-fl. longer than petiole
9386 Leaves cordate crenate downy beneath, Fl. capitate subsessile axillary and opposite the leaves
9387 Leaves ovate somewhat lobed serrated smooth, Flowers subterminal capitate sessile

9388 Leaves ovate cordate subpeltate acuminate crenulate beneath downy and reticulated
9389 Leaves cordate entire downy on each side

9390 Leaves cordate somewhat 3-lobed repand subtomentose
9391 Leaves cordate 5-angled somewhat lobed toothletted pubescent beneath

9392 Leaves ovate veiny subserrulate, Petioles with 2 glands, Invol. 3-leaved
9393 Leaves elliptical entire blunt 3-nerved, Petioles without glands, Invol. O.
9394 Leaves oblong ovate cordate 3-nerved veiny entire, Petioles with 2 glands, Invol. 3-leaved larger than fl.
9395 Leaves 3-lobed peltate, Petioles with 4 glands, Flowers terminal racemose
9396 Leaves obl. ovate subcord. entire veiny, Petioles with 6 glands, Stipules roundish ovate, Invol. 3-leaved



and Miscellaneous Particulars.

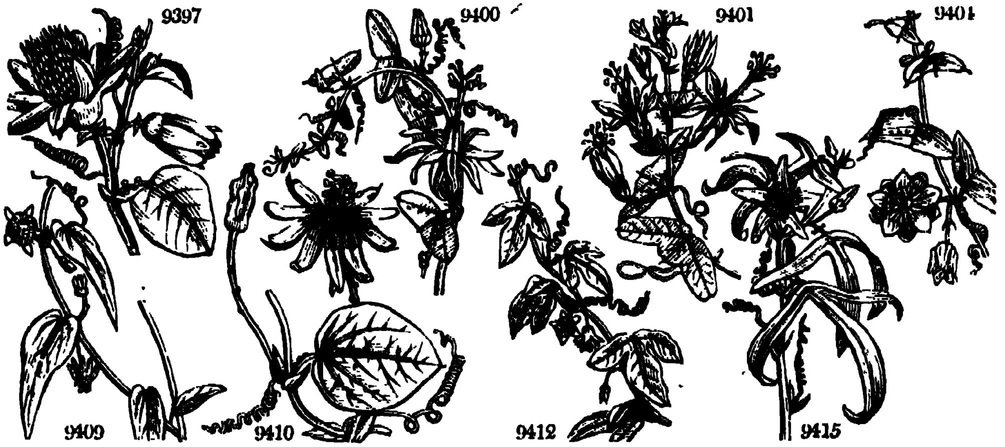
cornered ligneous stems. The flowers are red within, and white outside; they are odoriferous, and generally the plant is covered with fruits and flowers at the same time, which makes a fine appearance. The fruit, Sabine describes (*Hort. Trans.* iii. 100.) as very large, of an oblong shape, about six inches in diameter, from the stalk to the eye, and fifteen inches in circumference. It is externally of a greenish-yellow when ripe, soft and leathery to the touch, and quite smooth; the rind is very thick, and contains a succulent pulp of a purple color (which is the edible part), mixed with the seeds in a sort of sack, from which it is readily separated. Wine and sugar are commonly added to it when used. The flavor is sweet and slightly acid, and it is very grateful to the taste, and cooling in a hot climate. It has been successfully cultivated for its fruit in a few places, as at Lord Harewood's, Farnley Hall, &c. (*Hort. Trans.* iv. 60.)

P. laurifolia, the water lemon, *Pomme de Liane*, Fr., has a suffrutescent stem, with divaricating filiform branches, oval smooth leaves, and very long tendrils. Flowers red and violet, sweet-scented; the fruit about the size of a hen's egg, but rather more elongated, and tapering equally at both ends; when ripe, it is yellow and dotted over with white spots; it contains a whitish watery pulp, which, in the West Indies, is usually sucked through a small hole made in the rind; the rind is tough, soft, and thin; the juice has a peculiar aromatic flavor, is delicately acid, and allays thirst agreeably. It is grown in our stoves, but has not yet been cultivated for its fruit.

P. normalis has berries about the size of small grapes. The root has been extolled as a counterpoison and diuretic.

P. Murucuja produces fruit of an oblong oval form, about the size of a large olive, and flesh-colored when ripe. Both the syrup and decoction of the plant are much used in the leeward parts of Jamaica, where it is frequent; and they are said to answer effectually all the purposes for which syrup of poppies and liquid laudanum are generally administered. The flowers are most in use: they are commonly infused in, or pounded and

9397	aláta *W.*	wing-stalked	$	□	fr	20	ap.au	G.B.R	W. Indies	1772.	C	p.l	Bot. mag. 66
9398	laurifólia *W.*	laurel-leaved	$	□	fr	20	jn.jl	G.Pu	W. Indies	1690.	C	p.l	Bot. reg. 13
9399	multiflóra *W.*	many-flowered	$	□	or	20	jn.s	...	VeraCruz	1731.	C	p.l	Plum.amer. t.90
9400	Murucúja *W.*	purple	$	□	fr	12	jl.au	S	W. Indies	1739.	C	p.l	Bot. reg. 574
9401	perfoliáta *W.*	perfoliate-leav.	$	□	or	15	jl.au	Pu	W. Indies	1806.	C	p.l	Bot. reg. 78
9402	rúbra *W.*	red-fruited	$	□	or	15	ap.s	R	W. Indies	1731.	C	p.l	Bot. reg. 96
9403	normális *W.*	linear-lobed	$	□	or	15	my.jn	...	VeraCruz	1771.	C	p.l	
9404	lunáta *W.*	crescent-leaved	$	□	cu	10	jn.au	W	Jamaica	1733.	C	p.l	Bot. mag. 2354
9405	Vespertilio *W.*	bat-winged	$	□	cu	8	my.jn	W	W. Indies	1732.	C	p.l	Bot. reg. 597
9406	rotundifólia *W.*	round-leaved	$	□	cu	8	my au	W	W. Indies	1779.	C	p.l	Cav. dis. 10. t. 290
9407	punctáta *W.*	dotted-leaved	$	□	cu	6	my.jn	W.Y	Peru	1784.	C	p.l	Bot. cab. 101
9408	lútea *W.*	yellow	$	□	cu	4	my.jn	Y.w	America	1714.	R	p.l	Bot. reg. 79
9409	angustifólia *W.*	narrow-leaved	$	□	cu	6	jn.s	W	W. Indies	1773.	C	l.p	Bot. reg. 188
9410	al'bida *Ker.*	long-stalked	$	□	or	15	au.s	W	Brazil	1816.	C	l.p	Bot. reg. 677
9411	pállida *W.*	pale	$	□	cu	20	au.s	Y.o	St. Domin.	...	C	l.p	Bot. reg. 660
9412	mínima *W.*	small	$	□	cu	6	jl.au	W	Curassao	1690.	C	l.p	Bot. reg. 144
9413	grácilis *Link.*	slender		⊡	cu	6	au	W	......	1823.	O	co	Bot. reg. 870
9414	suberósa *W.*	Cork-barked	$	□	cu	6	jn.s	W	W. Indies	1759.	C	p.l	Exot. bot. 1. t. 28
9415	peltáta *W.*	peltate	$	□	cu	6	au.s	G	W. Indies	1778.	C	l.p	Bot. reg. 507
9416	hederácea *W.*	Ivy-leaved	$	□	un	3	jn jl	W	W. Indies	...	C	l.p	Plum.amer. t.84
9417	glaúca *W.*	glaucous-leav'd	$	□	un	6	au.s	W	Cayenne	1779.	C	l.p	Bot. reg. 88
	stipuláta Aublet.												
9418	picturáta *Ker.*	Newman's	$	□	or	15	s	Pu	Brazils	1820.	C	l.p	Bot. reg. 673
9419	holosericea *W.*	silky-leaved	$	□	or	10	my.au	W.pu	VeraCruz	1733.	C	p.l	Bot. reg. 59
9420	hirsúta *W.*	hairy	$	□	or	8	s	W	W. Indies	1778.	C	l.p	Bot. cab. 138
9421	tuberósa *W.*	tuberous	$	□	or	12	jn.o	G	W. Indies	1810.	C	l.p	Bot. reg. 432
9422	palmáta *Link.*	palmate	$	□	or	12	...	W	Brazil	1818.	C	l.p	
9423	fœ'tida *W.*	stinking	$	□	or	10	jl.au	W.o	W. Indies	1731.	S	p.l	Bot. reg. 321
9424	rubricaúlis *Jacq.*	red-stalked	$	□	pr	6	jl.au	R	S. Amer.	1821.	S	co	
9425	ciliáta *W.*	ciliated	$	□	or	6	jl.s	Pk	Jamaica	1783.	C	p.l	Bot. mag. 288
9426	Herbertiána *Ker.*	Lord Caernarv.	$	□	or	30	jl.s	G	N. Holl.	1821.	C	p.l	Bot. reg. 737
9427	adiantifólia *B. Reg.*	Adiantum-lvd.	$	⊔	or	20	jn.au	Or	Norfolk I.	1792.	C	l.p	Bot. reg. 233
9428	pedunculáris *Cav.*	long-peduncled	$	□	or	10	...	...	Peru	1815.	C	l.p	Cav. ic. 5. t. 426
9429	édulis *B. M.*	eatable	$		fr	30	jl.au	W	W. Indies	...	C	l.p	Bot. mag. 1989
9430	incarnáta *W.*	Rose-colored	$	⊔	or	30	jl.au	Pk	America	1629.	C	r.m	Miss Lawr. pass.
9431	cærúlea *W.*	common	$		or	30	jn.o	W.B	Brazil	1609.	C	s.p	Bot. mag. 28
	β *cærúleo-racemósa*	*Milne's hybrid*	$	⊔	or	30	jn.o	Pu	......	1820.	C	co	Bot. cab. 573
	γ *angustifólia*	*narrow-leaved*	$		or	30	jn.o	W.B	......	...	C	co	
	δ *chinénsis*	*Chinese*	$		or	30	jn.o	W.B	China	...	C	co	
9432	filamentósa *W.*	thready	$	□	or	20	jn.o	W.B	America	1817.			Bot. reg. 584
9433	serráta *W.*	saw-leaved	$	□	or	20	...	W.G	Martiniq	1800.	C	l.p	Plum. amer. t. 79
9434	pedáta *W.*	curl-flowered	$	□	or	15	...	W.G	W. Indies	1781.	C	p.l	Plum. amer. t. 81
9435	heterophýlla *W.*	various-leaved	$	□	or	15	...	W	St. Domin.	1817.	C	p.l	Plum. ic. 139. f. 1



History, Use, Propagation, Culture,

mixed immediately with wine or spirits; and the composition is generally thought a very effectual and easy narcotic.

P. incarnata, the May apple, has a perennial root, herbaceous shoots, and sweet-scented flowers, variegated with purple. The fruit is about the size of an apple, orange-colored, with a sweetish yellow pulp, but it requires the heat of the stove to bring it forward.

P. cærulea is the tallest and most ligneous of the species. The stem will grow almost as large as a man's arm, and the shoots will often grow the length of fifteen feet in one summer. The leaves are the most elegant of the genus. The flowers are blue outside, and purple and white within: they have a faint scent, and continue but for one day. The fruit is egg-shaped, of the size and color of the Mogul plum, the yellow skin of which encloses a sweetish disagreeable pulp and black seeds.

Besides the species thus enumerated, some varieties have been procured by cross impregnation, which are very remarkable for their beauty, and for having acquired the hardihood of their parent. The most valuable of these artificial productions, is the P. cæruleo-racemosa, raised by Mr. Milne, of Fulham, from seed of P. racemosa impregnated by P. cærulea, and figured in the Transactions of the Horticultural Society, vol. 3. tab. 3., and the P. alato-cærulea, obtained by Mr. J. H. Masters of Canterbury, between P. alata of the West Indies, and P. cærulea.

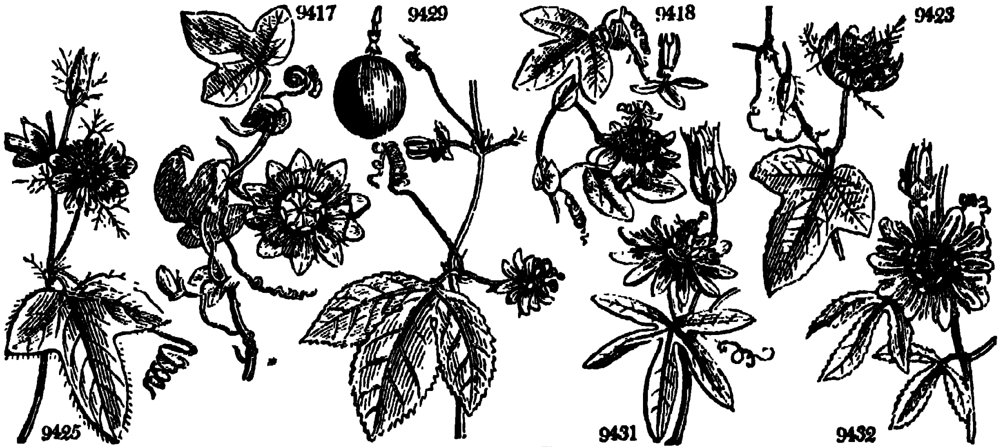
All the species grow and flower freely in a mixture of loam, and light rich earth or peat, with plenty of room. Most of them fruit in the stove, but the P. cærulea seldom fruits in the greenhouse. They are all easily increased either by seeds or very young cuttings, in a close moist heat.

As fruit-bearing plants the Passifloras are thus treated:—" Having procured plants with good roots, plant such as are intended to fruit in a border in the stove, and train them to a trellis near the glass; they will in general produce fruit the second year. The seedlings of the P. incarnata, will produce fruit the first year. All the species will fruit even in large pots; but Sabine says, the " best method is to plant them in an angle of the bark-bed, which has been parted off, either by boards or brick-work, as low as the pit goes. At the bottom of

9397 Leaves obl. ovate subcord. ent. veiny, Petioles with 4 glands, Stip. lanc. falcate subserrate, Invol. 3-leaved
9398 Leaves oblong entire veiny, Petioles with 2 glands, Invol. 3-leaved toothed at end
9399 Leaves obl. ent. acute 3-nerved veiny, Petioles with 2 glands, Ped. aggregate axill. Fl. apetalous, Invol. O.
9400 Leaves 2-lobed bluntly emarginate, Petioles without glands, Corona campanulate truncate entire
9401 Lvs. cord. 2-lobed blunt mucron.; up. somew. stem-clasp. Petiol. without glands, Pet. twice as long as cal.
9402 Leaves cordate 2-lobed acute mucronate pubescent beneath, Petioles without glands, Fruit obovate
9403 Lvs. 2-lobed emarginate at base, Lobes linear blunt divaricating; the intermediate obsolete mucronate
9404 Lvs. cord. 2-lobed blunt smooth, Petioles without glands, Pedunc. axillary twin, Threads of corona clav.
9405 Leaves cuneiform acuminate divaricating with 2 glands at base, Petioles without glands, Invol. O.
9406 Lvs. round. shortly and bluntly 3-lobed dott. downy ben. Petiol. without glands, Pet. twice as short as cal.
9407 Lvs. round. subcord. blunt obsoletely 3-lobed smooth dott. Petioles without glands, Pet. twice as short as cal.
9408 Lvs. cord. 3-lobed blunt smooth, Petioles without glands, Pedunc. axill. twin, Pet. twice as narrow as cal.
9409 Lower leaves 3-lobed acuminate; upper undivided lanceolate, Petioles with 2 glands, Flowers apetalous
9410 Leaves roundish cordate, Petioles with 2 glands, Flowers solitary long-stalked, Cal. keeled, Stam. 1-sided
9411 Leaves ovate entire 3-nerved veiny, Petioles with 2 glands, Flowers apetalous, Involucrum O.
9412 Lvs. 3-lobed smooth, Lobes lanc.; middle one longest, Petioles with 2 glands, Fl. apetal. Stem corky at base
9413 Leaves subcordate 3-lobed, Lobes rounded with 2 glands, Pedunc. axillary solitary, Flower apetalous
9414 Lvs. 3-lobed smooth, Lobes oblong; lat. very short, Petioles with 2 glands, Fl. apetal. Stem corky at base
9415 Lvs. peltate deeply 3-lobed smooth, Lobes lin. lanc. divaricating, Petioles with 2 glands, Flow. apetalous
9416 Leaves peltate half 3-lobed smooth, Lobes ovate blunt, Petioles with 2 glands, Fl. apetalous
9417 Leaves peltate cordate 3-lobed, Lobes equal oblong blunt, Petioles with 4 glands, Petals length of calyx

9418 Leaves discolored peltate
9419 Leaves 3-lobed downy with a reflexed tooth on each side at the base
9420 Leaves 3-lobed vill.; lower smooth above, Lobes obl. entire; intermediate longest, Petioles with 2 glands
9421 Leaves 2-lobed glandular beneath, Lobes oblong erect, Peduncles twin
9422 Leaves palmate about 5-parted subserrulate, Involucre 3-leaved entire, Rays a little shorter than corolla
9423 Leaves 3-lobed cordate hairy, Involucres multifid capillary
9424 Leaves and stems all fringed with red hairs
9425 Leaves 3-lobed cordate smooth ciliated serrated, Involucres multifid capillary
9426 Downy, Leaves cordate 3-lobed, Peduncles twice as short as petiole, Corona much shorter than corolla
9427 Lvs. rounded trun. at base slightly 3-5-lobed, Lobes blunt, Petioles without glands, Pet. shorter than cal.
9428 Stem square, Leaves 3-lobed: lobes nearly equal serrated, Pedunc. long 1-flowered
9429 Leaves 3-lobed serrated smooth, Invol. glandular serrulate caducous, Ovary naked
9430 Lvs. 3-lobed serr. Lobes obl. acute, Petioles with 2 glands, Inv. 3-leaved, Threads of corona longer than cor.
9431 Lvs. palmate 5-parted entire, Petioles gland. Invol. 3-leaved entire, Threads of corona shorter than corolla

9432 Leaves palmate 5-parted serr. Petioles gland. Invol. 3-leaved serrate, Threads of corona longer than cor.
9433 Leaves palmate 7-parted serrated, Petioles glandular, Invol. 3-fid entire
9434 Leaves 7-pedate serrated, Petioles glandular, Invol. 3-leaved serrated
9435 Upper leaves quinate pedate obovate somewhat cut; lower ternate linear-lanceolate or simple

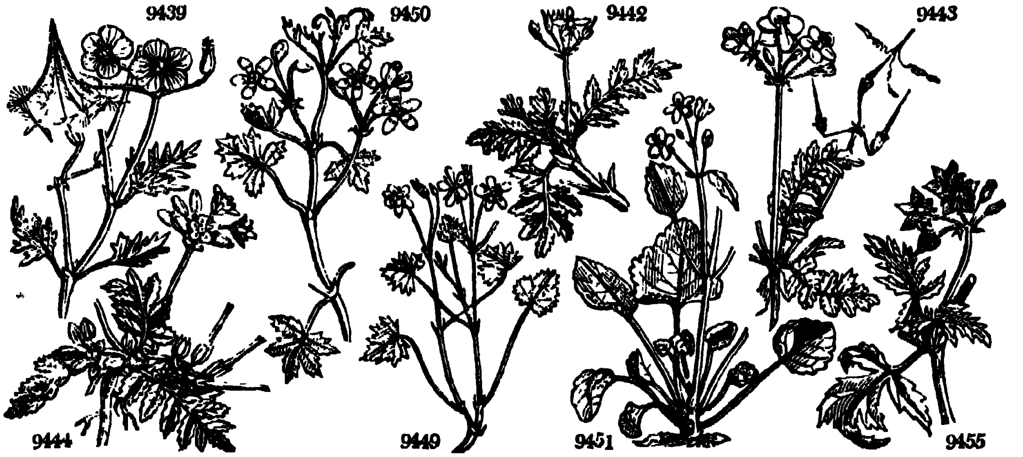


the cavity formed by this division, should be laid some brick-rubbish, over which may be thrown a little dead tan, and the whole be then filled with equal parts of very old tan, and a compost of leaf-mould and rotten dung. Herein the roots will strike freely, and will even spread through the partition into the pit, growing into the fresh tan. Such roots may be trimmed and reduced whenever the tan is changed; but should the plant have been some time in its station, it will be as well to leave part of the old tan in the bottom of the pit, in which the protruded roots may remain undisturbed. They do not require the full heat of the pine stove, for they flourish best in a temperature of from sixty-five to seventy degrees; but they do not bring their fruit to perfection if kept in a common greenhouse or conservatory, though they will grow and flower in it. The shoots, as they advance, must be trained near to and under the inclined glass of the stove: the flowers will appear in May, and the blooming will continue until September, the fruit setting the whole time; but if it does not set well, it will be advisable to impregnate the stigmas by applying the pollen with a feather. As they grow, the very strong shoots should be cut out from their origin, for these do not bear fruit so abundantly as those which are less vigorous; but the fruiting branches must not be shortened on any account. The temperature must be kept up equally during the time of flowering and fruiting. The crop will begin to come in in August, and will continue until January; but the earlier produce is the best. When the crop is all off, which will be early in January, the heat must be reduced to about fifty degrees, so as to check or stop the growth; this being effected, the shoots must be well cut in. As little old wood as possible, besides the main stem, which rises from the pit to the glass, and a few pieces (about two or three feet of each) of the old branches should be retained; for all that is to be trained under the glass to bear in each year, ought to be the growth of the same season. It is found that the shoots break better, and in greater quantity, from the older wood than from that of two years' standing. In this dormant and reduced state it is to be kept during January and February, after which the necessary heat may be applied to cause it to resume its functions for the ensuing season." (*Hort. Trans.* iii. and iv.)

1460.	**ERO'DIUM.** *W.*	HERON'S BILL.						*Geraniaceæ.*	*Sp.* 20—45.				
9436	petræ'um *W.*	rock	⚘	△	pr	¾	jn jl	Pu	S. Europe	1640.	D	co	Gouan.il.t.21.f.1
9437	glandulósum *W.*	glandular	⚘	⌊△⌋	pr	½	jn.jl	Pu	Spain	1798.	C	l.p	Lapey. pyr.1. t.1
9438	alpinum *W.*	Alpine	⚘	△	pr	½	my.au	R	Italy	1814.	D	co	L'Her. ger. t. 3
9439	crassifólium *W.*	thick-leaved	£	⌊△⌋	or	½	mr.au	S	Cyprus	1788.	R	r.m	Sweet ger. 111
9440	laciniátum *W.*	laciniated	£	⌊△⌋	or	½	my.au	R	Crete	1794.	R	r.m	Ca.dis.4.t.113.f.3
9441	cicónium *W.*	long-beaked		○	un	¾	jn.jl	Pu	S. Europe	1711.	S	co	Jac. vind. 1. t. 18
9442	cicutárium *W.*	Hemlock-leav'd		○	w	¾	ap.s	Pu	Britain	ro.sid.	S	co	Eng. bot. 1768
	β *bipinnátum* W.	*Numidian*	£	⌊○⌋	un	½	my.jn	Pu	Numidia	1803.	C	s.l	Ca.dis.5.t.126.f.3
9443	románum *W.*	Roman		○	pr	½	my.jn	Pu	Rome	1724.	S	co	Bot. mag. 377
	β *caucalifólium* Sweet	*Caucalis-leaved*		○	pr	1	my.au	Pu	France	1816.	S	co	Sweet ger. 6
9444	moschátum *W.*	musky		○	pr	1	my.jl	Pu	England	m.pas.	S	s.l	Eng. bot. 902
9445	gruinum *W.*	broad-leaved		○	un	½	jn.jl	R	Crete	1596.	S	s.l	Cav.dis.4.t.88.f.2
9446	chium *W.*	Chian		○	un	1	jn.jl	R	Levant	1724.	S	co	Cav.dis.4.t.92.f.1
9447	hymenódes *W.*	three-leaved	£	⌊△⌋	pr	¾	ja.d	Pk	Barbary	1789.	S	r.m	Sweet ger. 23
9448	Gussóni *Tenore.*	Gousson's	⚘	△	or	1	ja.d	Pa pu	Naples	1821.	D	co	Bot. mag. 2445
9449	malacoides *W.*	mallow-leaved		○	or	½	my.jl	B	S. Europe	1596.	S	co	Cav.dis.4.t.91.f.2
9450	incarnátum *W.*	flesh-colored	£	⌊⌋	or	½	my.jl	Fl	C. G. H.	1787.	C	r.m	Sweet ger. 94
9451	glaucophýllum *W.*	glaucous-leaved		○	un	¾	jl.au	R	Egypt	1732.	S	co	Dil.el.t.124.f.150
9452	maritimum *W.*	sea	⚘	△	w	½	my.s	Fl	England	san.sh.	D	co	Eng. bot. 646
9453	Reichárdi *Dec.*	dwarf	£	⌊△⌋	pr	1	ap.s	W	Minorca	1783.	C	s.l	Bot. mag. 18
9454	littóreum *Dec.*	shore	⚘	△	un	½	ap.s	R	S. Europe	1821	D	co	
9455	serotinum *Stev.*	late	⚘	△	pr	¾	jl.s	B	Siberia	1821.	D	co	Sweet ger. 137
	multicaúle Link.												

HEPTANDRIA.

1461.	**PELARGO'NIUM.** *W.*	STORK'S BILL.						*Geraniaceæ.*	*Sp.* 186—*uncertain.*				
9456	longifólium *Jacq.*	long-leaved	✲	⌊△⌋	pr	½	my.jn	Pk	C. G. H.	1812.	R	r.m	Jac. ic. 3. t. 518
9457	longiflórum *Jacq.*	long-flowered	✲	⌊△⌋	pr	½	my.jn	Y	G. H.	1812.	R	r.m	Jac. ic. 3. t. 521
9458	ovalifólium *Sweet*	oval-leaved	✲	⌊△⌋	pr	½	my jn	W	G. H.	1820.	R	r.m	Sweet ger. t. 106
9459	reticulátum *Sweet*	netted	✲	⌊△⌋	pr	¾	my.jn	Pk	C. G. H.	1820.	R	r.m	Sweet ger. t. 91
9460	ciliátum *L'Her.*	ciliated	✲	⌊△⌋	pr	½	ap.jn	F	C. G. H.	1795.	R	r.m	Bot. rep. 247
9461	punctátum *W.*	dotted-flower'd	✲	⌊△⌋	pr	½	ap.my	Y	C. G. H.	1794.	R	r.m	Bot. rep. 60
9462	radicátum *Vent.*	fleshy fringe-lv.	✲	⌊△⌋	pr	½	jn.jl	Y	C. G. H.	1802.	R	r.m	Bot. mag. 1718
9463	spatulátum *Andr.*	spatula-leaved	✲	⌊△⌋	pr	½	ap.my	Y	C. G. H.	1795.	R	r.m	Bot. rep. 152
	β *affíne* Andr.	*fring.-spatul.-lv*	✲	⌊△⌋	pr	½	ap.my	Y	C. G. H.	1795.	R	r.m	Bot. rep. 282
9464	radiátum *Pers.*	ray-leaved	✲	⌊△⌋	pr	½	jn.au	Y	C. G. H.	1801.	R	r.m	Bot. rep. 222
9465	virgineum *Pers.*	virgin	✲	⌊△⌋	pr	½	my.jl	Y	C. G. H.	1795.	R	r.m	Bot. rep. 317
9466	undulátum *Ait.*	wave-flowered	✲	⌊△⌋	pr	½	my.jl	Y	C. G. H.	1795.	R	r.m	Bot. rep. 292
9467	lineáre *Pers.*	linear-petalled	✲	⌊△⌋	pr	½	jn.jl	Y	C. G. H.	1800.	R	r.m	Bot. rep. 193
9468	níveum *Sweet*	snow-white	✲	⌊△⌋	pr	¾	jn.jl	W	......	1821.	R	r.m	Sweet ger. 182
9469	revolútum *Pers.*	revolute	✲	⌊△⌋	pr	½	jl.au	Pu	C. G. H.	1800.	R	r.m	Bot. rep. 354
9470	auriculátum *W.*	ear-leaved	✲	⌊△⌋	pr	½	ap.jn	Pk	C. G. H.	...	R	r.m	Jac. ic. 3. t 519
9471	laciniátum *Pers.*	jag-leaved	✲	⌊△⌋	pr	½	my jn		C. G. H.	1800.	R	r.m	Bot. rep. 131
9472	oxalidifólium *Pers.*	Wood-sorrel-lv.	✲	⌊△⌋	pr	½	my.au	Y	C. G. H.	1801.	R	r.m	Bot. rep. 300
9473	nervifólium *Jacq.*	nerved-leaved	✲	⌊△⌋	pr	½	my.au	Va	C. G. H.	1812.	R	r.m	Jac. ic. 3. t. 517
9474	triphýllum *Jacq.*	three-leaved	✲	⌊△⌋	pr	½	ap.my	F	C. G. H.	1812.	R	r.m	Jac. ic. 3. t. 515
9475	refléxum *Pers.*	reflex-leaved	✲	⌊△⌋	pr	½	jn.jl	W	C. G. H.	1800.	R	r.m	Bot. rep. 224
9476	róseum *Ait.*	Rose-colored	✲	⌊△⌋	pr	½	mr.my	Pk	C. G. H.	1792.	R	r.m	Bot. rep. 173



History, Use, Propagation, Culture,

1460. *Erodium.* From ερωδιος, a heron, because the fruit resembles the head and breast of that bird. The species are hardy plants, of common treatment, and no great beauty.

1461. *Pelargonium.* So called from πελαργος, a stork, in allusion to the beak of the fruit, which resembles the bill of that bird; as well as to preserve an analogy with the Geranium or Crane's-bill. It was detached by the late learned botanist Mons. L'Heritier, along with Erodium, from the Linnean genus Geranium; and distinguished by its seven fertile stamens, irregular flower, tubular nectary, and spiral-leaved awns, or beaks to the capsule

" This vast and favorite genus, for which we are almost entirely indebted to the Cape of Good Hope, consists of a number of well marked species. But that number is greatly augmented in almost every book, by the admission of spurious hybrid species or varieties, which continually start up from seed, wherever many of the primary ones are cultivated, and are for a while propagated by cuttings, and even by seed. Sooner or later,

9436 Stemless, Peduncles many-fl. Lvs. smoothish pinnat. Segm. pinnatifid, Petals retuse twice as long as calyx
9437 Stemless, Peduncles many-fl. Lvs. downy gland. pinnat. Segm. pinnatif. Petals acute twice as long as calyx
9438 Stem smooth. branch. Ped. many-fl. Lvs. smooth. bipinnatif. Lobes lin. Pet. blunt long. than long-point. cal.
9439 Stem branched diffuse downy, Lvs. thick pinnatif. cut, Lobes linear, Pedunc. many-fl. Bractes ovate scariose
9440 Stem prostrate, Leaves bipinnate with linear acute lobes, Stipules and bractes ovate scariose, Ped. many-fl.
9441 Stem ascend. and lvs. somew. villous pinnated, Seg. blunt pinnatif. tooth. Ped. many-fl. Pet. length of calyx
9442 Stem prostrate or diffuse hairy, Leaves pinnated, Segm. sess. pinnatifid cut, Pedunc. many-fl. Pet. unequal
β Caulescent diffuse, Segments pinnated with linear lobes
9443 Nearly stemless, Leaves pinnate with ovate pinnatifid segments, Petals equal larger than calyx
β Plant of larger size
9444 Stem procumbent, Leaves pinnated with stalked ovate unequally serrated segm. Pedunc. downy glandular
9445 Stem erect nearly smooth, Leaves 3-cut, Segments cut-toothed, Pedunc. many-fl. Calyx striated nerved
9446 Stem erect somewhat diffuse, Leaves smooth subcordate; upper 5-parted with cut toothed lobes
9447 Stem erect branch. shrubby at base, Lvs. 3-lobed or 5-parted very blunt, Stipules and bractes scariose ovate
9448 Stem erect soft, Pedunc. many-fl. Leaves cordate blunt bluntly toothed undivided or 3-lobed
9449 Stem branched hairy, Leaves cordate undivided or 3-lobed blunt toothed, Petals length of calyx
9450 Stem ½ shrubby and leaves nearly smooth; lower cord. undivided toothed, Lobes cuneate 3-toothed at end
9451 Stem erect and leaves smooth oblong lobed crenate fleshy, Awns feathery from middle to end
9452 Caulescent diffuse smooth, Leaves cordate ovate cut-crenate pubescent, Awns beardless
9453 Stemless, Leaves cordate crenate blunt smoothish, Pedunc. 1-fl. Petals larger than calyx
9454 Caulescent diffuse smoothish, Leaves cordate roundish 3-lobed unequally crenate, Awns bearded
9455 Stems diffuse, Leaves opposite 3-cut: segm. lateral cut-toothed divaricating, Peduncles many-flowered

HEPTANDRIA.

§ 1. Hoarea. Sweet. *Petals 5, rarely 2 or 4 obl. lin., 2 upper parallel, with long claws abruptly reflexed in the middle. Stamens in a long tube, length of lower petals, bearing 5 or rarely 2-4 anthers, the others sterile, straight or incurved at end, the 3 lower shorter than the fertile ones. Stemless herbs, with tuberous turnip-like roots, and radical stalked leaves.*

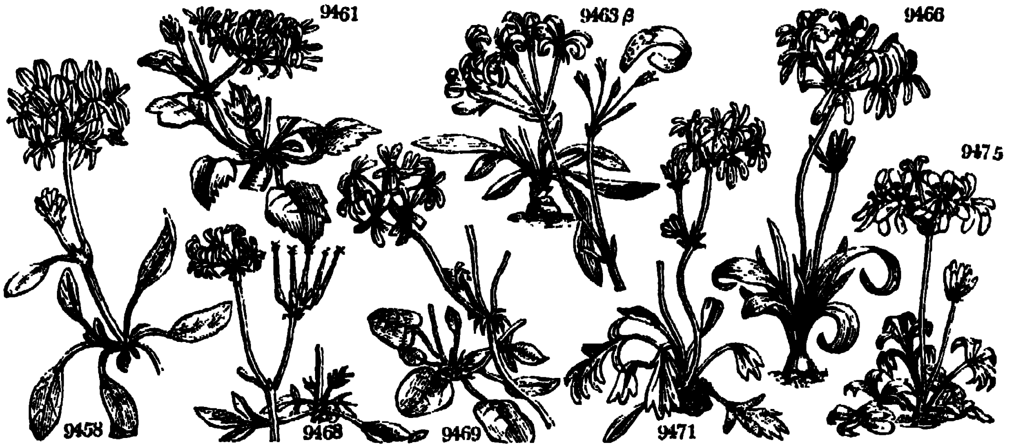
* *Leaves oblong, entire or lobed. Lobes entire or scarcely toothed.*

9456 Stemless, Leaves lanceolate entire acute smooth; older pinnatifid linear, Umb. comp. Fl. tetrandrous
9457 Stemless, Leaves lanceolate entire acute smooth, Umb. comp. 4-fl. Fl. tetrandrous, Petals linear
9458 Leaves oval or oval-oblong blunt flat or involute at edge entire hairy, Petals linear wavy twisted
9459 Stemless, Leaves ellipt. lanc. or obl. ent. hairy revol. at edge, Fl pentandr. Pet. lin. spatul. wavy reflexed
9460 Stemless, Leaves ovate acute entire subciliated, Umb. compound, Fl. pentandrous, Petals linear spatulate
9461 Stemless, Leaves ovate toothed smooth, Umb. compound, Fl. diandrous, Pet. linear; 3 lower shortest
9462 Stemless, Leaves oval obl. entire acute at each end smooth ciliated, Umb. simple, Flowers pentandrous
9463 Stemless, Lvs. obl. subspatul. blunt smooth, Umb. comp. Fl. pentandrous, Petals lin. blunt subrevolute

9464 Stemless, Leaves elliptical spatulate entire smooth, Umb. compound, Fl. pentandrous, Petals cuneiform
9465 Stemless, Lvs. ellipt. ovate acute at each end smooth, Umb. subcomp. Fl. pentandrous, Pet. lanc. cuneate
9466 Stemless, Leaves lin. lanc. entire ciliated, Umb. simple, Flowers pentandrous, Petals wavy nearly equal
9467 Stemless, Leaves linear lanceolate repand, Umbel nearly simple, Flowers pentandrous, Petals linear
9468 Stemless, Lvs. smooth: lower ovate ent.; upper pinnatif. Petals reflexed; lower ones much the smallest

** *Leaves sagittate, cordate, 3-lobed, or with an appendage at base.*

9469 Stemless, Leaves cordate blunt nerved entire, generally with two ears at base, Leaves of invol. revolute
9470 Stemless, Lvs. obl. lanc. acum. at each end hairy ciliat. at edge, generally ent. somet. with 2 obl. lin. append.
9471 Stemless, Leaves entire and cut-lobed at end, Scape flexuose, Umbel compound
9472 Stemless, Leaves ciliated 3-cut: segm. ovate blunt, Umbel compound
9473 Stemless, Leaves smooth 3-cut: segm. blunt lobed nerved glauc. beneath, Scapes hispid, Umbel compound
9474 Stemless, Leaves smooth 3-cut: segm. blunt crenated, Scapes and petioles downy
9475 Stemless, Leaves smooth 3-cut: segm. lobed cut recurved, Two upper filaments and stigmas reflexed
9476 Stemless, Leaves cut-lobed downy, Umb. simple close, Three lower petals much the smallest



and Miscellaneous Particulars.

however, they for the most part vanish, even before the eyes of those who witnessed their origin." (*Smith.*)

The greater part of the species being of the easiest cultivation, and many bearing the confined air of a sitting room better than most plants, it has happened that they have become objects of universal cultivation and attention; of which, indeed, they are in many cases deserving, for their neatness and beauty alone. There is, however, an uniformity in their form, coloring, and foliage, for which the liveliest colors will scarcely compensate. The popular taste for the Pelargonium tribe, or for Geraniums, as they are commonly called, has been much aided by several splendid publications both in this country and abroad; and especially by the Geraniaceæ of Mr. Sweet, in which it is proposed to figure not only all the species formed by the hand of nature, but the multitudes of hybrid creations produced by the assistance of modern ingenuity. It is very doubtful whether any permament advantage is derived from the obtaining such of these productions as are truly

9477	**rapáceum** *Jacq.*	Fumitory-flow.	✱	⌊Δ⌋	pr	½	ap.jn	Pk	C. G. H.	1788.	R	r.m	Bot. rep. 239
9478	**nútans** *Dec.*	nodding	✱	⌊Δ⌋	pr	½	ap.jn	Y	C. G. H.	1788.	R	r.m	Bot. mag. 1877
9479	**corydaliflórum** *Sw.*	fine-cut	✱	⌊Δ⌋	pr	½	ap.jn	Pa.Y	C. G. H.	1821.	R	r.m	Sweet ger. t. 18
9480	**barbátum** *Jacq.*	bearded	✱	⌊Δ⌋	pr	½	jl.au	Pk	C. G. H.	1790.	R	r.m	Bot. rep. 323
9481	**fissifólium** *Pers.*	cloven-leaved	✱	⌊Δ⌋	pr	½	ap.au	Pk	C. G. H.	1795.	R	r.m	Bot. rep. 378
9482	**setósum** *Sweet*	setose	✱	⌊Δ⌋	pr	½	ap.au	Pk	C. G. H.	1821.	R	r.m	Sweet ger. 38
9483	**bubonifólium** *Pers.*	Bubon-leaved	✱	⌊Δ⌋	pr	½	mr.jl	W.pu	C. G. H.	1800.	R	r.m	Bot. rep. 328
9484	**violæflórum** *Sweet*	violet-flowered	✱	⌊Δ⌋	pr	½	mr.jl	W	C. G. H.		R	r.m	Sweet ger. 123
9485	**floribúndum** *Ait.*	many-flowered	✱	⌊Δ⌋	pr	½	mr.my	Pk	C. G. H.	1795.	R	r.m	Bot. rep. 420
9486	**pilósum** *Pers.*	hairy	✱	⌊Δ⌋	pr	½	my.jl	Pk	C. G. H.	1801.	R	r.m	Bot. rep. 259
9487	**pennifórme** *Pers.*	winged	✱	⌊Δ⌋	pr	½	my.jn	Y	C. G. H.	1800.	R	r.m	Bot. rep. 269
9488	**purpuráscens** *Pers.*	purple-flowered	✱	⌊Δ⌋	pr	½	my.jn	Pu	C. G. H.	1800.	C	r.m	Bot. rep. 204
9489	**hirsútum** *Jacq.*	various-leaved	✱	⌊Δ⌋	pr	½	mr	Pk	C. G. H.	1788.	R	r.m	Bot. rep. 317
9490	**melanánthum** *Jacq.*	black-flowered	✱	⌊Δ⌋	pr	½	my.jn	D.Br	C. G. H.	1790.	R	r.m	Sweet ger. 73
9491	**dioícum** *Ait.*	diœcious	✱	⌊Δ⌋	pr	½	jn.jl	D.Br	C. G. H.	1795.	R	r.m	Bot. rep. 209
9492	**átrum** *L'Her.*	dark-brown	✱	⌊Δ⌋	pr	½	my.jl	D.Br	C. G. H.	1793.	R	r.m	Sweet. ger. 72

9493	**viciæfólium** *L'Her.*	wing-leaved	✱	⌊Δ⌋	pr	½	ap.jn	Pk	C. G. H.	1779.	R	r.m	Bot. mag. 579
9494	**astragalifólium** *Pers.*	Astragalus-lvd.	✱	⌊Δ⌋	pr	½	jl	W.pu	C. G. H.	1788.	R	r.m	Bot. rep. 190
9495	**coronillæfólium** *Pers.*	Coronilla-lvd.	✱	⌊Δ⌋	pr	½	jn.jl	Br	C. G. H.	1795.	R	r.m	Bot. rep. 305
9496	**heracleifólium** *Lodd.*	Cow-parsnip-lv.	✱	⌊Δ⌋	pr	½	jn.jl	D.Br	C. G. H.	1818.	R	r.m	Bot. cab. 437

9497	**incrassátum** *B. M.*	fleshy-leaved	✱	⌊Δ⌋	pr	½	jn.jl	Pk	C. G. H.	1801.	R	r.m	Bot. mag. 761
9498	**cárneum** *Jacq.*	flesh-colored	✱	⌊Δ⌋	pr	½	ap jn	Pk	C. G. H.	1812.	R	r.m	Jac. ic. 3. t. 512

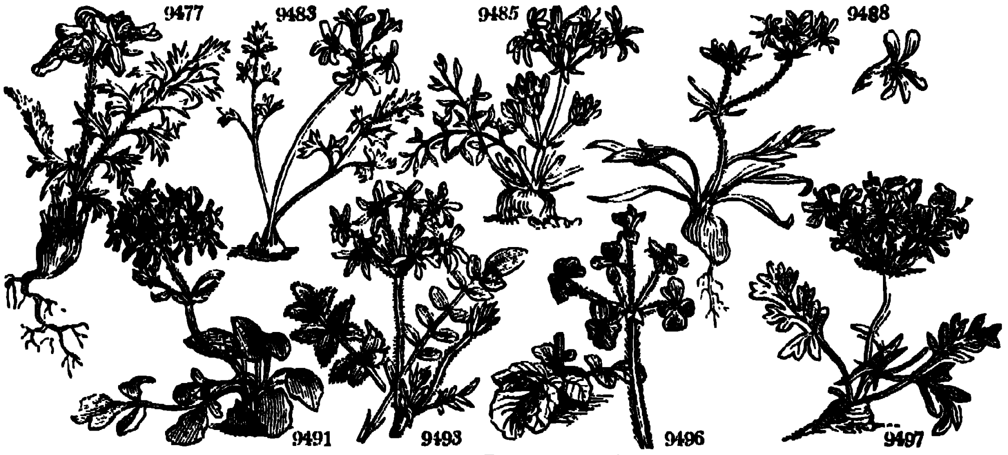
9499	**laterítium** *W.*	brick-colored	ħ	⌊_⌋	or	1½	jn.au	R	C. G. H.	1800.	C	r.m	Jac. ecl. 1 57
9500	**cynosbatifólium** *W.*	Currant-leaved	ħ	⌊_⌋	or	1½	ap.jl	D.R	......	..	C	r.m	W.ho.ber.2. t.78

9501	**columbínum** *W.*	Dove's-foot	⚘	⌊Δ⌋	pr	½	jn.o	Pu	C. G. H.	1795.	R	r.m	Jac.schœ.2.t.133
9502	**procúmbens** *Pers.*	procumbent	⚘	⌊Δ⌋	pr	½	ap.my	Pu	C. G. H.	1801.	S	r.m	Bot. rep. 234
9503	**humifúsum** *W.*	trailing	⚘	⌊○⌋	pr	½	my.jl	R	C. G. H.	1801.	S	r.m	Sweet ger. 42
9504	**chamædryfólium** *J.*	Chamædrys-lv.	⚘	⌊Δ⌋	pr	½	my.jn	R	C. G. H.	1812.	R	r.m	Jac. ic 3. t. 528
9505	**austrále** *W.*	Botany Bay	ħ	⌊_⌋	pr	½	my.au	R	N. S. W.	1792.	S	r.m	Jac. ecl. 1. 100
9506	**althæoídes** *L'her.*	Althæa-leaved	♂	⌊○⌋	pr	½	ap.jn	W	C. G. H.	1724.	S	r.m	Jac.col.4.t.21.f.2

9507	**láxum** *Sweet*	loose-panicled	ħ		pr	1	ap.jn	W.pk	C. G. H.	1821.	S	p.l	Sweet ger. 196
9508	**ceratophýllum** *L'her.*	horn-leaved	ħ	☐	or	1	my.jn	W.pu	Africa	1786.	C	r.m	Bot. mag 315
9509	**dasycaúlon** *Sims.*	thick-stemmed	ħ	⌊_⌋	or	1	jl.d	W.pu	C. G. H.	1795.	C	r.m	Bot. mag. 2029
9510	**crithmifólium** *Sm.*	Samphire-leav.	ħ	⌊_⌋	or	1	my.jn	W.pu	C. G. H.	1790.	C	r.m	Smith. ic.pict.13
9511	**alter'nans** *Wendl.*	Parsley-leaved	ħ	⌊_⌋	or	1	my.au	W.pu	C. G. H.	1791.	C	r.m	Wendl.her.2. t.9
9512	**carnósum** *Ait.*	fleshy-stalked	ħ	⌊_⌋	or	1	jn.au	W.pu	C. G. H.	1724.	C	r.m	Sweet ger. 98

9513	**multiradiátum** *Wen.*	many-rayed	✱	⌊Δ⌋	pr	1	my.jn	D.Br	C. G. H.	1820.	R	r.m	Sweet ger. 145

9514	**cotylédonis** *L'Her.*	Hollyhock-lvd.	ħ	⌊_⌋	pr	¾	my.jl	W	St. Helena	1765.	S	r.m	Sweet ger. 126



History, Use, Propagation, Culture,

hybrid; but it is quite certain, that to admit them into works of science, is replete with the greatest inconvenience, and can lead to no useful end. In the arrangement here adopted, all those kinds which are manifestly or avowedly artificial productions, are therefore placed at the end of the legitimate species in alphabetical order, an order much more commensurate with their importance, than an arrangement upon scientific principles.

**** Leaves pinnatifid. Segments cut or multifid.*

9477 Stemless, Leaves hairy bipinnated, Lobes linear somewhat blunt, Upper petals reflexed: lower connivent
9478 Nearly stemless, Lvs. bipinnated hairy, Lobes pinnati. cut multifid linear somewhat toothed, Fl. nodding
9479 Stemless, Lvs. hairy pinnated: segm. pinnatifid or trifid, Lobes linear acute
9480 Stemless, Lvs. pinnated: segm. trifid, Lobes linear acum. bearded at end, Pet. lin. blunt
9481 Stemless, Lvs. pinnated: segm. trifid cut at end naked, Pet. blunt all with an oblong spot
9482 Stemless, Lvs. pinnated pubesc: segm. cuneate 3-5-toothed at end, Teeth setose at end, Umb. compound
9483 Stemless, Lvs. pinnated smooth: segm. cut-lobed acute, Umb. simple, Petals emarginate
9484 Subcaulescent, Leaves pinnated or 3-cut: segm. obl. lanc. smooth entire ciliated at edge acum. at end
9485 Stemless, Lvs. pinnated: segments bipartite, Umbel compound
9486 Stemless, Lvs. pinnated hairy: segm. cut multifid, Umbel simple 4-6-fl. Petals linear
9487 Stemless, Lvs. pinnated: segm. lanc. linear, Umbel compound
9488 Stemless, Lvs. lanc. linear entire and pinnatifid, Umb. compound
9489 Stemless, Lvs. hairy ciliated obovate or lanc. entire or pinnatifid, Stipules adhering to petiole
9490 Nearly stemless, Lvs. hairy pinnated: segm. oval-obl. blunt subpinnatifid or toothed, Petals lin. blunt
9491 Stemless, Lvs. hispid entire or 3 cut, Umbel compound, Flowers diœcious [at end
9492 Stemless, Lvs. downy: some obl. and entire; others pinnated, Upper sepal erect, Barren filam. incurved

§ 2. DIMACRIA. Lindl. *Petals 5. unequal, two upper connivent spreading at end. Stamens shorter than sepals, 5 fertile, two lowermost twice as long as the rest, upper very short; 5 sterile, very small, nearly equal. Stemless herbs, with a tuberous turnip-like root; leaves stalked pinnatifid.*

** Leaves pinnated, with an odd segment. Segments entire.*

9493 Stemless, Lvs. pinnated villous: segm. ovate in 2 or 4 pairs, Petals nearly entire flat
9494 Stemless, Lvs. pinnated hairy: segm. elliptical in many pairs, Petals wavy twisted at base
9495 Stemless, Lvs. pinnated smooth: segm. of 1 or 2 pairs obovate or oblong
9496 Stemless, Lvs. pinnated smooth: segm. of 2 or 3 pair obovate: the terminal ones confluent

*** Leaves pinnate, with an odd one. Segments lobed or multifid.*

9497 Nearly stemless, Leaves smooth pinnated: segments lobed blunt, Upper petals obcordate
9498 Stemless, Lvs. smooth bipinnated, Lobes trifid linear blunt, Scape simple

§ 3. CYNOSBATA. Dec. *Petals oval, nearly equal, almost twice as long as calyx. Stamens* 10 *erect, the 5 alternate ones bearing the anthers. Stems shrubby, erect.*

9499 Stem shrubby at base, Lvs. cordate 5-lobed hairy zoned, Lobes acutely toothed at end
9500 Stem shrubby branched, Lvs. cordate 3-lobed toothed hairy: middle lobe 3-lobed, Pedunc. 2-floweerd

§ 4. PERISTERA. Dec. *Petals nearly equal, as long as calyx, or a little larger. Stamens* 10, 5 *longer, nearly equal, or one only occasionally abortive,* 5 *alternate, very short, sterile, tooth like. Herbs with stems, and with the appearance of Erodium or Geranium.*

9501 Stems many diffuse, Lvs. cordate roundish many-parted, Lobes trifid, Lobelets linear blunt
9502 Caulescent procumbent, Lvs. cord. somewhat lobed crenate-toothed, Pedunc. 2-flowered
9503 Stems many procumbent, Lvs. cord. usually 3-parted or 5-lobed toothed, Pedunc. 3-5-flowered
9504 Much branched procumbent, Leaves ellipt. blunt hoary toothed, Pedunc. 2-flowered, Anthers 5
9505 Diffuse procumbent, Lvs. cordate somewhat lobed villous beneath, Peduncles many-flowered
9506 Diffuse procumbent, Lvs. cordate ovate villous 3-lobed toothed: upper sinuated, Umbel many-flowered

§ 5. OTIDIA. Lindl. *Petals oblong-linear, nearly equal, about twice as long as calyx, the two upper auricled at the base on the upper side. Stamens* 10, *erect,* 5 *fertile,* 2 *upper spatulate or subulate,* 3 *lower shorter. Stems shrubby, fleshy. Leaves alternate pinnated, fleshy. Flowers whitish.*

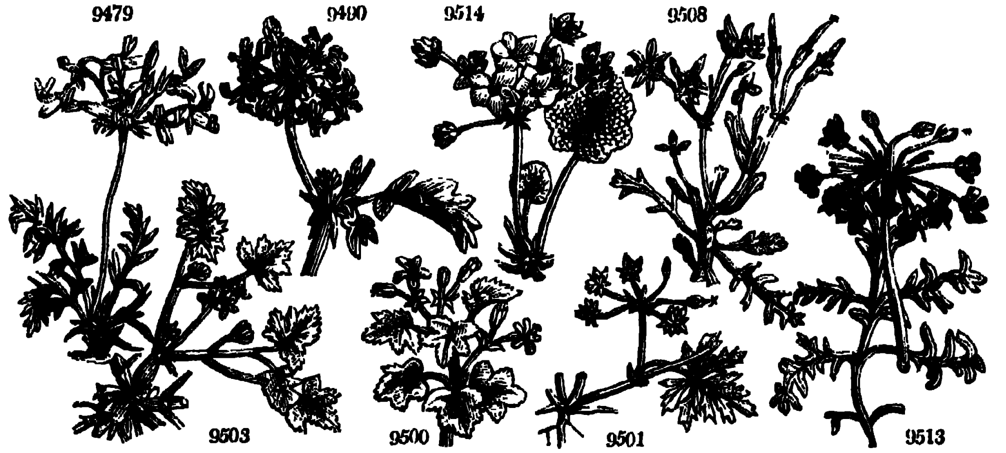
9507 Stem shrubby fleshy, Umb. many-flowered loosely panicled, Lvs. pinnated smooth, Petals somew. toothed
9508 Stem shrubby fleshy branched, Lvs. fleshy pinnated: lobes lin. round channelled entire or 3-toothed at end
9509 Stem shrubby fleshy warted, Lvs. fleshy pinnated: segm. cut pinnatifid subtrifid at end [at base
9510 Stem shrubby fleshy, Lvs. fleshy bipinnated: lobes dilated and cut at end, Pedunc. panicl. Upper pet. crisp
9511 Stem shrubby fleshy, Branches hairy, Lvs. pinnat.: segm. stalked subalternate wedge-shaped toothed at end
9512 Stem fleshy thick suffruticose at base, Lvs. smooth thick sinuate-pinnat.: segm. obl. blunt cut toothed at end

§ 6. POLYACTIUM. Dec. *Sepals nearly equal, revolute. Petals* 5, *nearly equal, obovate. Stamens* 10, 5 *fertile: the four lower long, subulate; upper broad, spatulate, reflexed at end; the fertile ones shorter, incurved at end. Petals with a very large dark brown spot which is scarcely edged with yellow.*

9513 Subcaulesc. Lower lvs. pinnat. hairy: segm. pinnati.; lobes obl. blunt cut-toothed; upper smoothish bipinn.

§ 7. ISOPETALUM. Sweet. *Upper sepal ending in a honey pore and not in a tube. Petals* 5, *equal. Stamens* 10, *united in a very short cup,* 5-6 *fertile, spreading incurved at end; sterile unequal, subulate incurved. Shrub with a fleshy stem.*

9514 Stem thick fleshy branched naked, Lvs. cord. subpeltate rugose pubesc. netted with downy veins beneath



and Miscellaneous Particulars.

The bulbous or fleshy stemmed species are generally very rare in collections, and are far more interesting than the common or vulgar kinds. They are distinguished by so peculiar a habit and constitution, that there can be little doubt of the propriety of separating them into one or more distinct genera, as has been done already by the authors quoted above; especially as the characters upon which they are founded, are generally more certain than those by which Erodium and Geranium are defined. Here, however, they are placed as

9515	blattárium *Jacq.*	downy-leaved	♄	⊔	or	1½	jn.au	V	C. G. H.	1790.	S	r.m	Sweet ger. 88
9516	eriostémon *Jacq.*	velvet-leaved	♄	⊔	or	1½	mr.jn	W	C. G. H.	1794.	C	r.m	Jac. scho.2. t.132
9517	holosericeum *Sweet*	silky	♄	⊔	or	1½	mr.jn	D.Pu	C. G. H.	1820.	C	r.m	Sweet ger. t. 75
9518	Œnothéræ *Jacq.*	Œnothera-like	♃	⍍	or	1	mr.jn	Pk	C. G. H.	1812.	S	r.m	Jac. ic. 3. t. 525
9519	coronopifólium *Jacq.*	Buckshorn-lvd.	♄	⊔	or	1½	jn.o	P.v	C. G. H.	1791.	S	r.m	Bot. rep. 338
9520	cánum *Pers.*	hoary	♄	⊔	or	1½	jn.o	Pk	C. G. H.	1820.	S	r.m	Sweet ger. 114
9521	carinátum *Sweet*	carinate	♄	⊔	or	1½	jn.o	W.pu	C. G. H.	1820.	S	r.m	Sweet ger. 21
9522	tricolor *B. M.*	three-colored	♄	⊔	pr	1½	ja.d	W.pu	C. G. H.	1791.	C	r.m	Bot. mag. 240
9523	canariénse *W.*	Canary	♄	⊔	pr	1½	jl.s	W.R	Canaries	1802.	C	r.m	W.hort.ber. t.17
9524	myrrhifólium *Ait.*	Myrrh-leaved	♄	⊔	pr	1½	my.au	W.R	C. G. H.	1696.	R	r.m	Jac. ic. 3. t. 531
9525	coriandrifólium *Jac.*	Coriander-lvd.	♃	⌼	pr	1	mr.s	W.R	C. G. H.	1724.	S	r.m	Sweet ger. t. 34
9526	lácerum *Jacq.*	torn-leaved	♃	⍍	or	1½	jn.au	Pk	C. G. H.	1731.	S	r.m	Jacq. ic. 3. t. 532
9527	anemonifólium *Jacq.*	Anemone-lvd.	♃	⌼	or	1½	jn.au	Pk	C. G. H.	...	S	r.m	Jacq. ic. t. 535
9528	caucalifólium *Jacq.*	caucalis-leaved	♃	⌼	pr	¾	mr.s	Pk	C. G. H.	1812.	S	r.m	Jac. ic. 3. t. 529
9529	multicaúle *Jacq.*	many-stalked	♃	⌼	pr	½	jn.au	Pa.V	C. G. H.	1802.	S	r.m	Jac. ic. 3. t. 534
9530	asarifólium *Sweet*	Asarum-leaved	✱	⍍	el	½	d	D.Pu	C. G. H.	1821.	D	l.p	Sweet ger. 206
9531	dipétalum *L'Her.*	two-petalled	✱	⍍	el	½	ap.my	Pa.pu	C. G. H.	1795.	D	l.p	L'her. ger. t. 43
9532	péndulum *Sweet*	pendulous	♄	⊔	el	½	mr.jl	R	C. G. H.	...	C	r.m	Sweet ger. 188
9533	quinátum *B. M.*	five-fingered	♄	⊔	or	1	mr.jl	Pa.Y	C. G. H.	1793.	C	r.m	Bot. mag. 547
9534	tetragónum *L'Her.*	square-stalked	♄	⊔	el	2	jn.au	Pk	C. G. H.	1774.	C	r.m	Sweet ger. 99
	β variegátum	*variegated*	♄	⊔	el	2	jn.au	Pk	C. G. H.	1774.	C	r.m	Bot. mag. 136
9535	acetósum *Ait.*	Sorrel-leaved	♄	⊔	or	3	my.s	Pk	C. G. H.	1710.	C	r.m	Bot. mag. 103
9536	scándens *Ehr.*	climbing	♄	⊔	or	3	jn.au	Pk	C. G. H.	1800.	C	r.m	
9537	púmilum *W.*	dwarf	♄	⊔	or	1½	jn.jl	Pk	C. G. H.	1800.	C	r.m	
9538	stenopétalum *Ehr.*	narrow-petalled	♄	⊔	or	1½	jn.jl	S	C. G. H.	1800.	C	r.m	
9539	hybridum *Ait.*	bastard	♄	⊔	or	2	my.s	S	C. G. H.	1732.	C	r.m	Sweet ger. 63
9540	zonále *W.*	com. horse shoe	♄	⊔	or	2	ap.d	S	C. G. H.	1710.	C	r.m	Cav.dis.4 t.98.f.2
	β marginátum	*white-margined*	♄	⊔	or	2	ap.d	S	......	...	C	r.m	
9541	Fothergillii *Sweet*	Fothergill's	♄	⊔	or	2	ap.d	S	C. G. H.	...	C	r.m	Sweet ger. 226
9542	inquinans *Ait.*	scarlet-flowered	♄	⊔	or	2	my.s	S	C. G. H.	1714.	C	r.m	Ca.dis.4.t.106.f.2
9543	heterógamum *L'Her.*	six-stamened	♄	⊔	or	2	my.s	Pk	......	1786.	C	r.m	L'her ger. t. 18
9544	mónstrum *Ait.*	cluster-leaved	♄	⊔	or	2	jl.au	R	......	1784.	C	r.m	Sweet ger. 13
9545	inodórum *W.*	scentless	♄	⍍	pr	½	my.o	Pa.pu	N. Holl.	1796.	C	r.m	W.ho.ber.1. t.34

History, Use, Propagation, Culture,

sectional names, so as to present a double arrangement, in which the purposes of combination and analysis are both combined.

As the cultivation of Pelargonium generally is of the easiest kind, so is that of the bulbous rooted species of the most difficult nature. They require plenty of air and light, not to be over-watered, and a great deal of

§ 8. Campylia. Lindl. *Petals 5, unequal, two upper larger, with an auricled claw. Stamens 10, hairy or pubescent, 5 fertile, erect, 5 alternate sterile, of which the two upper are longer and hooked back. Herbs at the base a little shrubby, branched. Leaves stalked, ovate or oblong, toothed or cut.*

* *Petals with an appendage to the claw: 5 stamens fertile, erect; 5 sterile, of which the two uppermost are hooked backwards.* True Campylia.

9515 Stem suffruticose erect, Lvs. ovate round blunt hoary silky toothed, Upper petals roundish : lower oblong
9516 Stem suffruticose erect, Lvs. ellipt. roundish blunt crenate silky, Upper pet. obovate sharply emarginate
9517 Stem suffruticose erect, Lvs. roundish ovate blunt doubly toothed silky, Upper petals round dark purple
9518 Stem herbaceous ascending, Lvs. obl. lanc. blunt toothed hoary, Pedunc. 1-3-fl. Upper petals obovate
9519 Stem suffruticose ascending, Lvs. lin. lanc. cut-toothed at end hoary beneath, Upper petals obov. oblong
9520 Stem suffruticose, Lvs. ovate plaited serrated downy, 3 upper petals very broad ovate
9521 Stem suffruticose ascending, Lvs. ovate unequally toothed or cut, Stipules carinate, Upper pet. oval wavy

** *Upper petals warted above the claw. Tube of stamens very short, 5 fertile recurved, spreading, 5 sterile straight.* Phymatanthus. Lindl.

9522 Stem suffruticose erect, Lvs. lanc. villous cut-toothed trifid, Upper petals blistered at base

§ 9. Myrrhidium. Dec. *Petals 4, or rarely 5, the two upper very large, obovate, cuneate, usually marked with branching lines, the two or three lower much smaller, oblong-linear. Stamens 10, with their tube and filaments straight, generally with 5 anthers, and 5 alternately barren, rarely 7 fertile. Biennial or perennial herbs rarely shrubby. Stems round. Leaves pinnate or ternate, often multifid.*

* *Anthers 5. Petals 4.*

9523 Stem suffruticose, Lvs. 3-parted, Lobes toothed at end blunt : lower obovate ; middle ovate often trifid
9524 Stem herbaceous strigose ascending, Lvs. hispid on each side rigid pinnated, Lobes cut-toothed
9525 Stem herbaceous biennial somewhat downy, Lvs. bipinnate smooth, Lobes linear subpinnatifid

** *Anthers 5. Petals 5.*

9526 Stem herbaceous hairy suberect, Lvs. bipinnatifid, Segm. lanc. blunt toothed at end

*** *Anthers 7. Petals 4.*

9527 Stem herbaceous biennial hairy erect, Lvs. pinnated hairy beneath smooth above, Lobes toothed
9528 Stem herbaceous hairy, Lvs. bipinnate, Lobes linear smoothish, Pedunc. 1-fl.
9529 Stem herbaceous procumbent smooth, Lvs. subbipinnatifid toothed, Pedunc. many-fl. capitate

§ 10. Seymouria. Sweet. *Petals 2, distinct at base, abruptly reflexed in the middle. Stamens 5, nearly equal, in a long straight tube, all fertile.*

9530 Lvs. roundish cordate bluntish entire ciliated shining on the upper side
9431 Leaves ovate entire acute smooth, Umb. simple, Flowers pentandrous

§ 11. Jenkinsonia. Sweet. *Petals 5, the two upper much larger than the rest, emarginate at end, striated with colored lines, the 3 lower much smaller. Stamens 10, ascending, spreading at end, hairy at base, 7 fertile, of which the three upper are shorter, the three sterile shortened, subulate, of equal length. Stems shrubby. Flowers large.*

9532 Lvs. bipinnatifid hairy, Stem procumb. hairy, Flowers heptandrous, Petals 4
9533 Stem shrubby flexuose, Lvs. pubescent palmate 5-fid, Lobes cuneate 3-toothed at end

§ 12. Chorisma, Lindl. *Petals 4, rarely 5, the two upper with long claws largest, two lower much smaller. Stamens declinate, in a very long tube, jointed in middle, connate, 7 fertile, of which the two lower are loose; the 3 sterile shortened, subulate of equal length.*

9534 Branches 4-cornered fleshy, Leaves cordate bluntly lobed somewhat toothed

§ 13. Pelargonium. Lindl. *Petals 5, unequal, the two upper approximating. Stamens 10, unequal, 7 fertile, 3 sterile, subulate.*

* *Petals whole colored, the two upper shorter and narrower Stamens short, erect, the two lowest very short with nearly sessile anthers. Stem shrubby, fleshy.* Ciconium, Sweet.

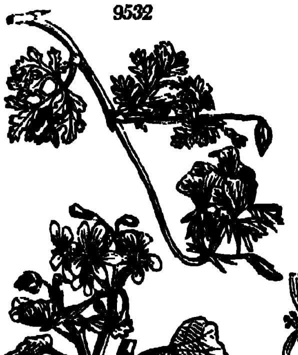
9535 Leaves very smooth obovate crenate somewhat fleshy, Pedunc. few-fl. Petals linear
9536 Leaves roundish obsoletely lobed crenate smooth zoned, Petals linear breadth of sepals
9537 Leaves roundish obscletely lobed crenate : younger somewhat zoned, Pedunc. 4-fl. Petals linear
9538 Leaves roundish obsoletely lobed crenate downy zoned, Petals linear narrower than sepals
9539 Leaves roundish obsoletely lobed crenate smooth not spotted, Petals linear cuneiform
9540 Leaves cordate-orbicular obsoletely lobed toothed zoned upwards, Pedunc. many-fl. Petals cuneate

9541 Leaves reniform 5-lobed crenate zoned, Stipules cordate obl. acute ciliated, Umbels many-fl. crowded
9542 Leaves round reniform scarcely divided crenate viscid, Petals obovate cuneate
9543 Leaves cordate orbicular cut-lobed toothed pubescent on each side, Petals obl. cuneate
9544 Leaves roundish reniform obsoletely lobed somewhat zoned complicate crisp downy on each side

** *Petals nearly equal in size.*

§ A. *Stems herbaceous. Leaves cordate, palmate, lobed. Petals small.*

9545 Stem diffuse, Lvs. cord. ov. obsoletely lobed bluntly toothed ciliated, Pet. equal to the cal. and one another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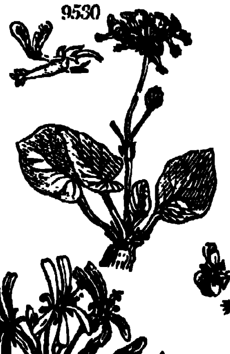
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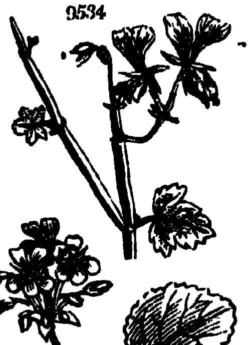
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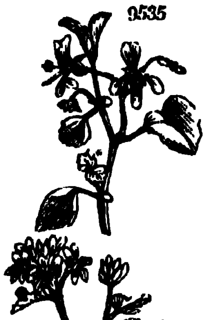
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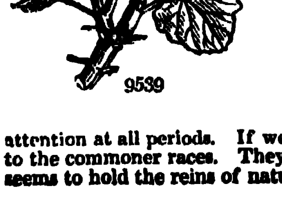
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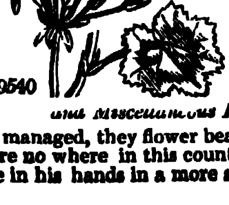
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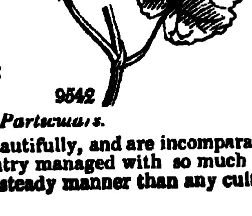
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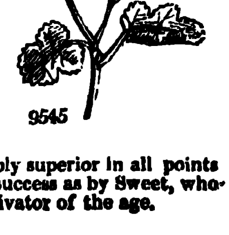
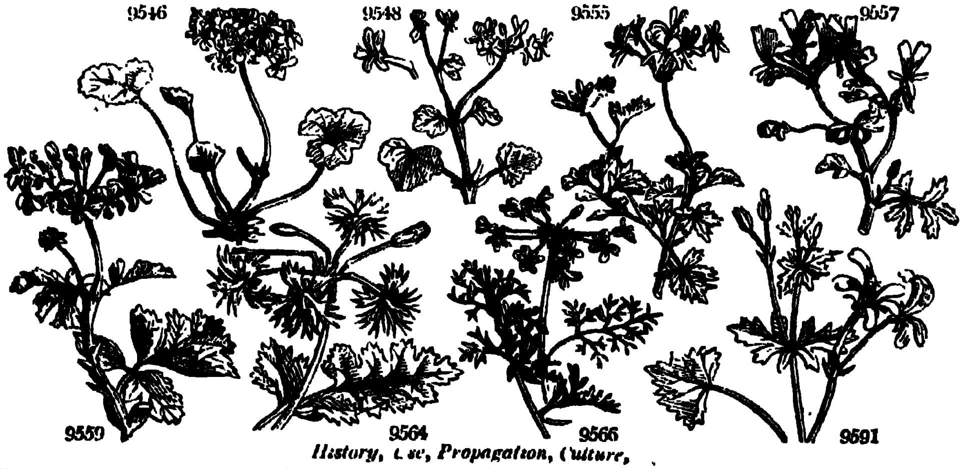

9545

and Miscellaneous Particulars.

attention at all periods. If well managed, they flower beautifully, and are incomparably superior in all points to the commoner races. They are no where in this country managed with so much success as by Sweet, who seems to hold the reins of nature in his hands in a more steady manner than any cultivator of the age.

9546	glomerátum *Jacq.*	heaped	♄	└△┘	pr	½	my.o	W	N. Holl.	...	C	r.m	Sweet ger. 68
	P. austrále Sweet, not of Willd.												
9547	odoratissimum *Ait.*	sweet-scented	ħ	└┘	or	2	my.o	Pk	C. G. H.	1724.	S	r.m	Ca.dis.4.t.103 f.1
9548	frágrans *W.*	Nutmeg-scent.	ħ	└┘	or	2	my.o	Va	C. G. H.	...	C	r.m	Sweet ger. 172
9549	grossularioides *Ait.*	Gooseberry-lvd.	ħ	└┘	or	2	ap.au	Pk	C. G. H.	1731.	S	r.m	Ca.dis.4.t.119.f.2
9550	ánceps *Ait*	flat-stalked	♄	└△┘	pr	½	my.jl	Pk	C. G. H.	1788.	S	r.m	Jac.col.4.t.22.f.3
9551	tabuláre *L'Her.*	rough-stalked	♃	└△┘	pr	½	my.au	Pa.Y	C. G H.	1775.	S	r m	L'Her ger. t. 9
9552	alchemilloides *Ait.*	mantle-leaved	♃	└△┘	pr	½	my.o	Pk	C. G. H.	1693.	C	r.m	Cav.dis.4.t.98.f.1
9553	senecioides *L'Her.*	small white-fl.		└○┘	cu	¾	jn.jl	W	C. G. H.	1775.	S	r.m	L'Her. ger. t. 11
9554	abrotanifólium *Jacq.*	Southernw.-lv.	ħ	└┘	or	3	my.jl	R	C. G. H.	1791.	S	r.m	Jac.schœ.2.t.136
9555	incísum *W.*	cut-leaved	ħ	└┘	or	3	my.au	W.R	C. G. H.	1791.	C	r.m	Bot. rep. 67
9556	tenuifólium *L'Her.*	fine-leaved	ħ	└┘	or	3	my.jl	Pu	C. G. H.	1768.	S	r.m	L'Her. ger. t. 12
9557	tripartitum *Sweet*	trifid-leaved	ħ	└┘	or	3	ap.au	Pa.Y	C. G. H.	1794.	C	r.m	Sweet ger. 115
9558	spinósum *W.*	thorny	ħ	└┘	or	3	my.jn	Pk	C. G. H.	1795.	C	r.m	Pater. it. t. p 67
9559	gibbósum *W.*	gouty	ħ	└┘	ft	1½	my.jl	G	C. G. H.	1712.	C	r.m	Sweet ger. 61
9560	flávum *Ait.*	carrot-leaved	✱	└△┘	ft	½	jl.s	G Br	C. G. H.	1724.	R	r.m	Jac. ic. 3. t 522
9561	filipendulifólium *Sw.*	Dropwort-lvd.	✱	└△┘	cu	½	my.o	G.Br	C. G. H.	1812.	R	r.m	Bot. mag. 1641
9562	pedicellátum *Sweet*	long-stalked	✱	└△┘	cu	1	my.o	G.Br	C. G. H.	1822.	R	r.m	Sweet ger. 250
9563	tris'te *Ait.*	night-smelling	✱	└△┘	ft	1	my.o	G.Br	C. G. H.	1632.	R	r.m	Ca.dis.4.t.107.f 1
9564	schizopétalum *Sweet*	cut-petalled	✱	└△┘	el	1	jn	Y.Br	C. G. H.	1821.	R	r.m	Sweet ger. 232
9565	lobátum *W.*	Cow Parsnep-lv.	✱	└△┘	cu	1	jl.au	Y.Br	C. G. H.	1710.	R	r.m	Sweet ger. 51
9566	millefoliátum *Sweet*	Milfoil-leaved	✱	└△┘	cu	½	jl.au	Y.Br	C. G. H.	...	R	r.m	Sweet ger. 230
9567	sanguíneum *Wendl.*	bloody	♃	└△┘	or	1	jl.au	S	C. G. H.	...	S	r.m	Sweet ger. 76
9568	fúlgidum *Ait.*	Celandine-lvd.	ħ	└┘	or	1½	ap.jl	S	C. G. H.	1723.	C	r.m	Ca.dis.4.t.116.f.2
9569	ignéscens *Sweet*	fiery	ħ	└┘	or	1½	mr.jn	S	......	1812.	C	r.m	Sweet ger. 2. 55
9570	quinquevúlnerum *W.*	dark-flowered	ħ	└┘	or	1½	my.o	D.Pu	C. G. H.	1796.	C	r.m	Bot. rep. t. 114
9571	bícolor *Ait.*	two-colored	ħ	└┘	or	1½	jl.au	Pa.pu	......	1778.	R	r.m	Bot. mag. 201
9572	pállens *Sweet*	pallid	✱	└△┘	pr	¾	mr.jl	Pa Y	C. G. H.	...	S	r.m	Sweet ger. 148
9573	pulchéllum *B. M.*	nonesuch	✱	└△┘	pr	¾	mr my	W	C. G. H.	1795.	S	r m	Bot. mag 524
9574	pictum *Pers.*	painted	✱	└△┘	pr	½	ap.my	W.R	C. G. H.	1800.	R	r m	Bot. rep. 168
9575	echinátum *B M.*	prickly-stalked	✱	└⊼┘	pr	1	my.au	W.R	C. G. H.	1789.	R	r.m	Bot. mag. 309
9576	crassicaúle *L'Her.*	thick-stalked	✱	└⊼┘	pr	¾	jl au	Pa.Y	S. Africa	1786.	S	r.m	Sweet ger. 192
9577	primulínum *Sweet*	primrose-flow.	ħ	└┘	or	1½	jl.au	V	C. G. H.	...	C	r.m	Bot. mag. 477
9578	cortusæfólium *L'Her.*	cortusa-leaved	ħ	⊐	or	2	jl au	Pk	Africa	1786.	C	r m	Bot. rep 121
9579	renifórme *B. M.*	Kidney-leaved	ħ	└┘	or	2	ja.d	Pu	C. G. H.	1791.	C	r.m	Bot. mag 493
9580	láteripes *L'Her.*	Ivy-leaved	ħ	└┘	or	2	jn.au	Pa.pu	C. G. H.	1787.	C	r m	L'Her. ger t. 24
9581	peltátum *Ait.*	peltated	ħ	└┘	or	2	jn.au	Pu	C. G. H.	1701.	C	r.m	Bot. mag. 20
9582	ovále *L'Her.*	oval-leaved	ħ	└┘	or	1½	my.jl	Pu	C. G. H.	1774.	S	r.m	L'Her. ger. t. 28
9583	élegans *W.*	elegant	ħ	└┘	or	3	mr.jn	W	C. G. H.	1795.	C	r.m	Bot. rep. 28
9584	glaúcum *L'Her.*	glaucous-leav'd	ħ	└┘	or	3	jn.au	W.vy	C. G. H.	1775.	C	r.m	Sweet ger. 235
9585	diversifólium *Wendl.*	different-leav'd	ħ	└┘	or	3	jn.au	W.vy	C. G. H.	1794.	C	r.m	
9586	cuspidátum *W.*	sharp-pointed	ħ	└┘	or	3	jn.au	W.vy	C. G. H.	...	C	r.m	
9587	sorórium *W.*	sister	ħ	└┘	or	3	ap.jl	W.vy	......	...	C	r.m	
9588	lævigátum *W.*	glauc. tern.-lvd.	ħ	└┘	or	3	my.au	W.vy	C. G. H.	...	C	r.m	Ca.dis.4.t 121.f 1
3589	grandiflórum *W.*	great-flowered	ħ	└┘	or	3	ap jl	W.vy	C. G. H.	1794.	C	r.m	Sweet ger. 29
9590	variegátum *W.*	variegated-flow.	ħ	└┘	or	3	ap jl	W.vy	C. G. H.	1812.	C	r.m	Ca.dis.4.t.118.f.3
9591	pátulum *Jacq.*	spreading	ħ	└┘	or	3	ap.jl	Pk.vy	C. G. H.	1812.	C	r.m	Jac. ic. 3. t. 541
9592	saniculæfólium *W.*	Sanicle-leaved	ħ	└┘	el	3	jn.au	Pu.vy	C. G. H.	1806.	C	r.m	Jac. ic. t. 539
9593	fuscátum *Jacq.*	dark-marked	ħ	└┘	el	3	ap.jl	Pu.vy	C. G. H.	1812	C	r.m	Jac. ic. 3. t 540



History, Use, Propagation, Culture,

The most common free-growing kinds will thrive well in any rich light soil, or a mixture of loam and decayed leaves will suit them very well: the dwarfer woody kinds, as P. tricolor, elegans, Blattarium, ovale, 9546 Stem diffuse, Lvs. cord. somewhat lobed bluntly crenate villous beneath, Pet. larger than calyx

9547 Stem fleshy very short, Branches herbaceous long diffuse, Lvs. roundish cordate very soft
9548 Branches spreading soft with down, Lvs. roundish cordate about 3-lobed bluntly toothed very soft
9549 Stems square very smooth, Lvs. cordate roundish cut toothed, Pedunc. about 2-fl.
9550 Stems 3-cornered 2-edged smooth, Lvs. cordate roundish obsoletely lobed toothed, Umb. many-fl.
9551 Stem hispid, Lvs. reniform 3-5-lobed blunt toothed at end smoothish, Pedunc. long 2-4-fl.
9552 Stem villous, Lvs. cordate 5-lobed palmate villous, Pedunc. few-fl. Stigma sessile
9553 Stem erect, Lvs. bipinnatifid laciniate smooth, Involucres and calyxes blunt

§ B. *Stem half shrubby. Leaves pinnate. Lobes multifid.*

9554 Leaves cinereous velvety palmately 3-cut, Lobes linear trifid, Calyxes somewhat hispid
9555 Leaves 3-cut dark-green, Lobes distant 3-parted laciniated, Petals linear flaccid
9556 Stem fleshy naked erect, Leaves hairy bipinnate decompound, Lobes linear subulate
9557 Leaves 3-parted fleshy cut-toothed glaucous, Segments subsessile cuneiform, Honey spur very long
9558 Leaves cuneiform trifid toothed, Petioles and stipules persistent spiny, Umb. comp. few-fl.

§ C. *Stem half-shrubby, fleshy. Leaves trifid or pinnate, fleshy, Petals yellowish brown.*

9559 Stem with tumid articulations, Leaves pinnate of 1 or 2 pairs with an odd one blunt cuneate cut-toothed

§ D. *Nearly stemless. Root fascicled, tuberous. Leaves decompound, laciniated. Petals yellowish brown.*

9560 Leaves decompound laciniate hairy, Segm. linear, Umb. many-fl.
9561 Leaves hairy pinnate, Segm. bipinnate; divisions ovate toothed somewhat acute
9562 Leaves smooth ciliated fleshy 5-7-lobed toothed reflexed at end, Umb. many-flow. Fls. on very long stalks
9563 Leaves hairy pinnate, Segm. bipinnatifid; divisions linear acute
9564 Leaves ternate oblong blunt wavy hairy on each side and revolute at end, Petals 2-parted multifid
9565 Leaves cordate downy beneath bluntly 3-5-lobed sinuate-toothed, Scape divided
9566 Leaves decompound smooth, Leaflets cut, Segments channelled linear, Calyx reflexed

§ E. *Stem short, or somewhat fleshy. Leaves divided, cut or toothed. Petals scarlet or crimson.*

9567 Leaves hairy pinnated, Segments laciniate pinnatifid decurrent, Lobes linear lanceolate
9568 Leaves 3-parted, Segm. sessile cuneate cut toothed, Middle lobe larger pinnatifid
9569 Leaves cord. 3-lobed, Segm. toothed: lateral bifid; middle 3-lobed, Stipules cord. acum. somew. toothed

§ F. *Stem half shrubby. Leaves lobed, hairy. Petals with a broad purple spot in the middle.*

9570 Leaves hispid 3-parted, Segm. multifid, Lobes linear-lanceolate serrated
9571 Leaves cordate 3-fid wavy hairy blunt toothed: lateral segments 3-lobed; upper 5-lobed

§ G. *Stem fleshy, half shrubby. Leaves oblong, or oftener cordate, somewhat cut. Stipules lanceolate, spreading, acute. Roots tuberous, fascicled.*

9572 Leaves 3-parted hairy, Lateral segments smaller lobed toothed; term. long cut-toothed, Pet. spreading
9573 Leaves oblong lobed pinnatifid, Petioles united at base, Umb. many-flowered
9574 Leaves cord. obl. subruncinate toothed downy, Scape branched, Umb. many-fl. Involucre leafy
9575 Leaves ovate cordate somewhat lobed crenate villous beneath, Stipules persistent spiny
9576 Leaves reniform obacuminate toothed silky on each side, Bractes 4 times shorter than pedicel
9577 Leaves reniform obacuminate toothed silky on each side, Bractes twice as short as pedicels
9578 Leaves cordate cut-lobed wavy bluntly toothed downy, Honey-tube 4 times as long as calyx
9579 Leaves reniform crenate-toothed downy beneath, Stipules persistent dilated at base

§ H. *Stem shrubby, fleshy. Leaves peltate, or cordate 5-lobed, fleshy. Honey-tube as long as stalk. Stipules broad ovate.*

9580 Branches fleshy round, Leaves cordate 5-lobed somewhat toothed fleshy smooth, Umb. many-fl.
9581 Branches fleshy angular, Leaves peltate 5-lobed entire fleshy, Umb. few-fl.

*** *Two upper petals broader, shorter, very blunt.*

9582 Stem weak prostrate, Branches petioles and peduncles softly hairy, Leaves oval acute toothed hoary
9583 Leaves elliptical roundish finely serrate blunt rigid smooth, Petals all obovate

**** *Two upper petals longer and broader. Stems shrubby.*

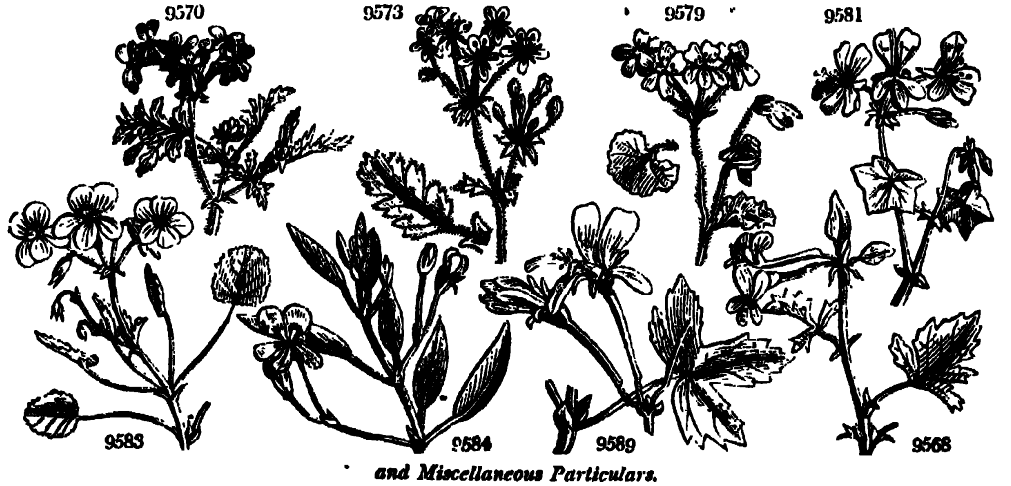
§ A. *Leaves smooth, or nearly smooth, more or less glaucous.*

1. *Petals white, the upper generally lined with red, or spotted.*

9584 Very smooth and glaucous, Leaves lanceolate entire acuminate, Peduncles 1-2-fl.
9585 Smooth glaucous, Leaves lanceolate entire or 3-parted; lower toothed, Pedunc. about 1-fl. panicled
9586 Very smooth somewhat glaucous, Leaves ovate acute glaucous somewhat cut remotely serrate
9587 Very smooth, Leaves deeply 3-parted, Segm. acinaciform cut serrate, Peduncles 3-flowered
9588 Very smooth glaucous, Leaves 3-parted, Segm. trifid cuneate; divisions linear lanc. Pedunc. about 2-fl.
9689 Smooth glauc. Lvs. 5-lobed palmati. cord. at base, Lobes toothed tow. the end, Pet. 3 times as long as cal.
9590 Smooth glaucous, Leaves 3-5-lobed palmate-parted, Segments trifid toothed, Stipules ovate cordate acute

2. *Petals rosy or violet, upper generally striped with purple.*

9591 Smooth glaucous, Leaves long-stalked cordate reniform 3-5-fid toothed, Petals lanceolate-cuneate
9592 Smooth glaucous, Leaves on long stalks cordate roundish 5-fid toothed zoned above
9593 Smooth glaucous, Leaves cord. 5-lobed toothed glaucous beneath: younger zoned above; upper 5-parted



and Miscellaneous Particulars.

&c. thrive best in an equal mixture of sandy loam and peat, and require their pots to be well drained: the succulent kinds like a light sandy loam, and require scarcely any water when not in vigorous growth: the

9594	penicillátum *W.*	pencilled	♄	⊔	el	3	jn.au	W.vy	C. G. H.	1794.	C	r.m	W.hor.be.1. t.32
9595	betulinum *Ait.*	Birch-leaved	♄	⊔	el	3	jn.au	W.vy	C. G. H.	1759.	C	r.m	Bot. mag. 148
9596	formosis'simum *Pers.*	superb white	♄	⊔	el	2	jn.au	W.vy	C. G. H.	...	C	r.m	Sweet ger. 215

9597	tomentósum *Jacq.*	Pennyroyal	♄	⊔	or	3	jn.jl	W	C. G. H.	1790.	S	r.m	Bot. mag. 518
9598	ribifólium *Jacq.*	currant-leaved	♄	⊔	or	3	my.jn	W	C. G. H.	1798.	C	r.m	Jac. ic. 3. t. 538

9599	papilionáceum *Ait.*	Butterfly	♄	⊔	or	3	ap.jl	Pu	C. G. H.	1724.	C	r.m	Sweet ger. 27
9600	cordátum *Ait.*	heart-leaved	♄	⊔	or	3	mr jl	Pu	C. G. H.	1774.	C	r.m	Bot. mag. 165
9601	rubrocinctum *Link.*	red-edged	♄	⊔	or	3	mr.jl	Pu	C. G. H.	1774.	C	r.m	
9602	conduplicátum *W.*	curled-heart-lv.	♄	⊔	or	3	mr.jl	Pu	......	1774.	C	r.m	

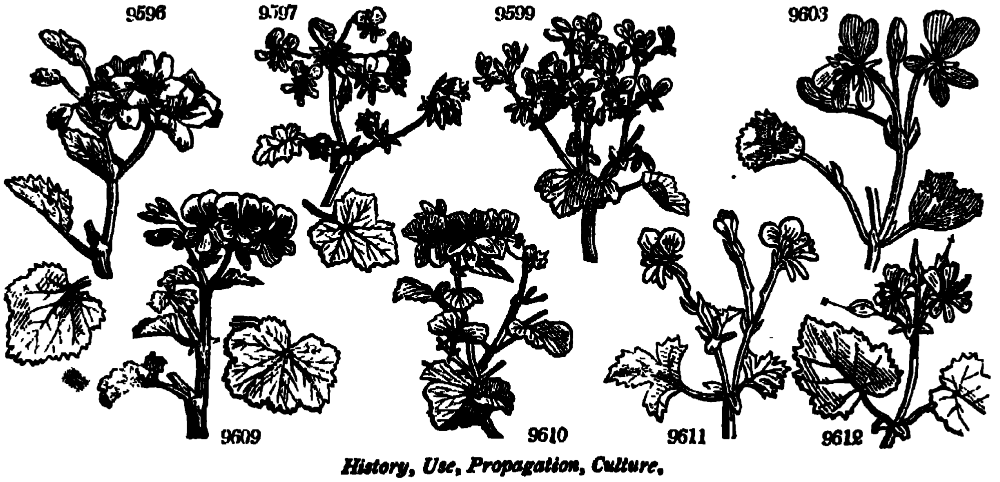
9603	cucullátum *Ait.*	hooded-leaved	♄	⊔	or	3	mr.jl	Pu	C. G. H.	1690.	C	r.m	Ca.dis.4.t.106.f.1
9604	speciósum *W.*	specious	♄	⊔	or	3	ap.jl	Pu	C. G. H.	1794.	C	r.m	
9605	cochleátum *W.*	concave-leaved	♄	⊔	or	3	mr jl	Pu	......	...	C	r.m	
9606	acerifólium *L'Her.*	Maple-leaved	♄	⊔	or	3	ap.my	Pu	C. G. H.	1784.	C	r.m	L'Her. ger. t. 21
9607	angulósum *Ait.*	Marsh mallow-lv.	♄	⊔	or	3	jl.s	Pu	C. G. H.	1724.	C	r.m	Ca.dis.4.t.112.f.2
9608	Barringtónii *W.*	Barrington's	♄	⊔	or	3	mr jl	Pu	C. G. H.	...	C	r.m	
9609	Watsónii *Link.*	Watson's	♄	⊔	or	3	mr.jl	Pu	......	...	C	r.m	Sweet ger. 130

9610	adulterinum *L'Her.*	hoary trifid-lv.	♄	⊔	or	3	ap.jn	Pu	C. G. H.	1785.	C	r.m	Sweet ger. 22
9611	semitrilobum *Jacq.*	three-lobed	♄	⊔	or	3	ap jl	Pu	C. G. H.	1800.	C	r.m	Jac.schœ.2 t.136
9612	vitifólium *Ait.*	Vine-leaved	♄	⊔	or	3	ap.au	Pu	C. G. H.	1724.	C	r.m	Ca.dis.4.t.111.f.2
9613	capitátum *Ait.*	Rose-scented	♄	⊔	or	3	ap.au	Pu	C. G. H.	1690.	S	r.m	And. ger. c. ic.
9614	rúbens *W.*	red-flowered	♄	⊔	or	3	my.jl	Pu	......	...	C	r.m	

9615	obtusifólium *Ait.*	blunt-lobed	♄	⊔	or	3	ap.au	Pu	......	...	C	r.m	Sweet ger. t. 8
9616	tricuspidátum *L'her.*	three-pointed	♄	⊔	or	3	my.au	W.vy	C. G. H.	1780.	C	r.m	L'Her. ger. t. 30
9617	scábrum *Ait.*	rough wedge-lv.	♄	⊔	or	3	ap.au	W.vy	C. G. H.	1775.	C	r.m	Jac. ic. 3. t 542
9618	hermannifólium *Jac.*	Hermannia-lv.	♄	⊔	or	3	ap.jn	Pk.vy	C. G. H.	...	S	r.m	Jac. ic. 3. t. 545
9619	crispum *Ait.*	curl-leaved	♄	⊔	or	3	jl.n	Pu	C. G. H.	1774.	C	r.m	L'he.ger. t.32,33
9620	exstipulátum *Ait.*	soft trifid-leavd.	♄	⊔	or	3	my.au	Vi.vy	C. G. H.	1779.	C	r.m	L'Her.ger. t. 35
9621	pustulósum *Sweet*	pimpled	♄	⊔	or	3	my.au	W	C. G. H.	1820.	C	r.m	Sweet ger. t. 11
9622	pállidum *W.*	pale-flowered	♄	⊔	or	3	ap.au	Pk	......	...	C	r.m	
9623	ternátum *Jacq.*	ternate	♄	⊔	or	3	ap.au	Pk.vy	C. G. H.	1820.	C	r.m	Sweet ger. 165

9624	quercifólium *Ait.*	Oak-leaved	♄	⊔	or	3	mr.au	Pu	C. G. H.	1774.	C	r.m	L'Her. ger. t. 14
9625	gravéolens *Ait.*	Odor of Rose	♄	⊔	or	3	mr.jl	Pu	C. G. H.	1774.	C	r.m	L'Her. ger. t. 17
9626	glutinósum *Ait.*	clammy	♄	⊔	or	3	my.jn	Pk.vy	C. G. H.	1777.	C	r.m	Bot. mag. 143
9627	hispidum *W.*	hispid	♄	⊔	or	3	my.jl	Pu	C. G. H.	1790.	C	r.m	Ca.dis.4.t.110.f.1
9628	rádula *Ait.*	Rasp-leaved	♄	⊔	or	3	mr.jl	Pu	C. G. H.	1774.	C	r.m	Bot. mag. 95
9629	balsámeum *Jacq.*	balsamic	♄	⊔	or	3	jl.s	Pk	C. G. H.	1790.	C	r.m	Jac. ic. 3. t. 543
9630	ásperum *W.*	rough multifid	♄	⊔	or	3	jl.s	Pk	C. G. H.	1795.	C	r.m	Roth.abhan.t.10
9631	denticulátum *Jacq.*	tooth-leaved	♄	⊔	or	3	jn.jl	Pk	C. G. H.	1789.	C	r.m	Sweet ger. 109
9632	delphinifólium *W.*	Larkspur-leav.	♄	⊔	or	3	ap.jl	Pk	......	...	C	r.m	

9633	dis'cipes *Haw.*	central-stalked	♄	⊐	cu	5	...	...	Africa	1808.	C	r.m	
9634	spúrium *W.*	spurious	♄	⊔	or	2	ap.jl	V	......	...	C	r.m	
9635	grátum *W.*	Citron-scented	♄	⊔	or	2	ap.au	Pk.vy	......	...	C	r.m	
9636	nóthum *W.*	mixed	♄	⊔	or	2	ap.jl	Pk	......	...	C	r.m	
9637	consanguineum *W.*	kindred	♄	⊔	or	2	ap.au	Pk	......	...	C	r.m	
9638	Willdenóvii *Link.*	Willdenow's	♄	⊔	or	2	my.au	W.vy	C. G. H.	...	C	r.m	
9639	unicolórum *W.*	self-colored	♄	⊔	or	2	my.au	C	C. G. H.	...	C	r.m	
9640	alnifólium *W.*	Alder-leaved	♄	⊔	or	2	ap.jl	Pk.vy	......	...	C	r.m	
9641	amplissimum *W.*	stately	♄	⊔	or	2	ap.jl	Pu	......	...	C	r.m	



History, Use, Propagation, Culture,

tuberous rooted kinds thrive best in very sandy loam and peat, and require no water after they have flowered, till they begin to grow afresh. Cuttings of the shrubby kinds strike root freely under hand-glasses in the same

§ B. *Flowers white, or scarcely rose-colored; two upper petals deep-red, lined. Leaves ovate, cordate, or reniform toothed, undivided.*

9594 Lvs. ovate cut serr.: the younger scabrous backwards; adult nearly smooth, Stipules ovate acuminate
9595 Leaves ovate unequally serrate smoothish, Stipules ovate-lanceolate, Peduncles 2-4-flowered
9596 Umb. many-fl. Leaves ovate acute concave rigid somew. lobed uneq. tooth. truncate at base many-nerved

§ C. *Petals white, narrow. Leaves cordate, soft with down. Stipules spreading much.*

9597 Stem shrubby fleshy, Branches peduncles and leaves hirsute, Leaves cordate hastate 5-lobed very soft
9598 Stem shrubby fleshy, Branches and pedunc. subhispid, Lvs. cord. hastate 5-lobed rough, Umb. many-fl.

§ D. *Leaves cordate, flat, toothed. Lower petals linear; upper purple, lined.*

9599 Branches leaves and pedunc. hairy, Leaves cordate roundish angular toothed, Umbels panicled many-fl.
9600 Lvs. cord. acute toothed flat hoary beneath and downy, Branches and ped. pilose, Lower pet. subulate-lin.
9601 Leaves cordate acutely crenulate quite smooth, Stipules linear reflexed, Umbels many-flowered
9602 Leaves roundish ovate truncate subcordate at base cut-toothed wavy beneath hoary pubescent

§ E. *Leaves cordate, or cuneate, toothed, undivided, or lobed. Lobes blunt, not divided down to the middle. Flowers purple. Lower petals oblong or obovate.*

1. *Leaves undivided, cucullate.*

9603 Leaves reniform cucullate toothed pubescent, Branches and peduncles softly hispid, Lower petals oblong
9604 Leaves roundish truncate reniform with acute cartilaginous teeth many-nerved subpubescent
9605 Leaves roundish ovate subcord. concave somewhat angular serr. pubesc. Honey-tube the length of calyx
9606 Leaves cun at base entire at end palmately 5-lobed toothed many-nerved rather villous, Stip. cordate ovate
9607 Leaves truncate at base subcucul. roundish bluntly 5-lobed toothed pubesc. Stipules cord. ovate acuminate
9608 Leaves reniform blunt cucullate toothletted hairy on each side, Umbels many-flowered
9609 Leaves cord. roundish somewhat lobed tooth-crenate wavy at edge, Stipules cord. acute somew. toothed

2. *Leaves lobed, flattish.*

9610 Leaves cordate bluntly 3-lobed wavy villous soft, Peduns. about 2-flowered
9611 Leaves truncate at base subcuneate 3-fid flat hairy, Lobes divaricating serrated at end, Lower petals lin.
9612 Leaves cordate 3-lobed roughish blunt toothed, Stipules broad cordate, Stem erect
9613 Leaves cordate lobed wavy softly villous toothed, Stipules broad cordate, Stems diffuse
9614 Lvs. subcord. acute slightly 5-lobed serrated, Umb. 5-fl. subcapitate, Ped. scarcely longer than involucrum

3. *Leaves lobed. Lobes acutely cut at end.*

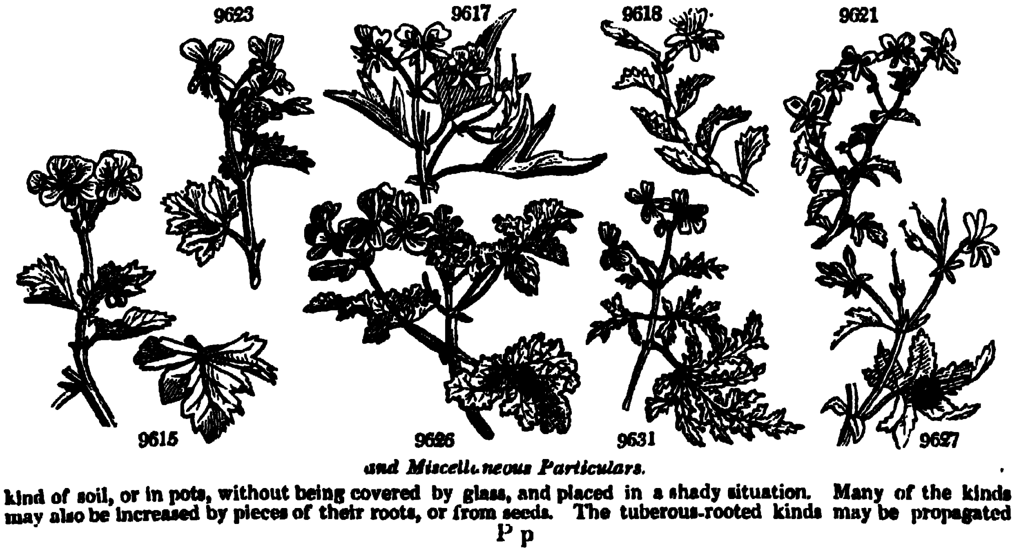
9615 Lvs. deeply 3-lobed, Lobes round. blunt unequally toothlett. Veins ben. and cal. roughish, Stipules cord.
9616 Leaves cuneate at base trifid, Lobes acute: middle longer subserrate with a midrib muricated beneath
9617 Leaves cuneate at base trifid rough, Lobes lanc. loosely serrated, Pedun. 1-4-flowered
9618 Leaves cuneiform distichous rough plaited truncate at end cut-toothed, Peduncles 2-flowered short
9619 Leaves distichous roundish fleshy subcuneate at base trifid wavy plaited rough toothed, Pedun. about 2-fl.
9620 Leaves truncate cord. 3-lobed toothed hoary, Stipules scarcely any, Peduncles 3-4-flowered
9621 Lower lvs. deeply 3-lobed beneath pustular, Lateral lobes spreading unequally and acutely toothed
9622 Leaves deeply 3-lobed, Lobes spreading unequally and acutely toothed at end beneath and at edge rough
9623 Leaves 3-parted cucullate rough, Lobes cuneiform cut-serrate at end: the middle one trifid

§ F. *Leaves divided beyond the middle. Lobes toothed, cut, or pinnatifid. Flowers purplish or pale.*

9624 Leaves cord. pinnatifid with rounded recesses, Lobes blunt crenate, Branches and petioles hispid
9625 Leaves palmately 7-lobed, Lobes oblong blunt toothed revolute at edge, Umb. many-fl capitate
9626 Leaves cord. hastate 5-angled toothed viscid smoothish, Umb. 2-4-fl. Honey tube a little longer than calyx
9627 Leaves palmatifid downy hispid, Lobes acuminate cut toothed, Umb. panicled many-fl.
9628 Leaves palmated rough, Lobes narrow pinnatifid revolute at edge, Segm linear, Umb. few-fl.
9629 Leaves palmated roughish cuneate at base, Lobes lanc. remotely toothed, Umb. few-fl.
9630 Leaves somewhat palmated rough, Lobes 5-7-oblong blunt crisply toothletted at edge, Umb. 5-fl. in heads
9631 Leaves palmated viscid smooth, Lobes linear pinnatifid repand toothed flattish, Umb. few-fl.
9632 Leaves rough palmate 5-lobed, Lobes oblong serrated: middle 3-lobed, Umbels few-fl. compound

‡ *Uncertain species.*

9633 Stem fleshy branched arboreous, Lvs. cord. peltate pubesc. variably glauc. Petioles villous without stipules
9634 Leaves reniform distichous slightly 3-lobed blunt unequally toothed wavy
9635 Leaves slightly trifid unequally and acutely toothed wavy hairy, Peduncles 2-4-fl.
9636 Leaves roundish ovate blunt subtrifid folded together wavy toothed hairy beneath, Sepals erect
9637 Leaves slightly 3-lobed flat blunt, Lobes divaricating unequally and finely toothed, Pedunc. 3-fl.
9638 Leaves roundish cuneate slightly 3-lobed wavy toothletted, Branches petioles and peduncles villous
9639 Leaves roundish cuneate slightly 3-lobed wavy toothletted, Honey tube twice as short as reflexed calyx
9640 Leaves ellipt. blunt: floral obsoletely subtrifid unequally toothed somew. cuneate and entire at the base
9641 Leaves flat very smooth half round 7-lobed serrated slightly cordate at base, Pedunc. 2-5-flowered



and Miscellaneous Particulars.

kind of soil, or in pots, without being covered by glass, and placed in a shady situation. Many of the kinds may also be increased by pieces of their roots, or from seeds. The tuberous-rooted kinds may be propagated

Garden Varieties.

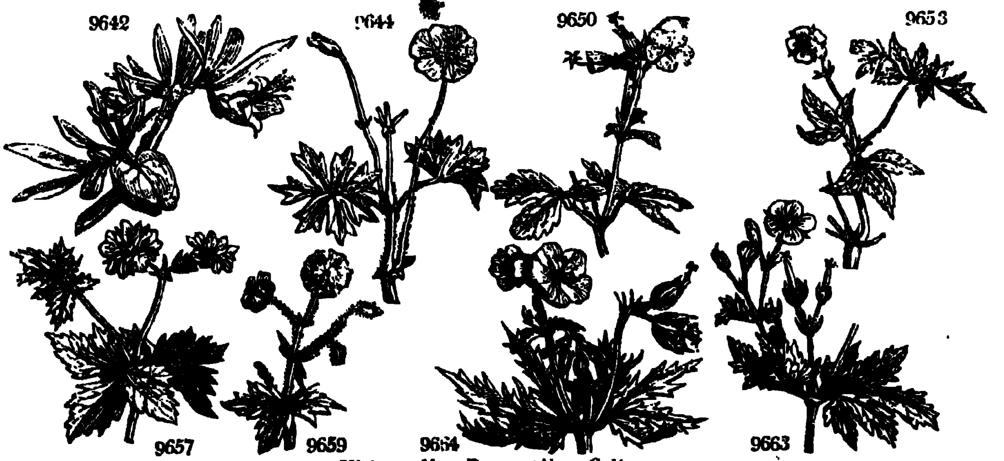
1 Aceroides *Sweet ger.* 242
2 acutilóbum *Do.* 184
3 áffluens *Do.* 194
4 ácidum *Do.* 261
5 Allénii *Do.* 229
6 amœ'num *Do.* 121
7 æ'mulum *Do.* 160
8 anthriscifólium *Do.* 233
9 árdens *Do.* 45
10 ardéscens *Do.* 231
11 armátum *Do.* 214
12 asperifólium *Do.* 169
13 atrofúscum *Do.* 82
14 atropurpúreum *Do.* 152
15 atrosanguíneum *Do.* 151
16 aurantíacum *Do.* 198
17 Baileyánum *Do.* 87
18 Bakeriánum *Do* 240
19 Barnardiánum *Do.* 127
20 Beadóniæ *Do.* 191
21 Beaufortiánum *Do.* 138
22 bel'lulum *Do* 60
23 bipartítum *Do.* 142
24 Blandfordiánum *Do.* 101
25 blándum *Do.* 4
26 Boÿleæ *Do.* 50
27 Brightiánum *Do.* 227
28 Broughtóniæ *Do.* 181
29 Brównii *Do.* 146
30 Brecsiánum *Do.* 64
31 calocéphalon *Sweet ger.* 201
32 calycínum *Do.* 81
33 Campyliæflórum *Do.* 251
34 cándidum *Do* 128
35 cardiifólium *Do.* 15
36 cerínum *Do.* 176
37 chærophýllum *Do.* 257
38 chrysanthemifólium *Do.* 124
39 coarctátum *Do.* 70
40 Colvilliánum *Do.* 280
41 Colvíllii *Do.* 86
42 Comptóniæ *Do.* 122
43 cómptum *Do* 255
44 concávum *Do.* 237
45 concínnum *Do.* 108
46 cóncolor *Do.* 140
47 corúscans *Do.* 173
48 Cosmiánum *Do.* 189
49 crenátum *And. ger.*
50 crenulátum *Sweet ger.* 162
51 cruéntum *Do.* 170
52 Daveyánum *Do.* 32
53 Dennisiánum *Do.* 20
54 dentátum *And. ger.*
55 depéndens *Sweet ger.* 195
56 diffor'me *Do.* 105
57 Dimacriæflórum *Do.* 220
58 disséctum *Do.* 247
59 Dobreeánum *Do.* 253
60 dumósum *Do.* 19
61 elátum *Sweet ger.* 96
62 eléctum *Do.* 238
63 élegans (Hoarea) *Do.* 132
64 élegans (Dimacria) *Do.* 202
65 élegans (Campylia) *Do.* 222
66 eréctum *Do.* 187
67 eriophýllum *Do.* 141
68 exímium *Do.* 26
69 Fair'liæ *Do.* 178
70 flexuósum *Do.* 180
71 floccósum *Do.* 129
72 flóridum *Do.* 41
73 formósum *Do.* 120
74 fuscátum *Do.* 210
75 glauciifólium *Do.* 179
76 grandidentátum *Do.* 217
77 Grenvilliánum *And. ger.*
78 Hammersléiæ *Sweet ger.* 225
79 Hoareæflórum *Do.* 133
80 Hoareánum *Do.* 80
81 Husseyánum *Do.* 92
82 imbricátum *Do.* 65
83 incanéscens *Do.* 203
84 incúrvum *Do.* 249
85 inscríptum *Do.* 193
86 intertéxtum *Do.* 185
87 involucrátum máximum *Do.* 33
88 Jenkinsóni *Do.* 154
89 jonquillínum *Do.* 241
90 Kin'gii *Do.* 248

OCTANDRIA.

1462. **AITO'NIA.** *W.*	Aitonia.					....		*Sp.* 1.					
9642 capénsis *W.*	Cape	ħ	⊔	or	2	ap.s	Pk	C. G. H.	1774.	C	r.m	Bot. mag. 173

DECANDRIA.

1463. **GERA'NIUM.** *W.*	Crane's-Bill.					*Geraniaceæ.*		*Sp.* 45—66.				
9643 sibíricum *W.*	Siberian	♃	△	pr	1	jn.jl	B	Siberia	1758.	D	s.l	Jac. vind. 1. t. 19
9644 sanguíneum *W.*	bloody	♃	△	pr	¾	jn.s	Bd	Britain	rocks.	D	s.l	Eng. bot. 272
9645 incánum *W.*	hoary multifid	♃	△|	pr	½	my.jl	Pk	C. G. H.	1701.	S	r.m	Cav.dis.4.t.82 f 2
9646 canéscens *W.*	silky-leaved	♃	△|	pr	½	my.jn	Pk	C. G. H.	1787.	S	r.m	L'Her. ger. t. 38
9647 argénteum *W.*	silvery-leaved	♃	△|	pr	½	jn.jl	St	S. Europe	1699.	D	s.l	Sweet ger 59
9648 várium *W.*	grey	♃	△	pr	1	jn.au	R	Pyrenees	...	D	s.l	L'Her. ger. t. 37
9649 anemonefólium *W.*	Anemone-lvd.	ħ	⊔	or	3	my.au	R	Madeira	1788.	S	r.m	Sweet ger. 244
9650 macrorhízum *W.*	long-rooted	♃	△	pr	1½	my.jn	Pu	Italy	1576.	D	s.l	Bot. mag. 2420
9651 tuberósum *W.*	tuberous-root.	♃	△	pr	1	my.au	Pk	Italy	1596.	R	r.m	Sweet ger. 155
9652 ibéricum *W.*	Iberian	♃	△	el	1½	jn.s	B	Levant	1802.	D	s.l	Sweet ger. 84
9653 nodósum *W.*	knotty	♃	△	pr	1	my.o	Pu	England	moun.	D	s.l	Eng. bot. 1091
9654 angulátum *W.*	angular-stalked	♃	△	pr	1	my.jn	B	......	1789.	D	s.l	Bot. mag. 203
9655 Wallichiánum *Sw.*	Wallich's	♃	△	un	¾	my.au	R	Nepal	1819.	D	s.l	Sweet ger. 90
9656 vlassoviánum *Fisch.*	Russian	♃	△	pr	1	my.au	Pu	Crimea	1821.	D	s.l	Sweet ger 228
9657 striátum *W.*	streaked	♃	△	pr	1	my.o	St	Italy	1629.	D	s.l	Bot. mag. 55
9658 refléxum *W.*	reflex-flowered	♃	△	or	1½	my.jn	B	Italy	1758.	D	s.l	Cav.dis.4.t.81.f.1
9659 phæ'um *W.*	dusky	♃	△	or	1½	ap.jn	Bd	England	m.thi.	D	s.l	Eng. bot. 322
9660 fúscum *W.*	brown	♃	△	or	1½	jl	Br	S. Europe	1759.	D	co	
9661 lívidum *W.*	wrinkled-leav'd	♃	△	or	1½	jn.jl	Pu	Switzerl.	1775.	D	s.l	L'Her. ger. t. 39
9662 eriostémon *Fisch.*	woolly-stamen.	♃	△	pr	1½	jn.jl	B	Siberia	1822.	D	co	Sweet ger. 197
9663 sylváticum *W.*	wood	♃	△	el	1½	my.jn	Pu	Britain	m.thi.	D	s.l	Eng. bot. 121
9664 praténse *W.*	Crowfoot-lvd.	♃	△	el	1½	my.jl	B	Britain	me.pa.	D	s.l	Eng. bot. 404
9665 lon'gipes *Dec.* *Londésii* Fisch.	long-stalked	♃	△	or	1	my.jl	Li	......	1823.	D	co	



History, Use, Propagation, Culture,

by the little tubercles of the roots, or by seeds. For the general treatment of each species, see Sweet's Geraniaceæ. (*Bot. Cult.* 237.)

1462. *Aitonia.* In honor of the late Mr. William Aiton, the King's gardener at Kew. " A pretty genus," Sweet observes, " which thrives well in an equal mixture of sandy loam and peat: young cuttings will root in

Garden Varieties.

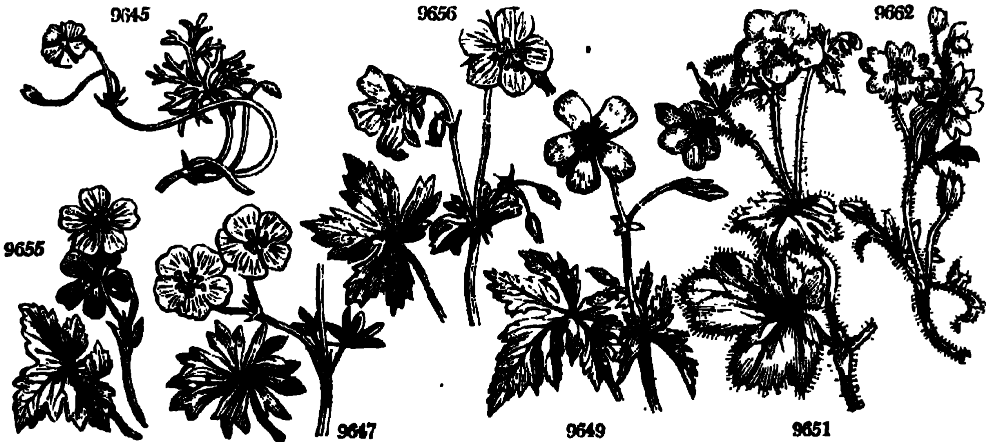
91 Lambérti *Sweet ger.* 104
92 lanceolátum *And. ger.*
93 latilóbum *Sweet ger.* 236
94 laxiflórum *Do.* 216
95 lépidum *Do.* 156
96 lineátum *Do.* 116
97 Lousadiánum *Do* 44
98 lúteum *Bot. rep.* 328
99 macránthon *Sweet ger.* 83
100 Mattocksiánum *Do.* 234
101 melissinum *Do.* 5
102 míxtum *Do.* 71
103 modéstum *Do.* 204
104 Mostýnæ *Do.* 10
105 multinérve *Do.* 17
106 Murrayánum *Do.* 164
107 mutábile *Do.* 213
108 nánum *Do.* 102
109 nervósum *Do.* 47
110 Newshamiánum *Do.* 144
111 notátum *Do.* 208
112 nummularifólium *Bot. rep.* 123
113 oblátum *Sweet ger.* 35
114 obscúrum *Do.* 89
115 obtusifólium *Do.* 25
116 optábile *Do.* 62
117 opulifólium *Do.* 53
118 ornátum *Do.* 39
119 Pálkii *Do.* 224
120 pannifólium *Do.* 9
121 párticeps *Sweet ger.* 49
122 pátens *Do* 125
123 paucidentátum *Do.* 186
124 pavonínum *Do.* 40
125 pectinifólium *Do.* 66
126 phœníceum *Do.* 207
127 pinguifólium *Do.* 52
128 planifólium *Do.* 219
129 platypétalon *Do.* 116
130 Pottéri *Do.* 147
131 Principissæ *Do.* 139
132 pubéscens *And. ger.*
133 pulchérrimum *Sweet ger.* 134
134 púlchrum *Do.* 107
135 pulveruléntum *Do.* 218
136 pyrethrifólium *Do.* 153
137 ramulósum *Do.* 177
138 recurvátum *Do.* 223
139 reticulátum *Do.* 143
140 rigéscens *Do.* 112
141 ríngens *Do.* 256
142 Robinsóni *Do.* 150
143 rotundilóbum *Do.* 252
144 rubéscens *Do.* 30
145 rugósum *And. ger.*
146 sæpeflórens *Sweet ger.* 58
147 Saundérsii *Do.* 205
148 Scarboróviæ *Do.* 117
149 scintíllans *Do.* 28
150 Scóttii *Do.* 264
151 scutátum *Sweet ger.* 95
152 seléctum *Do.* 190
153 selenifólium *Do.* 159
154 serratifólium *Do.* 221
155 Seymoúriæ *Do.* 37
156 Smíthii *Do.* 110
157 solúbile *Do.* 24
158 spectábile *Do.* 136
159 sphondyliifólium *Do.* 246
160 Stapeltóni *Do.* 212
161 striátum *Do.* 1
162 sulphúreum *Do.* 163
163 Thyn'neæ *Do.* 74
164 Tibbitsiánum *Do.* 158
165 torrefáctum *Do.* 243
166 tyriánthinum *Do.* 183
167 Vandésiæ *Do.* 7
168 várium *Do.* 166
169 veniflórum *Do.* 258
170 venósum *Do.* 209
171 venústum *Do.* 167
172 verbasciflórum *Do.* 157
173 verbenæfólium *Do.* 149
174 versícolor *Do.* 78
175 vespertínum *Do.* 239
176 villósum *Do.* 100
177 viscosíssimum Do. 118
178 Wellsiánum *Do* 175
179 Yoúngii *Do.* 131

OCTANDRIA.

9642 The only species

DECANDRIA.

9643 Stem erect diffuse branched, Peduncles longer than petiole, Leaves 5-parted, Lobes oblong cut-toothed
9644 Stem erect diffuse branched. Ped. longer than petiole, Leaves opp. 5-parted, Lobes trifid, Lobelets linear
9645 Stem diffuse, Leaves hoary beneath 7-part. Lobes multifid linear, Pedunc. elongated, Calyxes silky villous
9646 Stem diffuse, Leaves hoary beneath 5-parted, Lobes obl. cut-toothed, Ped. very long and cal. gland. hairy
9647 Stem very short, Radical leaves on long stalks silky on each side 5-7-parted, Lobes 3-fid, Lobelets linear
9648 Stem very short, Rad. leaves stalked glaucous pubescent 5-parted, Lobes cuneiform trifid, Pedunc. radical
9649 Stem shrubby, Leaves smooth palmate 5-cut, Segments bipinnatifid, Peduncles opposite erect hairy
9650 Stem suffruticose at base dichot. at end, Lvs. smooth 5-parted, Lobes toothed at end, Cal. globose inflat.
9651 Root subglobose, Stem naked from base to the branches, Leaves 5-parted, Lobes lin pinnately cut serrate
9652 Stem villous dichotomous, Leaves 5-7-parted, Lobes pinnately cut, Calyxes ciliate villous
9653 Stem 4-cornered, Lower leaves 5-lobed ; upper 3-lobed, Lobes oblong acuminate serrate, Pet. emarginate
9654 Stem angular, Rad. leaves 7-lobed ; cauline 5-lobed, Lobes oblong acuminate toothed, Petals emarginate
9655 Stem erect somewhat angular, Leaves opposite 5-lobed, Lobes cuneate ovate lobed-toothed, Stip. connate
9656 Stem round, Leaves 5-lobed, Lobes oval acuminate cut-toothed, Stipules connate bifid
9657 Stem round, Lower leaves 5-lobed ; upper 3-lobed, Lobes ovate acute cut toothed, Stipules distinct
9658 Stem round, Leaves altern. 5-7-lobed cut-toothed ; upper sessile, Petals reflexed toothed at end
9659 Stem round, Leaves 5-lobed cut-toothed ; upper sessile, Petals spreading entire, Filaments hairy at base
9660 Like the last, but with dark fuscous petals
9661 Like Phæum, but the petals are rose-colored and emarginate
9662 Stem round simple, Lvs 5-lobed, Lobes ovate coarsely toothed : lower on long stalks altern. ; upp. sess. opp
9663 Stem round erect smooth, Lvs. about 7-lobed, Lobes obl. cut serr. Ped. corymbose, Pet somew. emarginate
9664 Stem round erect downy, Lvs. about 7-lobed, Lobes linear obl cut serrate, Ped. somew. corymb Pet. entire
9665 Stem round erect smooth, Leaves palmate subpeltate 5-7-lobed, Lobes oblong coarsely cut, Ped. very long



and Miscellaneous Particulars.

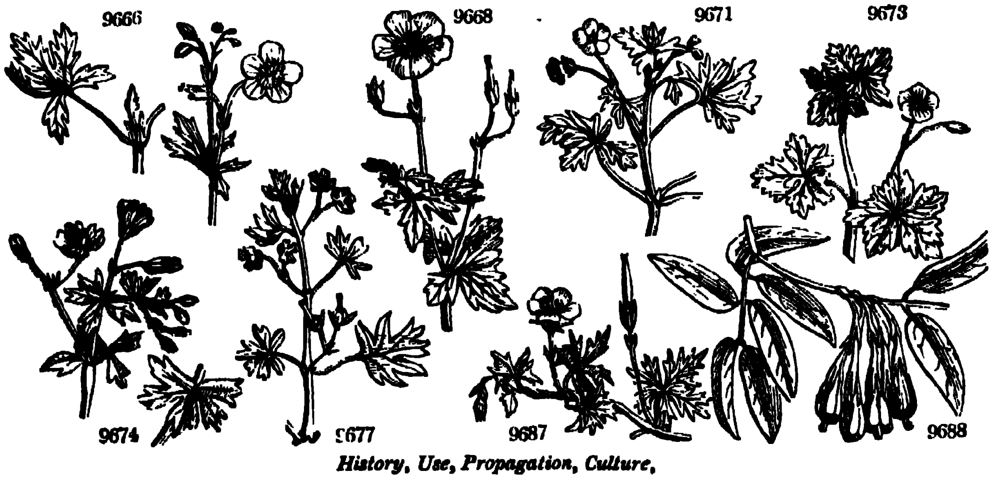
sand, under a bell-glass, plunged in heat. The cuttings must not be put in very close together, and the glass must be wiped frequently, as they are apt to damp off." (*Bot. Cult.* 129.)

1463. *Geranium.* *Γερανιον* of the ancient Greeks, so called from *γερανος*, a crane, the capsule and its beak resembling the head of that bird. These are chiefly European plants, in many cases being mere weeds, of no

9666 **maculátum** *W.*	spotted	⚘	△	pr	¾	my.au	Pu	N. Amer.	1732.	D	s.l	Cav.dis.4.t.86.f.2
9667 **collinum** *W.*	hill	⚘	△	pr	1	my.au	Pu	Siberia	1815.	D	co	
9668 **palústre** *W.*	marsh	⚘	△	or	2	jn.au	Pu	Germany	1732.	D	s.l	Sweet ger. 3
9669 **aconitifólium** *W.*	Aconite-leaved	⚘	△	pr	1½	my.jn	B	Switzerl.	1775.	D	s.l	L'Her. ger. t. 40
9670 **dahúricum** *Dec.*	Dahurian	⚘	△	un	1	my jn	Pu	Dahuria	1820.	D	co	
9671 **pilósum** *Forst.*	pilose	⚘	△	un	⅔	my.au	Pu	N. Zeal.	1821.	D	co	Sweet ger. 119
9672 **parviflórum** *W. en.*	small-flowered	⚘	△	un	¾	my.jn	Pu	V. Di. L.	1816.	D	co	
9673 **nepalénse** *Sweet*	Nepal	⚘	△	pr	½	my.au	R	Nepal	1818.	D	co	Sweet ger. 12
9674 **pyrenáicum** *W.*	mountain	⚘	△	pr	1	my.au	Pu	Britain	me.pa.	D	s.l	Eng. bot. 405
9675 **umbrósum** *P. S.*	naked-stalked	⚘	△	pr	1	jn.s	Pu	Hungary	1804.	D	co	Pl. rar. h.2. t.144
9676 **mólle** *W.*	Dove's-foot		○	w	½	ap.au	Pu	Britain	was.gr.	S	co	Eng. bot. 778
9677 **pusillum** *W.*	small-flowered		○	w	¼	jn.s	Pu	England	was.gr.	S	co	Eng. bot. 385
9678 **rotundifólium** *W.*	round-leaved		○	w	½	jn.jl	Pk	England	gra ba.	S	co	Eng. bot. 157
9679 **columbinum** *W.*	long-stalked		○	w	¾	jn.jl	Pk	Britain	cha.ba.	S	co	Eng. bot. 259
9680 **dissectum** *W.*	jagged-leaved		○	w	½	my.jl	Pu	Britain	was.gr.	S	co	Eng. bot 753
9681 **caroliniánum** *Ph.*	spreading		○	un	½	jl.au	W.vy	N. Amer.	1725.	S	co	Cav.dis.4.t.84 f 1
9682 **bohémicum** *W.*	Bohemian		○	un	¾	jn.au	Pu	Bohemia	1683.	S	co	Cav.dis.4.t.81.f 2
9683 **divaricátum** *W.*	straddling		○	un	¾	jl.au	Pu	Hungary	1799.	S	co	Pl. rar. h.2. t 123
9684 **lúcidum** *W.*	shining		○	w	½	my.au	Pk	Britain	ston.pl.	S	co	Eng. bot. 75
9685 **Robertiánum** *W.*	Herb-Robert		○	w	1	ap.o	R	Britain	ston.pl.	S	co	Eng. bot. 1486
9686 **purpúreum** *W.*	purple		○	w	1	ap.o	Pu	Britain	...	S	co	Vill.delph.3. t 40
9687 **Lancastriénse** *With.*	Lancashire	⚘	△	pr	¾	jn.s	St	Britain	...	D	s.l	Cav.dis.4.t.76.f.3
1464. BROW'NEA. *W.*	Brownea.					*Leguminosæ.*		*Sp.* 1—3.				
9688 **coccinea** *W.*	scarlet	🌳	☐	spl	18	jl.au	Sc	W. Indies	1793.	C	r.l	Jac. amer. t. 121

DODECANDRIA.

1465. MONSO'NIA. *W.*	Monsonia.					*Geraniaceæ.*		*Sp.* 5—8.				
9689 **speciósa** *W.*	large-flowered	♣	|△|	or	1	ap.my	Pu	C. G. H.	1774.	R	r.m	Sweet ger. 77
9690 **pilósa** *W.*	hairy	♣	|△|	or	1	jl.au	Pu	C. G. H.	1778.	R	r.m	Sweet ger. 199
9691 **lobáta** *W.*	broad-leaved	♣	|△|	or	1	ap.my	Pu	C. G. H.	1774.	R	r.m	Bot. mag. 385
9692 **ováta** *W.*	oval-leaved	♣	|○|	or	1	au	Pu	C. G. H.	1774.	R	r.m	L'Her. ger. t. 40
9693 **spinósa** *W.*	thorny	☘	☐	or	1	my.jn	Pu	C. G. H.	1790.	R	r.m	L'Her. ger. t 42
1466. HELIC'TERES. *W.*	Screw-Tree.					*Bombaceæ.*		*Sp* --17.				
9694 **baruénsis** *W.*	small-fruited	♠	☐	or	12	s.o	Pu	W. Indies	1739.	C	p.l	Jac. amer. t. 149
9695 **jamaicénsis** *W.*	great-fruited	♠	☐	or	8	jn.jl	Pu	Jamaica	1739.	C	l.p	Jac.vind.2. t.143
9696 **Isóra** *W.*	East Indian	♠	☐	or	12	jn.jl	Pu	E. Indies	1733.	C	p.l	Bot. mag 2061
9697 **verbascifólia** *Cels.*	Mullein-leaved	♠	☐	or	8	jn.jl	Br	Brazil	1820.	C	p.l	Bot. reg. 903
9698 **ferrugináta** *Link.*	rusty	♠	☐	or	8	jn.jl	Y	Brazil	1823.	C	p.l	
1467. DOMBE'YA. *J.*	Dombeya.					*Byttneriaceæ.*		*Sp.* 2—10.				
9699 **tiliæfólia** *Cav.*	linden-leaved	🌳	☐	or	15	...	W	Bourbon	1820.	C	s.l	Cav.dis.3.t.39.f.2
9700 **ferruginea** *W.*	ferruginous	🌳	☐	or	15	...	W	Mauritius	1815.	C	s.l	Cav.dis.3.t.42.f.2
1468. PENTAPE'TES. *W.*	Pentapetes.					*Byttneriaceæ.*		*Sp.* 2.				
9701 **phœnicea** *W.*	scarlet-flower'd	♣	⊠	or	2	jl.au	S	India	1690.	C	s.p	Mill. ic. t. 201
9702 **ováta** *P. S.*	oval-leaved	☘	☐	or	2	jn.s	S	N. Spain	1805.	C	s.p	Cav. ic. t. 433
1469. ASTRAPÆ'A. *Lindl.*	Astrapæa.					*Byttneriaceæ.*		*Sp.* 1—3.				
9703 **Wallichii** *Lindl.*	Wallich's	🌳	☐	spl	20	jl.au	Pk	Madagasc.	1820.	C	s.p	Bot. mag. 2503
1470. PTEROSPER'MUM. *W.*	Pterospermum.					*Byttneriaceæ.*		*Sp.* 3—4.				
9704 **suberifólium** *W.*	various-leaved	🌳	☐	or	10	s.o	W	E. Indies	1783.	C	p.l	Bot. mag. 1526
9705 **acerifólium** *W.*	Maple-leaved	🌳	☐	or	10	jl.s	W	E. Indies	1790.	C	p.l	Bot. mag. 620
9706 **semisagittátum** *Rox.*	half-sagittate	🌳	☐	or	10	...	W	E. Indies	1820.	C	p.l	



History, Use, Propagation, Culture,

interest, and in others, being extremely shewy border-flowers. The G. Lancastriense is the most elegant, and G. sanguineum the most ornamental of our British kinds. G. anemonifolium, a Cape species, is singularly beautiful, on account of its fine caulescent stem, loaded with large fern-like glossy leaves of the most delicate green, and its fine red rich blossoms broader than half a crown.

1464. *Brownea.* Named after Dr. Patrick Browne, an English physician, who published a Natural History of Jamaica, in 1756, illustrated with figures from the pencil of Ehret. A splendid genus, as yet rare in British gardens. Loamy soil best suits rooted plants; and ripened cuttings root in sand in close moist heat.

1465. *Monsonia.* In memory of Lady Ann Monson, a lady of eminent botanical acquirements, who resided for many years in the East Indies, and is said to have assisted in compiling Lee's Introduction to Botany. The species are curious and beautiful plants: they grow well in turfy loam and rotten leaves, and are increased by cuttings of the shoots or roots.

9666 Stem somew. angul. erect dichotomous pubesc. backw. Lvs. 3-5-part. cut-toothed : radic. on very long stalks
9667 Stem angular diffuse pubesc. backw. Lvs. palmate 5-part.: lobes 3-lobed cut serrate, Ped. and cal. vill. viscid
9668 Stem decumbent villous with spreading hairs, Leaves 5-7-lobed : lobes cut-toothed, Ped. very long hairy
9669 Stem ascending smoothish, Leaves peltate 7-parted : lobes cut, Peduncles and calyx villous
9670 Stem naked at base erect smooth, Caul. lvs. opposite 3-5-part. : lobes cut acute, Ped. 3 times as long as leaf
9671 Stems decumbent branched, Petioles and peduncles hispid, Leaves 3-5-parted : lobes linear blunt trifid
9672 Stems decumbent, Petioles pedunc. and calyx smoothish, Caul. lvs. opp. 3-5-parted : lobes trifid toothed
9673 Stem prostrate compressed, Lvs. opp. 5-lobed : lobes oblong unequally toothed, Ped. elong. and cal. hairy
9674 Stem erect branched, Leaves reniform 7-lobed : segm. oblong obtuse trifid ; lobes 3-toothed
9675 Stem more flaccid and nearly naked, Grains nearly smooth. Otherwise like the last
9676 Leaves ren. : rad. 9-lobed ; caul. 7-lobed : lobes 3-fid, Pet. bifid length of pointless cal. Fruit smooth rugose
9677 Leaves subreniform 7-lobed : lobes 3-fid, Petals emarg. length of pointless cal. Fruit downy not rugose
9678 Radic. lvs. reniform 7-lobed ; caul. roundish trunc. at base 5-lobed : lobes trifid, Pet. length of awned cal.
9679 Leaves 5-parted : lobes multifid linear, Petals emarginate length of awned calyx, Fruit smooth
9680 Leaves 5-parted : lobes trifid linear, Petals emarginate length of awned calyx, Fruit hairy
9681 Lvs. 5-lob. beyond middle : lobes cut 3-5-fid, Ped. clustered at end, Petals emargin. length of awned calyx
9682 Lvs. 5-lobed : lobes cuneate ovate cut-tooth. Hair of stem spread. hispid, Pet emarg. length of awned calyx
9683 Lvs. 5-lob. : upp. 3-lob. : lobes obl. coarsely and irreg. tooth. Hair of stem spread. hisp. Pet. shorter than cal.
9684 Very smooth, Leaves rounded 5-lobed, Calyx pyramidal angular transversely wrinked, Fruit muricate
9685 Leaves 3-5-parted : lobes trifid pinnatifid, Petals entire twice as long as the angular awned calyx
9686 Like the last, but the petals only a little longer than calyx
9687 Stem prostrate nodose, Leaves opposite deeply 5-lobed

9688 Stamens length of cor. Pedunc. aggregate, Branches smooth

DODECANDRIA.

9689 Leaves palmate 5-parted, Segm. finely bipinnatifid, Petioles and calyxes smooth
9690 Leaves palmate 5-parted, Segm. 3-parted pinnatifid ; beneath calyxes and petioles hairy
9691 Leaves cordate 5-7-fid : lobes blunt serrated ; beneath petioles and calyxes somewhat hairy
9692 Leaves ovate oblong subcordate crenate wavy, Stipules rigid, Pedunc. 1-fl. with 2 bractes
9693 Leaves ovate mucronate entire, some subsessile, some on long stalks

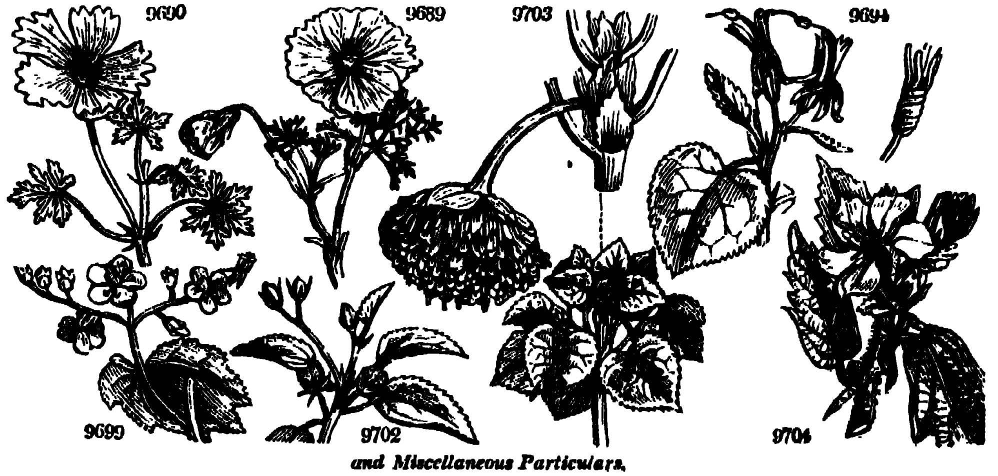
9694 Decandrous, Leaves cordate finely serrate downy beneath, Peduncles 2-flowered, Calyxes sub-bilabiate
9695 Decandrous, Leaves cordate crenate velvety with down on each side, Flowers subterminal few corymbose
9696 Decandrous, Leaves cordate ovate tooth-serrate acuminate rough, Flowers axillary
9697 Leaves cordate acuminate serrate downy green, Peduncles axillary few-flowered, Fruit-stalk very long
9698 Leaves cordate lanceolate crenulate downy beneath rusty, Fl. terminal subracemose

9699 Young leaves downy, adult smoothish cordate 7-nerved crenate, Corymb bifid
9700 Leaves downy beneath smooth above ovate oblong 7-nerved subcordate-peltate toothed

9701 Leaves hastate lanceolate serrate
9702 Leaves ovate serrated

9703 Leaves roundish cordate acuminate very large, Stipules large persistent ovate wavy

9704 Leaves oblong acuminate coarsely somewhat toothed at end, Pedicels scarcely longer than petiole
9705 Leaves cordate blunt toothed
9706 Leaves oblong acuminate entire cordate at base sagittate on one side



and Miscellaneous Particulars.

1466. *Helicteres.* Derived from ἑλιξ, a screw, in allusion to the manner in which the fruit is twisted. Free-flowering plants of easy culture, and increased in sand closely covered. They have little or no merit.

1467. *Dombeya.* Named after Joseph Dombey, a famous French botanist, who travelled in Peru with Ruiz and Pavon, in 1777. Ripened cuttings root in sand in moist heat.

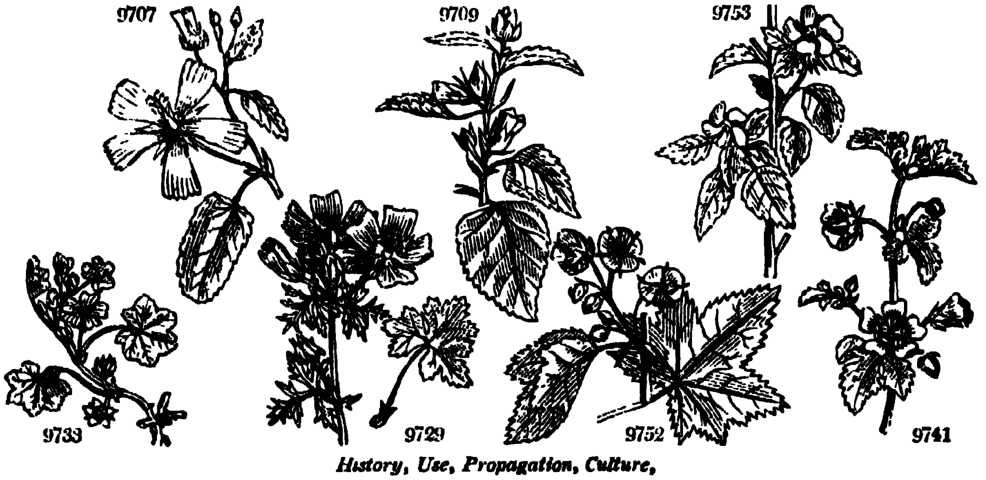
1468. *Pentapetes.* One of the names given by the Greeks to the Cinquefoil ; but having no reference to the present genus, except that the calyx and capsules are in five. The species are of easy culture in any rich light soil, and are readily increased by cuttings in sand.

1469. *Astrapæa.* So called from ἀστραπη, lightning, in allusion to the splendid colors of the flowers. A noble genus, remarkable for the large heads of flowers, and the great dilated stipules at the base of the leaves.

1470. *Pterospermum.* From πτερον, a wing, and σπερμα, a seed. Light soil suits the plants, and cuttings with their leaves on root in sand covered close.

POLYANDRIA.

1471.	**MA'LOPE.** *W.*	MALOPE.					*Malvaceæ.*		*Sp.* 2—4.				
9707	malacoídes *W.*	Barbary	£	(○)	un	1	jn.jl	Pu	Barbary	1710.	C	s.l	Cav.dis.2.t.27.f.1
9708	trífida *W.*	trifid		○	un	1	jl	Pu	Barbary	1808.	S	s.l	Cav.dis.2.t.27.f.2
1472.	**MAL'VA.** *W.*	MALLOW.					*Malvaceæ.*		*Sp.* 56—82.				
9709	tricuspidáta *H. K.*	Jamaica	£	(○)	pr	1	jl.au	Y	W. Indies	1726.	C	co	Cav.dis.2.t.22.f.2
9710	americána *W.*	American		○	pr	1	jn.jl	Y	W. Indies	1756.	S	co	
9711	scábra *W.*	rough-stemmed	ɫ	☐	pr	4	jn.jl	Y	Peru	1798.	C	co	Ca.dis.5.t.138.f.1
9712	scopária *W.*	Birch-leaved	ɫ	☐	pr	6	au.s	Y	Peru	1782.	C	co	Jac. ic. 1. t. 139
9713	borbónica *W. en.*	Bourbon	ɫ	☐	pr	4	jl.au	Y	Mauritius	1816.	C	co	
9714	polystáchya *W.*	many-spiked	ɫ	⊔	pr	6	jl.au	Y	Peru	1798.	C	co	Ca.dis.5.t.138.f.3
9715	spicáta *W.*	simple-spiked	ɫ	☐	pr	2	s.o	O	Jamaica	1726.	C	co	Cav.dis.2.t.20.f.4
9716	tomentósa *L.*	downy	ɫ	☐	pr	3	s.o	Y	E. Indies	1820.	C	co	Pluk. t. 356. f. 1
9717	Waltherifólia *Link.*	soft-leaved	£	[△]	pr	1½	...	Y	Java	1824.	D	co	
9718	trachélifólia *Link.*	pointed		○	un	1½	jl.au	Y	......	1821.	S	co	
9719	gangética *L.*	Ganges		○	un	1	jl.au	Y	E. Indies	1823.	S	co	Plu.alm. t.74. f.6
9720	domingénsis *Spr.*	Domingo	£	[△]	pr	2	jl au	Y	St. Domin.	1824.	S	co	
9721	leprósa *W. en.*	leprous	£	[△]	un	2	my.jl	Pu	Cuba	1815.	C	co	
9722	crética *Cav.*	Candian		○	un	1	my.jl	Pu	Candia	1825.	S	co	Ca.dis.5.t.138.f.2
9723	hispánica *W.*	Spanish		○	un	1	jl	F	Spain	1710.	S	co	Desf. atl. 2. t.170
9724	stipulácea *W.*	long-stipuled		○	un	1	jn.au	Pu	Spain	1815.	S	co	Cav.dis.2.t 15.f.2
9725	ægyp'tia *W.*	Egyptian		○	un	1	jn.jl	L.B	Egypt	1739.	S	co	Cav.dis.2.t.17.f.1
9726	trífida *W.*	large-flowered		○	un	1½	jn.jl	Pu	Spain	1815.	S	co	Ca.dis.5.t.137.f.2
9727	Tournefortiána *W.*	Tournefort's		○	un	1	jl.au	B	Spain	1759.	S	co	Cav.dis.2 t.17.f.3
9728	Alcéa *W.*	Vervain	⚘	△	un	3	jl.o	Pu	Germany	1597.	D	co	Bot. mag. 2297
9729	moschàta *L.*	musk	⚘	△	pr	2	jl.au	F	Britain	bor.fi.	D	co	Eng. bot. 754
	β *unduláta* Sims.	*wavy*	⚘	△	pr	2	jl.au	W	......	...	D	co	Bot. mag. 2298
9730	althæoídes *Cav.*	Althæa-like		○	un	2	jl.au	Pu	Spain	1822.	S	co	Cav. diss.2. t.135
9731	mauritiána *W.*	Ivy-leaved		○	or	6	jn.jl	Pk	S. Europe	1768.	S	co	Sweet fl. gard.81
9732	sylvéstris *W.*	common	⚘	△	m	4	my.o	Pu	Britain	was.pl.	D	co	Eng. bot. 671
9733	rotundifólia *W.*	round-leaved		○	w	1½	jn.s	F	Britain	ro. sid.	S	co	Eng. bot. 1092
	β *pusílla* Sm.	*dwarf*		○	w	¾	jn.s	Pu	Britain	ro. sid.	S	co	Eng. bot. 241
9734	braziliénsis *Dec.*	Brazil		○	un	¾	jn.s	Pu	R.Janeiro	1824.	S	co	
9735	microcárpa *Desf.*	small-fruited	⚘	△	un	2	jn.s	Pu	Egypt	1823.	D	co	
9736	parviflóra *W.*	small-flowered		○	un	2	jn.jl	Pu	Barbary	1779.	C	co	Cav.dis.2.t.26 f.1
9737	verticilláta *W.*	whorl-flowered		○	un	2	jn.jl	Pu	China	1683.	S	co	Cav.dis.2.t.25.f.3
9738	críspa *W.*	curled		○	or	5	jn.au	W	Syria	1573.	S	co	Cav.dis.2.t 23.f 1
9739	amœ'na *Sims.*	pleasant	♣	⊔	or	3	ap.my	Pu	C. G. H.	1796.			Bot. mag. 1998
9740	virgáta *W.*	twiggy	♣	⊔	or	6	my.jl	Pu	C. G. H.	1727.	C	co	Cav.dis.2.t.18.f.2
9741	capénsis *W.*	Cape	♣	⊔	or	10	ja.d	R	C. G. H.	1713.	C	p.l	Bot. reg. 295
9742	balsámica *W.*	balsamic	♣	⊔	or	4	my.s	Pu	C. G. H.	1800.	C	co	Jac. ic. 1. t. 140
9743	tridactýlites *W.*	reflex-flowered	♣	⊔	or	3	jn au	Pk	C. G. H.	1791.	C	p.l	Bot. rep. 135
9744	divaricáta *H. K.*	straddling	♣	⊔	or	3	jn s	W.vy	C. G. H.	1792.	C	co	Bot. reg. 182
9745	retúsa *W.*	blunt-leaved	♣	⊔	or	4	mr.my	Pk	C. G. H.	1803.	C	p.l	Cav.dis.2.t.21.f.1
9746	calycína *W.*	large-calyxed	♣	⊔	or	4	my au	R	C. G. H.	1812.	S	co	Bot. reg. 297
9747	frágrans *W.*	fragrant	♣	⊔	or	3	my.jl	Sc	C. G. H.	1759.	C	co	Bot. reg. 296
9748	stricta *W.*	upright	♣	⊔	or	3	my.au	W.vy	C. G. H.	1805.	C	co	Jac.schœ 3.t.294
9749	bryonifólia *W.*	Bryony-leaved	♣	⊔	or	4	jl.au	Pu	C. G. H.	1731.	C	co	W. hor. ber.1.t.4
9750	grossulárifolia *W.*	Gooseberry-lv.	♣	⊔	or	3	my.s	Pk	C. G. H.	1732.	C	p.l	Bot. reg. 561
9751	aspérrima *W. en.*	roughest	♣	⊔	or	3	jn.s	R	C. G. H.	1796.	C	co	Jac.schœn.2.t.39
9752	láctea *W.*	panicled white	♣	⊔	or	4	ja.f	W	Mexico	1780.	C	co	Cav. ic. 1. t 20
9753	miniáta *W.*	painted	♣	⊔	or	4	my.jl	Ve	S. Amer.	1798.	C	p.l	Cav. ic. 3. t. 278
9754	operculáta *W.*	lid-capsuled	♣	⊔	or	3	jl.au	R	Peru	1795.	C	co	Cav.dis.2.t.35.f.1
9755	peruviána *W.*	Peruvian		○	un	2	jn.au	Pu	Peru	1759.	S	co	Jac.vind. 2. t.156
9756	liménsis *W.*	blue-flowered		○	un	4	jl	B	Peru	1768.	S	co	Jac.vind. 2. t.141
9757	capitáta *W.*	various-leaved	♣	⊔	or		n.d	R	Peru	1798.	S	co	Ca.dis.5.t.137 f 1
9758	umbelláta *Cav.*	umbelled	♣	⊔	or	4	ja.mr	Cr	S. Amer.	1814.	C	co	Bot. cab. 222
9759	abutiloídes *W.*	Bahama	♣	⊔	or	4	jn.s	W	Bahama I.	1725.	C	co	Bot. mag. 2544
9760	élegans *W.*	elegant	♣	⊔	or	3	my.au	R	C. G. H.	1791.	C	co	Jac. col.4. t.6. f 1
9761	angustifólia *W.*	narrow-leaved	♣	⊔	or	3	au	St	Mexico	1780.	C	p.l	Cav. ic 1. t. 68
9762	caroliniána *W.*	creeping		○	un	1	jn.jl	R	Carolina	1723.	C	co	Cav.dis.2.t.15.f.1
9763	prostráta *W.*	trailing	♣	⊔	un	1	jn.au	Pk	Brazil	1806.	S	co	Bot. mag. 2515
9764	decúmbens *W.en.*	procumbent	£	(△)	un	1	jn.s	Pk	S. Amer.	1815.	D	co	



History, Use, Propagation, Culture,

1471. *Malope.* A name given by the Greeks to the Tree Mallow.

1472. *Malva.* Altered by the Latins from the Greek word, *μαλαχη*, soft, in allusion to the soft mucilaginous qualities of the species. Some of the species are shewy plants, and M. capensis is valued in small greenhouses as flowering all the year. M. sylvestris, *Mauve*, Fr., has still a place in the Materia Medica, on account of its

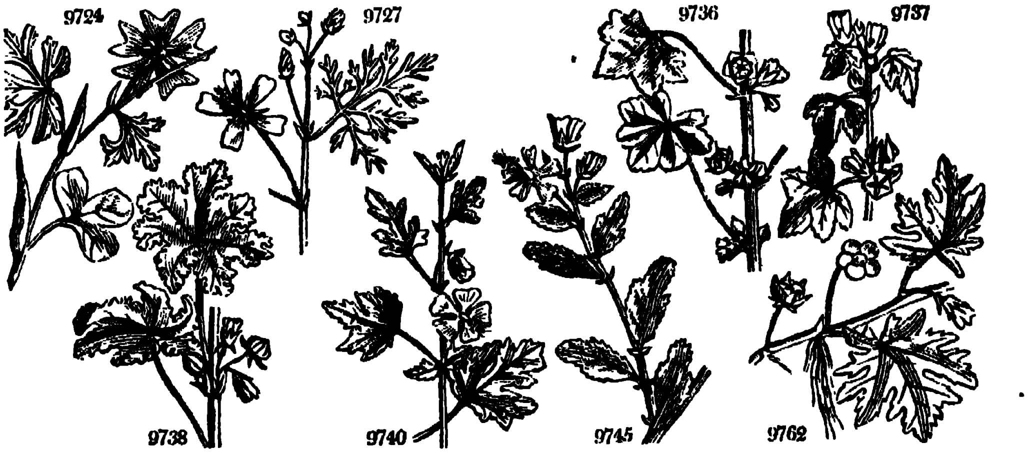
POLYANDRIA.

9707 Leaves ovate crenate, Stipules oblong-linear
9708 Leaves 3-nerved trifid toothed smooth : lobes acuminate

9709 Leaves oblong or ovate acute serrate, Flowers axillary clustered
9710 Leaves ovate acute crenate serrate hairy, Fl. axillary subsolitary
9711 Leaves ovate-lanceolate doubly toothed obsoletely 3-lobed beneath rough, Peduncles axillary 2-flowered
9712 Leaves ovate crenate-serrate beneath velvety, Fl. axillary clustered
9713 Leaves ovate acute coarsely toothed pubescent ; upper cuneate at base, Fl. axillary and terminal spiked
9714 Leaves ovate acuminate serrate rough, Fl. axillary and terminal spiked
9715 Leaves ovate or subcordate rough above downy beneath, Flowers in ovate spikes
9716 Leaves cordate crenate blunt and branches downy, Flowers lateral heaped
9717 Leaves subcordate acute toothed downy beneath, Fl. sessile, Lobes of calyx ovate
9718 Leaves cordate acuminate serrated rough ; lower lobed, Pedunc. axillary, Flowers in heads
9719 Leaves cordate blunt smooth, Flowers sessile heaped
9720 Dwarfs, Leaves ovate toothed : adult smoothish ; younger hairy, Fl. axillary solitary on short stalks
9721 Leaves reniform broadly crenate and branches leprous, Stems prostrate
9722 Leaves cordate roundish 5-angled crenate villous, Pedicels longer than petiole
9723 Leaves half orbicular crenate ; upper rhomboid, Stem erect hairy
9724 Lower leaves 3-lobed entire ; upper multifid, Segm. trifid toothed at end
9725 Leaves 3-parted, Segm. trifid ciliated toothed at end, Cor. less than calyx
9726 Leaves 3-parted, Segm. trifid linear blunt, Cor. 3 times as large as calyx
9727 Leaves many-parted : lobes trifid linear, Stem decumbent, Hairs stellated
9728 Lower leaves angular ; upper 5-parted cut, Stems and calyxes velvety
9729 Lower leaves reniform cut ; cauline many-parted, Segments linear, Stems and calyxes hairy

9730 Leaves palmated : lobes lanceolate toothed, Hairs simple, Pedicels longer than leaf
9731 Stem erect, Leaves 5-lobed blunt, Pedicels and petioles smoothish or downy on the upper side
9732 Stem erect, Leaves 5-7-lobed acute, Pedicels and petioles hairy
9733 Stem prostrate, Leaves cord. orbic. bluntly 5-lobed, Pedicels in fruit drooping and petioles downy

9734 Stem diffuse, Lvs. cord. orbicular 7-lobed soft : lobes acute, Fls. aggreg. stalked, Leaves of involucre bristly
9735 Stem erect, Leaves cordate roundish about 5-lobed crenate smooth, Fl. axillary sessile clustered
9736 Stem spreading, Leaves roundish bluntly angular crenate smoothish, Fl. axillary sessile clustered
9737 Stem erect, Leaves cordate roundish bluntly angular, Fls. axill clustered sess Cal. rough somew. inflated
9738 Stem erect, Leaves angular toothed crisp smooth, Flowers axillary sessile
9739 Pedicels 1-flowered aggregate shorter than leaf, Invol. ovate acuminate, Leaves 5-lobed hairy rugose
9740 Pedicels 1-flowered solitary or twin longer than petiole, Invol. linear, Leaves cut crenate smooth rigid
9741 Pedicels 1-fl. solitary or twin longer than petiole, Inv. ov. lanc. Lvs. 5-lobed or 3-lobed cren. toothed glutin.
9742 Pedicels 1-fl. solitary longer than petiole, Invol obl. linear, Lvs. sub-three-lobed acute unequally toothed
9743 Pedicels 1-flowered solitary length of leaves, Leaves subsessile cuneiform trifid entire
9744 Pedicels solitary longer than petiole, Leaves lobate plaited toothed roughish, Branches divaricating
9745 Pedicels solitary longer than petiole, Invol. lanceolate, Leaves oblong very blunt 3-lobed toothed
9746 Pedicels solitary 1-fl. twice as long as petiole, Invol. ovate acute very large, Leaves cordate crenate hairy
9747 Pedicels solitary 1-fl. length of petiole, Invol. lanc. Leaves cordate 5-lobed toothed, Branches glutinous
9748 Pedicels solitary 1-fl. length of petiole, Invol. nearly linear, Leaves ovate about 3-lobed toothed hairy
9749 Pedicels solitary 1 or 2-fl. shorter than petiole, Leaves cordate about 5-lobed blunt rough with stellat. hair
9750 Pedicels solitary 1-3-fl. length of petiole, Invol. obl. linear, Leaves sinuate lobed serrate rugose hairy
9751 Pedicels 1-2-fl solitary longer than petiole, Invol. linear, Leaves 5-lobed blunt rugose very rough
9752 Leaves angular acute cordate villous, Petals obcordate shorter than calyx, Pedunc. panicled
9753 Leaves ovate 3-lobed toothed downy, Pedunc. axillary racemose few-flowered
9754 Leaves angular 5-lobed ; middle lobe largest, Pedunc. axillary racemose, Flowers 1-sided
9755 Leaves palmate, Spikes axillary 1-sided, Fruit toothletted
9756 Leaves 7-lobed rugose, Spikes axillary 1-sided, Fruit smooth
9757 Leaves 5-lobed : lobes pinnatifid sinuate toothed, Pedunc. corymbose capitate, Fruit with two beaks
9758 Leaves subpeltate 5-lobed blunt, Pedunc axillary umbelled, Invol. obovate stipitate deciduous
9759 Leaves 5 angular downy, Pedunc. axillary bifid few-flowered, Invol. oblong small
9760 Leaves 3-parted hoary, Segm. toothed at end ; middle trifid, Pedunc. axillary 1-flowered
9761 Leaves lanceolate toothed downy, Pedunc. axillary 2 few-fl. Invol. setaceous deciduous
9762 Leaves palmate 5-lobed cut toothed, Pedicels solitary longer than petiole, Fruit villous
9763 Leaves palmate 5-lobed cut toothed, Pedicels solitary longer than petiole, Fruit smooth, Petals entire
9764 Leaves ovate cut toothed lobed, Pedicels longer than petiole, Fruit villous, Petals entire

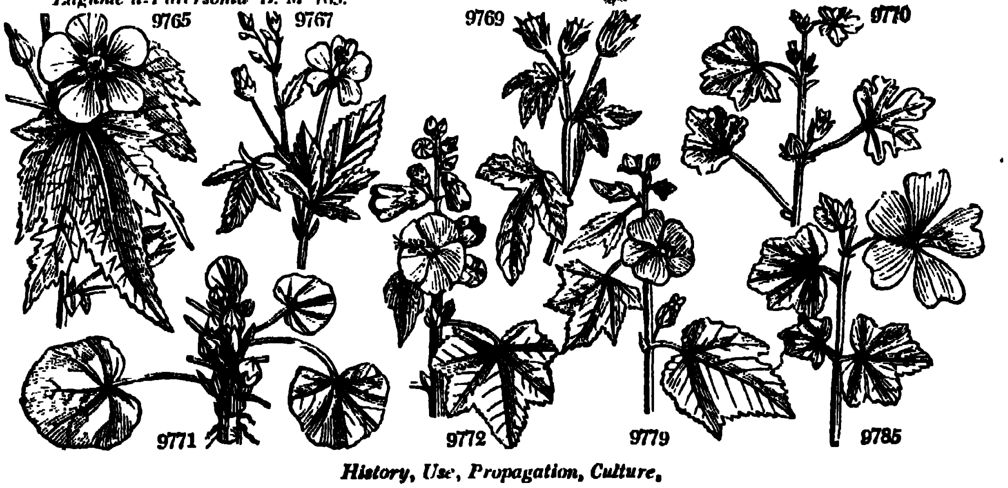


and Miscellaneous Particulars.

demulcent properties; but it is greatly inferior to Althæa, and therefore little used. Malva was an excellent vegetable among the Romans, but what species is uncertain. A tree of the mallow kind is said, by Prosper Alpinus, to afford food to the Egyptians; and the Chinese use some sort of mallow as food.

All the species are of the easiest culture and propagation.

1473. KITAIBE'LIA. *W.*	KITAIBELIA.					*Malvaceæ.*		*Sp.* 1.				
9765 vitifólia *W.*	Vine-leaved	⚘	△	or	5	jl.s	W	Hungary	1801.	D	p.l	Bot. mag. 821
1474. ALTHÆ'A. *W.*	MARSH MALLOW.					*Malvaceæ.*		*Sp.* 11—20.				
9766 officinális *W.*	common	⚘	△	m	6	jl.s	F	Britain	salt m.	D	co	Eng. bot. 147
9767 narbonen'sis *W.*	Narbonne	⚘	△	or	6	au.s	Pk	S. Europe	1780.	D	co	Cav.dis.2.t.29.f.2
9768 cannabína *W.*	Hemp-leaved	⚘	△	or	6	jn.jl	Pu	S. Europe	1597.	D	co	Cav.dis.2.t.30.f.1
9769 hirsúta *W.*	hairy		○	or	6	jn.jl	Pu	S. Europe	1683.	S	co	Cav.dis.2.t.29.f.1
9770 Ludwígii *W.*	Ludwig's		○	or	6	jn.jl	Pk	Sicily	1791.	S	co	Cav.dis.2 t.30.f.3
9771 acaúlis *W.*	stemless		○	or	1½	jn.jl	Pu	Aleppo	1680.	S	co	Cav.dis.2.t.27.f.3
9772 rósea *W.*	Hollyhock	⚘	◎	or	8	jl.s	R	China	1573.	S	co	Cav.dis.2.t.28.f.1
9773 pállida *W.*	pale-flowered	⚘	◎	or	6	jl.au	W	Hungary	1805.	S	co	
9774 caribæ'a *B. M.*	West Indian	¥	[◎]	or	3	mr.ap	Pk	W. Indies	1816.	S	co	Bot. mag. 1916
9775 flexuósa *B. M.*	Seringapatam	¥	[△]	or	3	jn.au	Pk	E. Indies	1803.	D	co	Bot. mag. 892
9776 ficifólia *W.*	Antwerp Hollyh.	⚘	◎	or	6	jn.s	O	Levant	1597.	S	co	Cav.dis.2.t.28.f.2
1475. LAVATE'RA. *W.*	LAVATERA.					*Malvaceæ.*		*Sp.* 13—26.				
9777 arbórea *W.*	Tree Mallow	⚘	◎	or	6	jl.o	Pu	Britain	sea cl.	S	co	Eng. bot. 1841
9778 micans *W.*	glittering	♣	⊔	or	3	jn.jl	Pu	Spain	1796.	C	co	Mo.his.1. t.17.f.9
9779 O'lbia *W.*	downy-leaved	♣	⊔	or	3	jn.o	R.Pu	France	1570	C	s.l	Cav.dis.2.t.32.f.2
9780 unguiculáta *P. S.*	clawed	♣	⊔	or	6	jl.s	Li	......	1807.	C	co	
9781 híspida *P. S.*	hispid	♣	⊔	or	6	jn jl	Pk	Algiers	1804.	C	co	Bot. mag. 2541
9782 tríloba *W.*	three-lobed	♣	⊔	or	3	jn.jl	L.Pu	Spain	1759.	C	s.l	Bot. mag. 2226
9783 lusitánica *W.*	Portugal	♣	⊔	or	3	au.s	Pu	Portugal	1731.	C	s.l	
9784 plebéia *Sims.*	vulgar	¥	[△]	or	2	s	Pa	N. Holl.	1820.	D	co	Bot. mag. 2269
9785 marítima *W.*	sea-side	♣	⊔	or	2	ap.jn	W	S. Europe	1597.	S	s.l	Cav.dis.2.t.32.f.3
9786 thuringíaca *W.*	large-flowered	⚘	△	or	4	jl.s	L.B	Germany	1731.	D	co	Bot. mag. 517
9787 crética *W.*	Cretan		○	or	1	jl.s	L.B	Candia	1723.	S	co	Jac. vind. 1. t. 41
9788 punctáta *W.*	spotted-stalked		○	or	2	jl.s	Pa	Italy	1800.	S	co	
9789 triméstris *W.*	common annual		○	or	2	jl.s	F	S. Europe	1633.	S	co	Bot. mag. 109
1476. MALA'CHRA. *W.*	MALACHRA.					*Malvaceæ.*		*Sp.* 3—14.				
9790 capitáta *W.*	headed		[○]	un	1	au.s	W	W. Indies	1759.	S	lt.l	C.dis.2 t.33. f.1,2
9791 alceæfólia *W.*	Hollyhock-lvd.		[○]	un	1	au.s	Y	Caraccas	1805.	S	lt.l	Jac. ic. 3. t. 549
9792 radiáta *W.*	rayed	¥	[◎]	un	1	jl.au	W	St. Domin.	1794.	S	lt.l	Cav.dis.2.t.33.f.3
1477. URE'NA. *W.*	URENA.					*Malvaceæ.*		*Sp.* 4—21.				
9793 lobáta *W.*	angular-leaved	♧	⊔	un	2	jn.jl	F	China	1731.	C	p.l	Ca.dis.6.t.185.f.1
9794 americána *W.*	American	♧	□	un	2	...	W	Surinam	1816.	C	p.l	Sloane 1. t.11. f.2
9795 sinuáta *W.*	cut-leaved	♧	□	un	3	jl.au	F	E. Indies	1759.	C	p.l	Ca.dis.6.t.185.f.2
9796 multífida *W.*	multifid	♧	□	un	2	ja.o	Pu	E. Indies	1817.	C	p.l	Ca.dis.6.t.184.f.2
1478. PAVO'NIA. *W.*	PAVONIA.					*Malvaceæ.*		*Sp.* [illegible]—24.				
9797 præmórsa *W.*	bitten-leaved	♣	⊔	un	½	jn.au	W	C. G. H.	1774.	C	s.l	Bot. mag. 436
9798 spinífex *W.*	prickly-seeded	♣	□	un	2	jl.au	W	W. Indies	1778.	C	s.l	Jac.vind. 2. t.103
9799 odoráta *W.*	fragrant	♣	□	un	2	...	R	E. Indies	1807.	C	s.l	
9800 coccínea *W.*	scarlet	♣	□	un	2	...	Sc	St. Domin.	1816.	C	s.l	Cav.dis.3.t 47.f.1
9801 columélla *W.*	angular-leaved	♣	□	un	2	jl	W.pu	Bourbon	1807.	C	s.l	Cav.dis.3.t.48.f.3
9802 úrens *W.*	stinging	♣	□	un	2	...	W	Mauritius	1801.	C	s.l	Jac. ic. 3. t. 522
9803 zeylánica *W.*	Ceylon		[○]	un	3	jl.s	W	E. Indies	1790.	S	s.l	Cav.dis.3.t.48.f.2
1479. ACHA'NIA. *W.*	ACHANIA.					*Malvaceæ.*		*Sp.* 3—15.				
9804 Malvavíscus *W.*	scarlet	♣	□	or	12	ja.d	S	Jamaica	1714.	C	p.l	Bot. mag. 2305
9805 móllis *W.*	woolly	♣	□	or	12	au.s	S	America	1780.	C	p.l	Bot. reg. 11
9806 pilósa *W.*	hairy	♣	□	or	12	o.n	R	Jamaica	1780.	C	p.l	Bot. cab. 829
1480. HIBIS'CUS. *W.*	HIBISCUS.					*Malvaceæ.*		*Sp.* 46—125.				
9807 Moscheútos *Ph.*	swamp	⚘	△	or	2	au.o	Pu	N. Amer.	...	D	p.l	Cav.dis.3.t.65.f.1
9808 palústris *L.*	marsh	⚘	△	or	3	jl.s	Pk	N. Amer.	1759.	D	p.l	Cav.dis.3.t 65.f.2
9809 Patersónii *H. K.*	Norfolk Island	♆	⊔	or	15	jn.au	Pu	Norfolk I.	1792.	C	s.p	Bot. rep. 286
Lagunæ'a-Patersonia B. M 769.												



History, Use, Propagation, Culture,

1473. *Kitaibelia.* Named after Dr. Paul Kitaibel, professor of botany at Pest, in Hungary, and author, in conjunction with Count Waldstein, of a noble work upon the plants of that country. A tall mallow-like plant with vine-like leaves, and white flowers.

1474. *Althæa.* From αλθω, to cure. The salutary effects of the mucilaginous root, are well known in medicine. *Guimauve*, Fr. A. officinalis has long been in repute as a demulcent. Its roots are sometimes used as an emollient suppurative cataplasm; and a decoction of the leaves forms a useful fomentation in external abrasions, and in cutaneous eruptions, accompanied with a sharp ichorous discharge.

A. rosea is the parent of nearly twenty splendid varieties of border flowers, which seed readily, and the offspring generally resembles the parent variety. All the species are of the easiest culture in common garden soil.

1475. *Lavatera.* In memory of two Lavaters, physicians of Zurich, neither the physiognomist, but two friends of Tournefort. The species resemble those of Malva, in general appearance and culture: much the handsomest is L. arborea, which is a magnificent plant in shrubberies, or in the back of wide borders.

9765 Leaves 5-lobed acute toothed

9766 Leaves soft on each side cordate or ovate toothed undivided or 3-lobed, Pedunc. axillary many-fl.
9767 Leaves pubescent: lower 5-7-parted; upper trifid, Peduncles many-fl. longer than leaf
9768 Leaves downy hoary beneath: lower palmate; upper 3-parted: lobes narrow coarsely toothed
9769 Leaves cordate rough with hairs smooth above: lower blunt; upper 5-lobed, Stem hispid
9770 Leaves smooth cordate roundish lobed toothed, Pedicels axillary clustered 1-flowered
9771 Leaves roundish cordate 5-angled crenate, Pedicels 1-fl. much shorter than petiole
9772 Stem upright hairy, Leaves cordate 5-7-angled crenate rugose, Flowers axillary sessile
9773 Stem erect hispid, Leaves roundish cordate, Invol. as long as calyx
9774 Stem upright smoothish, Leaves rounded lobed crenulate serrate, Flowers solitary subsessile
9775 Stem subflexuose hispid, Leaves cordate about 7-lobed blunt on long stalks, Flowers axillary solitary
9776 Stem erect hairy, Leaves palmate 7-lobed beyond the middle: lobes oblong blunt irregularly toothed

9777 Leaves 7-angled downy plicate, Pedicels axillary 1-fl. clustered much shorter than petiole
9778 Leaves 7-angled acute crenate plaited downy, Racemes terminal
9779 Leaves soft hoary 5-lobed; upper 3-lobed: middle lobe elongated; upper oblong undivided
9780 Leaves downy on each side acutely 5-lobed; upper 3-lobed, Flowers solitary on short stalks
9781 Stem hispid, Leaves hoary 5-lobed; upper 3-lobed or undivided, Flowers subsessile
9782 Stem and leaves downy subcordate sub-three-lobed round crenate, Pedicels aggregate, Calyxes acuminate
9783 Leaves 7-angular downy plaited, Racemes terminal
9784 Stem rough, Leaves 5-lobed downy beneath, Pedunc. axillary aggregate, Petals emarginate
9785 Stem and leaves downy roundish bluntly angular crenate, Pedicels axillary solitary
9786 Leaves somewhat downy: lower angular; upper 3-lobed: middle lobe longer than the rest
9787 Stem herbaceous hispid, Leaves 5-lobed acute, Pedicels axillary 1-flowered aggregate
9788 Stem rough, Leaves somewhat downy: lower round cordate; upper 3-lobed, Pedicels solitary 1-fl.
9789 Stem herbaceous, Leaves smoothish roundish cordate; upper angular, Pedicels solitary

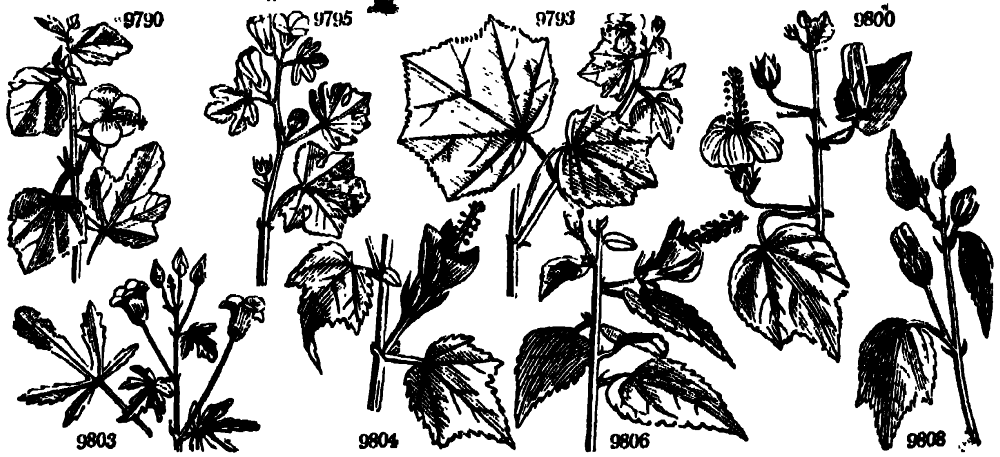
9790 Leaves cordate roundish bluntly angular toothletted, Invol stalked 3-leaved 7-flowered, Stem rough
9791 Leaves cordate palmate 5-lobed, Heads stalked 5-leaved 10-flowered, Stem with scattered hairs
9792 Leaves palmate-lobed, Heads stalked 5-leaved many-flowered, Invol. acuminate, Calyxes and stems hairy

9793 Leaves roundish very bluntly 3-lobed velvety on each side 7-nerved 1-glanded, Cal. oblong lanceolate
9794 Lower leaves 3-lobed; upper lanceolate panduriform beneath hoary netted with one gland
9795 Leaves trifid downy pale beneath with 3 glands: lobes angular toothletted blunt
9796 Leaves broad ovate cut lobed with narrow recesses: lobes acute coarsely and unequally toothed

9797 Leaves broadly obovate truncate crenate at end, Pedic. axillary 1-fl. longer than leaf
9798 Leaves ovate acuminate subcordate doubly toothed, Pedicels axillary 1-fl.
9799 Leaves ovate subcordate 3-pointed somewhat toothed and branches covered with viscid hairs
9800 Leaves cordate 3-lobed serrate, Pedicels axillary 1-fl. ascending, Involucre 3-leaved
9801 Leaves 5-angular: lobes toothed acuminate, Pedic. axillary 1-fl. much shorter than petiole
9802 Leaves 7-angular acuminate toothed hairy, Fl. axillary subsessile clustered
9803 Lower leaves roundish cord. crenate others 3-5-lob. Pedicels axillary 1-fl. Inv. 10-leaved setaceous ciliated

9804 Leaves cordate 3-5-lobed acuminate roughish, Leaflets of invol. erect
9805 Leaves cordate about 3-lobed acuminate soft downy, Leafl of invol. somewhat spreading
9806 Leaves cordate crenate blunt or acuminate, Branches and petioles hairy

9807 Leaves ovate acuminate serrate downy beneath, Invol. and cal. downy
9808 Leaves ovate toothed somewhat 3-lobed hoary with down beneath
9809 Leaves lanceolate oblong entire white with scales beneath



and Miscellaneous Particulars.

1476. *Malachra.* A name under which Pliny speaks of a tree from the north of Persia, producing a certain gum. It had no reference to the plant called Malachra by the moderns. Sow in light rich soil, and transplant as with other stove annuals.

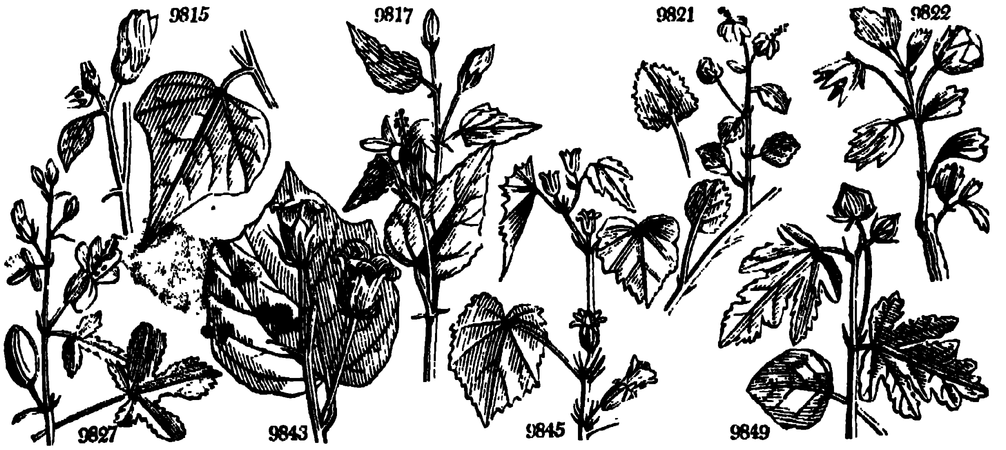
1477. *Urena,* the vernacular name in Malabar. The species are of easy culture, seed freely, or may be propagated by cuttings in sand under a hand-glass.

1478. *Pavonia.* In honor of Don José Pavon, the companion of Dombey, in his voyage to Perù, and one of the authors of Flora Peruviana. The species are free-growers, and seed readily: they are also increased by cuttings in sand under a hand-glass.

1479. *Achania.* From *αχανης*, closed; so called because the corolla does not open out as in most Malvaceous plants, but remains always rolled together.

1480. *Hibiscus.* One of the Greek names of the mallow. The species are for the most part shewy plants, and not difficult of culture. All of them abound in mucilage, like many of the same natural family, and the

9810 incánus *Ph.*	hoary	£	[△]	or	3	s	Y	Carolina	1806.	D	s.p	W.hort.ber. t.24
9811 militáris *Ph.*	smooth	£	[△]	or	3	au.s	Pu	Louisiana	1804.	D	s.p	Bot. mag. 2385
9812 popúlneus *W.*	Poplar-leaved	♀	☐	or	15	...	W	E. Indies	1770.	C	p.l	Rhee.mal.1. t.29
9813 tiliáceus *W.*	Lime-tree-lvd.	♀	☐	or	10	jl.au	Pu	E. Indies	1739.	C	p.l	Bot. reg. 232
9814 elátus *Sw.*	tall	♀	☐	or	20	...	Pu	Jamaica	1790.	C	p.l	
9815 Lámpas *W.*	three-pointed	♀	☐	or	10	...	Pk	E. Indies	1806.	C	p.l	Cav.dis.3.t.56.f.2
9816 Rósa Malabárica *Ker.*	Malabar	♣	☐	or	2	au.s	Sc	E. Indies	1818.	C	p.l	Bot. reg. 337
9817 membranáceus *W.*	leafy-calyxed	♀	☐	or	10	...	Pk	......	1816.	C	s.l	Cav.dis.3.t.57.f.2
9818 lunarifólius *W.*	Lunaria-leaved	♀	☐	or	10	...	Pu	E. Indies	...	C	s.l	
9819 Rósa-sinénsis *W.*	Chinese	♀	☐	or	10	jl.au	D.R	E. Indies	1731.	C	p.l	Bot. mag. 158
β rubro-plénus	*double red*	♀	☐	or	10	jl.au	D.R	E. Indies	...	C	p.l	Bot. cab. 513
γ flavo-plénus	*double buff*	♀	☐	or	10	jl.au	Y	E. Indies	...	C	p.l	
δ variegátus plénus	*double striped*	♀	☐	or	10	jl.au	St	E. Indies	...	C	p.l	Bot. cab. 963
ε luteus	*double yellow*	♀	☐	or	10	jl.au	Y	E. Indies	1823.	C	p.l	Bot. cab. 932
9820 phœníceus *W.*	purple-flowered	♀	☐	or	8	jl.au	Pu	E. Indies	1796.	C	p.l	Bot. reg. 230
9821 micránthus *H. K.*	small-flowered	♀	☐	or	6	...	Pu	E. Indies	1794.	C	p.l	Cav.dis.3.t.66.f.1
9822 æthiópicus *W.*	dwarf wedge-lv.	♀	☐	or	6	au	Pu	C. G. H.	1774.	C	p.l	Cav.dis.3.t.61.f.1
9823 mutábilis *W.*	changeable	♀	☐	or	15	o.d	W	E. Indies	1690.	C	p.l	Bot. rep. 228
β flore pléno	*double-flowered*	♀	☐	or	15	o.d	W	E. Indies	...	C	p.l	
9824 syriacus *W.*	Althæa frutex	♣		or	8	au.s	Pu	Syria	1596.	L	co	Bot. mag. 83
α purpúreus	*purple-flowered*	♣		or	8	au.s	Pu	......	...	L	co	
β rúber	*red-flowered*	♣		or	8	au.s	R	......	...	L	co	
γ álbus	*white-flowered*	♣		or	8	au.s	W	......	...	L	co	
δ variegátus	*striped-flowered*	♣		or	8	au.s	St	......	...	L	co	
ζ albo-plénus	*double white*	♣		or	8	au.s	W	......	...	L	co	
ι purpúreo-plénus	*double purple*	♣		or	8	au.s	Pu	......	...	L	co	
9825 acerifólius *P. L.*	Maple-leaved	♀	└┘	or	5	mr.jn	Pk	China	1798.	C	s.l	Par. lond. c. ic.
9826 diversifólius *W.*	different-leaved	♀	☐	or	6	jn.jl	Y	E. Indies	1798.	C	s.l	Bot. reg. 381
9827 ficúlneus *W.*	Fig-leaved	♣	☐	or	4	jn.jl	W	Ceylon	1732.	C	p.l	Cav.dis.3.t 52.f.2
9828 Sabdariffa *W.*	Indian	£	[○]	or	2	jn.s	Y	E. Indies	1596.	C	p.l	Ca.dis.6 t.198.f.1
9829 speciósus *W.*	superb	£	[△]	or	2	jn.au	S	Carolina	1778.	C	s.l	Bot. mag. 360
9830 prúriens *B. R.*	stinging	£	[○]	or	3	jl.s	Y	E. Indies	1804.	C	s.l	Bot. rep. 498
9831 heterophýllus *H. K.*	various-leaved	♣	└┘	or	6	au s	W.R	N. S. W.	1803.	C	s.p	Bot. reg 29
9832 cannabínus *W.*	Hemp-leaved	£	[○]	or	5	jn.jl	Y	E Indies	1759.	C	s.l	Rox. cor. 2.t.190
9833 suratténsis *W.*	prickly-stalked		[○]	or	2	jl.s	Y	E. Indies	1731.	S	s.l	Bot. mag. 1356
9834 radiátus *W.*	rayed		[○]	or	2	jn au	Y	E. Indies	1790.	S	s.l	Bot. mag. 1911
9835 Mánihot *W.*	palmated	♣	└┘	or	3	jl.s	Y	China	1712.	C	p.l	Bot. mag. 1702
9836 scáber *Ph.*	scabrous	£	[△]	or	2	jl.s	Y	Carolina	1810.	D	s.l	
9837 furcátus *W. en.*	forked-calyxed		[○]	or	2	jl.s	Y	E. Indies	1816.	C	s.l	
9838 digitátus *Cav.*	digitate		[○]	or	2	jl.s	W.R	Brazil	1816.	S	co	Bot. reg. 608
9839 Abelmóschus *W.*	Musk Okro	♣	└┘	or	3	jl.s	Y	India	1640.	C	r.m	Rhee.mal.2. t.38
9840 pedunculátus *W.*	long-peduncled	♣	└┘	or	2	my.d	R	C. G. H.	1812.	C	s.l	Bot. reg. 231
9841 esculéntus *W.*	eatable		[○]	cu	4	jn.jl	Y	W. Indies	1692.	S	r.m	Cav.dis.3 t.61.f 2
9842 strigósus *Lindl.*	strigose	♣	└┘	or	6	jn.jl	Pk	Peru	1820.	C	s.l	Bot. reg. 860
9843 clypeátus *W.*	shield-capsuled	£	[○]	or	6	jl.au	Y	Jamaica	1759.	C	p.l	Cav.dis.3.t.58.f.
9844 únidens *Lindl.*	one-toothed	£	[△]	or	3	jl	Y	Brazil	1822.	C	co	Bot. reg. 878
9845 tubulósus *W.*	tubular	£	[○]	or	2	jl.o	Y	E. Indies	1796.	C	s.l	Cav.dis.3.t.68.f.2
9846 vitifólius *W.*	Vine-leaved	£	[○]	or	2	jl.o	Y	E. Indies	1690.	C	p.l	Rhee.mal.6.t.46
9847 virgínicus *W.*	Virginian	⚘	△	or	2	jl.s	Y	Virginia	1798.	D	s.l	Jac. ic. 1. t. 142
9848 pentacárpos *W.*	angular-fruited	£	[△]	or	3	jl.s	L.R	Venice	1752.	S	s.l	Jac. ic. 1. t. 143
9849 vesicárius *W.*	African		○	or	1½	jl au	Y.Br	Africa	1713.	S	co	Cav.dis.3.t.64.f.2
9850 Triónum *W.*	Bladder Ketmia		○	or	2	jn.s	Y.Br	Italy	1596.	S	co	Bot mag. 209
9851 hispidus *Mill.*	hispid		[○]	or	1½	jn.s	Y.Br	C. G. H.	...	S	co	Bot. reg. 806
9852 Richardsóni *Lindl.*	rough-leaved	♀	└┘	or	3	jn.s	Y	N. Holl.	1820.	S	co	Bot. reg. 875



History, Use, Propagation, Culture,

bark of the ligneous sorts may be manufactured into mats or cordage. Of H. tiliaceus, in the island of Otaheite, they make matting of the bark, as fine as our course cloth; also ropes and lines, from the size of an inch to that of a small packthread; and fishing nets. (*Hawks. Voy.* ii. 217.) Forster informs us, they also suck this bark for food, when the bread-fruit fails them: and in New Caledonia, the inhabitants frequently subsist on it, though it is an insipid food, affording very little nourishment.

H. Rosa-sinensis is extremely common in the gardens of China, and the East Indies; but its native country is unknown. Loureiro, however, affirms, that it is spontaneous as well as cultivated both in China and Cochin-China; and that it is so common in the latter, that they have entire hedges of it to their gardens. It has been long known from its appearance on Chinese screens and paper hangings. The variety with double flowers is most frequently cultivated, both in the East and in European hothouses: the plant is, indeed, rarely seen with single flowers. (*Smith, spicil.*)

H. syriacus is one of our most beautiful hardy shrubs, the more valuable as it is a free-flowerer, will grow in common garden soil, and propagates freely by seeds, layers, and even by cuttings.

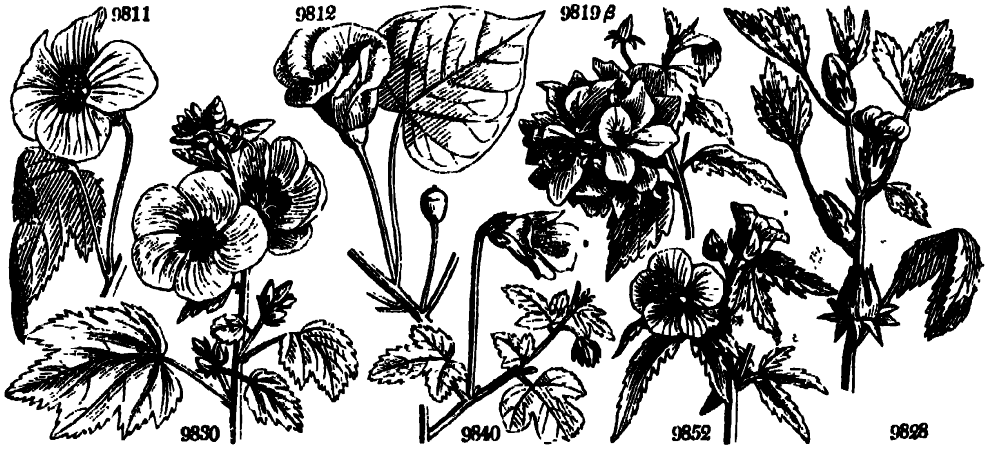
H. Sabdariffa (the Turkish name), in the West Indies is called Red Sorrel. The calyxes and capsules, freed

9810 Leaves ovate acuminate bluntly serrate hoary on each side, Pedicels axillary 1-fl.
9811 Leaves 3-lobed hastate acuminate serrate smooth on each side, Pedicels jointed in the middle
9812 Leaves roundish cordate acuminate (*Thespesia* Dec.)
9813 Leaves roundish cordate acuminate crenate hoary beneath, Invol. 10-toothed
9814 Leaves roundish cordate entire hoary beneath, Pedunc. very short 1-flowered
9815 Leaves cordate 3-pointed smooth dotted beneath, Pedicels solitary 1-fl. longer than petiole
9816 Leaves cordate acutely serrate, Branches somewhat hairy
9817 Leaves cordate ovate-lanceolate acuminate toothed, Pedicels twice as long as petiole
9818 Leaves roundish cordate acuminate finely toothed hairy beneath, Pedicels thick villous
9819 Leaves ovate acuminate smooth entire at base coarsely toothed at end, Pedicels length of leaf

9820 Leaves ovate acuminate serrate; lower subcordate 3-pointed, Pedicels jointed at end
9821 Leaves ovate or roundish undivided serrated rough, Pedic. longer than leaf, Cor. reflexed
9822 Leaves cuneiform about 5-toothed hairy, Pedicels longer than leaf, Invol. 8-10-leaved hispid
9823 Leaves cordate angular 5-lobed acuminate toothed downy, Pedicels nearly as long as leaf

9824 Leaves cuneiform ovate 3-lobed toothed, Pedic. scarcely longer than petiole, Invol. 6-7-leaved

9825 Leaves cordate 5-lobed hairy: lobes acuminate subrepand, Inv. 6-7-leaved setaceous [undivided
9826 Stem and petiol. prickly, Pedic. short unarmed very hairy, Lvs. 3-5-lobed blunt toothed; upper obl. lanc.
9827 Stem prickly, Leaves palmate 5-lobed; upper 3-lobed: lobes blunt unequally toothed narrowed at base
9828 Leaves toothed: lower ovate undivided; upper 3-lobed cuneate at base, Flowers subsess. Invol. 12-toothed
9829 Leaves palmate 5-parted: lobes lanceolate acuminate subserrate at end, Pedicels jointed under the end
9830 Stem hairy, Leaves on long stalks ovate about 3-lobed serrate membranous smoothish, Pedic. very short
9831 Stem prickly, Leaves linear lanceolate acuminate usually lobed prickly-serrate, Inv. 10-leaved
9832 Stem prickly, Leaves palmate 5-parted with 1 gland beneath, Fl. subsess. Cal. covered with glandul. hairs
9833 Stem rough with recurved prickles, Stipules ½-cord. Leaves palmate 5-lobed, Pedicels length of petiole
9834 Stem rough with recurved prickles, Stipules lanc. Leaves 5-7-parted with lanc. acuminate serrated lobes
9835 Leaves smoothish palmate: lobes 5-7-acuminate coarsely toothed, Inv. hispid 4-6-leaved, Fls. declinate
9836 Stem rough, Leaves rough roundish truncate at base; upper palmate-lobed: lobes dilat. crenate upwards
9837 Stem petioles and calyx muricate, Leaves ovate at base trifid; lower 5-fid: lobes acuminate serrate
9838 Leaves palmated: lobes lanceolate serrate, Petioles muricate, Fl. subsessile solitary, Inv. 7-fid
9839 Leaves subpeltate cordate 7-angular acuminate serrate, Stem hispid, Pedicels longer than petiole
9840 Leaves 3-5-lobed blunt crenate hairy, Pedic. twice as long as leaf, Inv. many-leaved, Cor. campanulate
9841 Leaves cord. 5-lobed blunt toothed, Petioles longer than fl. Inv. 10-leaved decidu. Cal. bursting lengthwise
9842 Stem strigose, Leaves 3-lobed angular cordate toothed downy, Peduncle longer than petiole
9843 Leaves cord. angular sparingly toothed nearly smooth, Branches velvety, Caps. turbinate truncate hispid
9844 Stem prickly, Leaves smoothish coarsely toothed without glands, Leaves of the invol. with a tooth inside
9845 Leaves cordate unequally toothed beneath hoary: lower about 5-lobed; upper acum. Pedic. 1-fl. very short
9846 Stem somew. prickly, Leaves smoothish toothed 5-angular acuminate, Fls. cernuous, Caps. 5-winged hairy
9847 Leaves acuminate unequally toothed subvillous: lower undivided cordate; upper ovate-cordate 3-lobed
9848 Leaves cordate oblong toothed bluntish angular slightly 3-lobed smooth, Pedicels longer than petiole
9849 Lvs. toothed: lower undivided; upper 5-fid: lobes oblong nearly equal blunt, Cal. inflat. membran. nerved
9850 Lvs. toothed: lower undivided; upper 3-parted: lobes lanc. middle one very long, Cal. infl. membr. nerved
9851 Leaves toothed: lower leaves 3-lobed; upper 5 parted blunt, Stem hispid
9852 Leaves hairy 5-lobed: lobes linear oblong coarsely toothed, Cal. very villous longer than involucrum



and Miscellaneous Particulars.

from the seeds, make very agreeable tarts; and a decoction of them, sweetened and fermented, is commonly called sorrel cool drink. It is a small diluting liquor, much used in our sugar colonies, and reckoned very refreshing in those sultry climates. (*Browne's Jam.*) The bark of this species, and also of H. cannabinus, is full of strong fibres, which the inhabitants of the Malabar coast prepare and make into cordage; and it seems as if it might be wrought into fine strong thread of any size.

The leaves of H. surattensis are gratefully acid, and eaten in salads. The mucilage of the root of H. manihot is used in Japan for giving consistence to paper.

H. Abelmoschus, from the Arabic *Ab-el-Mosch*, grain or seed of musk, has large seeds of a very musky odor, and are frequently used as a substitute for animal musk in scenting powders and pomatums. In Arabia and Egypt they are ground and mixed with coffee, to render it more agreeable to the head and stomach.

H. esculentus, the Okro of the West Indies, is cultivated there, and in some parts of France, for the pods, which are gathered green and used in soups, or pickled like capers. They are full of a nutritive mucilage, and buttered and spiced make a very rich dish.

1481. GOSSY'PIUM. W.	Cotton.					*Malvaceæ.*		Sp. 6—16.				
9853 herbáceum *W.*	common		[O]	ag	3	jl	Y	E. Indies	1594.	S	s.l	Ca.dis.6.t.164.f.2
9854 arbóreum *W.*	tree	♀	□	or	12	jl.au	Y	E. Indies	1694.	C	s.p	Cav. dis. 6. t. 193
9855 vitifólium *W.*	Vine-leaved		[O]	ag	3	...	Y	E. Indies	1806.	C	s.p	Cav. dis. 6. t. 166
9856 hirsútum *W.*	hairy	£	[O]	ag	3	jl.au	Y	S. Amer.	1731.	C	s.p	Cav. dis. 6. t. 167
9857 religiósum *W.*	spotted-barked	£	[△]	ag	3	jl	Y	India	1777.	C	s.p	Ca.dis.6.t.164.f.1
9858 barbadénse *W.*	Barbadoes	£	[O]	ag	5	s	Y	Barbadoes	1759.	C	s.p	Bot. reg. 84
1482. REDOUTE'A. *Vent.*	Redoutea.					*Malvaceæ.*		Sp. 1—2.				
9859 heterophýlla *Vent.*	various-leaved		[O]	or	3	jn.s	Y	S. Amer.	1822.	S	co	Vent. cels. t. 11
1483. PALA'VIA. W.	Palavia.					*Malvaceæ.*		Sp. 1—2.				
9860 malvifólia *W.*	Mallow-leaved		○	un	1½	jn.au	Pu	Peru	1794.	C	co	Cav.dis.1.t.11.f.4
1484. CRISTA'RIA. *Cav.*	Cristaria.					*Malvaceæ.*		Sp. 1—4.				
9861 coccínea *Ph.*	scarlet	⚘	△	pr	½	jl.s	S	Missouri	1811.	D	p	Bot. mag. 1673
1485 ANO'DA. *Cav*	Anoda.					*Malvaceæ.*		Sp. 3—7.				
9862 hastáta *W.*	halberd-leaved		[O]	un	1½	jn.jl	B	Mexico	1799.	S	s.p	Bot. mag. 1541
9863 cristáta *W.*	crested		[O]	un	1½	jl.s	Pu	Mexico	1720.	S	s.p	Cav.dis.1.t.10.f.3
9864 Dilleniána *W.*	Dillenius's		[O]	un	1½	jn.n	B	Mexico	1725.	C	co	Bot. mag. t. 330
1486. PERIP'TERA. *Dec*	Periptera.					*Malvaceæ.*		Sp. 1.				
9865 punícea *Dec.*	Shuttlecock	♣	□	pr	3	my.jn	Cr	N. Spain	1814.	C	co	Bot. mag. 1644
1487. SI'DA W.	Sida.					*Malvaceæ.*		Sp. 69—195.				
9866 linifólia *Cav.*	flax-leaved	♣	□	un	3	jl	Pk	Guiana	1822.	C	co	
9867 angustifólia *W*	narrow-leaved	£	[△]	un	1½	jl.s	Y	Brazil	1726.	O	co	L'Her. stirp.t 52
9868 spinósa *W.*	prickly	£	[O]	un	1½	jl.s	Y	E. Indies	1680.	C	co	Cav.diss.1.t.1.f.9
9869 álba *W.*	white-flowered		[O]	un	2	jn.jl	W	E. Indies	1732.	S	co	Dil.el.t.171.f.210
9870 bracteoláta *Dec.*	bracteolate	♣	⊔	un	2	jn.jl	Y	Chili	1824.	C	co	
9871 carpinifólia *W.*	Hornbean-lvd.	♣	⊔	un	3	jl.s	Y	Canaries	1774.	C	co	Jac. ic. 1. t. 135
9872 erósa *Lank.*	bitten	£	[△]	un	2	jl.s	Y	Brazil	1824.	C	co	
9873 ciliáris *W.*	ciliated	£	[O]	un	1½	jn.s	Y	Jamaica	1759.	C	co	Cav.diss.1.t.3.f.9
9874 alnifólia *W.*	Alder-leaved		[O]	un	2	jl.s	Y	E. Indies	1732.	C	co	Dil.el.t.172.f.211
9875 compréssa *Dec.*	compressed		[O]	un	2	jn.s	Y	Nepal	1823.	S	co	
9876 canariénsis *W.*	Canary		[O]	un	2	jn.s	W	E. Indies	1820.	S	co	
9877 rhombifólia *W.*	rhomboid-lvd.	♣	□	un	2	jn.au	Y	India	1732.	C	co	Cav.dis.1.t.3.f.12
9878 recísa *Lank.*	cut	£	[△]	un	2	jn.au	Y	Brazil	1823.	C	co	
9879 mícans *Cav.*	glittering	£	[△]	un	1½	jn.au	Y	E. Indies	1820.	C	co	Cav.diss.1.t. 3.f.1
9880 pilósa *W.*	pilose	£	[O]	un	1	jl.s	Y	St. Domin.	1793.	C	co	Cav.diss.1.t.1.f.8

History, Use, Propagation, Culture.

1481. *Gossypium.* Pliny says, that in Upper Egypt, on the borders of Arabia, grew a shrub called *gossypion* or *xylon.* Its fruit enclosed a sort of soft white wool, of which the garments of the Egyptian priests were manufactured. Golius remarks, that *goz,* which expresses in Arabia, a silky substance, may be the root of the word. An important genus, as furnishing the down used in the cotton manufacture. This down is found lining the capsules which contain the seeds. There are several species cultivated for this purpose in different parts of the world. G. herbaceum is the only species cultivated in Europe, especially in the Levant, and in Malta, Sicily, and Naples: it is also grown in many parts of Asia.

G. hirsutum is occasionally grown in the West Indies; but G. barbadense is the prevailing species there. In the East Indies and China, G. herbaceum and arboreum are cultivated, and some other species, especially that which produces the nankeen-colored down, not yet introduced to Europe. An oil is obtained from the seeds of all the species, while those of the G. herbaceum are eaten in the Levant, and esteemed wholesome and nutritive.

In the Levant, the herbaceous cotton is sown in well prepared land in March, in lines at three feet distance, and the patches of seeds two feet apart in the lines. The plants are thinned out to two or three in a place, and the earth is stirred by a one-horse plough, or by manual labor with hoes, and irrigated once or twice a week by directing the water along the furrows between the rows. The flowering season is generally over about the middle of September, and then the ends of the shoots are pinched off to determine the sap to the capsules. The capsules are collected by hand as they ripen, a tedious process, which lasts till the end of November. The cotton and the seeds are then separated by manual labor, and the former packed in bales or bags for sale. The seeds are bruised for oil or eaten, and a portion kept for sowing.

The Barbadoes cotton plant is sown in the West Indies in rows, about five feet asunder, at the end of September, or the beginning of October; at first but slightly covered, but after it is grown up, the root is well moulded. The soil should not be stiff nor shallow, as this plant has a tap-root. The ground is hoed frequently, and kept very clean about the young plants, until they rise to a moderate height. It grows from four to six feet high, and produces two crops annually; the first in eight months from the time of sowing the seed; the second, within four months after the first; and the produce of each plant is reckoned about one pound weight. The branches are pruned or trimmed after the first gathering; and if the growth is over luxuriant,

9843 Leaves 5-lobed 1-glandular beneath: lobes round mucronate, Invol. serrate, Stem smooth
9854 Leaves 5-lobed palmate: lobes lanceolate blunt mucronate with 1 gland beneath, Invol. nearly entire
9855 Lower leaves 5-lobed palmate; upper 3-lobed with 1 gland beneath, Inv. tern. Cal. with 3 glands at base
9856 Upper leaves undivided cordate; lower 3-5-lobed with 1 gland beneath, Branches and petioles hirsute
9857 Upper leaves 3-lobed; lower 5-lobed with 1 gland beneath, Branches and petioles spotted with black
9858 Upper leaves 3-lobed; lower 5-lobed with 3 glands beneath, Stem smoothish

9859 Leaves ciliated elliptical entire rarely trifid

9860 Smoothish prostrate, Peduncles nearly as long as petiole

9861 Leaves very cæsious, Stem very short

9862 Lower leaves cordate acuminate 5-angled somewhat toothed blunt; upper hastate acuminate
9863 Leaves all crenate: lower roundish cordate blunt 5-angled; upper round hastate acuminate
9864 Lower leaves triangular hastate crenate; upper ovate lanc. nearly entire, Ped. sol. axill. length of leaves

9865 Lower leaves cord. about 5-lobed hastate: upper hastate, Petals erect spatulate somewhat toothed at end

1. Capsules 5-12, 1-seeded, not bladdery.

** Flower-stalks not longer than the leafstalk. Leaves oblong or ovate*

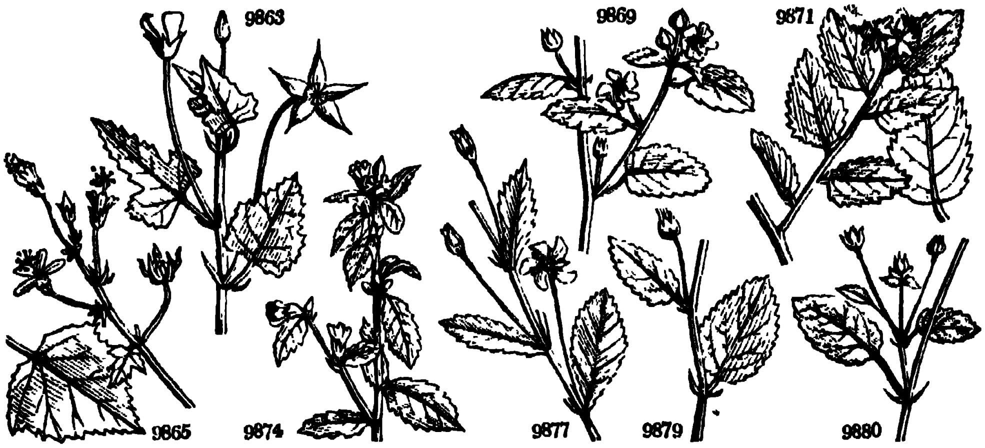
9866 Leaves linear entire much longer than the diameter of the flower, Racemes terminal
9867 Leaves linear-lanceolate toothed, A spiny tubercle at the base of the leaves, Pedic. axill. subsolitary
9868 Leaves ovate-lanceolate toothed, A spiny tubercle at the base of the leaves, Pedic. axillary solitary
9869 Leaves oblong ovate subcordate blunt tooth, Pedicels as long as petiole
9870 Leaves ovate-lanceolate acuminate toothed smooth, Branches round downy, Rac. very short bracteolate
9871 Leaves ovate-oblong doubly serrate, Pedunc. axillary very short about 4-flowered, Branches flattened
9872 Leaves rhomboid narrowed at base serrate-toothed towards beneath downy, Pedicels shorter than petiole
9873 Lvs. ellipt. subov. blunt toothed at end, Pedic. axill. solitary very short, Stipules ciliated longer than flow.
9874 Lower lvs. roundish ov.; upp. obl. toothed cun. and nearly ent. at base, Pedic. axill. many shorter than pet.

*** Flower stalks elongated, distinctly jointed. Leaves oblong or ovate*

9875 Lvs. ovate lanc. acumin. toothed hoary beneath, Branches compr. dotted, Pedic. thrice as long as petiole
9876 Leaves lanceolate toothed smooth, Pedic. axillary 1-fl. length of leaf
9876 Leaves oblong-lanceolate toothed cuneate at base hoary beneath, Pedic. axillary 1fl. shorter than leaf
9878 Leaves somewhat rhomboid retuse crenate towards the end hoary beneath, Pedic. longer than petiole
9879 Leaves ovate blunt serrated downy shining, Pedic. axillary solitary much longer than petiole

**** Flower-stalks elongated. Leaves cordate at base, toothed, not lobed.*

9880 Leaves ovate cordate blunt toothed, Pedicels solitary 1-flowered longer than petiole



and Miscellaneous Particulars.

this should be done sooner. When great part of the pods are expanded, the wool is picked, and afterwards cleared from the seeds by a machine called a gin, composed of two or three smooth wooden rollers of about one inch diameter, ranged horizontally, close and parallel to each other, in a frame; at each extremity they are toothed or channelled longitudinally, corresponding one with the other; and the central roller being moved with a treaddle or foot-lath, resembling that of a knife-grinder, makes the other two revolve in contrary directions. The cotton is laid in small quantities at a time upon these rollers, whilst they are in motion, and readily passing between them, drops into a sack placed underneath to receive it, leaving the seeds, which are too large to pass with it, behind. The cotton thus separated from the seeds, is afterwards hand-picked and cleansed thoroughly from any little particles of the pods or other substances which may be adhering to it. It is then stowed in large bags, where it is well trod down, that it may be close and compact; and the better to answer this purpose, some water is every now and then sprinkled upon the outside of the bag; the marketable weight of which is usually three hundred pounds. An acre may be expected to produce from two hundred and forty pounds to that quantity; or two hundred and seventy pounds on an average. (*Long's Jam.* vol. iii. p. 686. *&c.* and *Browne.*)

1482. *Redoutea.* Named after P. J. Redouté, a celebrated French botanical draughtsman, still living. His drawings are inferior to those of the Bauers as accurate representations of nature; but they are generally tastefully arranged and please the eye, notwithstanding a coldness of coloring which often injures their effect.

1483. *Palavia.* In honor of Don Antonio Palau y Verdera, second professor of botany at Madrid, and author of an excellent translation of the Species Plantarum of Linnæus in Spanish.

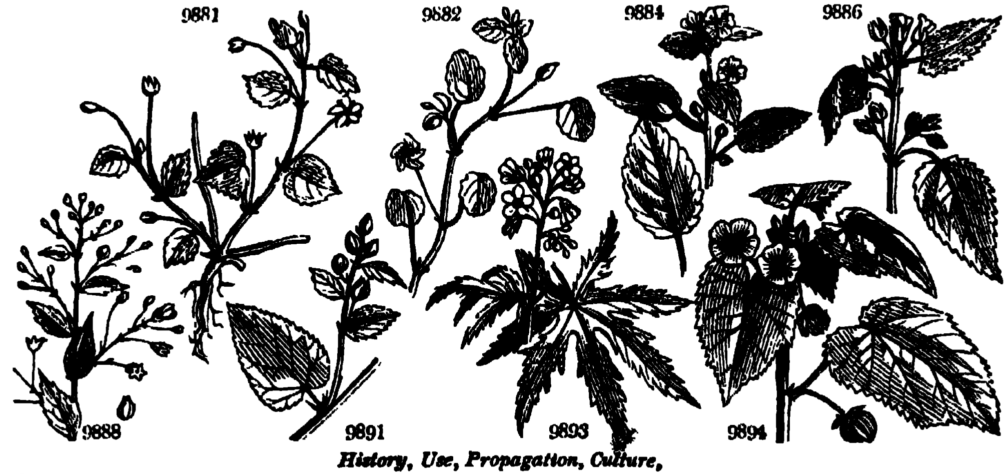
1484. *Cristaria.* From *crista,* a crest, in allusion to the crested form of the capsules. A pretty plant, not very easily preserved. It answers better in a peat border than a pot, and is increased by division or seed.

1485. *Anoda.* Named by Cavanilles, from *α,* privative, and *nodus,* an articulation; because the peduncles do not possess the joints which are found in Sida, from which the plants of this genus have been extracted.

1486. *Periptera.* So named from the resemblance of the flowers in form to a shuttlecock, περιπτερα.

1487. *Sida.* A name of Theophrastus, said by some to have been applied to a Malvaceous plant; but

9881	**húmilis** *W.*	dwarf		⌼	un	½	jl.au	Y	E. Indies	1800.	S	co	Cav.dis.5.t 134.f.2
9882	**supína** *L'Her.*	procumbent	£	⍍	un	½	jl.au	Y	Jamaica	1821.	S	co	Ca.dis.6.t.196.f.2
9883	**argúta** *W.*	smth. sharp-lvd.	♣	□	un	3	jl.au	Y	W. Indies	1732.	C	co	
9884	**cordifólia** *W.*	heart-leaved		⌼	un	1½	jn.s	Y	C. G. H.	1732.	S	co	Dil.el.t.171.f.209
9885	**althæ'ifólia** *Swz.*	Althæa-leaved	♣	□	un	3	jn.s	Or	Jamaica	1820.	C	co	Sloane 1.t.136 f.2
9886	**úrens** *W.*	stinging	♣	□	un	1½	jl.s	Y	Jamaica	1781.	C	co	Cav.diss.1.t.2.f.7
9887	**dumósa** *Swz.*	bushy	♣	□	un	2	jl.s	Y	Jamaica	1818.	C	co	
9888	**paniculáta** *W.*	panicled	£	⌼	un	1½	jl.s	Pu	Jamaica	1795.	C	co	Cav.dis.1.t.12.f.5
9889	**tríloba** *W.*	three-lobed	♣	⊔	un	3	jl.s	W	C. G. H.	1794.	C	co	Jac.schœ.2.t. 142
9890	**jatrophoídes** *W.*	Physic-nut-like		⌼	un	4	au	V	S. Amer.	1787.	S	co	L'Her.stir.1.t.56
9891	**ricinoídes** *L'Her.*	Ricinus-like		⌼	un	4	au	W	Peru	1818.	S	co	Cav. diss.1.t.3.f.3
9892	**Napæ'a** *Cav.*	smooth	⚘	△	un	4	au.s	W	Virginia	1748.	D	co	Bot. mag. 2193
9893	**dioíca** *Cav.*	rough	⚘	△	un	6	au.s	W	Virginia	1759.	D	co	Ca.dis.5. t.132.f.2
9894	**occidentális** *W.*	downy		⌼	un	1½	jl.au	Y	America	1732.	S	co	Dill. elt. 7. t.6.f.6
9895	**fœ'tida** *W.*	stinking		⌼	un	1½	jl.au	Y	Peru	1795.	S	co	L'Her.stir.1.t.53
9896	**brévipes** *Dec.*	short-stalked		⌼	un	1	jl.au	Y	St. Martha	1822.	S	co	
9897	**periplocifólia** *W*	Periploca-lvd.	£	⌼	un	2	jl.au	Y	India	1691.	S	co	Dill. elt. 4.t.3. f.2
	β *zeylánica*	*Ceylon*	£	⌼	un	2	jl.au	Y	Ceylon	...	S	co	Pluk. t. 74. f. 7
	γ *caribæ'a*	*Caribbee*	£	⌼	un	2	jl au	Y	W. Indies	...	S	co	Sloane t. 139 f. 3
9898	**hernandioídes** *W.*	Hernandia-lvd.	♣	□	un	6	...	Y	Hispanio.	1798.	C	co	L'Her.stir 1.t.58
9899	**nudiflóra** *W.*	naked-flowered	♣	□	un	3	my.jn	Y	Peru	1731.	C	co	L'Her.stir.1.t.59
9900	**polyántha** *Link.*	many-flowered	♣	□	un	3	my.jn	Y	......	1821.	C	co	
9901	**auríta** *Wall.*	eared	♣	□	un	3	my.jn	Y	Bengal	1823.	C	co	Bot. mag. 2495
9902	**triquetra** *W.*	triangular	♣	□	un	2	jl.au	Y.p	W. Indies	1775.	C	co	Jac. vind. 2.t 118
9903	**incána** *Link.*	hoary	♣	□	un	3	jl.au	Y	Sandw. Is.	1818.	C	co	
9904	**umbelláta** *W.*	umbelled		⌼	un	1½	jl.s	Y	Jamaica	1788.	S	co	Jac. vind. 1 t. 16
9905	**refléxa** *W.*	reflex-flowered	♣	□	un	3	jl.au	R	Peru	1799.	C	co	L'Her.stir.1.t.64
9906	**críspa** *W.*	curled		⌼	un	1	jl.au	Y	Carolina	1726.	S	co	Ca.dis.5 t.135.f 2
9907	**arbórea** *W.*	great-flowered	♣	□	un	6	jl.au	Y	Peru	1772	C	co	L'Her.stir.1.t.63
9908	**mauritiána** *W.*	Mauritius		⌼	un	2	jl.s	Y	Mauritius	1789.	S	co	Jac. ic. 1. t 137
9909	**grandifólia** *W.*	large-leaved	♀	□	un	20	n.d	Y	......	1816.	C	co	Bot. reg. 360
9910	**tiliæfólia** *Fisch.*	lime-leaved		⌼	un	2	jl au	Y	China	1821.	S	co	
9911	**americána** *W.*	woolly		⌼	un	1½	jl au	Y	Jamaica	1730.	S	co	
9912	**Abútilon** *W.*	broad-leaved		⌼	un	1½	jn.au	Y	India	1596	S	co	Houtt. syst t 61
9913	**asiática** *W.*	small-flowered		⌼	un	1½	jl au	Y	E. Indies	1768.	S	co	Cav.diss.1.t.7 f 2
9914	**Sonneratiána** *W.*	Sonnerat's	£	⌼	un	2	jn jl	Y	C. G. H.	1806.	C	co	Cav.diss.1.t 6.f.4
9915	**populifólia** *W.*	Poplar-leaved		⌼	un	1	jl.au	Y	E. Indies	1796.	S	co	Cav.diss 1.t 7. f 9
9916	**mollíssima** *W.*	soft-leaved	£	⌼	un	2	jn.jl	Y	Peru	1789.	C	co	Cav.dis.2.t.14.f.1
9917	**orbiculáta** *Dec.*	orbicular	♣	⊔	un	3	jn jl	Y	China	1820.	C	co	
9918	**índica** *W.*	rough-capsuled		⌼	un	1½	jl.au	Y	India	1731.	S	co	Cav.dis.1 t.7.f.10
9919	**vesicária** *W.*	bladdery	♣	⊔	un	3	jl.au	Y	Mexico	1822.	C	co	Cav.dis.2.t.14.f.3
9920	**álbida** *W.*	whitish	♣	⊔	un	3	jl.au	W.y	Canaries	1822.	C	co	
9921	**acerifólia** *Lag.*	Maple-leaved	♣	⊔	un	3	jl.au	B	N. Spain	1822.	C	co	
9922	**Milléri** *Dec.*	Miller's		⌼	un	1½	jl.au	Y	......	1749.	S	co	
9923	**viminea** *Fisch.*	twiggy	£	⍍	un	2	jn	Or	Brazil	1821.	C	co	
9924	**semicrenáta** *Link.*	half crenate	£	⍍	un	2	jl.s	Y	Manilla	1823.	C	co	
9925	**acrántha** *Link.*	pointed	♣	□	un	3	jl	Y	Brazil	1820.	C	co	
9926	**spiræifólia** *Link.*	Spiræa-leaved	♣	□	un	3	au.s	Y	......	1824.	C	co	
9927	**brasiliénsis** *Cav.*	Brazilian	£	⌼	un	2	jl.s	Y	Brazil	1818.	C	co	Cav.dis.1.t.34.f.1
9928	**villósa** *Mill.*	villous	♣	□	un	3	jl.au	Pa.Y	S. Amer.	1739.	C	co	
9929	**verruculáta** *Dec.*	warted	♣	□	un	4	jl.au	Y	Brazil	1822.	C	co	
9930	**purpuráscens** *Link.*	purplish	♣	□	un	3	jl.au	Pk	Brazil	1822.	C	co	
9931	**pátens** *H. K.*	spreading	£	⌼	un	3	jl.s	Y	Abyssinia	1806.	C	co	Bot. rep. 571
9932	**contrácta** *Link.*	contracted	♣	□	un	3	jl.s	Y	Madagas.	1823.	C	co	
9933	**conférta** *Link.*	clustered	♣	□	un	4	au.s	Y	Brazil	1822.	C	co	
9934	**lasiostéga** *Link.*	woolly	♣	□	un	3	au.s	Y	Brazil	1824.	C	co	



History, Use, Propagation, Culture,

Adanson is of opinion, that our Nymphæa was the Sida of Theophrastus. The species are free-flowerers of no

9881 Leaves roundish cordate hairy above serrated, Pedicels subsolitary longer than petiole
9882 Leaves roundish cordate bluntish crenate softly velvety, Pedic. solitary 1-fl. longer than petiole
9883 Leaves cordate serrate attenuated at end downy on the edge of the petiole and the nerves beneath
9884 Leaves ovate cordate toothed somew. angular bluntish downy, Pedic. sol. 1-fl. a little shorter than petiole
9885 Leaves cord. somewhat angular blunt serrate cren. downy on each side, Pedic. shorter than petiole 1-5-fl
9886 Leaves ovate cordate acuminate toothed, Pedunc. 3-4-flowered very short
9887 Leaves cordate ovate acuminate serrate smooth on each side, Peduncles many-fl.
9888 Leaves ovate cordate toothed acuminate downy, Pedunc. loosely panicled capillary

**** *Leaves palmate, divided into 3-5-7-9 lobes.*

9889 Leaves cordate toothed 3-lobed; middle lobe acute long, Pedicels solitary nearly equal to the leaf
9890 Leaves subpeltate 7-lobed: lobes lanceolate acuminate pinnatifid toothed, Peduncles many-fl.
9891 Leaves subpeltate 5-lobed: lobes ovate acute toothed undivided, Peduncles about 1-flowered
9892 Leaves palmate 5-lobed smooth: lobes oblong acuminate toothed, Peduncles many-fl.
9893 Leaves palmate 7-lobed rough: lobes lanceolate cut-toothed, Pedunc. many-fl. bracteate corymbose

2. *Capsules* 15-40, 1-*seeded, bladdery.*

9894 Leaves oblong cordate toothed somewhat lobed, Pedicels solitary shorter than petiole
9895 Lvs. cord. ovate acute toothed downy on each side, Petioles and pedicels hairy, Stip. setaceous spreading
9896 Lvs. cord. roundish acumin. tooth. velvety, Petioles and branches with spreading hairs, Pedic. very short

3. *Capsules* 5-10, *many-seeded, often bladdery.*

* *Capsules* 5-8.

9897 Leaves cord. lanc. acuminate entire downy beneath, Pedicels divided slender longer than petiole
β Leaves narrow rough above
γ Leaves more cordate smooth and a little rugose above
9898 Leaves subpeltate cordate ovate acuminate entire downy, Pedic. 1-fl. shorter than petiole
9899 Leaves roundish cordate acuminate entire downy beneath, Panicle terminal racemose
9900 Leaves cordate shortly acuminate subcrenate slightly downy and green on each side, Panicle leafless
9901 Lvs. deeply cord. with a narr. base acumin. serrul. hairy above hoary beneath, Stips. broad-eared acumin.
9902 Leaves cordate acuminate serrulate velvety on each side, Pedicels solitary 1-flowered
9903 Leaves hoary cordate acuminate acutely crenate, Pedicels 1-fl. longer than petiole
9904 Leaves roundish cordate toothed angular acuminate, Pedicels 4-fl. umbelled axillary

** *Capsules* 9 *or more.*

9905 Leaves roundish cordate acuminate crenate downy, Pedicels sol. longer than petiole
9906 Leaves cordate acuminate crenate velvety; upper sessile, Pedicels sol longer than petiole
9907 Leaves round cordate acuminate crenate downy, Pedicels longer than petiole
9908 Leaves roundish cordate acuminate toothed downy beneath, Pedicels longer than petiole
9609 Leaves roundish cordate unequally toothed soft, Pedunc. 2-3-fl. shorter than petiole, Capsules acuminate
9910 Leaves roundish cordate with a broad sinus acuminate toothed soft, Pedicels shorter than petiole
9911 Leaves cordate oblong undivided downy, Pedicels shorter than leaf
9912 Leaves roundish cordate acuminate toothed downy, Peduncles shorter than petiole
9913 Leaves cordate ovate oblong toothed velvety on each side, Pedicels longer than petiole
9914 Leaves roundish cordate acuminate toothed downy, Peduncles longer than leaves
9915 Leaves roundish cordate acuminate unequally repand toothed downy, Peduncles longer than petiole
9916 Leaves roundish cordate acuminate toothed velvety, Peduncles 2-flowered shorter than petiole
9917 Leaves ovate orbicular reniform toothed hoary beneath, Pedicels longer than petiole
9918 Leaves cordate somewhat lobed soft, Stipules reflexed, Pedicels erect 3 times as long as petiole
9919 Leaves ovate cordate toothed tricuspidate, Pedicels twice as long as petiole
9920 Leaves roundish cordate acuminate toothed hoary on each side, Pedicels length of petiole
9921 Leaves cordate subpeltate 3-5-lobed unequally toothed villous, Pedicels 1-flowered longer than petiole

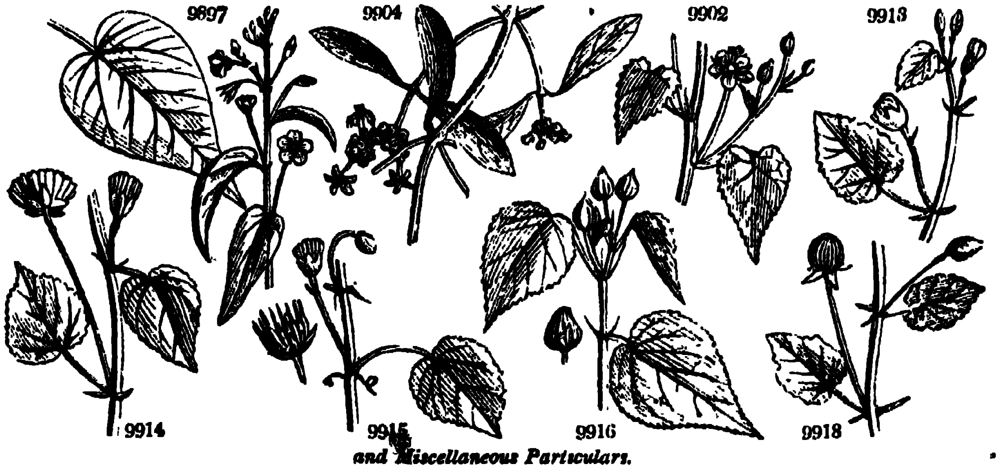
4. *Uncertain species.*

* *Leaves linear, oblong, ovate, or lanceolate.*

9922 Leaves linear lanceolate toothed villous beneath, Pedicels axillary 1-fl.
9923 Leaves lanceolate very long entire hairy, Racemes terminal very short
9924 Leaves broad lanceolate obtuse crenate entire at base 3-nerved; younger downy beneath
9925 Middle leaves oblong blunt acutely crenate in front; upper lanceolate acute serrated in front
9926 Leaves oblong lanceolate serrated entire at base smooth, Pedunc. axillary solitary longer than petiole
9927 Leaves ovate acuminate 5-nerved scarcely toothletted; beneath and branches downy, Stipules filiform

** *Leaves cordate, undivided.*

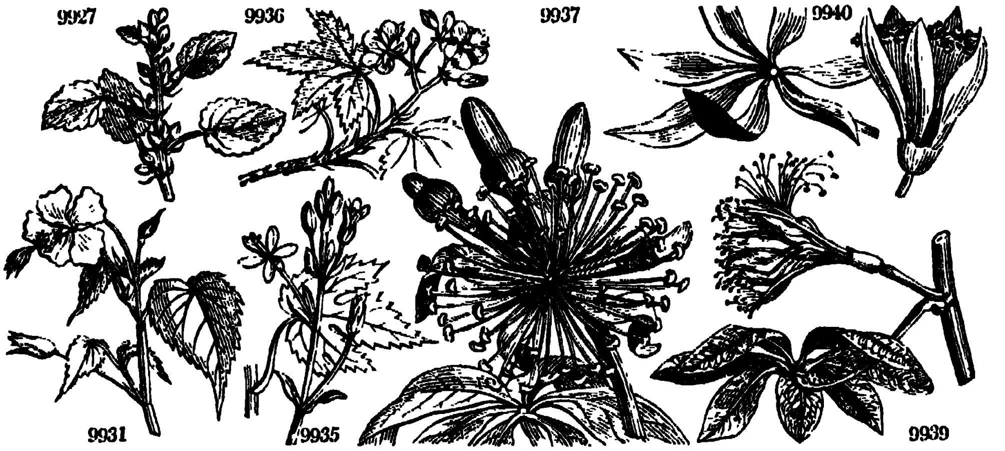
9928 Leaves subcordate sessile serrate subvillous, Flowers axillary clustered
9929 Stem warted, Leaves cordate lanceolate acuminate acutely crenate downy
9930 Leaves cordate acuminate crenate toothletted, and stems green and downy, Pedic. axillary 1-fl.
9931 Leaves cordate acuminate cut serrate, Peduncles solitary longer than petiole
9932 Leaves cordate acuminate repand rarely crenate hoary, Panicle contracted bracteate
9933 Leaves cordate acute crenate rugose and stems yellow with down, Flowers subsessile aggregate
9934 Leaves cordate acuminate hoary beneath, Pedicels axillary 1-flowered longer than petiole



and Miscellaneous Particulars.

great beauty. They are increased by seeds, which they produce freely, or by cuttings in sand under a hand-glass.

1488.	**LAGUNE'A.** *W.*	Lagunea.					*Malvaceæ.*	*Sp.* 1—4.					
9935	lobáta *W.*	Mapel-leaved		⊡	un	3	jl.au	W	Bourbon	1787.	S	co	Ca. dis.5.t.136.f.1
1489.	**RUI'ZIA** *W*	Ruizia.					*Byttneriaceæ.*	*Sp.* 1—3.					
9936	variábilis *W.*	various-leaved	♣	☐	or	6	my	W	Bourbon	1792.	C	p.l	Jac.schœ. 3 t.295
1490.	**CAROLI'NEA.** *W.*	Carolinea.					*Bombaceæ.*	*Sp.* 4—5.					
9937	álba *Lodd.*	white	⫯	☐	spl	20	jl.au	W	Brazil	1817.	C	p.l	Bot. cab. 752
9938	princeps *W.*	digitated	⫯	☐	spl	20	...	W	W. Indies	1787.	C	p.l	Aub. gui. t.291.2
9939	minor *H. K.*	lesser	⫯	☐	spl	20	jl.au	W	Guiana	1798.	C	p.l	Bot. mag. 1412
9940	insignis *W.*	great-flowered	⫯	☐	spl	20	...	R	W. Indies	1796.	C	p l	Cav. diss. 5.t. 154
1491.	**ADANSO'NIA.** *W.*	Adansonia.					*Bombaceæ.*	*Sp.* 1.					
9941	digitáta *W.*	Sour Gourd	⫯		ec	60	...	W	Senegal	1724.	C	p.l	Cav. diss. 5. t.157
1492.	**BOM'BAX.** *W.*	Silk-Cotton-Tree.					*Bombaceæ.*	*Sp.* 4—7.					
9942	eriánthos *Cav.*	woolly-fl.	⫯	☐	tm	60	...	W	Brazil	1818.	C	p.l	Ca.dis.5 t.152.f.1
9943	pentándrum *W.*	five-stamened	⫯	☐	tm	60	...	Y.w	E. Indies	1739.	C	p.l	Jac.am.pic.t 176
9944	Ceiba *W.*	five-leaved	⫯	☐	tm	100	...	W	India	1692.	C	p.l	Ca.dis.5.t.152 f 2
9945	heptaphýllum *W.*	seven-leaved	⫯	☐	tm	50	...	W	America	1699.	C	p.l	Plu.alm.t.188.f.4
1493.	**MYRO'DIA.** *W.*	Myrodia.					*Bombaceæ.*	*Sp.* 1—3.					
9946	turbinata *W.*	short-flowered	♣	☐	or	6	...	W	W. Indies	1793.	C	p.l	
1494.	**GORDO'NIA.** *W.*	Gordonia.					*Ternstromiaceæ.*	*Sp.* 2—4.					
9947	Lasiánthus *W.*	smooth	♣		or	6	au n	Y	N. Amer.	1739.	L	p.l	Bot. mag. 608
9948	pubéscens *W.*	pubescent	♣		or	4	au.n	W	Carolina	1774.	L	s.p	Vent. malm. t. 1
	Lacathéa flórida P. L. 56.												
1495.	**STUAR'TIA.** *W.*	Stuartia.					*Ternstromiaceæ.*	*Sp.* 2.					
9949	Malachodéndron *W.*	Common	‡		or	10	my.au	W	N. Amer.	1742.	L	l.p	Bot. rep. 397
9950	pentágyna *W.*	curled	‡		or	9	jl.au	W	N. Amer.	1785.	L	l.p	Exot.bot.2. t.110
	Malachodéndron ovátum Cav.												
1496.	**CAMEL'LIA.** *Ker.*	Camellia.					*Camelliceæ.*	*Sp.* 6—8.					
9951	Bohéa	Bohea Tea	♣	⊔	clt	4	au.d	W	China	1768.	C	l.p	Bot. cab. 226
9952	viridis	Green Tea	♣	⊔	clt	4	f.n	W	China	1768.	C	l p	Bot. cab. 227



History, Use, Propagation, Culture,

1488. *Lagunea.* Named after Andreas Laguna, a Spanish naturalist, who published, in 1543, a work upon plants. It may be treated like other tender annuals.

1489. *Ruizia.* In honor of Don Hippolito Ruiz, author of Quinologia, Madrid, 1792, and other works, and, in conjunction with Pavon, of the famous Flora Peruviana. A plant of easy culture, but of little merit.

1490. *Carolinea.* Named by the younger Linnæus, in honor of the Princess Sophia Caroline, of Baden; a name which, he says, will always be cherished by botanists. A splendid family, which thrive in loam; and large cuttings, well clothed with leaves, root in sand under a hand-glass.

1491. *Adansonia.* In honor of Michel Adanson, a famous French botanist, born in 1727, and author of various works, of which his voyage into Senegal, and Familles des Plantes, are the most remarkable. He was an eccentric man, but certainly far more learned for his time than many of his modern detractors. Monkies'-bread, or Boabab, is considered the largest or rather broadest tree in the world. Several measured by Adanson were from sixty-five to seventy-eight feet in circumference, but not extraordinarily high. The trunks were from twelve to fifteen feet high, before they divided into many horizontal branches, which touched the ground at their extremities; these were from forty-five to fifty-five feet long, and were so large, that each branch was equal to a monstrous tree; and where the water of a neighbouring river had washed away the earth, so as to leave the roots of one of these trees bare and open to the sight, they measured one hundred and ten feet long, without including those parts of the roots which remained covered. It yields a fruit which resembles a gourd, and which serves for vessels of various uses; the bark furnishes a coarse thread, which they form into ropes, and into a cloth, with which the natives cover their middle from the girdle to the knees; the small leaves supply them with food in a time of scarcity, while the large ones are used for covering their houses, or, by burning, for the manufacture of good soap. At Sierra Leone this tree does not grow larger than an orchard apple-tree.

The ligneous part of this tree appears to be of little or no use as timber. In our stoves it grows in rich soil in heat, and cuttings root in sand, covered and plunged.

1492. *Bombax.* From βομβυξ, one of the Greek names of the cotton; the seeds of the plants now so called are enveloped in a cottony substance. B. pentandrum bears oval fruit larger than a swan's egg, having a thick woody cover, which, when ripe, opens in five parts, and is full of a short dark cotton, inclosing many roundish seeds as large as small peas.

B. Ceiba has a spiny trunk, and is one of the tallest trees of both Indies; but the wood is very light, and not much valued, except for canoes. Their trunks are so large as, when hollowed, to make very large ones. In the West Indies they frequently carry from fifteen to twenty hogsheads of sugar, and from six to twelve hundred weight each. When sawn into boards, and then well saturated with lime-water, the wood bears exposure to the weather many years; it is also formed into laths for roofs, curing-pots, and hogshead-heading. When the tree decays, it becomes a nest for the Macaca beetle, the caterpillar of which, gutted and fried, is esteemed by many persons one of the greatest delicacies. The down which is enclosed in the seed-vessels is seldom used, except by the poorer inhabitants to stuff pillows or chairs; and it is generally thought unwholesome to lie upon.

9935 Leaves cordate 3-lobed: lobes oval oblong acuminate toothed with a very narrow base

9936 Leaves of the flowering branches palmatifid; of the sterile palmate

9937 Leaves digitate, Filaments numerous forked united at base into a tube
9938 Leaflets 5-8 ovate-lanceolate acuminate
9939 Leaflets 7 elliptical-oblong acute at each end, Calyx truncate, Petals erect
9940 Leaflets 5-7 obovate oblong, Calyx sinuated, Petals erect spreading at end

9941 A tree with a very thick trunk with a diameter of 25 feet

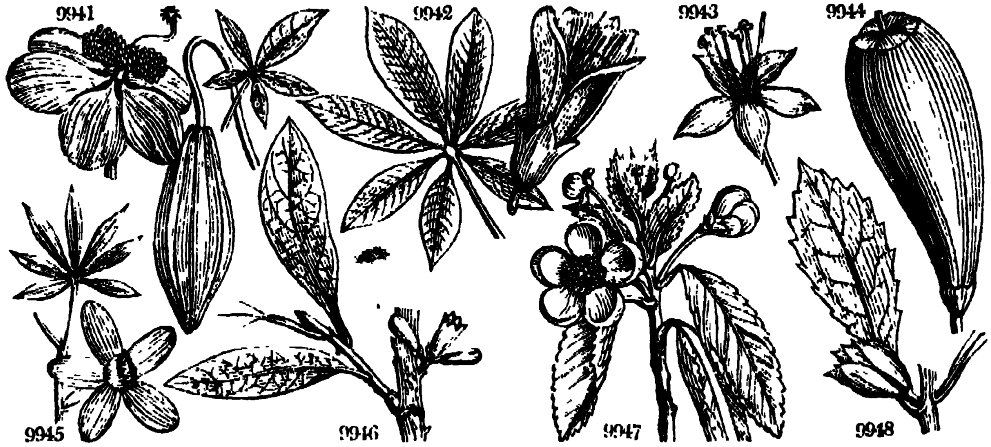
9942 Anthers rectilinear, Leaflets 7, Corolla large woolly outside, Trunk prickly
9943 Anthers anfractuose, Leaflets entire, Trunk generally prickly
9944 Stem prickly, Leaves palmate, Leaflets 5, Fruit turbinate-concave at end
9945 Stem prickly, Leaves palmate, Leaflets 7 entire acuminate, Fruit oblong blunt

9946 Leaves ovate-oblong, Calyxes turbinate, Column of stamens shorter than petals

9947 Pedicels axillary half as short as leaves, Leaves oblong coriaceous smooth serrated
9948 Fls. subsessile, Leaves obov. lanc. downy beneath subserrate membranous, Petals and sepals silky outside

9949 Flowers large white, Filaments purple, Anthers blue
9950 Leaves ovate acute, Flowers solitary subsessile

9951 Leaves elliptical oblong subrugose twice as broad as long
9952 Leaves lanceolate flat three times as broad as long



and Miscellaneous Particulars.

1493. *Myrodia.* From μυρον, myrrh, and οσμη, smell. A tree which emits an odor similar to myrrh. (*Linn.*)

1494. *Gordonia.* In memory of James Gordon, an eminent nurseryman at Mile-End, near London, a correspondent of Linnæus and other eminent botanists, and the introducer and successful cultivator of many new plants. G. Lasianthus (woolly flower, from λασιος and ανθος), the loblolly-bay, is said to grow naturally in water or very moist situations. Miller, on that account, was unsuccessful in keeping the plant. Gordon and Lee, who, as Ellis relates, (*Corres. with Linnæus*) were better cultivators than Miller, were probably more successful. Sweet says, the species are hardy enough to bear our winters in the open air; but the young shoots often get injured, and the summer is not long enough to flower them in perfection; it is therefore better to treat them as greenhouse plants. Peat soil suits them best, and a little loam mixed with it: they are readily propagated by layers, or ripened cuttings may be struck in sand under a hand-glass. (*Bot Cult.* 199.)

1495. *Stuartia.* So named by Linnæus, in honor of the Marquis of Bute, in memory of whom there also exists another genus named Butea, by Roxburgh. The species are handsome shrubs, grow in peat soil, and are most readily increased by layers.

1496. *Camellia.* In honor of George Joseph Kamel, (or Camellus) a Jesuit. His Syllabus Stirpium in Insula Luzone Philippinarum, forms the appendix to the third volume of Ray's History. This is a remarkable genus, as at once furnishing the domestic drug tea, in universal use, and flowering trees and shrubs as universally admired. The seeds of all the species are crushed for oil, which is used like that of hemp or poppy in cookery.

C. Bohea and viridis are the species which chiefly furnish the tea; but C. Sasanqua is also used, and sometimes the leaves of the other species are taken, though that practice is rather to be considered in the light of adulteration. The tea districts of China extend from the twenty-seventh to the thirty-first degree of north latitude. According to the missionaries, it thrives in the more northern provinces; and from Kæmpfer, it appears to be cultivated in Japan as far north as latitute 45°. It seems, according to Dr. Abel's observation, to succeed best on the sides of mountains, where there can be but little accumulation of vegetable mould. The soils from which he collected the best specimens consisted chiefly of sandstone, schistus, or granite. The plants are raised from seeds sown where they are to remain. Three or more are dropped into a hole four or five inches deep; these come up without further trouble, and require little culture, except that of removing weeds, till the plants are three years old. The more careful stir the soil, and some manure it; but the latter practice is seldom adopted. The third year the leaves are gathered, at three successive gatherings, in February, April and June, and so on till the bushes become stinted or tardy in their growth, which generally happens in from six to ten years. They are then cut in to encourage the production of fresh roots.

The gathering of the leaves is performed with care and selection. The leaves are plucked off one by one: at the first gathering only the unexpanded and tender are taken; at the second those that are full grown; and at the third the coarsest. The first forms what is called in Europe imperial tea; but as to the other

9953 Sasánqua *W.*	Lady Banks's	■	⊔	pr	4	f.n	W	China	1811.	I	p.l	Bot. reg. 12
β *pléna*	*double*	■	⊔	pr	4	f.n	Pk	China	1818.	I	p.l	Bot. reg. 547
9954 japónica *W.*	common	■	⊔	spl	10	my.jl	R	China	1739.	C	p.l	

Garden Varieties.

1 single red	■	⊔	spl	10	my.jl	R	China	1739.	C	p.l	Bot. mag. 42
2 single white	■	⊔	spl	10	my.jl	W	China	...	I	p.l	Bot. cab. 636
3 semi-double red	■	⊔	spl	10	my.jl	R	China	...	I	p.l	Bot. rep. 559
4 double red	■	⊔	spl	10	my.jl	R	China	...	I	p.l	Bot. rep. 199
5 Middlemist's [illegible]	■	⊔	spl	10	my.jl	R	China	...	I	p.l	Bot. cab. 455
6 Myrtle-leaved	■	⊔	spl	10	my.jl	R	China	...	I	p.l	Bot. mag. 1670
7 Loddiges' red	■	⊔	spl	10	my.jl	R	China	...	I	p.l	
8 Waratah	■	⊔	spl	10	my.jl	R	China	...	I	p.l	Bot. cab. 537
9 variegated Waratah	■	⊔	spl	10	my.jl	St	China	...	I	p.l	Bot. reg. 887
10 Pæony-flowered	■	⊔	spl	10	my.jl	Bl	China	...	I	p.l	Bot. cab. 238
11 double-striped	■	⊔	spl	10	my.jl	Bl	China	...	I	p.l	Bot. rep. 91
12 Kew blush	■	⊔	spl	10	my.jl	Bl	China	...	I	p.l	Bot. reg. 22
13 Hume's blush or buff	■	⊔	spl	10	my.jl	W	China	...	I	p.l	Bot. reg. 112
14 double white	■	⊔	spl	10	my.jl	W	China	...	I	p.l	Bot. rep. 25
15 Welbank's	■	⊔	spl	10	my.jl	W	China	...	I	p.l	Bot. reg. 708
16 Lady Long's	■	⊔	spl	10	my.jl	R	China	...	I	p.l	Bot. reg. 633
17 Pompone	■	⊔	spl	10	my.jl	R	China	...	I	p.l	Bot. cab. 596
18 hexangular	■	⊔	spl	10	my.jl	R	China	...	I	p.l	

9949

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9953 β

History, Use, Propagation, Culture,

names by which tea is known, the Chinese know nothing; and the compounds and names are supposed to be made and given by the merchants at Canton, who, from the great number of varieties brought to them, have an ample opportunity of doing so Formerly it was thought that green tea was gathered exclusively from C. viridis; but that is now doubtful: though it is certain there is what is called the green tea district, and the black tea district; and the varieties grown in the one district differ from those grown in the other. Dr. Abel was told by competent persons, that either of the two plants will afford the black or green tea of the shops, but that the broad thin-leaved plant (C. viridis) is preferred for making the green tea.

The tea leaves being gathered, are cured in houses which contain from five to ten or twenty small furnaces, about three feet high, each having at the top a large flat iron pan. There is also a long low table covered with mats, on which the leaves are laid, and rolled by workmen, who sit round it: the iron pan being heated to a certain degree by a little fire made in the furnace underneath, a few pounds of the fresh-gathered leaves are put upon the pan; the fresh and juicy leaves crack when they touch the pan, and it is the business of the operator to shift them as quick as possible with his bare hands, till they become too hot to be easily endured. At this instant he takes off the leaves with a kind of shovel resembling a fan, and pours them on the mats before the rollers, who, taking small quantities at a time, roll them in the palm of their hands in one direction, while others are fanning them, that they may cool the more speedily, and retain their curl the longer. This process is repeated two or three times, or oftener, before the tea is put into the stores, in order that all the moisture of the leaves may be thoroughly dissipated, and their curl more completely preserved. On every repetition the pan is less heated, and the operation performed more closely and cautiously. The tea is then separated into the different kinds, and deposited in the store for domestic use or exportation.

The different sorts of black and green arise not merely from soil, situation, or the age of the leaf; but after winnowing the tea, the leaves are taken up in succession as they fall; those nearest the machine being the heaviest, are the gunpowder tea; the light dust the worst, being chiefly used by the lower classes. That which is brought down to Canton then undergoes a second roasting, winnowing, packing, &c., and many hundred women are employed for these purposes.

As more select sorts of tea, the blossoms of the C. sasanqua appear to be collected; the buds also appear to be gathered in some cases. By far the strongest tea which Dr. Abel tasted in China, was that called *yutien*, used on occasions of ceremony. It scarcely colored the water, and on examination was found to consist of buds and half expanded leaves of the plant.

As substitutes for tea used by the Chinese, may be mentioned a species of moss common to the mountains of Shan-tung, an infusion of ferns of different sorts, and Dr. Abel thinks the leaves of the common camellia and oil camellia may be added. Du Halde observes, that all the plants called tea by the Chinese, are not to be considered as the true tea plant; and Kæmpfer asserts, that in Japan a species of Camellia, as well as the *Olea fragrans*, is used to give it a high flavor.

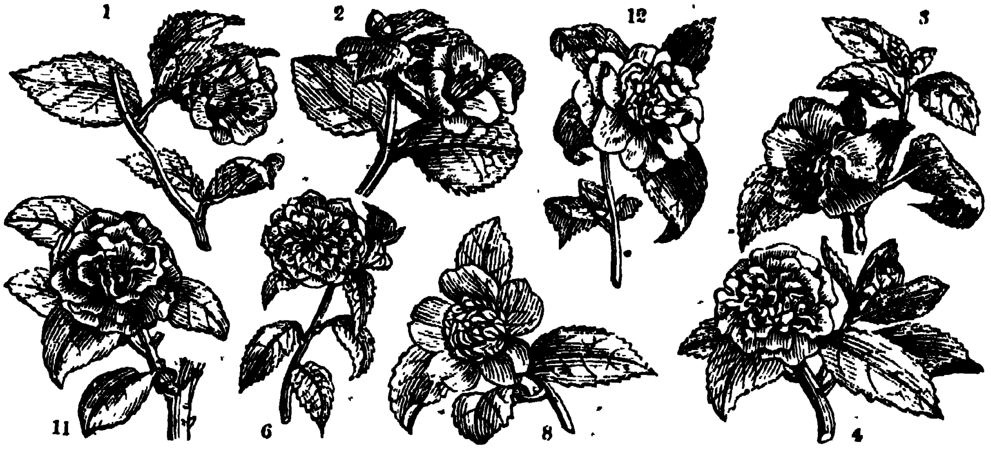
The oil-bearing Camellia, C. oleifera, is cultivated for its seeds, from which an oil is expressed, in very general use in the domestic economy of China. It grows best in a red sandy soil, attaining the height of six or eight feet, and producing a profusion of white blossoms and seeds. These seeds, as well as those of any of the other species, are reduced to a coarse powder, which is stewed or boiled in bags, and then pressed, when the oil is yielded. (*Dr. Abel's Nar.* 176.)

The culture of the tea Camellias in our greenhouses is very simple. The plants are very hardy, and may be preserved in a pit without fire-heat; they grow in loamy soil, or loam and peat well drained, and increase freely by layers, or cuttings of the young wood taken off when it begins to ripen, planted in sand, and covered with a hand-glass in a cool frame or pit.

C. japonica, in the groves and gardens of Japan, is a lofty tree, much admired for its fine form, rich clothing of shining deep green foliage, and elegant red or white flowers, single or double. It is equally admired in

9953 Leaves ovate-oblong bluntly serrated, Flowers terminal subsolitary, Petals obcordate

9954 Leaves ovate acuminate acutely serrate, Flowers terminal subsolitary -



and Miscellaneous Particulars

China as in Japan, and much cultivated in both countries. It is of frequent occurrence in Chinese paintings, with Hibiscus and Chrysanthemum, two of their great favorites. There are several varieties of C. japonica in China, most of which have been imported here, and their number considerably increased, and daily increasing, from seedlings raised in this country. The double white, double striped, and double Waratah, (from the central petals resembling those of the Waratah plant of New Holland, Telopea speciosissima,) are considered the grandest and most marked varieties, and are also free-growers and flowerers; the pæony-flowered and fringed white, are also standard beauties; but all are much admired.

The single red Camellia is propagated by cuttings, layers, and seeds, for stocks; and on these the other sorts are generally inarched, and sometimes budded or grafted. The cuttings are formed of ripened or ripening shoots, taken off in August, cut smoothly across at a joint or bud, two or three of the lower leaves only taken off, and the cuttings then planted and made firm with a small dibber, in pans of sand or loam, or, by some cultivators, sand and peat, or sand alone. The pans are kept in a pit or cold frame, without being covered with glass, but shaded during powerful sunshine; and in the following spring such as are struck will begin to push, when they are to be placed in a gentle heat. In September or October following, the rooted plants will be fit to pot off; and in the second or third spring they may be used as stocks. Such is the practice in the London nurseries. Henderson, of Woodhall, near Edinburgh, puts in Camellia cuttings at any time of the year, excepting when they are making young wood. He puts fifty cuttings in a pot of sand eight inches in diameter, sets them in a cool place in the back of a vinery or peach-house for a month or six weeks, and then plunges them to the brim in a hot-bed where is a little bottom heat. A speedy mode of obtaining stocks is by planting stools in a pit devoted to that purpose, and laying them in autumn; the following autumn most of the layers will have produced roots, when they may be taken off and potted, and used as stocks in the succeeding spring. Inarching or grafting is performed early in spring, when the plants begin to grow; the chief care requisite is so to place and fix the pot containing the stock, as that it may not be disturbed during the connection of the scion with the parent plant. The graft being clayed over, is then covered with moss to prevent its cracking. When independent grafting is resorted to, the mode called side grafting is often used; but the operation of tongueing is generally omitted, as weakening the stock and unnecessary, with a view to prevent the scion from being blown off. A few seeds are sometimes obtained from the single red and semi-double Camellias, and from the single Waratah; these require two years to come up, but make the best stocks of any.

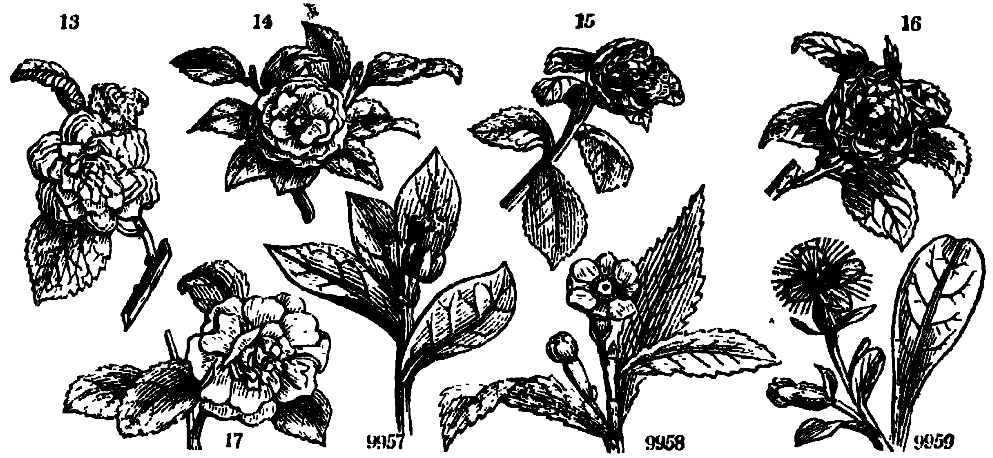
Before they are grafted they are often allowed to come into flower, in case some new variety should be produced; but the best cultivators, as Messrs. Loddiges, Sweet, and Mackay, regularly cross-impregnate the blossoms in Knight's manner, by cutting out the stamens before the anthers are mature, and when the stigma is in a proper state, dusting it with the pollen of the species or variety intended as the male parent.

C. Sasanqua seeds most readily, and is mostly employed as the female parent for raising new varieties. The plants, if well treated, flower in four or five years, and if nothing new is produced they still make excellent stocks.

Some cultivators grow the Camellias chiefly in peat. Messrs. Loddiges, who have the most numerous collection of this genus, formerly used loam, with a little sand and peat; and they are grown in a similar soil in Hammersmith nursery. Of late, Messrs. Loddiges find light loam alone to answer as well or better. In the Comte de Vandes garden at Bayswater, rotten dung is mixed with loam and peat. Sweet recommends sandy loam and peat. Henderson of Woodhall is one of the most successful growers of the Camellia in Scotland: his compost is as follows: take one part of light-brown mould, one part of river-sand, one part of peat-earth, one half part rotten leaves; mix them all well together, and when the Camellias require shifting, put some broken-coal-char in the bottom of the pots, and some dry moss or hypnum over it. (*Caled. Mem.* iii. 316.)

Camellias have the best effect, and are grown to most advantage in a house entirely devoted to them. Such

9955	oleífera *Abel.*	oil-seed	■ ⊔ pr	3	...	W	China	1820.	C	r.m	Bot. cab. 1065
9956	axilláris *Sims.*	axillary	■ ⊔ pr	3	f.mr	W	E. Indies	1818.	C	r.m	
1497.	BARRINGTO'NIA. *W.*	Barringtonia.			*Myrtaceæ.*		*Sp.* 1.				
9957	speciósa *W.*	Laurel-leaved	♀ □ spl	20	...	S	E. Indies	1786.	S	r.m	Rum.am.3.t. 114
1498.	GUSTA'VIA. *W.*	Gustavia.			*Myrtaceæ.*		*Sp.* 1—2.				
9958	augústa *W.*	august	♀ □ spl	30	...	W	Guiana	1794.	C	s.m	Aub. gui. 1.t.192
1499.	CA'REYA. *Roxb.*	Careya.			*Myrtaceæ.*		*Sp.* 1—2.				
9959	herbácea *Roxb.*	herbaceous	£ ⊠ spl	½	jl.au	R	E. Indies	1808.	D	l.p	Rox. cor. 3.t.217



History, Use, Propagation, Culture,

a house should be rather lofty, as the plants never look so well as when six or eight feet high, trained in a conic form, and clothed with branches from the root upwards. The plants should be raised near to the glass by means of a stage, which should be so contrived, that, as they advance in height, it may be lowered in proportion: only the very best crown or patent glass should be used; because it is found from experience, that the least inequality of surface or thickness of material, so operates on the sun's rays, as to concentrate them, and burn or produce blotches on the leaves of the plants. Every cultivator must have observed that leathery shining leaves, like those of the orange, myrtle, &c. are more or less subject to this solar injury; but the leaves of the Camellia are particularly so. Some nurserymen recommend a roof which will not admit much light; others the use of green glass; of an opaque roof, with glass in front only; or of a house facing the north. Our opinion is, that a light house facing the south, or, better still, glass on all sides, is essential to the perfect growth of the plants; and that all solar accidents may be avoided, or at least rendered of no consequence, by using the best glass, and placing the plants as near it as possible.

To grow the Camellia to a high degree of perfection, considerable care is requisite. The roots are very apt to get matted in the pot, and, by the space they occupy, so to compress the ball of mould, as after a time to render it impervious to water. Hence frequent attention should be had, to see that the water poured on the pots moistens all the earth, and does not escape by the sides of the pot, moistening only the web of fibres. When the plants are in flower and in a growing state, they require to be liberally watered, and also a degree of heat somewhat greater than is usually given to greenhouse plants. If this heat is not given in November and December, the plants will not expand their blossoms freely; and if both water and heat are not regularly applied after the blossoming season, vigorous shoots and flower-buds will not be produced. To form handsome plants, they should be trained with single stems to rods, and pruned so as to make them throw out side branches from every part of the stem: to encourage these, the plants should not be set close together on the stage. In summer they may either be set out of doors on a stratum of scoriæ, or on a pavement, in a sheltered but open situation; or the glass roof may be taken off. The hardier sorts, as the double red, blush, pæony-flowered, &c. answer very well when planted in the bed or border of a conservatory, provided the roof or entire superstructure can be removed in summer to admit the full influence of the weather. When this cannot be done, the Camellia and most other plants are better in portable utensils, which admit both of examining their roots, and placing them in the open air, or in a greater degree of heat at pleasure. The single and double red Camellia will endure the open air when trained against a south wall, and protected by mats in winter; and there can be no doubt that in time these and other species will be more perfectly inured to our climate.

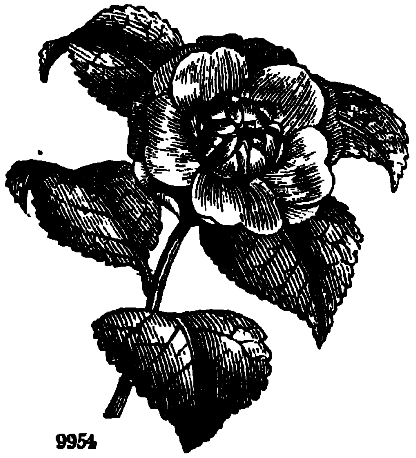
Henderson of Woodhall gives the following account of his mode of treating the Camellia. " The best time for a regular shifting of the Camellias is the month of February or beginning of March. After shifting all those that require it, put them into the peach-house or vinery, when there is a little heat; if there be no peach-house, vinery, nor pinery, set them in the warmest part of the greenhouse. They will soon begin to make young wood. From the time they begin to make their young shoots, till they have finished their growth, give them plenty of water They may be kept in the vinery or peach-house till they have formed their flower-buds at the extremity and sides of the young growths, when a few of them may be removed to a colder place, say behind the stage of the greenhouse; for the Camellias are fond of being shaded during

9955 Leaves thin ovate finely serrate pale-green, Branches slender twiggy
9956 Leaves obovate oblong serrulate; upper entire, Flowers solitary subsessile subaxillary

9957 Leaves oblong blunt large fleshy stalked shining tinged with red

9958 Sepals 4 roundish petaloid, Petals 4, Leaves oblong acuminate toothed

9959 Flowers stalked, Outer stamens longest sterile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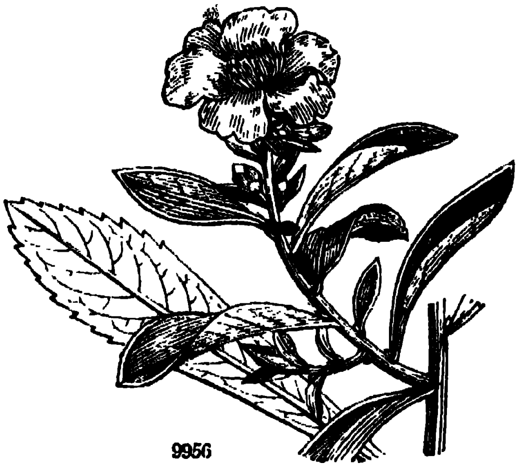
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and Miscellaneous Particulars.

strong sunshine. In three or four weeks after, a few more of the Camellias may be brought from the vinery or peach-house, and put into a cooler situation. This may be repeated three or four times, which will make as many different successions of flowering. Those that are wanted to come into flower early, may remain in the warm house till they are beginning to flower, when they should be taken to a cold place, say the coldest place of the greenhouse; then give them plenty of light only, and they will open their flowers well, and stand long. A Camellia cannot stand heat when in flower, indeed they seldom open their flowers fine when in heat, and, at all events, the flowers soon fall off. Those that are kept all the summer in the vinery, will come into flower by the first or middle of October, and a pretty large plant, having perhaps fifty or a hundred flower-buds, will continue in flower till the month of January. Those plants that are removed early from the vinery, will now be in flower, to succeed those that were in flower in October, and have now done flowering. These last should be immediately taken into the heat. They will make their young wood early, and they may remain in heat till they come into flower, which will perhaps be a month earlier next year. By attending to shifting the Camellia plants from the warm-house to the cold, a regular succession of flowers may thus be had from the first of October to the middle of July I have even had them all the summer, but the flowers are best in the winter. Those produced in summer are far from being so fine, and do not stand half the time of those that come into flower in November, December, January, February, March and April. Camellias delight to be kept damp all the summer months, and a little shaded from the strong sun. Give them plenty of water while they are making their young shoots; they may also get a gentle sprinkling over the leaves once every week during the summer season, except when they are in flower. Camellias will stand a great deal of cold without being much injured, but they will not form many flower-buds without some artificial heat." (*Caled. Mem.* iii. 316.)

1497. *Barringtonia.* In memory of the Hon. Daines Barrington, F. R. S., an active Fellow of the Society of Antiquaries, and author of several papers in their Transactions. A lofty tree, the handsomest in the equinoctial flora. It has thick shady bunches of long wedge-shaped coriaceous leaves, and large handsome purple and white flowers, which open at night, and fall at sunrise. They are succeeded by a reddish brown drupe, the seed of which mixed with the bait, inebriates fish in the same manner as Cocculus indicus. It grows on the sea shore and at the mouths of rivers, and is cultivated in the governor's garden at St. Helena. It is very rare in our stoves, though not difficult to manage. Sweet says, " a mixture of two-thirds loam and one-third peat, is a good soil for it. Cuttings taken off at a joint, when the wood is ripe, and put in a pot of sand under a hand-glass in moist heat, will strike root readily: none of the leaves should be taken off or shortened." (*Bot. Cult.* 21.)

1498. *Gustavia.* In memory of Gustavus III., king of Sweden, who presented a great collection of Indian plants to the elder Linnæus. A tree remarkable for its large white flowers, larger than those of the water-lily, but with a large naked bald receptacle between the corolla and the style. The flowers smell sweet, but the wood is extremely fetid. In Surinam it is used for hoops. In the stove it grows in sand and loam, and roots in sand under a hand-glass.

1499. *Careya.* Named after Dr. William Carey, the editor of Roxburgh's Flora Indica, and an English physician and botanist residing at Serampore. Beautiful Indian plants, with long red stamens.

Class XVII. — DIADELPHIA. Stamens united in two separate parcels.

This class essentially requires, as its name implies, that the stamens should be united in two separate parcels. These may either be equal, each bearing more anthers than one, as in Smithia, Æschynomene, Fumaria, and others; or unequal, one parcel being reduced to a single stamen, and the other bearing several anthers, as in the greater number of genera included in the class. But besides the plants whose stamens are thus disposed, it has been the practice to admit other genera having papilionaceous flowers, but with their stamens united in one parcel only, such as Platylobium, Bossiæa, Arachis, and others. The propriety of this measure is extremely questionable. It has been before remarked in this work, that the value of an artificial arrangement of objects depends wholly upon the precision with which they are referred to those heads or divisions with the characters of which they agree. If this does not obtain, an artificial system ceases to be useful, and its only merit, that of facilitating the discovery of the name of a given object, cannot be said to exist. This principle is particularly applicable to the genera just mentioned. Their artificial character refers them to Monadelphia, but they are retained in Diadelphia, to which their artificial character does *not* refer them, *because*, as is alleged, of the natural relation which they bear to other genera in Diadelphia. If this reasoning, which is only applicable to an arrangement of plants according to their natural affinities, and which has no allowable reference to an artificial system, were to be admitted, it would follow that Tamarindus, actually included in Monadelphia by the most eminent Linnean botanists, and all the papilionaceous genera stationed in Decandria, should be referred hither also. With such objections attaching to the contrivance of this class, it is not easy to understand in what way it "does honor to the comprehensive powers of Linnæus's mind," as has been somewhere remarked by one of his most distinguished panegyrists.

The structure of the corolla of plants of this class is, for the most part, with the exception of Fumaria and its allies, what has been popularly termed papilionaceous; that is to say, it consists of five petals of different forms and direction, of which the *upper*, called the *vexillum* or standard, is larger than the rest, upon which it is incumbent; the *two lateral*, called the *alæ* or wings, are oblong, distinct, and parallel with the ovarium; and the *two lower*, called the *carina* or keel, are enclosed within the alæ, are also parallel with the ovarium, and cohere by their lower edges, so as together to form, as it were, one boat-shaped petal. To this common form of corolla there are, however, some exceptions, as in Amorpha, where the alæ and carina are absent, and in Erythrina, where the alæ are in some cases almost obliterated. In Trifolium the petals all cohere by their claws into an undivided tube.

With regard to the importance of Diadelphous plants as applicable to the purposes of mankind, they may be said to hold the very highest rank. All the numerous varieties of pulse, whether eaten by men or cattle, peas, beans, haricots, caravances, lentils, and others, are all produced by Diadelphous plants. The best of our artificial grasses, such as clover, nonesuch, cow-grass, lucerne, saintfoin, serradilla, &c. &c., belong to various Diadelphous genera. A large proportion of the class also consists of useful and ornamental trees and herbs, which will be noticed in their respective places.

Order 1. PENTANDRIA. Stamens 5.

1500. *Monnieria.* Cal. 5-parted, with the upper segment long. Cor. ringent. Stamens 2: upper with two anthers; lower with three. Caps. 5, 1-seeded.

1501. *Petalostemum.* Petals 4, between the stamens, all united into a slit tube. Vexillum none, but in its place a fifth petal. Legume surrounded by calyx, 1-seeded.

Order 2. HEXANDRIA. Stamens 6.

1502. *Corydalis.* Pet. 4, 1-spurred at base. Pod 2-valved, compressed, many-seeded.

1503. *Cysticapnos.* Petals 4, one gibbous at base. Capsule bladdery, many-seeded; the placentas connected by a membranous net work.

1504. *Diclytra.* Petals 4, two outer equally spurred or gibbous at base. Pod 2-valved, many-seeded.

1505. *Adlumia.* Petals 4, united in a fungous monopetalous corolla, persistent, and with two protuberances at base. Pod 2-valved, many-seeded.

1506. *Sarcocapnos.* Petals 4, 1-spurred at base. Caps. 2-valved, not opening, 2-seeded. Valves 3-nerved, flattish.

1507. *Fumaria.* One petal gibbous or spurred at base. Cariopsis indehiscent, 1-seeded, not pointed with a style.

Order 3. OCTANDRIA. Stamens 8.

1508. *Polygala.* Cal. of 5 leaves, two of them wing-shaped and colored. Caps. compressed, obcordate.

1509. *Muraltia.* Sepals 5, glumaceous, nearly equal. Petals 3, united, the middle bifid with blunt lobes. Ovary with 4 horns or tubercles, 2-valved, 2-celled.

1510. *Mundia.* Sepals 5, glumaceous, persistent, the two inner wing-shaped. Petals 3, scarcely united at base; the middle one cucullate, beardless. Stamens 7-8, somewhat villous, monadelphous at base, with a tube divided in front.

1511. *Securidaca.* Sepals 5, the two inner petaloid. Petals 5, united at base: three united into a 3-lobed keel; two oblong. Stamens 8, diadelphous.

Order 4. DECANDRIA. Stamens 10.

1512. *Nissolia.* Cal. 5-toothed. Legume 1-seeded, ending in a ligulate wing.

1513 *Dalbergia.* Cal. obsoletely 5-toothed. Legume leafy, flat, not opening. Seeds solitary or twin.

1514. *Pongamia.* Cal. colored, cyathiform, obliquely truncate, 5-toothed. Petals clawed. Vexillum spreading. Alæ and carina conniving. Legume substipitate, compressed, flat, rostrate, valveless, 1-2-seeded. Anthers ciliate, glandular at end.

1515. *Pterocarpus.* Cal. 5-toothed. Legume falcate, foliaceous, varicose, indehiscent, encompassed by a wing. Seeds a few, solitary.

1516. *Ecastaphyllum.* Cal. campanulate, sub-bilabiate: upper segment emarginate; lower trifid. Filaments equally diadelphous. Legume roundish, valveless, 1-seeded.

1517. *Geoffroya.* Cal. 5-fid. Drupe ovate. Kernel compressed.

1518. *Dipterix.* Segm. of cal. 2, wing-shaped. Legume 1-celled, 1-seeded, coriaceous, 2-valved.

1519. *Parivoa.* Cal. 3-4-fid. Vexillum ample. Alæ and carina O. Legume compressed, 1-seeded.

1520. *Amerimnum.* Cal. sub-bilabiate. Legume compressed, leafy, 2-valved, dehiscent. Some seeds, solitary.

1521. *Erythrina.* Cal. bilabiate, [illegible]. Vexillum very long, lanceolate. Legume torulose.

1522. *Butea.* Cal. sub-bilabiate. Vexillum very long, lanceolate. Legume compressed, membranous, one-seeded at end.

1523. *Viborgia.* Cal. 5-toothed, with rounded recesses. Legume turgid, sulcate, winged.

1524. *Piscidia.* Stigma acute. Legume with four wings.

1525. *Platylobium.* Cal. bracteate, 2-lipped, upper lip round, large, bifid. Stam. all united. Legume stalked, compressed, winged at back, many-seeded.

1526. *Borbonia.* Stigma emarginate. Calyx acuminate, spiny. Legume mucronate.

1527. *Rafnia.* Cal. ringent: upper lip bifid; lower spreading trifid; the middle tooth narrowest. Legume lanceolate, compressed.

1528. *Aspalathus.* Cal. 5-fid, upper segment largest. Legume ovate, blunt, about 2-seeded.

1529. *Sarcophyllum.* Cal. campanulate, 5-parted, regular. Legume acinaciform, acute.

1530. *Crotalaria.* Legume turgid, inflated, stalked. Filaments united with a dorsal fissure.

1531. *Bossiæa.* Cal. 2-lipped, upper lip largest, half bifid, obtuse. Stam. all united. Legume plano-compressed, stalked, many-seeded, thickened at each edge. Seeds strophiolate.

1532. *Scottia.* Cal. imbricated with bractes, 5-toothed, with nearly equal teeth. Vexillum complicate, shorter than alæ, which are as long as carina. Stam. all united. Legume stalked, compressed, thickened at each edge. Seeds 3-4, strophiolate.

1533. *Templetonia.* Cal. ebracteate, with 5 nearly equal teeth. Carina oblong. Stamens all united, with uniform anthers. Legume pedicellate, plano-compressed, many-seeded. Seeds strophiolate.

1534. *Goodia.* Cal. with 2 nearly equal lips, upper half bifid, acute. Vexillum unfurled, large. Stamens all united. Legume stalked, compressed, about 2-seeded. Seeds strophiolate.

1535. *Loddigesia.* Vexillum much shorter than alæ or carina.

1536. *Hovea.* Cal. bilabiate, the upper lip half bifid, retuse. Stamens all united. Carina blunt. Legume sessile, roundish, ventricose, 2-seeded. Seeds strophiolate.

1537. *Spartium.* Stigma longitudinal, villous above. Filaments adhering to ovary. Cal. lengthened at the base.

1538. *Genista.* Cal. 2-lipped: upper one with 2; lower one with 3 teeth. Vexillum bent backwards from the rest of the flower.

1539. *Lebeckia.* Cal. 5-parted, with acute segments and rounded recesses. Legume cylindrical, many-seeded.

1540. *Ulex.* Cal. of 2 leaves, with a small scale at the base on each side. Legume turgid, scarcely longer than the calyx.

1541. *Ononis.* Cal. 5-cleft, its divisions linear. Vexillum striated. Legume turgid, sessile. Filaments in one undivided set.

1542. *Anthyllis.* Cal. inflated, 5-toothed, inclosing the small roundish 1-3-seeded legume.

1543. *Arachis.* Cal. 2-lipped. Cor. resupinate. Filaments united. Legume gibbous, torulose, veiny, coriaceous.

1544. *Lupinus.* Cal. 2-lipped. Anthers, 5 oblong, 5 round. Legume coriaceous, torulose, compressed.

1545. *Amorpha.* Cal. campanulate, 5-fid. Vexillum ovate, concave. Alæ O. Carina O. Legume 2-seeded, falcate.

1546. *Abrus.* Cal. obsoletely 4-lobed, the upper broader. Filaments 9, united at base, opening at back. Stigma blunt. Seed spherical.

1547. *Phaseolus.* Carina with the stamens and style twisted spirally.

1548. *Teramnus.* Carina very small, inclosed in the calyx. Five alternate stamens fertile. Stigma sessile, capitate.

1549. *Carpopogon.* Vexillum not callous. Flowers capitate. Pods short, broad, 1-seeded.

1550. *Dolichos.* Vexillum with two calli at base, parallel, oblong, compressing the wings beneath.

1551. *Stizolobium.* Cal. campanulate, 2-lipped: upper lip entire, erect; lower trifid, with the middle segment longest. Vexillum ascending. Alæ dolabriform, lunate at base, the length of carina. Anthers 2-formed, hairy. Legume torose, 1-celled, with partitions. Seeds round, with a crested hilum.

1552. *Glycine.* Cal. 2-lipped. Carina pushing back the vexillum with its end.

1553. *Kennedia.* Cal. 2-lipped: upper emarginate; lower trifid, equal. Vexillum reflexed, recurved. Alæ pressed to the carina. Carina remote. Stigma blunt. Legume oblong.

1554. *Cylista.* Cal. 4-fid, larger than cor.: upper segment bifid at end, or emarginate; lower very large. Cor. persistent Legume about 2-seeded.

1555. *Galactia.* Cal. 4-toothed, with 2 bractes. Petals all oblong; the vexillum broadest and incumbent upon the others. Stigma obtuse. Legume round. Seeds roundish.

1556. *Clitoria.* Cor. resupinate, with a large spreading vexillum overshadowing the wings.

1557. *Orobus.* Style linear, cylindrical, downy above. Cal. obtuse at the base, its upper segments deeper and shorter.

1558. *Lathyrus.* Style plane, downy above, broader upwards. Cal. with its two upper segments shortest.

1559. *Ochrus.* Cal. with the two upper segments conniving. Vexillum with two teeth at the sides. Style flat, villous above. Legume having a membranous wing upon the seed-bearing suture.

1560. *Pisum.* Style triangular, keeled above, downy. Two upper segments of calyx shorter than the rest.

1561. *Vicia.* Style bearded beneath the stigma.

1562. *Ervum.* Stigma capitate, hairy all over on the outside.

1563. *Ervilia.* Like Vicia, but the ovary is plaited in folds.

1564. *Cicer.* Cal. 5-parted, length of cor; four upper segments incumbent on the vexillum. Legume turgid, 2-seeded.

1565. *Liparia.* Cal. 5-fid, with the lower segment long. Alæ 2-lobed below. Three teeth of the larger stamen shorter than the rest. Legume ovate.

1566. *Cytisus.* Cal. 2-labiate, 2-3. Legume attenuated at base.

1567. *Mullera.* Cal. 4-toothed. Loment moniliform, with fleshy 1-seeded globules cohering by a thread.

1568. *Robinia.* Cal. 4-fid; upper segment 2-parted. Legume gibbous, long. Leaves unequally pinnate

1569. *Caragana.* Cal. subcampanulate. Stigma smooth, truncate. Legume cylindrical. Leaves abruptly pinnated.

1570. *Swainsonia.* Cal. 5-toothed. Vexillum unfurled, larger than the blunt carina. Stigma terminal. Style bearded lengthwise in front, not bearded at back. Legume turgid, not bladdery.

1571. *Sutherlandia.* Cal. 5-toothed. Vexillum without callosities, folded back at edge, shorter than oblong carina. Stigma terminal. Style with a longitudinal beard behind, a transverse one before. Legume inflated, scariose.

1572. *Lessertia.* Cal. half 5-fid. Vexillum unfurled. Carina blunt. Stigma capitate. Style bearded transversely at end in front, beardless behind. Legume scariose without valves (compressed or inflated).

1573 *Colutea.* Cal. 5-toothed. Vexillum with two callosities, unfurled, larger than the blunt carina. Stigma lateral under the hooked end of the style, which is longitudinally bearded behind. Legume inflated, scarious.

1574. *Glycyrrhiza.* Cal. bilabiate, 3-1. Legume ovate, compressed.

1575. *Liquoritia.* Cal. tubular, equal, 5-parted. Vexillum erect, reflexed at sides. Alæ spreading. Carina bifid Legume oblong, smooth, 3-4-seeded.

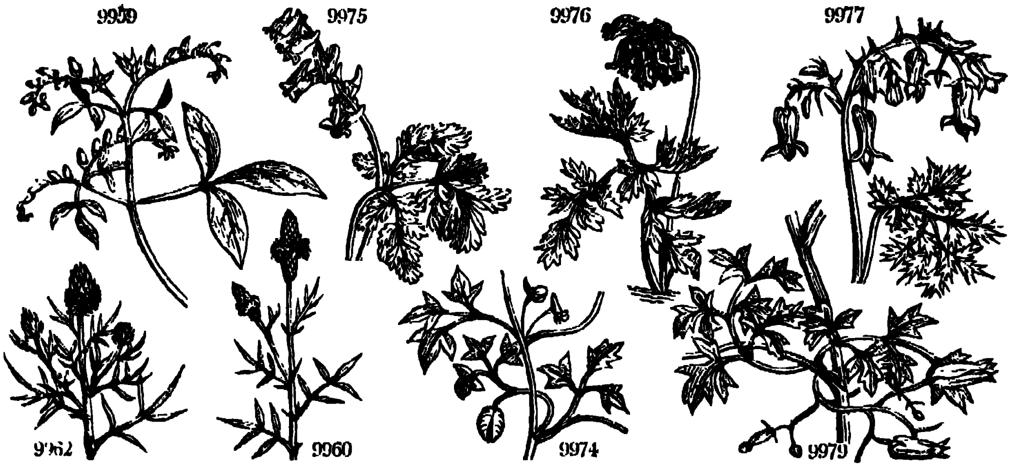
1576. *Coronilla.* Cal. 2-lipped, 2-3. Upper teeth connate. Vexillum scarcely longer than alæ. Loment round, jointed, straight.
1577. *Hippocrepis.* Loment compressed, with many notches on one edge, curved.
1578. *Ornithopus.* Legume jointed, curved, cylindrical.
1579. *Scorpiurus.* Loment intercepted by divisions, revolute, round.
1580. *Smithia.* Stamens divided into two equal bundles. Legume jointed, plaited, included in the bifid calyx.
1581. *Sesbania.* Cal. 5-toothed. Legume long (round or linear), 2-valved, many-celled, with transverse partitions.
1582. *Æschynomene.* Stamens divided into two equal bundles. Legume jointed, straight, exserted. Cal. 2-parted, with toothed lips.
1583. *Stylosanthes.* Cal. tubular, very long, bearing the corolla. Ovarium below the corolla. Loment one or two-jointed, hooked.
1584. *Hallia.* Cal. 5-parted, regular. Legume 1-seeded, 2-valved.
1585. *Lespedeza.* Cal. 5-parted, nearly equal. Carina transversely blunt. Legume lenticular, unarmed, 1-seeded.
1586. *Flemingia.* Cal. 5-fid. Vexillum striated. Legume sessile, oval, turgid, 2-valved, 2-seeded. Seeds spherical.
1587. *Zornia.* Cal. campanulate, 2-lipped. Cor. inferior. Vexillum cordate, revolute. Anthers alternately oblong and round. Legume jointed, hispid.
1588. *Hedysarum.* Cal. 5-fid. Carina transversely blunt. Loment with 1-seeded compressed joints.
1589. *Indigofera.* Cal. spreading. Carina with a spreading subulate spur on each side.
1590. *Tephrosia.* Cal. with subulate nearly equal teeth. Stamens monadelphous. Legume compressed, subcoriaceous.

PENTANDRIA.

1500.	**MONNIE'RIA.** *W.*	MONNIERIA.		*Rutaceæ.*			*Sp.* 1.				
9959	trifólia *W.*	three-leaved	⊡ un	1½	jl.au	W	Guiana	1792.	S	s.l	Aub. gui. 2. t. 293
1501.	**PETALOSTE'MUM.** *Mi.*	PETALOSTEMUM.		*Leguminosæ.*			*Sp.* 4—5.				
9960	cándidum *Ph.*	white	♃ △ pr	1	jl.au	W	N. Amer.	1811.	D	l.p	Mi. am. 2. t. 37. f. 1
9961	cárneum *Ph.*	flesh-colored	♃ △ pr	½	jl.au	Pk	N. Amer.	1811.	D	l.p	
9962	violáceum *Ph.*	purple	♃ △ pr	1	jl.s	V	N. Amer.	1811.	D	l.p	Bot. mag. 1707
9963	corymbósum *Ph.*	corymbose	♃ △ pr	1½	jl.s	W	Amer.	1811.	D	l.p	
	Dálea Kuhnistéra W.										

HEXANDRIA.

1502.	**CORY'DALIS.** *Vent.*	CORYDALIS.		*Fumariaceæ.*			*Sp.* 10—31.				
9964	nóbilis *P. S.*	great-flowered	♃ △ or	1	my	L.Y	Siberia	1783.	D	p.l	Bot. mag. 1953
9965	tuberósa *Dec.*	hollow-rooted	✱ △ or	½	f.ap	Pu.W	Europe	1596.	D	co.	Bot. m. 232 2340
9966	fabácea *W. en.*	Bean-leaved	♃ △ or	¾	f.ap	Pu	Germany	1815.	D	co	Fl. dan. 1394
9967	sólida *Smith*	solid-rooted	✱ △ or	½	f.my	Pk	Britain	groves.	D	co	Eng. bot. 1471
9968	sempervirens *P. S.*	glaucous	○ or	2	jl.au	Y.Pu	N. Amer.	1683.	D	co	Bot. mag. 179
9969	aúrea *W. en.*	golden	♃ ⦶ or	1	my.jl	Y	N. Amer.	1812.	D	co	Bot. reg. 66
9970	lútea *P. S*	yellow	♃ △ or	1½	ap.o	Y	England	old w.	D	co	Eng. bot. 588
9971	uraléusis *Fisch.*	Ural	♃ ⦶ or	1	au	Pa.Y	Altai	1824.	S	co	
9972	capnoídes *P. S.*	white-flowered	♃ ⦶ or	2	my.o	R.Y	S. Europe	1596.	S	co	Plu. alm. t. 90. f. 2
9973	claviculáta *W.*	climbing	⌇ ○ or	6	jn.jl	W.Y	Britain	thick.	S	co	Eng. bot. 103
1503.	**CYSTICAP'NOS.** *W. en.*	CYSTICAPNOS.		*Fumariaceæ.*			*Sp.* 1.				
9974	africána *W. en.*	African	⌇ ○ or	4	jn.jl	Y	C. G. H.	1696.	S	s.l	Boer. lug. 1. t. 300
	Fumária vesicária H. K.										
1504.	**DICLY'TRA.** *Dec.*	DICLYTRA.		*Fumariaceæ.*			*Sp.* 4—8.				
9975	Cucullária *Dec.*	naked-stalked	♃ △ or	¾	jn.jl	W	N. Amer.	1731.	D	s.p	Bot. mag. 1127
9976	formósa *Dec.*	blush	♃ △ or	1	jn.jl	F	N. Amer.	1796.	D	p.l	Bot. mag. 1335
9977	exímia *Dec.*	choice	♃ △ or	1½	jn.jl	F	N. Amer.	1812.	D	p.l	Bot. reg. 51
9978	canadénsis *Dec.*	Canadian	♃ △ or	¾	jn.jl	Pk	N. Amer.	1819.	D	co	Bot. mag. 3031
1505.	**ADLU'MIA.** *Raf.*	ADLUMIA.		*Fumariaceæ.*			*Sp.* 1.				
9979	cirrhósa *Raf.*	spongy-flower'd	⌇ ⦶ or	15	jn.s	W pu	N. Amer.	1778.	D	s.l	Swt. fl. gard. 189



History, Use, Propagation, Culture,

1500. *Monnieria.* In memory of Monsieur Le Monnier, professor of botany in the garden of plants at Paris. He published, in 1745, "Observations sur les Plantes dangereuses des Pyrénées et du Roussillon."

1501. *Petalostemum.* From πεταλον, a petal, and στημον, a stamen; in allusion to the union of these two parts into a tube.

1502. *Corydalis.* Κορυδαλις is an ancient Greek name for the Fumitory, from which genus this has been separated. Pretty little plants, well adapted for rock-work or growing on pots. They are easily cultivated and increased.

1591. *Galega.* Cal. with subulate nearly equal teeth. Legume with oblique streaks between the seeds.
1592. *Phaca.* Cal. 5-toothed, two upper teeth most distant. Legume half 2-celled, inflated.
1593. *Oxytropis.* Carina ending in a mucro. Legume 2-celled or half-2-celled, with the upper suture turned inwards.
1594. *Astragalus.* Legume 2-celled, more or less gibbous, with the lower suture turned inwards. Carina blunt.
1595. *Biserrula.* Legume 2-celled, flat, with a contrary dissepiment serrated on each edge.
1596. *Dalea.* Alæ and carina adhering to the column of stamens. Stamens 5-10, united, without a separate filament. Legume 1-seeded.
1597. *Psoralea.* Cal. the length of pod. Stamens diadelphous. Legume 1-seeded, subrostrate, valveless.
1598. *Melilotus.* Cal. tubular, 5-toothed. Carina simple, shorter than alæ and vexillum. Legume longer than calyx, rugose.
1599. *Lupinaster.* Cal. campanulate, 5-toothed, with setaceous teeth. Stigma uncinate. Legume not knotted, round, many-seeded.
1600. *Trifolium.* Legume (in general) shorter than the cal., 1 or many-seeded, indehiscent, deciduous. Flowers more or less capitate.
1601. *Lotus.* Legume cylindrical, straight. Alæ of the cor. cohering by their upper edge. Filaments dilated upwards.
1602. *Tetragonolobus.* The characters of Lotus, but the pod square with 4 wings.
1603. *Trigonella.* Vexillum and alæ nearly equal, spreading, in the form of a tripetalous corolla.
1604. *Dorycnium.* Cal. 5-toothed, 2-lipped. Filaments subulate. Stigma capitate. Legume turgid, 1 or 2-seeded.
1605. *Medicago.* Legume falcate or spirally twisted, compressed, membranaceous.
1606. *Hymenocarpus.* Like Medicago, but the legumes reniform, winged at edge.

PENTANDRIA.

9959 Stem dichotomous, Leaves ternate, Spike bifid

9960 Spike cylindrical stalked, Bractes longer than flower, Leaves in 3 pairs lanceolate
9961 Spike cylindrical stalked, Bractes subulate length of calyx, Leaflets lanceolate
9962 Spike cylindrical stalked, Bractes nearly as long as calyx, Leaves in 2 pairs linear
9963 Heads with a scaly involucre, Calyxes plumose, Leaflets linear pointless

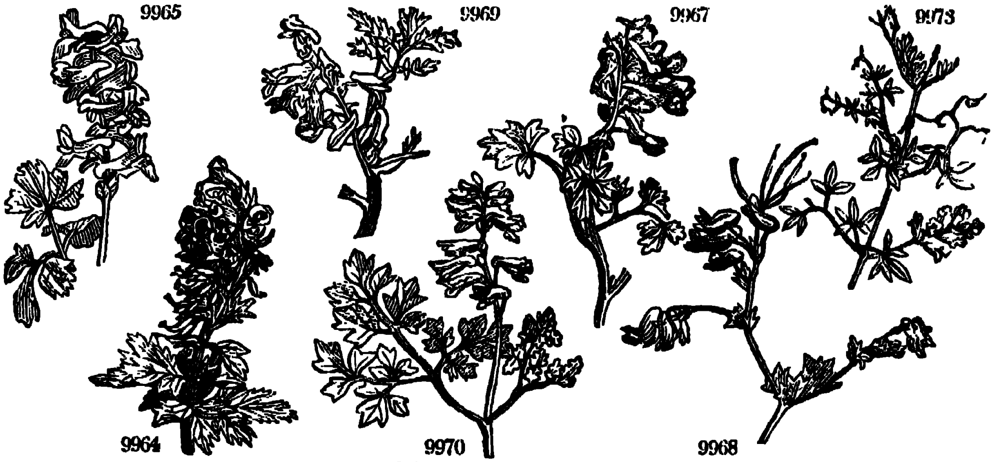
HEXANDRIA.

9964 Stem erect simple without scales, Leaves bipinnate, Lobes cuneate cut at end, Bractes acute
9965 Stem simple without scales, Lvs. 2 biternate, Segm. cuneate multifid, Bractes ovate entire, Roots hollow
9966 Stem subsimple erect with scales below the lowest leaf, Leaves 3-4-stalked biternate, Segments obl. blunt
9967 Stem subsimple erect with scales below the lowest leaf, Lvs. 3-4-stalk. bitern. cut, Segm. cuneate or oblong
9968 Stem erect branched, Leaves glaucous decompound, Segm. stalked cuneate trifid, Pods linear
9969 Stem branched diffuse, Leaves glaucous bipinnate, Lobes obl. linear, Bractes lanceol. linear acuminate
9970 Pods roundish shorter than peduncle, Stems angular, Bractes minute, Spur very short and round
9971 Stem erect somewhat branched scarcely longer than radical lvs. Lvs. on long stalks 3-cut, Raceme few-fl.
9972 Stem branched diffuse, Lvs. bipinnate, Segm. obov. cuneate trifid, Pods lin. scarcely longer than pedicel
9973 Stem branched climbing, Leaves bipinnate, Petioles cirrhose, Segm. oval entire

9974 The only species

9975 Spurs 2 straight acute, Scape naked, Raceme simple
9976 Spurs 2 incurved blunt, Scape naked, Raceme compound, Stigma with 2 angles
9977 Spurs 2 incurved blunt, Scape naked, Raceme compound, Stigma with 4 angles
9978 Spurs 2 short blunt, Scape naked simple few-fl. Leaves multifid

9979 The only species. — Fumaria fungosa, *Hort.*



and Miscellaneous Particulars.

1503. *Cysticapnos.* From κυστις, a bladder, and καπνος, fumitory. A genus divided from Fumaria on account of its bladdery fruit.

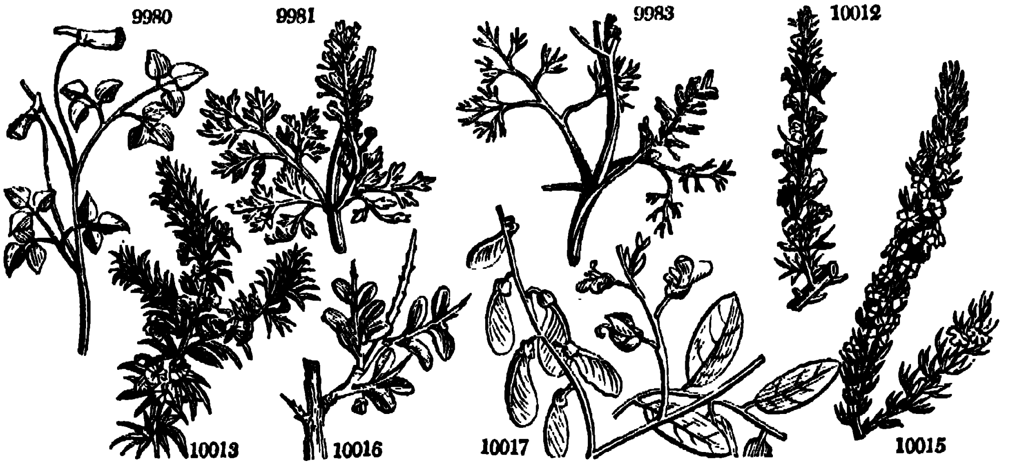
1504. *Diclytra.* So named by Borckhausen, a German botanist, on account of the two spurs or pouches of the flower. Handsome herbaceous plants, frequently cultivated among choice collections of rare flowers. Their roots are impatient of cold and wet, and should therefore be planted in a warm dry border well exposed to the southern sun.

1505. *Adlumia.* A name unexplained by its author, M. Rafinesque Schmalz. A tall climbing annual plant of little beauty in its flowers, but covering a large space in the course of a summer.

1506.	**SARCOCAPNOS.** *Dec.*	SARCOCAPNOS.					*Fumariaceæ.*		*Sp.* 1—2.				
9980	enneaphýlla *Dec.*	nine-leaved	♃	△	or	1	my.jl	P.Y	Spain	1714.	D	co	Bocc. 2. t. 73. f. 1
1507.	**FUMA'RIA.** *P. S.*	FUMITORY.					*Fumariaceæ.*		*Sp.* 4—10.				
9981	officinális *P. S.*	common		○	w	2	my.au	Pk	Britain	cul.gr.	S	co	Eng. bot. 589
9982	capreoláta *P. S.*	ramping	⚘	○	w	4	my.s	F	Britain	corn fi.	S	co	Eng. bot. 943
9983	parviflóra *P. S.*	small-flowered		○	w	2	au.s	Pk	England	corn fi.	S	co	Eng. bot. 590
9984	spicáta *P. S.*	narrow-leaved		○	w	8	jl.au	F	S. Europe	1714.	S	co	M.his.3. t.12. f.11

OCTANDRIA.

1508.	**POLY'GALA.** *W.*	MILKWORT.					*Polygaleæ.*		*Sp.* 27—163.				
9985	incarnáta *W.*	flesh-colored		○	or	1	jn.jl	Pk	N. Amer.	1812.	S	co	Pluk. t. 438. f. 5
9986	amára *W.*	bitter	♃	△	or	½	jn	B	Europe	1775.	D	l.p	Bot. mag. 2437
9987	vulgáris *W.*	common	♃	△	or	½	my.jn	B	Britain	dry pa.	D	s.l	Eng. bot. 76
9988	májor *W.*	large Austrian	♃	△	or	1	jl.au	R	Austria	1739.	D	s.l	Jac. aust.5. t.413
9989	paucifólia *W.*	naked-stalked	♃	△	or	½	my.au	Pu	N. Amer.	1812.	D	s.l	Bot. mag. 2852
9990	bracteoláta *W.*	spear-leaved	■	⊔	or	6	my.o	Pu	C. G. H.	1713.	S	s.p	Bot. mag. 345
9991	speciósa *B. M.*	showy	■	⊔	or	6	my.o	Pu	C. G. H.	1814.	C	s.p	Bot. reg. 150
9992	teretifólia *W.*	columnar-lvd.	■	⊔	or	3	my.au	Pu	C. G. H.	1791.	S	s.p	Bot. rep. 370
9993	purpúrea *H. K.*	purple	■		or	1	my.jn	Pu	N. Amer.	1791.	C	s.p	
9994	virgáta *Th.*	twiggy	■	⊔	or	3	my.au	Pu	C. G. H.	1812.	C	s.p	
9995	myrtifólia *W.*	Myrtle-leaved	■	⊔	or	3	my.au	Pu	C. G. H.	1707.	S	p.l	Bot. reg. 669
9996	oppositifólia *W.*	opposite-leaved	■	⊔	or	2	my.au	R	C. G. H.	1790.	C	s.p	Bot. mag. 492
9997	cordifólia *W.*	heart-leaved	■	⊔	or	3	mr.au	Pu	C. G. H.	1791.	C	s.p	Bot. mag. 2438
9998	tomentósa *W.*	woolly-leaved	■	⊔	or	2	mr.au	Pu	C. G. H.	1812.	C	s.p	
9999	Chamæbúxus *W.*	Box-leaved	♄		or	½	my.jn	Y	Austria	1658.	Sk	s.l	Bot. mag. 316
10000	latifólia *Ker.*	broad-leaved	■	⊔	or	1½	my.jn	Pu	C. G. H.	1820.	C	s.l	Bot. reg. 645
10001	liguláris *Ker.*	strap-leaved	■	⊔	or	1½	my.au	Pu	C. G. H.	1820.	C	s.p	Bot. reg. 657
10002	filifórmis *W.*	filiform	■	⊔	or	1½	my.d	Pu	C. G. H.	1812.	C	s.p	
10003	micrántha *W.*	small-flowered	■	⊔	or	1½	ja.d	Pu	C. G. H.	1800.	S	s.p	Bot. rep. 424
10004	paniculáta *W.*	panicled		⊡	pr	¾	jl.au	Pa.pu	S. Amer.	1822.	S	co	Bot. reg. 761
10005	Sénega *W.*	Rattlesnake root	♃	△	or	¾	jl	W	N. Amer.	1739.	S	co	Bot. mag. 1051
10006	lútea *W.*	golden		○	or	¾	jn.jl	Y	N. Amer.	1739.	S	co	Plu.am. t.438. f.6
10007	viridéscens *W.*	greenish-flower.		○	or	1	jl.au	G.Pu	N. Amer.	1815.	S	co	
10008	húmilis *Lodd.*	dwarf	♄	⊔	pr	½	my	Pk	C. G. H.	1817.	C	s.p	Bot. cab. 490
10009	sanguínea *W.*	purple-spiked		○	or	1	jl.s	Pu	N. Amer.	1739.	S	co	Pluk. t. 438. f.5
10010	verticilláta *W.*	whorl-leaved		○	or	½	jl.au	W	N. Amer.	1739.	S	co	Pluk. t. 438. f. 4
10011	cruciáta *W.*	four-leaved		○	or	½	jn.jl	G.Pu	N. Amer.	1739.	S	co	
1509.	**MURAL'TIA.** *Neck.*	MURALTIA.					*Polygaleæ.*		*Sp.* 4—37.				
10012	Heistéria *W.*	Furze-leaved	■	⊔	or	6	ja.d	Pu	C. G. H.	1787.	C	s.p	Bot. mag. 340
10013	alopecuroídes *W.*	Foxtail	■	⊔	or	3	my.au	Pu	C. G. H.	1800.	S	s.p	Bot. mag. 1006
10014	stipulácea *W.*	stipuled	■	⊔	or	3	ap.s	R	C. G. H.	1801.	C	s.p	Bot. mag. 1715
10015	mixta *W.*	Heath-leaved	■	⊔	or	3	ja.d	Pu	C. G. H.	1791.	C	s.p	Bot. mag. 1714
1510.	**MUN'DIA.** *Kunth.*	MUNDIA.					*Polygaleæ.*		*Sp.* 1.				
10016	spinósa *W.*	spiny	■	⊔	or	3	ja.my	Pu	C. G. H.	1780.	C	s.p	
1511.	**SECURIDA'CA.** *W.*	SECURIDACA.					*Polygaleæ.*		*Sp.* 1—8.				
10017	volúbilis *W.*	climbing	♄	▭	ft	10	...	W	W. Indies	1739.	C	p.l	Ja.am. t.183. f.38



History, Use, Propagation, Culture,

1506. *Sarcocapnos.* From σαρκος, flesh, and καπνος, fumitory. So named by Decandolle on account of the fleshy substance of the leaves of the plants contrasted with those of other allied genera.

1507. *Fumaria.* From *fumus*, smoke; in allusion to the disagreeable smell of the plant. The French, with the same meaning, call it *Fumeterre*, whence our English word *Fumitory.* The species are handsome weeds. F. officinalis was formerly considered a valuable antiscorbutic, and much used in obstructions of the viscera.

1508. *Polygala.* From πολυ, much, and γαλα, milk. Dioscorides says, that the plant was believed to excite the lacteal secretions in women. The species are handsome free-flowering plants. The greenhouse kinds are highly ornamental, and some of them continue in bloom all the winter: P. stipulacea all the year. They grow freely in sandy loam, or loam and peat; and are readily increased by cuttings of the young wood, in sand, under a bell-glass.

P. vulgaris was thought to possess something of the properties of P. Senega. Sir J. E. Smith found that an infusion of the herb taken in a morning, fasting, about a quarter of a pint daily, promoted expectoration, and was good in a catarrhous cough. He tried it at Montpelier by the advice of Professor Gouan with success, and has since known it useful. Foreign writers celebrate it as a grateful and nutritious food for cattle. According to the Swedish experiments, kine, sheep, and goats eat it, but swine refuse it.

P. Senega has a woody, branched, contorted root, about half an inch thick, and covered with ash-colored

9980 Leaves with a branched stalk triternate, Segments ovate angular

9981 Pods round retuse, Pedicels of fruit erect twice as long as bractes, Racemes lax
9982 Pods globose, Pedicels of fruit recurved longer than bract, Racemes oblong
9983 Pods globose with a little point, Pedicels of fruit erect longer than bract
9984 Pods compressed oval smooth, Raceme spiked, Pedicels much shorter than bract

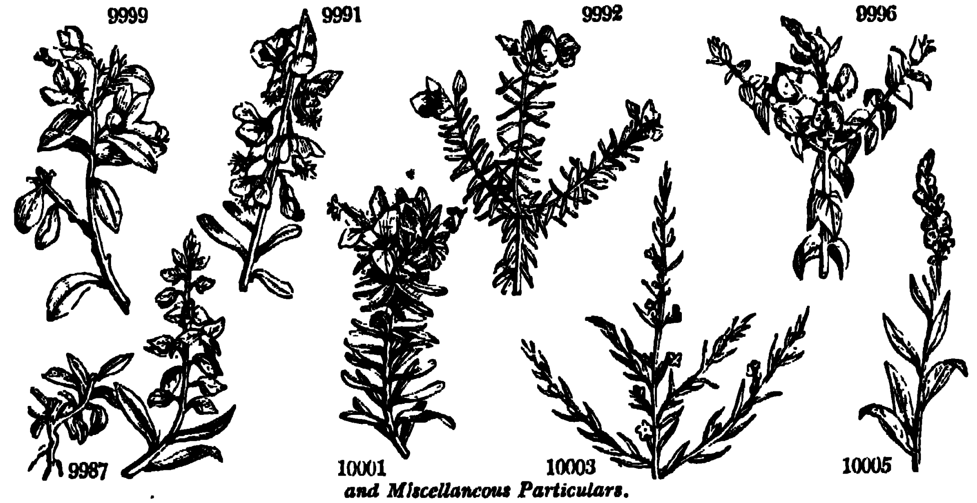
OCTANDRIA.

9985 Flowers crested spiked, Stem herbaceous branched erect, Leaves alternate subulate
9986 Fl. crested racem. Wings of cal. 3-nerved blunt longer than cor. Stems erect, Lvs. blunt: radic. obovate
9987 Fl. crested racem. Wings of cal. 3-nerved blunt length of cor. Stems procumb. Leaves linear-lanc. acute
9988 Fl. crest. racem. Wings of cal. many-nerv. blunt mucron. short. than cor. Stems erect, Lvs. lin. lanc. acute
9989 Fl. crested term. in threes, Stems quite simple erect naked beneath, Leaves ovate
9990 Fl. crested, Raceme term. Wings of cal. cuspidate many-nerv. Stem erect shrubby, Lvs. lin. lanc. smooth
9991 Fl. crest. Appendage double, Racemes without bractes subterm. many-fl. Lvs. altern. obl. cuneate smooth
9992 Fl. crest. Raceme term. few-fl. Wings of cal. ovate acute many-nerved, Stem shrubby, Lvs. linear subulate
9993 Fl. crested somewhat umbelled, Leaves ovate fleshy
9994 Fl. crested racemose, Bractes 3-leaved, Leaves obovate oblong
9995 Fl. crested, Racemes few-fl. term. Keel falcate, Stem shrubby, Leaves obl. bluntish smooth
9996 Fl. crested, Stem shrubby, Leaves opposite ovate acute
9997 Fl. crested, Raceme terminal, Stem shrubby, Branches downy, Leaves cordate mucronate opposite
9998 Fl. crested whorled, Leaves cordate downy beneath
9999 Fl. beardless, Pedunc. terminal and axill. about 2-fl. Stem shrubby, Leaves obl. lanceolate acute
10000 Fl. crested, Branches downy, Leaves decussating coriaceous glaucous ovate downy beneath
10001 Fl. crest. Branches vill. Lvs. scattered lingulate smooth, Outer lobe of the petals of vexillum very short
10002 Fl. beardless lateral, Leaves solitary 3-cornered mucronate
10003 Fl. beardless axillary sessile, Leaves linear mucronate
10004 Fl. crested, Racemes axillary on long stalks, Stems erect branched upwards, Leaves linear acute
10005 Fl. beardless, Spike terminal filiform, Stem erect herbaceous quite simple, Leaves oblong lanceolate
10006 Fl. beardless, Raceme cylindr. capitate terminal, Stem simple, Leaves obl. lanc. acute
10007 Fl. beardless globose capitate terminal, Stem erect simple, Leaves linear bluntish
10008 Leaves ovate-lanceolate imbricated, Stem branched decumbent
10009 Flowers beardless, Pedunc. squarrose, Stem branched erect
10010 Flowers beardless distant, Leaves linear whorled, Stem branched
10011 Flowers beardless in headed spikes, Leaves in fours linear-lanceolate, Stem somewhat branched erect

10012 Fl. beardless lateral, Stem arborescent, Leaves 3-cornered mucronate spiny
10013 Fl. beardless, Peduncles solitary axillary, Leaves fascicled ovate mucronate ciliated at edge
10014 Fl. beardless lateral, Leaves in threes linear acute
10015 Fl. beardless sessile, Leaves round mucronate very close

10016 Leaves obovate or oval, Branches short spiny

10017 Branches a little downy, Leaves oval-obl. acute, Racemes lateral



and Miscellaneous Particulars.

bark. It is inodorous; the taste is at first sweetish and nauseous, but after being chewed for less than a minute, becomes pungent and hot, producing a very peculiar tingling sensation in the fauces. Medically, it is considered stimulating, expectorant, and diuretic, and in large doses emetic and cathartic: it increases absorption, and consequently augments the natural excretions, particularly that of urine, and frequently occasions a copious ptyalism. It was introduced to the notice of physicians by Dr. Tennant, who, having discovered that it was the antidote employed by the Senegare Indians against the bite of the rattle-snake, and reasoning from the effects of the poison, and of the remedy in removing these, was induced to try it in pneumonic affections, and found it useful. On account of its stimulant properties, however, it can be employed in these complaints only after the resolution of the inflammation by bleeding and evacuations. It proves more directly useful in humoral asthma, chronic catarrh, and some kinds of dropsy. (*Thomson's London Dispensatory*, p. 450.)

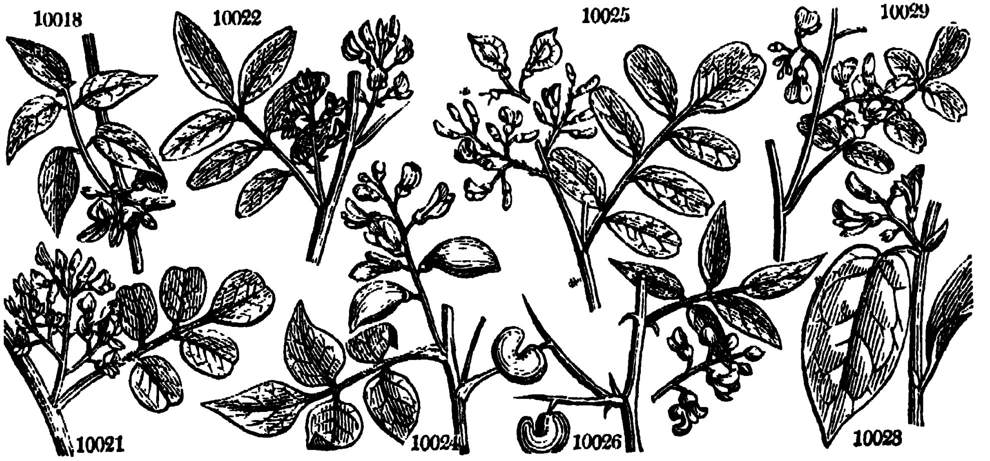
1509. *Murallia.* Named after John Von Muralt, a Swiss botanist, who lived in the commencement of the eighteenth century. Handsome bushes, of easy cultivation in a greenhouse, or even in a good pit.

1510. *Mundia.* So named, in allusion, we presume, to the neatness (*munditia*) of its appearance. No explanation of the word is given by its author. Pretty little Cape bushes, easily cultivated in a good pit.

1511. *Securidaca.* From *securis*, a hatchet, in allusion to the form of the end of the pod. It grows freely in light loam, or loam and peat; and cuttings root in sand covered with a glass.

DECANDRIA.

1512.	**NISSO'LIA.** *W.*	NISSOLIA.					*Leguminosæ.*		*Sp.* 3—6.				
10018	fruticósa *W.*	shrubby	$	☐	or	15	jl.n	Y	S. Amer.	1766.	S	p.l	Jac. vind.2. t.167
10019	retúsa *W. en.*	blunt	$	☐	or	6	...	...	S. Amer.	1819.	C	s.l	
10020	glabráta *Link.*	polished	$	☐	or	12	...	W	......	1823.	C	s.l	
1513.	**DALBER'GIA.** *W.*	DALBERGIA.					*Leguminosæ.*		*Sp.* 4—9.				
10021	latifólia *W.*	broad-leaved	♀	☐	or	30	...	W	E. Indies	1811.	C	s.l	Rox. cor.2. t.113
10022	rubiginósa *W.*	climbing	$	☐	or	10	...	W	E. Indies	1811.	C	s.l	Rox. cor.2. t.115
10023	paniculáta *W.*	panicled	♀	☐	or	30	...	W	E. Indies	1811.	C	s.l	Rox. cor.2. t.114
1514.	**PONGA'MIA.** *Vent.*	PONGAMIA.					*Leguminosæ.*		*Sp.* 1—3.				
10024	glábra *P. S.*	smooth-leaved	♀	☐	or	30	...	W	E. Indies	1699.	C	s.l	Vent. malm. t.28
1515.	**PTEROCAR'PUS.** *W.*	PTEROCARPUS.					*Leguminosæ.*		*Sp.* 3—9.				
10025	Marsúpium *W.*	emarginate-lvd	♀	☐	or	40	...	W	E. Indies	1811.	C	s.l	Rox. cor.2. t.116
10026	lunátus *W.*	crescent-podded	♣	☐	or	6	...	W	S. Amer.	1792.	C	s.l	Lam. ill. t.602. f.5
10027	santalinus *W.*	Red Saunders Wood	♀	☐	ec	60	...	Y	E. Indies	1800.	C	s.l	
1516.	**ECASTAPHYL'LUM.** *Rich.*	ECASTAPHYLLUM.					*Leguminosæ.*		*Sp.* 1—4.				
10028	Brow'nei *Rich.*	oval-leaved	$	☐	or	10	...	W	W. Indies	1733.	C	r.m	Br. jam. t. 32. f.1
1517.	**GEOFFRO'YA.** *W.*	BASTARD CABBAGE-TREE.					*Leguminosæ.*		*Sp.* 1—5.				
10029	inérmis *W.*	smooth	♀	☐	or	8	...		Jamaica	1778.	C	p.l	Ph. tran. 1777. t.10
1518.	**DIP'TERIX.** *W.*	TONQUIN BEAN.					*Leguminosæ.*		*Sp.* 1—2.				
10030	odoráta *W.*	sweet-scented	♀	☐	ec	60	...	Pu	Guiana	1793.	C	l.p	Aub. gui.2. t.296
1519.	**PARIVO'A.** *Aubl.*	PARIVOA.					*Leguminosæ.*		*Sp.* 1.				
10031	grandiflóra *Aubl.*	large-flowered	♀	☐	or	30	...	Pu	Guiana	1821.	C	r.m	Aub. gui. t. 303
1520.	**AMERIM'NUM.** *W.*	AMERIMNUM.					*Leguminosæ.*		*Sp.* 3—5.				
10032	Brównei *W.*	Browne's	♣	☐	or	10		W	W. Indies	1793.	C	r.m	Ja. am. t.180. f.58
10033	latifólium *W.*	broad-leaved	♣	☐	or	12	...	Y	S. Amer.	1814.	C	l.p	Ja. am. t.177. f.50
10034	E'benus *W.*	Jamaica Ebony	♣	☐	or	12	jl.au	Y	W. Indies	1713.	C	r.m	Br. jam. t. 31. f.2
1521.	**ERYTHRI'NA.** *W.*	CORAL TREE.					*Leguminosæ.*		*Sp.* 10—21.				
10035	herbácea *W.*	herbaceous	¥	⊔	or	3	jn.s	S	Carolina	1724.	C	l.p	Bot. mag. 877
10036	cárnea *W.*	flesh-colored	♀	☐	or	12	my	Pk	Vera Cruz	1733.	S	r.m	Trew. ehret. t. 8
10037	Corállodéndrum *W.*	smooth-leaved	♀	☐	or	20	my.jn	S	W. Indies	1690.	S	r.m	Com. hor.1. t.108
10038	índica *W.*	Indian	♀	☐	or	20	...	S	E. Indies	1814.	S	r.m	Rheed. mal.6. t.7
10039	fúsca *W.*	brown-flowered	♀	☐	or	20	...	S	E. Indies	1800.	C	l.p	Rum. amb.2. t.78
10040	cáffra *W.*	Cape	♣	⊔	or	6	...	S	C. G. H.	1816.	C	l.p	Bot. reg. 736
10041	pícta *W.*	prickly-leaved	♣	☐	or	6	...	S	E. Indies	1696.	S	r.m	Rum. amb.2. t.77
10042	speciósa *H. K.*	large-flowered	♀	☐	or	10	au.o	S	W. Indies	1805.	S	r.m	Bot. rep. 443



History, Use, Propagation, Culture,

1512. *Nissolia.* In honor of William Nissole, an industrious French botanist. He was a member of the academy of Montpellier, and author of some papers in its Transactions. He was born in 1647, and died in 1735. Cuttings root in sand, but not very readily.

1513. *Dalbergia.* Nicholas Dalberg was surgeon in ordinary to the king of Sweden, and published in 1755 a work upon the Metamorphoses of Plants. Another Dalberg, a pupil of Linnæus, travelled in Dutch Guiana, whence he communicated specimens to his preceptor. Ripened cuttings root in sand.

1514. *Pongamia.* An alteration of the vernacular name of the plant in India.

1515. *Pterocarpus.* From πτερον, a wing, and καρπος, fruit. Its pods have membranous wings. P. santalinus is a lofty tree, with alternate branches, and a bark resembling that of the common alder; it yields the true officinal red saunders wood, first detected by Kœnig in India. It is brought home in billets, which are very heavy, and sink in water. Red saunders wood has an aromatic odor, and is nearly insipid. It is extremely hard, of a fine grain, takes a high polish, and a bright garnet red color, which deepens on exposure to the air. It yields its coloring matter, which appears to be of a resinous nature, to ether and alcohol, but not to water. (*Thomson's London Dispensatory*, 458.)

The sap yields one sort of Sanguis draconis. Many of the red Indian woods trasude a blood red juice through the clefts of the bark, which hardens into a red resin, not differing from Sanguis draconis, which, therefore, is collected from several trees, and from this among others. (*Linn. Suppl.*) This drug, however, is chiefly obtained from the P. Draco, and the fruit of Calamus Rotang.

In our stoves these plants thrive in light loamy soil; and cuttings, with their leaves untouched, will root in sand under a common hand-glass.

1516. *Ecastaphyllum.* From εκαστος, every one, and φυλλον, a leaf; that is to say, a leaf which is always simple, and not compounded of several others, as those of neighbouring genera.

1517. *Geoffroya.* In honor of Etienne Francois Geoffroi, Memb. Acad. Par., Professor of botany at the Jardin du Roi, and a foreign member of the Royal Society of London. He was the author of several medical botanical works, especially of a Materia Medica. He was born in 1672, and died in 1731. A tree, branchy at top, with a smooth grey bark and pinnate leaves; and, what is remarkable in papilionaceous plants, a drupe for a fruit.

DECANDRIA.

10018 Stem shrubby twining, Leaves pinnated, Leaflets ovate acute smoothish
10019 Leaves pinnated, Leaflets ovate-oblong emarginate
10020 Leaves ternate and quinate, Leaflets oval acuminate smooth, Fl. racemose

10021 Leaves pinnated, Leaflets roundish emarginate, Fruit lanceolate
10022 Leaves pinnated, Leaflets obl. obtuse, Branches and petioles downy
10023 Leaves pinnated, Leaflets ellipt. emarginate smooth, Panicle terminal, Fruit lanceolate

10024 Leaves pinnated, Leaflets ovate acuminate smooth, Fruit ovate acute veinless

10025 Leaves pinnated, Leaflets elliptical emarginate, Stipules none, Panicle termin.
10026 Leaves pinnated, Spines stipulary, Fruit lunate
10027 Leaves ternate roundish blunt quite smooth, Petals crenate wavy

10028 Leaves simple cordate-ovate downy beneath

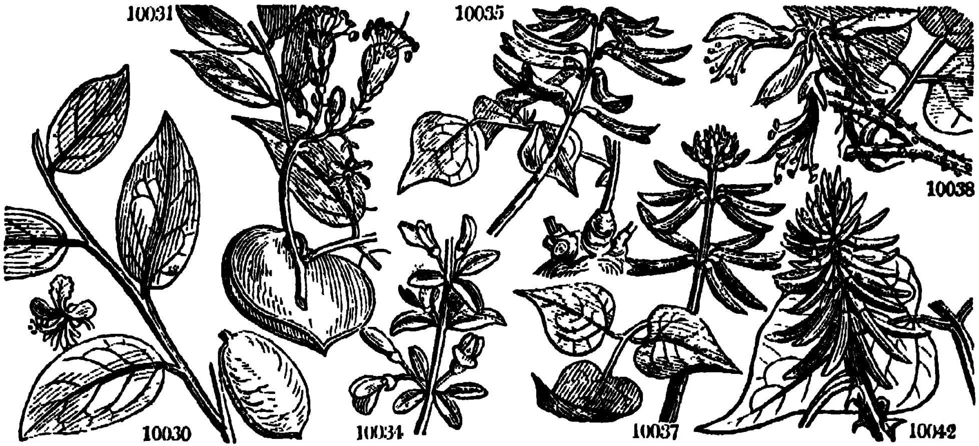
10029 Unarmed, Leaflets ovate-lanceolate

10030 Leaves alternate, Raceme terminal

10031 Leaves pinnated, Flowers smooth

10032 Unarmed, Leaves simple stalked alternate subcordate ovate, Racemes compound axillary and lateral
10033 Leaves pinnated, Leaflets ovate acuminate, Stem arboreous
10034 Spiny, Leaves subsessile aggregate obovate oblong, Peduncles 2-flowered

10035 Leaves ternate rhomboid smooth, Stem herbaceous unarmed, Calyxes truncate
10036 Leaves ternate smooth, Stem arboreous prickly, Calyxes campanulate truncate
10037 Leaves ternate unarmed, Stem arboreous prickly, Calyxes truncate 5-toothed
10038 Leaves ternate unarmed, Stem arboreous prickly, Calyxes spathaceous
10039 Leaves ternate unarmed lanceolate, Stem arboreous prickly, Calyxes bifid
10040 Leaves ternate unarmed, Leaflets blunt, Stem arboreous prickly
10041 Leaves ternate prickly, Stem arboreous prickly
10042 Leaves ternate prickly beneath, Petioles unarmed, Stem prickly



and Miscellaneous Particulars.

This drupe is large, subovate, and incloses a woody nut. The bark, which has a mucilaginous sweetish taste and a disagreeable smell, was first noticed as a vermifuge by Peter Duguid; but Dr. Wright, who resided a long time at Jamaica, has communicated the fullest information concerning this tree. According to him, the bark is powerfully medicinal; and its anthelmintic effects have been established at Jamaica by long experience.

1518. *Dipterix.* From δις, double, and πτερυξ, a wing, in allusion to the two appendages of the calyx. A tree much branched at top, with large alternate pinnate leaves, and racemes of flowers succeeded by almond-like fruits. The kernels of these are very fragrant, and are put by the Creoles into chests of clothes, in order to drive away insects, and communicate a grateful odor. They are in their own country called *Tonga*, and are the sweet-scented seed sold in shops under the corrupted name of *Tonquin* bean, for perfuming snuff and other substances. Ripened cuttings root in sand in moist heat.

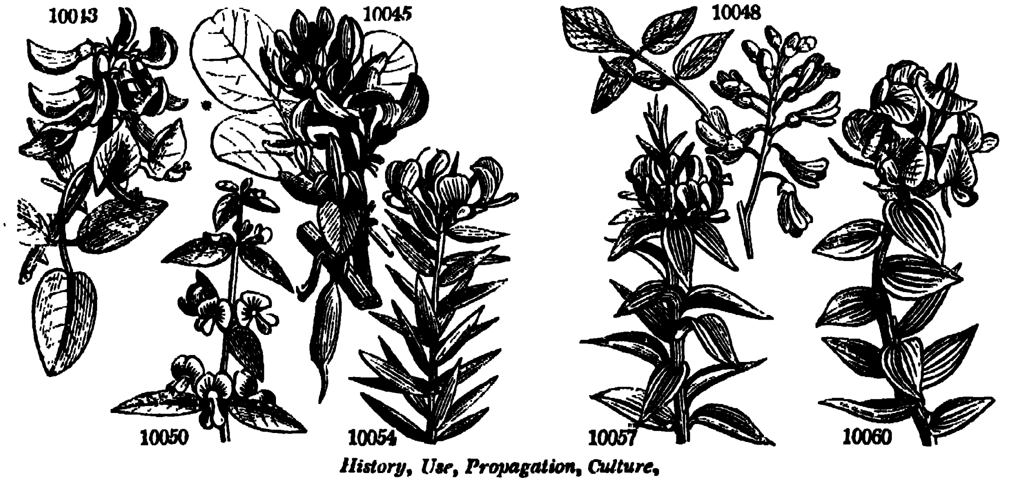
1519. *Parivoa.* The name of the tree in Guiana. A very handsome tree.

1520. *Amerimnum.* One of the names given to the Houseleek by the Greeks. It is derived from α, privative, and μεριμνα, care, because the plants require no attention. It is not easy to tell why the name was applied to this genus, which has nothing in common either with the Houseleek or its ancient name. A. Ebenus is common in the West Indies, and the wood is sent to Europe under the name of American Ebony. Though not the true ebony, yet being of a fine greenish-brown color, and polishing well, it is much coveted by the instrument makers, and is of a very hard durable nature. The flowers of Amerimnum latifolium are yellow, and smell like new hay. In our stoves the species may be treated like Pterocarpus.

1521. *Erythrina.* From ερυθρος, red; nearly all the species being remarkable for the brilliant scarlet color of their flowers. The species are small trees, prickly or unarmed, or else shrubs, sometimes almost herbaceous; leaves, as in Dolichos, ternate, stipulaceous, the petiolules jointed and awned, or glandular, very seldom simple; flowers in fascicles from the axils, or in spikes at the end of the stem and branches, often scarlet. (*Jussieu.*)

In our stoves they thrive well in a light loamy soil. "The best way to flower them," Sweet observes, "is to place them on a dry shelf in winter, when they have no leaves, and give them scarcely any water; when they show flower-buds, they may be plunged in a moist heat, which will make the flowers finer than they

10043 Crista-galli *W.*	Cock's-Comb	Ŷ	□	or	40	my.jl	S	Brazil	1771.	S	r.m	Exot. bot. 2. t. 95
10044 ovális *Wall.*	oval	♣	□	or	6	...	S	Nepal	1820.	C	l.p	
1522. BU'TEA. *W.*	BUTEA.					*Leguminosæ.*		*Sp.* 2.				
10045 frondósa *W.*	downy-branch.	Ŷ	□	spl	30	...	S	E. Indies	1796.	C	r.l	Roxb. cor. 1. t. 21
10046 supérba *W.*	smooth-branch.	Ŷ	□	spl	30	...	S	E. Indies	1798.	C	r.l	Roxb. cor. 1. t. 22
1523. VIBOR'GIA. *W.*	VIBORGIA.					*Leguminosæ.*		*Sp.* 1—4.				
10047 sericea *W.*	silky	♣	⌴	or	3	jl.au		C. G. H.	1780.	C	l.p	
1524. PISCI'DIA. *W.*	PISCIDIA.					*Leguminosæ.*		*Sp.* 1—5.				
10048 Erythrina *W.*	Jamaica Dogw.	Ŷ	□	tm	25	...	W	W. Indies	1690.	S	p.l	Lam. ill. t. 605
1525. PLATYLO'BIUM. *Sm.*	FLAT-PEA.					*Leguminosæ.*		*Sp.* 3—5.				
10049 formósum *H. K.*	large-flowered	♣	⌴	or	4	jn.au	Or	N. S. W.	1790.	S	s.p	Bot. mag. 469
10050 parviflórum *H. K.*	small-flowered	♣	⌴	or	4	my.s	Or	N. S. W.	1792.	S	s.p	Bot. mag. 1520
10051 trianguláre *H. K.*	triangular-lvd.	♣	⌴	or	4	jn.s	Or	V. Di. L.	1805.	S	s.p	Bot. mag. 1508
1526. BORBO'NIA. *W.*	BORBONIA.					*Leguminosæ.*		*Sp.* 9—11.				
10052 ericifólia *W.*	Heath-leaved	♣	⌴	or	4	jl.au	Y	C. G. H.	1812.	C	l.p	
10053 trinérvia *W.*	three-nerved	♣	⌴	or	6	jl.au	Y	C. G. H.	1759.	S	p.l	Plu. alm. t. 297. f. 4
10054 lanceoláta *W.*	many-nerved	♣	⌴	or	5	jl.au	Y	C. G. H.	1752.	C	p.l	Jac. schœ. 2. t. 217
10055 perfoliáta *W.*	perfoliate	♣	⌴	or	6	jl.au	Y	C. G. H.	1812.	C	p.l	
10056 unduláta *W.*	wave-leaved	♣	⌴	or	4	jl.au	Y	C. G. H.	1812.	C	p.l	
10057 cordáta *W.*	heart-leaved	♣	⌴	or	6	jl.s	Y	C. G. H.	1759.	S	p.l	Jac. schœ. 2. t. 218
10058 crenáta *W.*	notch-leaved	♣	⌴	or	6	jn.au	Y	C. G. H.	1774.	S	p.l	Bot. mag. 274
10059 lævigáta *B. C.*	polished	♣	⌴	or	3	jl.au	Y	C. G. H.	1799.	S	p.l	Bot. cab. 247
10060 ruscifólia *B. M.*	Butcher's Broom	♣	⌴	or	3	jl	Y	C. G. H.	1790.	S	p.l	Bot. mag. 2128
1527. RAF'NIA. *Th.*	RAFNIA.					*Leguminosæ.*		*Sp.* 1—4.				
10061 triflóra *W.*	three-flowered	£	⌴O	or	3	jn.jl	Pu	C. G. H.	1786.	S	s.l	Bot. mag. 482
1528. ASPA'LATHUS. *W.*	ASPALATHUS.					*Leguminosæ.*		*Sp.* 18—75.				
10062 Chenopóda *W.*	Goosefoot	♣	⌴	pr	3	jl.au	Y	C. G. H.	1759.	C	p.l	Breyn. cent. t. 11
10063 álbens *W.*	silky	♣	⌴	pr	4	jl.au	W	C. G. H.	1774.	C	p.l	
10064 pedunculáta *H. K.*	small-leaved	♣	⌴	pr	6	jl.au	Y	C. G. H.	1775.	S	p.l	Bot. mag. 344
10065 ericifólia *W.*	Heath-leaved	♣	⌴	pr	2	jl.au	Y	C. G. H.	1789.	C	p.l	Pl. man. t. 413. f. 6
10066 asparagoídes *W.*	Asparagus-lvd.	♣	⌴	pr	3	jl au	Y	C. G. H.	1812.	C	p.l	Pluk. am. 425. 1
10067 carnósa *W.*	fleshy-leaved	♣	⌴	pr	3	my.jn	Y	C. G. H.	1795.	C	p.l	Bot. mag. 1289
10068 crassifólia *B. Rep.*	bristle-pointed	♣	⌴	pr	2	jl.au	Y	C. G. H.	1800.	S	p.l	Bot. rep. 353
10069 ciliáris *W.*	ciliated	♣	⌴	pr	2	jl.au	Y	C. G. H.	1799.	C	p.l	Bot. mag. 2233
10070 uniflóra *W.*	single-flowered	♣	⌴	pr	3	jl.au	Y	C. G. H.	1812.	C	p.l	Pl. man. t. 414. f. 7
10071 subuláta *W.*	awl-leaved	♣	⌴	pr	1½	jl.au	Y	C. G. H.	1789.	C	p.l	
10072 globósa *B. Rep.*	globular	♣	⌴	pr	3	jn.jl	Or	C. G. H.	1802.	S	p.l	Bot. rep. 510
10073 araneósa *W.*	cobweb	♣	⌴	pr	3	jn.jl	Y	C. G. H.	1795.	S	p.l	Bot. mag. 829
10074 indica *W.*	Indian	♣	□	pr	3	jl.au	R	E. Indies	1759.	S	p.l	Rhee. mal. 9. t. 37
10075 argéntea *W.*	silver-leaved	♣	⌴	pr	2	jl.au	Y	C. G. H	1759.	C	p.l	
10076 cándicans *H. K.*	white	♣	⌴	pr	2	jn.jl	Y	C. G. H.	1774.	C	l.p	
10077 callósa *W.*	oval-spiked	♣	⌴	pr	3	jl.au	Y	C. G. H.	1812.	C	l.p	Bot. mag. 2329
10078 mucronáta *W.*	thorny-branch.	♣	⌴	pr	3	jn.jl	Y	C. G. H.	1796.	C	l.p	
10079 affinis *Thunb.*	kindred	♣	⌴	pr	3	jn.jl	Y	C. G. H.	1822.	C	l.p	



History, Use, Propagation, Culture,

would be, if the plants stay out till they are in bloom. Cuttings taken off at a joint, and planted in sand, without being deprived of any of their leaves, strike root readily under a hand-glass in moist heat." (*Bot. Cult.* 54.)

1522. *Butea.* Named in honor of the late Earl of Bute, a munificent patron of botanical science. This splendid genus, though of free growth and easy propagation, is yet rare in British collections. From B. frondosa is obtained the *Gum lac* of commerce. Infusions of the flowers dye cotton cloth, previously impregnated with a solution of alum, or of alum and tartar, of a beautiful yellow color. The plant grows in loam and peat, and "cuttings should be taken off at a joint, and planted in a pot of sand, without being deprived of any of their leaves: one pot is enough under a hand-glass, as the leaves take up much room, and, if too confined, are apt to damp off. They should be plunged in a moist heat." (*Bot. Cult.* 30.)

1523. *Viborgia;* usually written *Wiborgia*, received its name after M. Eric Viborg, a learned and acute Danish botanist, author of several botanical treatises in his own language in the end of the eighteenth century. The species, like those of the four preceding genera, may be treated as Scottia.

1524. *Piscidia.* From *piscis*, a fish; the inhabitants of America use the bark as a fish poison. This tree has spreading branches and pinnate leaves, and is very common in Jamaica, where it is reckoned one of the best timber-trees in the island. The wood is very hard and resinous, and lasts almost equally in or out of water. It is of a light-brown color, coarse, cross-grained, and heavy. (*Browne.*) It makes excellent piles for wharfs. The stakes soon form a good live fence. The bark of the trunk is very astringent; a decoction of it stops the immoderate discharge of ulcers, especially when it is combined with the mangrove bark; it cures the mange in dogs, and would probably answer well for tanning leather. (*Long*, 824.) The bark of the root is used for the same purposes and with the same effects as the leaves and branches of Surinam poison; it is pounded and mixed with the water in some deep and convenient part of a river or creek, whence it may spread itself;

10043 Leaves ternate, Petioles prickly glandular, Stem arboreous unarmed
10044 Leaves ternate oblong oval blunt

10045 Branches downy, Leaflets roundish emarginate
10046 Branches smooth, Leaflets obovate roundish blunt

10047 Leaflets and twiggy branches pubescent

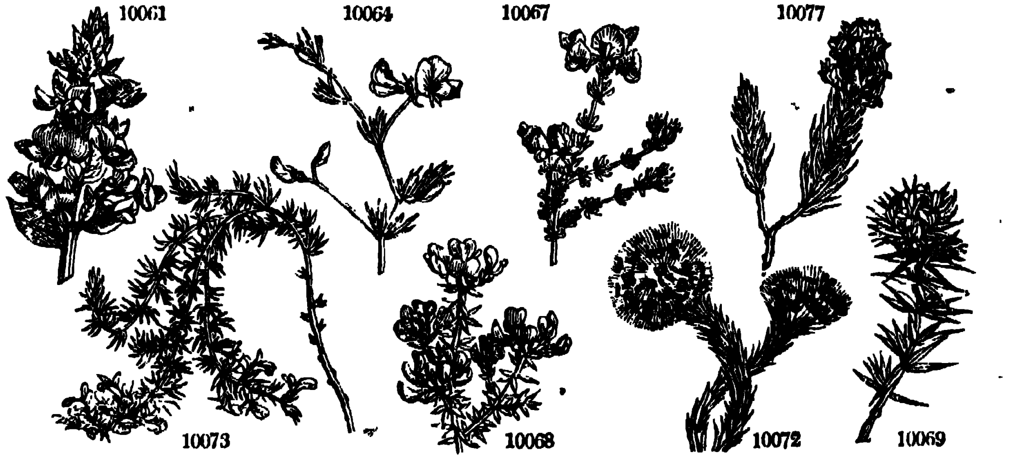
10048 Leaves unequally pinnate, Leaflets ovate

10049 Leaves cordate ovate, Ovary hairy
10050 Leaves lanceolate ovate, Ovary smooth
10051 Leaves deltoid or hastate with spiny angles

10052 Leaves sublinear acute villous beneath, Heads terminal
10053 Leaves lanceolate 3-nerved entire
10054 Leaves lanceolate many-nerved entire
10055 Leaves amplexicaul. entire netted
10056 Leaves amplexicaul. wavy with a reflexed mucro
10057 Leaves cordate many-nerved entire
10058 Leaves cordate many-nerved toothletted
10059 Leaves ovate cordate acuminate pungent, Stem hirsute
10060 Leaves rigid pointed pungent oblong dense

10061 Leaves ovate smooth, Branches angular, Peduncles 3 lateral 1-flowered

10062 Leaves fascicled 3-angular mucronate stiff hairy, Heads hairy
10063 Leaves fascicled filiform silvery blunt, Racemes leafy, Flowers not hairy
10064 Leaves fascicled subulate smooth, Pedunc. filiform twice as long as leaf
10065 Leaves fascicled filiform blunt hairy, Flowers somewhat racemose
10066 Leaves fascicled 3-cornered mucronate hairy, Flowers lateral
10067 Leaves fascicled fleshy round smooth, Fl. lateral and terminal, Flowers smooth
10068 Leaves fascicled fleshy round smooth setaceous at end, Fl. capitate terminal
10069 Leaves fascicled scabrous somewhat hairy, Heads terminal
10070 Leaves fascicled filiform mucronate smooth, Flowers lateral
10071 Leaves fascicled 3-cornered mucronate smooth
10072 Leaves linear downy imbricated, Heads terminal crowded
10073 Leaves fascicled filiform lax hairy, Heads hairy
10074 Leaves quinate sessile, Peduncles 1-flowered
10075 Leaves ternate and fascicled ovate silky, Heads downy, Stem dichotomous
10076 Leaves ternate and fascicled filiform silky, Fl. somewhat lateral, Vexillum naked
10077 Leaves three 3-cornered smooth, Spikes ovate
10078 Leaves ternate, Leaflets blunt, Branches spiny
10079 Leaves fascicled fleshy round smooth, Flowers lateral without bractes, Branches twiggy



and Miscellaneous Particulars.

in a few minutes the fish that lie hid under the rocks or banks rise to the surface, where they float as if they were dead; most of the large ones recover after a time, but the smaller fry are destroyed. The eel is not intoxicated with common doses, though it is affected very sensibly; for the moment the particles spread where it lies, it moves off with great agility. Jacquin observes that this quality of intoxicating fish is found in many other American plants.

It is a very free grower in our stoves, but is seldom allowed to grow large enough to flower. Cuttings root in sand under a hand-glass.

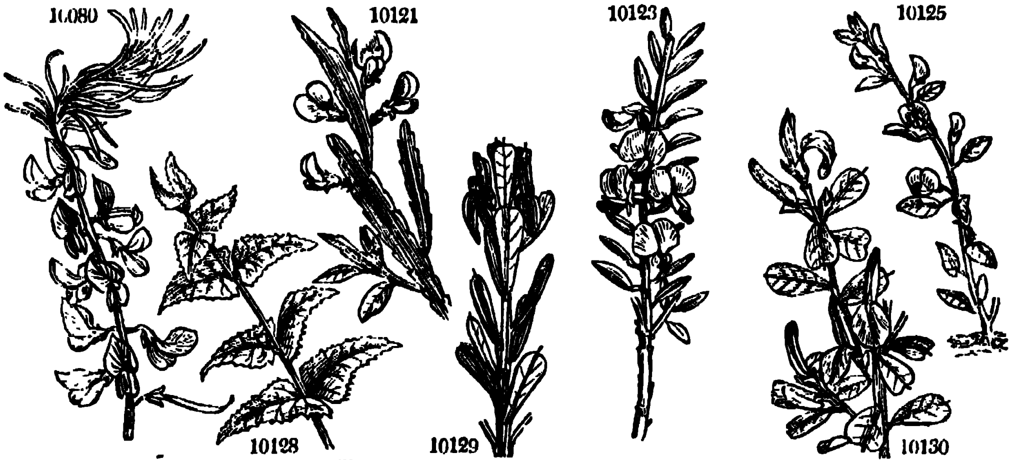
1525. *Platylobium.* From πλατυς, broad, and λοβος, a pod, in allusion to the form of the pod. Handsome free-flowering plants, which grow in sandy loam and peat; and are increased by cuttings in sand under a hand-glass, or by seeds.

1526. *Borbonia.* In memory of Gaston Bourbon, Duke of Orleans, son of Henry IV. of France, a great lover and patron of botany. See Gastonia. Shrubs of easy culture and propagation.

1527. *Rafnia.* Named, according to Sir James Smith, after Mr. C. G. Rafn of Copenhagen, author of a Flora of Denmark and Holstein, published in 1796 and 1800, in two octavo volumes. A genus of Cape plants, separated from the Linnean Crotalaria and Liparia.

1528. *Aspalathus.* A native of the island *Aspalathus* on the coast of Lycia. It was a common practice with the ancients to fix the names of places upon certain plants, as Cytisus, Lycium, and others. It is not certain what plant the ancients intended by their Aspalathus. Shrubs and under-shrubs, with fasciculate linear leaves, and yellow flowers, all of which grow freely in a mixture of sandy loam and peat; and young cuttings, planted in sand under bell-glasses will strike root freely, if the glasses are wiped occasionally, otherwise they are liable to damp off. Some species ripen seeds freely, by which young plants are readily produced. (*Bot. Cult.* 140.)

1529. SARCOPHYL'LUM. *Th.*		SARCOPHYLLUM.				*Leguminosæ.*		*Sp.* 1.				
10080	carnósum *Th.*	jointed-leaved	❀ ⊔	cu	3	my.au	Y	C. G. H.	1812.	C	s.l	Bot. mag. 2502
1530. CROTALA'RIA. *W.*		CROTALARIA.				*Leguminosæ.*		*Sp.* 40—87.				
10081	sagittális *W.*	Virginian	⊡	un	1	jn.jl	Y	America	1731.	S	co	Plu.alm.t.169.f.6
10082	prostráta *W. en.*	prostrate	✱ ⊡	un	½	jl	Y	E. Indies	1804.	S	co	
10083	floribúnda *B. C.*	many-flowered	⊔	pr	2	jl.au	Y	C. G. H.	1810.	C	co	Bot. cab. 509
10084	rubiginósa *W.*	ferrugineous	⊡	un	½	jl	Or	E. Indies	1807.	S	co	
10085	platycárpa *Link.*	flat-podded	⊡	un	1	jl	Y	N. Amer.	1823.	S	co	
10086	anthylloides *H. K.*	large-fl.-cupped	❀ □	or	4	au.s	Y	E. Indies	1789.	C	s.l	
10087	tetragóna *H. K.*	square-stalked	⚘ ⊡)	un	2	o.n	Y	E. Indies	1806.	S	s.l	Bot. rep. 593
10088	paulina *Schranck.*	St. Pauls	⚘ ◬	un	2	au.s	Y	Brazil	1823.	S	co	
10089	parviflóra *Roth.*	small-flowered	⊡	un	2	au.s	Y	E. Indies	1817.	S	co	
10090	benghalénsis *P. S.*	Bengal	⊡	un	2	jn.jl	Y	E Indies	1806.	S	s.l	Plu.alm.t.169.f.5
10091	júncea *W.*	striated-stalked	⊡	un	1	jn.jl	Y	E. Indies	1700.	S	p.l	Bot. rep. 422
10092	diffúsa *Link.*	diffuse	⊡	un	¾	jn.jl	Y	......	...	S	co	
10093	nepalénsis *Link.*	Nepal	⊡	un	1	jn.jl	B	Nepal	1823.	S	co	
10094	fenestráta *B. M.*	window-calyxed	⊡	un	2	jn.jl	Y	E. Indies	1815.	S	p.l	Bot. mag. 1983
10095	sericea *W.*	silky	⊡	un	1½	jn.jl	Y	E. Indies	1807.	S	p.l	
10096	retúsa *W.*	wedge-leaved	⊡	un	1	jn.jl	Y.Pu	E. Indies	1731.	S	p.l	Bot. reg. 253
10097	verrucósa *W.*	blue-flowered	⊡	un	1	jl.au	B	E. Indies	1731.	C	r.m	Bot. rep. 308
10098	micans *Link.*	glittering	⚘ ⊡)	un	2	jl.au	Pa.Y	......	1820.	C	co	
10099	curtáta *Link.*	short-keeled	⊡	un	1	ap.my	Y	......	...	S	co	
10100	púlchra *H. K.*	short-podded	❀ □	un	2	mr.my	Y	E. Indies	1800.	S	p.l	Bot. rep. 601
10101	semperflórens *P. S.*	ever-blowing	❀ □	un	3	mr.s	Y	E. Indies	1816.	S	p.l	Vent. cels. t. 17
10102	hirta *W. en.*	hairy	⊡	un	1½	jn.au	Y	E. Indies	1816.	S	p.l	
10103	biflóra *W.*	two-flowered	⊡	un	½	jl.au	Y	E. Indies	1790.	S	p.l	Bur. ind t.48. f.2
10104	micrántha *Link.*	small-flowered	⊡	un	1	jl.au	Y	Ceylon	1823.	S	co	
10105	vitellina *Ker.*	Yolk of egg	❀ □	un	2	my.jn	Y	Brazil	1819.	C	co	Bot. reg. 447
10106	pulchérrima *B. M.*	Mysore	❀ □	un	2	jn.jl	Y	Mysore	1814.	C	co	Bot. mag. 2027
10107	paniculáta *W.*	panicled	❀ □	or	3	...	Y	E. Indies	1807.	C	l.p	
10108	lotifólia *W.*	Lotus-leaved	⊡	un	3	jn.jl	Y.o	Jamaica	1732.	S	co	Dil.el.t.102.f.121
10109	laburnifólia *W.*	Laburnum-lvd.	⚘ ⊡)	un	5	jl.s	Y	E. Indies	1739.	S	co	Rhee.mal 9. t.27
10110	cordifólia *W.*	heart-leaved	❀ ⊔	un	8	ap.jn	D.Pu	C. G. H.	1790.	C	p.l	Bot. cab. 1158
10111	purpúrea *H. K.*	dark-purple	❀ ⊔	un	4	mr.my	Pu	C. G. H.	1790.	C	p.l	Bot. reg. 128
10112	pulchélla *H. K.*	large-flowered	❀ ⊔	un	3	jl.au	Y	C. G. H.	1800.	C	p.l	Bot. mag. 1699
10113	Saltiána *B. Rep.*	Salt's	❀ □	un	3	jn.jl	Y	Abyssinia	1810.	C	p.l	Bot. rep. 648
10114	axilláris *W.*	axil-flowered	⊡	un	1½	jl.au	Y	Guinea	1781.	S	p.l	
10115	orixénsis *W. en.*	strigose	⊡	un	1½	jl.au	Y	E. Indies	1816.	S	p.l	
10116	incanéscens *W.*	spreading	❀ ⊔	un	6	jn.o	Y	C. G. H.	1774.	S	s.p	Jac. vind. 3. t. 64
10117	incána *W.*	hoary	⊡	un	2	jn.jl	G.y	W. Indies	1714.	S	s.p	Bot. reg. 377
10118	pállida *W.*	pale-flowered	⊡	un	2	jn.jl	Pa.Y	Africa	1775.	S	s.p	
10119	angustifólia *W.*	narrow-leaved	❀ ⊔	un	1½	my.s	Pa.Y	C. G. H.	1815.	S	s.p	Jac.schœ.2.t.219
10120	quinquefólia *W.*	five-leaved	⊡	un	1	jn.jl	Y	E. Indies	1792.	C	s.p	Rhee. mal.9. t.28
1531. BOSSIÆ'A. *Sm.*		BOSSIÆA.				*Leguminosæ.*		*Sp.* 8—12.				
10121	Scolopéndrium *H. K.*	Plank-plant	❀ ⊔	or	10	my.jl	Y	N. S. W.	1792.	C	s.l.p	Bot. rep. 191
10122	rúfa *H. K.*	red-flowered	❀ ⊔	or	6	jn.s	R	N. Holl.	1803.	C	s.l.p	Bot. cab. 1119
10123	heterophylla *V.*	various-leaved	❀ ⊔	or	3	my.d	Y	N. S. W.	1792.	C	s.l.p	Bot. mag. 1144
10124	linophýlla *H. K.*	narrow-leaved	❀ ⊔	or	3	jl.s	Or	N. Holl.	1803.	C	s.l.p	Bot. mag. 2491
10125	prostráta *H. K.*	procumbent	∽ ⊔	or	½	jl.s	Y	N. S. W.	1803.	C	s.l.p	Bot. mag. 1493
10126	cinérea *H. K.*	downy sharp-lv.	❀ ⊔	or	3	my.jl	Y	V. Di. Isl.	1803.	C	s.l.p	Bot. reg. 306
10127	microphýlla *H. K.*	small-leaved	❀ ⊔	or	3	my.au	Y	N. S. W.	1803.	C	s.l.p	Bot. cab. 656
1532. SCOT'TIA. *R. Br.*		SCOTTIA.				*Leguminosæ.*		*Sp.* 1.				
10128	dentáta *R. Br.*	tooth-leaved	❀ ⊔	or	3	jn.s		N. Holl.	1803.	C	s.p	Bot. cab. 1458
1533. TEMPLETO'NIA. *H. K.*		TEMPLETONIA.				*Leguminosæ.*		*Sp.* 2.				
10129	retúsa *H. K.*	wedge-leaved	❀ ⊔	or	2	mr.jn	R	N. Holl.	1803.	C	s.p	Bot. mag. 2334
10130	glaúca *B. M.*	glaucous	❀ ⊔	or	2	ap.my	R	N. Holl.	1818.	C	s.p	Bot. reg. 859



History, Use, Propagation, Culture,

1529. *Sarcophyllum.* From σαρξ, flesh, and φυλλον, a leaf. The leaves are thick and fleshy. A somewhat succulent plant, easily injured by over-watering; but otherwise not difficult to preserve or increase.

1530. *Crotalaria.* Κροταλον was the name of a noisy Greek musical instrument, similar to the cymbals of the present day. The pods of this genus are inflated, and rattle, when shaken, in a similar manner. The species are all of easy culture, mostly free-flowerers; but they are shabby plants under cultivation, and possess no good quality which can render them objects of interest or beauty.

1531. *Bossiæa.* Named by Ventenat, after M. Boissieu-Lamartiniére, who accompanied the unfortunate La Pérouse in his voyage round the world. This beautiful genus, according to Sweet, " thrives best in an equal mixture of sandy loam and peat; if not very sandy, some sand must be added to it to have the plants in health. The pots must be well drained with broken potsherds, as nothing injures them more than too much

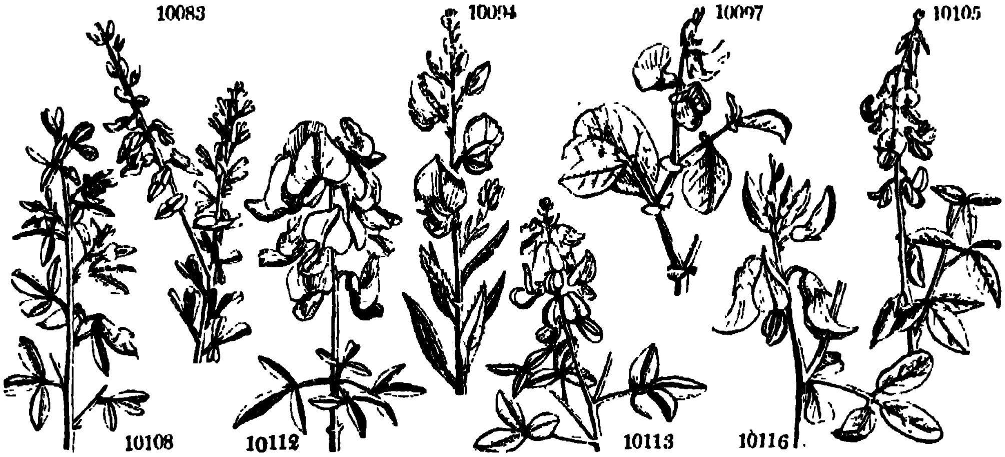
10080 The only species

10081 Leaves simple obl. lanceolate, Stipules lanceolate acuminate decurrent, Racemes opposite the leaves
10082 Leaves simple lanc. ellipt. blunt downy beneath, Racemes opposite the leaves
10083 Leaves very small ternate glaucous, Racemes few-flowered, Vexillum reflexed
10084 Leaves simple lanc. villous, Upper stipules lanc. decurrent, Racemes opposite the leaves, Cal. villous
10085 Branches winged upwards, Lower leaves obl. : upper lanc. acute hairy, Racemes lateral
10086 Leaves simple lin. lanc. acute villous beneath, Flowers and pods inclosed in hairy calyx
10087 Leaves simple long-lanc. Pods downy, Raceme terminal, Stem square
10088 Leaves obl. lanceolate silky beneath, Fl. racemose, Bractes linear much shorter than pedicel
10089 Leaves simple lanc. Upper stipules decurrent with 2 short teeth, Racemes opposite the leaves
10090 Leaves lanceolate subsessile. Lower lip of cal. 3-parted beyond the middle, Stem virgate simple
10091 Leaves simple lanc. subsessile, Pods smooth, Raceme terminal, Stem furrowed
10092 Leaves lanceolate blunt hairy, Fl. terminal, Calyx hairy as long as corolla
10093 Leaves lanceolate, Raceme terminal, Cal very villous as long as corolla
10094 Leaves simple ov. lanceolate silky ciliated, Standard large erect pointed
10095 Leaves simple lanc. beneath, Pods silky, Raceme terminal, Stem furrowed
10096 Leaves simple obl. cuneiform retuse, Raceme terminal
10097 Leaves simple ovate retuse, Stipules lunate declinate, Raceme term. Branches square
10098 Leaflets 3 oval acute, Hairs shining scattered, Racemes opposite the leaves
10099 Leaflets 3 oval blunt with scattered hairs, Raceme terminal long, Keel shorter than vexillum
10100 Leaves simple obovate oblong silky on each side, Pod 4-seeded length of calyx
10101 Stems round striated, Leaves oval emarginate mucronate, Stipules lunate amplexicaul
10102 Leaves simple lin.-lanceolate blunt hairy, Pedunc. terminal subsolitary, Stem branched diffuse
10103 Leaves simple obl. blunt hairy, Stems prostrate herbaceous, Pedunc. 2-3-fl. axillary
10104 Leaflets 3 oblong blunt mucronate with scattered hairs beneath, Raceme terminal, Calyxes silky
10105 Leaves ternate, Leaflets oval-lanc. acute twice as long as villous petiole, Pods pendulous
10106 Leaves obovate cuneate silky, Racemes term. Bractes and calyx colored
10107 Leaves obl. blunt silky villous, Stipules linear subulate reflexed, Panic. terminal bracteate
10108 Leaves ternate, Leaflets cuneiform emarginate silky beneath, Peduncles axillary solitary 1-flowered
10109 Leaves ternate ovate acuminate smooth, Stipules none, Raceme terminal, Pods stalked pendulous
10110 Leaves ternate obcordate mucronate, Flowers corymbose, Stem shrubby
10111 Leaves ternate, Leaflets obovate retuse, Racemes terminal
10112 Leaves ternate, Leaflets linear lanceolate acute half as long again as petiole downy beneath
10113 Leaves ternate on long stalks, Leaflets oval downy, Racemes axillary lax, Standard blunt
10114 Leaves ternate obl. lanceolate acute silky beneath, Stipules lanceolate subulate, Pedunc. axill. 1-flowered
10115 Leaves ternate obovate strigose beneath, Stipules lanceol and bractes ovate reflexed, Racemes terminal
10116 Leaves ternate obovate, Stipules leaf-like stalked, Racemes terminal, Pods stalked
10117 Leaves ternate oval villous beneath, Racemes spiked, Keel downy at edge, Pods sessile hairy
10118 Leaves ternate lanceolate smooth, Racemes terminal spiked
10119 Leaves ternate lanc. hoary silky shorter than petiole, Raceme terminal
10120 Leaves quinate

10121 Branches flat linear leafless, Denticulations flower-bearing, Keel naked, Calyx smooth
10122 Branches flat linear leafless, Denticulations flower-bearing, Keel fringed, Calyx smooth
10123 Branches leafy compressed, Leaves obovate and linear flat, Pod many-celled with spongy septa
10124 Branches leafy compressed, Leaves linear with recurved edges, Pod 1-celled
10125 Branches leafy filiform, Leaves oval smooth, Stipules shorter than petiole, Pod 1-celled
10126 Branches leafy round, Stem erect much branched, Leaves ovate-lanc. rough above
10127 Branches leafy spiny round, Leaves obcordate cuneiform

10128 The only species

10129 Leaves green retuse
10130 Leaves glaucous blunt



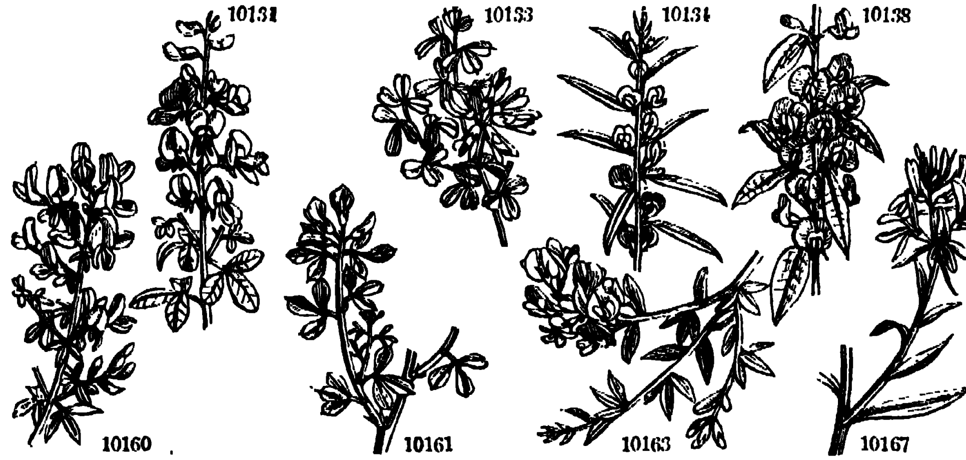
and Miscellaneous Particulars.

water. Cuttings, not too ripe, will strike root if planted in sand under a bell glass, not too close together, as they are apt to damp; when rooted, they must be potted off in little pots and kept in a close frame, and hardened to the air by degrees." (*Bot. Cult.* 151.)

1532. *Scottia.* Named in memory of Robert Scott, M. D., formerly professor of botany at Dublin. A shrub found by Mr. Brown upon the south-west coast of New Holland. Young cuttings root in sand under a bell-glass.

1533. *Templetonia.* Named after John Templeton, Esq., of Orange Grove, near Belfast, a gentleman to whom the editor of the English Botany was under frequent obligations for Irish plants during the progress of that work.

1534.	GOOD′IA. *R. Br.*	Goodia.					*Leguminosæ.*		*Sp.* 2.				
10131	lotifólia *H. K.*	smooth	❀	⊔	or	3	ap.jl	Y	V. Di. Isl.	1793.	S	s.p	Bot. mag. 958
10132	pubéscens *H. K.*	downy	❀	⊔	or	3	ap.jl	Y	V. Di. Isl.	1805.	S	s.p	Bot. mag. 1310
1535.	LODDIGE′SIA. *B. M*	Loddigesia.					*Leguminosæ.*		*Sp.* 1.				
10133	oxálidifólia *B. M.*	Oxalis-leaved	❀		pr	1½	my.s	Pa.pu	C. G. H.	1802.	C	p.l	Bot. mag. 965
1536.	HO′VEA. *H. K*	Hovea.					*Leguminosæ.*		*Sp.* 5.				
10134	lineáris *H. K.*	linear-leaved	❀	⊔	or	3	mr.jl	Pu	N. S. W.	1796.	S	s.p	Bot. reg. 463
10135	longifólia *H. K.*	long-leaved	❀	⊔	or	3	jn.s	Pu	N. S. W.	1805.	S	s.p	Bot. reg. 614
10136	lanceoláta *B. M.*	spear-leaved	❀	⊔	or	3	mr.jl	Pu	N. Holl.	1805.	S	s.p	Bot. mag. 1624
10137	ellip′tica	oval-leaved	❀	⊔	or	3	mr.jl	Pu	N. Holl.	1817.	C	s.p	Bot. cab. 1450
10138	Cel′si *Bonpl.*	Cels's	❀	⊔	or	4	mr.jl	B	N. Holl.	1818.	C	s.p	Bot. reg. 280
1537.	SPAR′TIUM. *W.*	Broom.					*Leguminosæ.*		*Sp.* 21—37.				
10139	júnceum *W.*	Spanish	❀		ec	6	jl.s	Y	S. Europe	1548.	S	co	Bot. mag. 85
	β *flore-pleno*	*double-flowered*	❀		or	6	jl.s	Y	S. Europe	1548.	S	co	
10140	monospérmum *W.*	white single-seed.	❀	⊔	or	4	jn.jl	W	S. Europe	1690.	S	p.l	Bot. mag. 683
10141	sphærocárpon *W.*	yellow single-seed.	❀	⊔	or	4	jn.jl	Y	S. Europe	1731.	S	p.l	Reneal.spec. t.33
10142	prócerum *W. en.*	tall	❀	⊔	or	8	jn.jl	Y	Portugal	1816.	C	s.l	
10143	congéstum *W. en.*	close-branched	❀	⊔	or	4	ap.jl	Y	Teneriffe	...	C	s.l	
10144	virgátum *W.*	long-twigged	❀	⊔	or	5	mr.jn	Y	Madeira	1777.	C	p.l	Jac. ic. 1. t. 147
10145	púrgans *W.*	purging	❀		or	4	jn.jl	Pa.Y	S. France	1768.	S	p.l	Bull. herb. t.115
10146	umbellátum *W.*	umbelled	❀	⊔	or	3	ap.jn	Y	Barbary	1799.	C	p.l	Desf. atl. 2. t.180
10147	Scórpius *W*	Scorpion	❀		or	4	mr.ap	Y	S. Europe	1570.	S	p.l	Dend. brit. 78
10148	sericeum *Vent.*	silky	❀	⊔	or	3	my.au	Y	Mogadore	1812.	C	p.l	Vent. choix t.17
10149	multiflórum *W.*	white Portugal	❀		or	6	my	W	Portugal	1752.	S	co	Duham.arb.2.23
10150	angulátum *W.*	small-flowered	❀		or	3	my.jn	Y	Levant	1739.	C	p.l	Vent. cels 87
10151	pátens *W.*	woolly-podded	❀		or	4	jn.jl	Y	Portugal	1752.	S	p.l	Cav. ic. 2. t. 176
10152	pilocárpum *Link.*	hairy-fruited	❀		or	4	jn jl	Y	......	1823.	S	p l	
10153	cinéreum *W.*	cinereous	❀		or	4	jn.jl	Y	S. Europe	...	S	co	Dend. brit. 76
10154	nubígenum *W.*	cluster-flower'd	❀	⊔	ft	6	my.au	W	Teneriffe	1779.	C	p l	
10155	linifólium *W.*	Flax-leaved	❀	⊔	or	3	ja.jn	Y	Spain	1759	C	p.l	Bot. mag. 442
10156	scopárium *W.*	common	❀		ec	6	ap.jn	Y	Britain	dry hil.	S	co	Eng. bot 1339
10157	radiátum *W.*	starry	❀		or	1½	jn.jl	Y	Italy	1758.	S	s p	Bot. mag 2260
10158	férox *W.*	fierce	❀	⊔	or	1½	jn jl	Y	Barbary	1800.	C	p.l	Bot. reg 368
10159	spinósum *W.*	prickly	❀	⊔	or	2	jn jl	Y	S. Europe	1596.	C	p.l	Lob. ic. 2. p 95
1538.	GENIS′TA. *W.*	Genista.					*Leguminosæ.*		· 21—42.				
10160	canariénsis *W.*	Canary	❀	⊔	ft	2	my.s	Y	Canaries	1656.	S	s l	Bot. reg. 217
10161	cándicans *W.*	hoary	❀		or	2	ap.jl	Y	Spain	1735.	C	s.l	Dend. brit. 80
10162	viscósa *W.*	clammy	❀	⊔	or	2	ap jl	Y	Canaries	1815	C	s.l	
10163	triquetra *W.*	triangular	~		or	3	my.jn	Y	Corsica	1770.	C	s.p	Bot. mag 314
10164	sagittális *W.*	jointed	❀		or	½	my jn	Y	Germany	1570.	L	co	Jac. aust.3. t 209
10165	trianguláris *W.*	three-sided	❀		or	2	my jn	Y	Hungary	1815.	C	co	Pl.rar.hu 2.t.153
10166	tinctória *W.*	Green-weed	❀		or	3	jn.au	Y	Britain	dry pa.	S	co	Eng. bot. 44
10167	sibírica *W.*	Siberian	❀		or	2	jn au	Y	Siberia	1785.	L	co	Jac.vind.2. t.190
10168	ováta *W.*	oval-leaved	❀		or	3	jn.au	Y	Hungary	1816.	C	co	Pl.rar.hung. t 83
10169	scariósa *Viviani*	scariose	❀		or	6	jn jl	Y	Italy	1821.	C	co	Bot. cab. 1135



History, Use, Propagation, Culture,

1534. ***Goodia.*** In memory of Peter Good, an industrious gardener employed by the Kew garden in collecting seeds in New Holland, where he died.

1535. ***Loddigesia.*** Named in compliment to Mr. Conrad Loddiges, a successful cultivator of plants, an assiduous collector, and a most worthy man, whose virtues are inherited by his sons.

1536. ***Hovea.*** In honor of Mr. Antony Pantaleon Hove, a Polish botanist, who travelled in the Crimea and Persia, whence many plants were sent to Kew garden. He is still alive, and naturalized in England. Pretty plants, easily cultivated in sandy loam and peat, and rooted in sand under a hand-glass.

1537. ***Spartium.*** From σπαρτον, cordage; the earliest ropes were made of this and similar tough plants. The species are shrubs thick-set with verdant flexible rush-like twigs, which are very ornamental in winter, and generally profusely covered with shewy white or yellow odoriferous and mellifluous blossoms in summer. S. junceum is grown as a green food for sheep in the south of France, and there and in Spain it affords a thread from its fibres, which is sometimes wove into cloth, but more generally twisted into cordage. Bees are very fond of the flowers, as they are of those of most of the species.

S. monospermum, is a very handsome shrub, remarkable for its numerous snow-white flowers. Osbeck remarks, that it grows like willow-bushes along the shore of Spain, as far as the flying sands reach, where scarcely any other plant exists except the Ononis repens, or creeping Restharrow. The use of this shrub is very great in stopping the sand. The leaves and young branches are delicious food for goats. It converts the most barren spot into a fine odoriferous garden by its flowers, which continue a long time. It serves to shelter hogs and goats against the scorching heat of the sun. The twigs are used for tying bundles; and all kinds of herbs that are brought to market are fastened together with them. Forskahl found it in Arabia; and Desfontaines in Barbary, on the sandy coast. The Spaniards call it *Retamas*, from the Arabic name *Ratam.*

10131 Leaflets obovate and calyxes smooth, Pod varicose
10132 Leaflets obovate cuneate and calyxes downy, Pod smooth

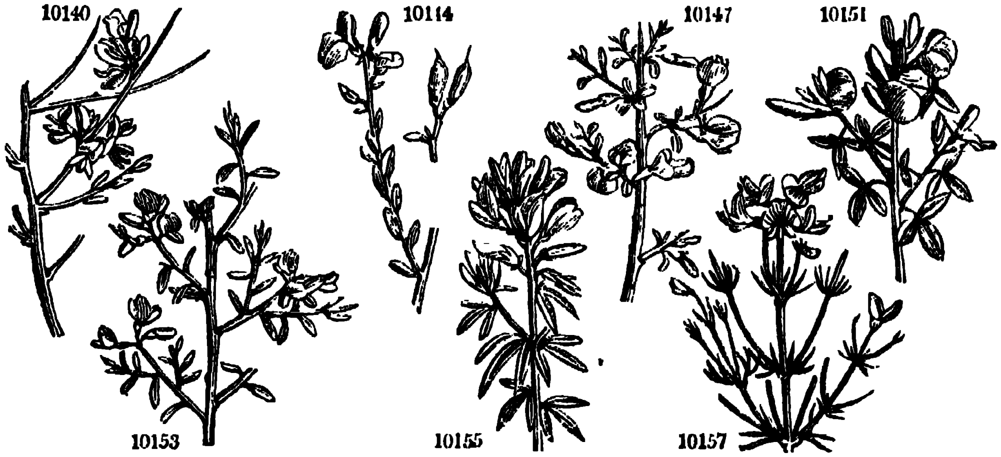
10133 The only species

10134 Leaves linear hairy beneath, Pods smooth
10135 Leaves long linear; beneath veiny, Pods downy
10136 Branches twiggy, Leaves lanc. mucronate downy beneath, Fl. axill. twin
10137 Leaves elliptic oblong
10138 Leaves lanc. somewhat rhomboid blunt at end mucronate, Peduncles axillary many-flowered

10139 Branches opposite round flowering at end, Leaves lanceolate

10140 Branches round striated, Racemes lateral few-fl. Flowers subaggregate, Leaves lanceolate silky
10141 Branches round striated, Racemes lateral many-fl Flowers remote, Leaves lanc. sessile a little hairy
10142 Branches round striated, Fl. solitary axillary, Pods villous, Leaves lanceolate hairy
10143 Branches round striated very close, Fl. terminal racemose, Vexillum smooth, Leaves lanc. silky
10144 Branches round striated, Fl. axill. solitary subracemose, Standard and keel downy, Lvs. obl. lanc. silky
10145 Branches round striated, Fl. axillary solitary, Leaves lanc. silky subsessile
10146 Branches round striated, Fl. term capitate, Leaves lin. lanc. silky
10147 Branches round striated spreading spiny, Pedunc. axill. many-fl. Leaves obl. acute silky
10148 Leaves lanc. silky beneath, Corolla silky, Branches erect round
10149 Leaves ternate and simple silky, Twigs straight striated flowering on all sides
10150 Leaves solitary and ternate linear lanceolate hoary, Branches hexangular flowering at the ends
10151 Leaves ternate stalked obovate, Branches round striated, Lateral flowers twin nodding
10152 Branches angular, Leaves simple lanceolate silky beneath, Fl. racemose, Pods hairy
10153 Branches round with ten furrows, Flowers axillary solitary downy
10154 Leaves ternate lanc. hairy stalked, Fl. lateral fascicled, Pods smooth, Branches round striated
10155 Leaves ternate sessile linear silky beneath, Raceme terminal, Branches round furrowed
10156 Leaves ternate and solitary oblong, Fl. axillary, Pods hairy at edge, Branches angular
10157 Leaves ternate linear, Petioles dilated persistent, Racemes capitate term. Branches angul. opp. clustered
10158 Leaves ternate and simple oblong mucronate, Raceme terminal, Branches striated round spiny
10159 Leaves ternate obovate, Peduncles axillary, Cal. and pods smooth, Branches angular spiny

10160 Leaves tern. obl. downy beneath with spreading hairs, Pedunc. many-fl. terminal, Branches angular
10161 Leaves ternate obovate downy with closely pressed hairs, Pedunc. many-fl. terminal, Branches angular
10162 Leaves ternate obl. smooth, Racemes terminal, Cal. and pods glandular viscid, Branches round striated
10163 Leaves ternate: upper simple, Branches triquetrous procumbent
10164 Branches 2-edged membranous jointed, Leaves ovate lanceolate
10165 Leaves lanceolate mucronate smooth, Branches 3-cornered ascending, Pods smooth
10166 Leaves lanceolate smooth, Branches round striated erect, Pods smooth
10167 Leaves lanceolate smooth, Branches equal round erect
10168 Leaves oblong ovate and pods hairy, Branches round striated
10169 Quite smooth, Leaves not ciliated, Cor. 5 lines long, Calyx smooth

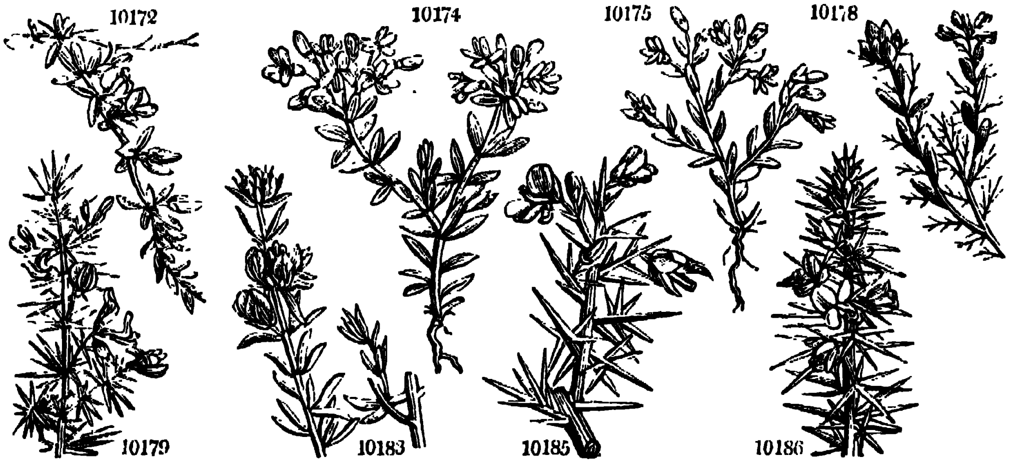


and Miscellaneous Particulars

S. scoparium, though in some places a troublesome weed in old pastures, is a very ornamental shrub in garden scenery: it is also useful in agriculture, domestic economy, and medicine. It is sometimes used as winter food for sheep, frequently for thatching cottages and ricks, and as litter. Bees are fond of the flowers: the flower-buds, just before they become yellow, are pickled in the manner of capers: the branches are said to be capable of tanning leather, and of being manufactured into coarse cloth; when tender, they are mixed with hops in brewing: the old wood furnishes the cabinet-maker with a beautiful material for veneering. The twigs, when bruised, smell disagreeably, which perhaps may be one reason why our broom is generally rejected by cattle (*Curtis*); but they have also a nauseous bitter taste. The plant when burnt affords a tolerably pure alkaline salt. Broom tops are diuretic and cathartic; the seeds are said to be emetic. The effects of this plant have been very long known to the common people; and both Mead and Cullen found them useful in dropsy. The usual mode of exhibiting them is in the form of decoction, made by boiling the green tops in water. Speaking of this decoction, of which two table spoonfuls were given every hour till it operated by stool, Cullen says, " it seldom fails to operate both by stool and urine, and by repeated exhibition every day, or every second day, some dropsies have been cured. (*Thompson's London Dispensatory*, 514.)

1338. *Genista* *Gen*, signifies, in Celtic, a small bush, whence also *Génet*, French. The species are shrubs or undershrubs, some of them evergreen, and many with numerous flexible rush-like green twigs like the brooms. They are of easy culture and free flowerers. G. tinctoria is common in most parts of Europe, in unimproved pastures on dry gravelly soils. When cows feed on it, their milk, and the butter or cheese made from it, are said to be very bitter. A bright yellow color may be prepared from the flowers, and for wool that is to be dyed green with woad, the dyers prefer it to all others. A dram and a half of the powdered seeds operates as a mild purgative. A decoction of the plant is sometimes diuretic, and therefore

10170 flórida *W.*	Spanish	■		or	6	jn.au	Y	Spain	1752	S	co	
10171 procúmbens *W*	procumbent	⌇		or	1½	jn au	Y	Hungary	1816.	C	co	
10172 decúmbens *W.*	trailing	⌇		or	½	my.jn	Y	France	1775.	L	p.l	Bot. cab. 718
10173 pilósa *W.*	hairy green-weed	■		or	6	my.jn	Y	England	san.he.	S	co	Eng. bot. 208
10174 diffúsa *W.*	diffuse	■		or	3	my jn	Y	Italy	1816.	C	co	Jac. ic. 3. t. 555
10175 serícea *W.*	silky	■		or	3	my.jn	Y	Austria	1812.	S	s.l	Jac. ic. 3. t. 556
10176 ánglica *W.*	Petty whin	■		or	2	my.jn	Y	Britain	moi.he.	S	co	Eng. bot 132
10177 germánica *W.*	German	■		or	2	jn.au	Y	Germany	1773.	L	co	
10178 hispánica *W.*	dwarf-prickly	■		or	2	jn jl	Y	Spain	1759.	C	co	Cav. ic. 3. t. 211
10179 lusitánica *W.*	Portugal	■		or	2	mr.my	Y	Portugal	1771.	C	co	Bot. rep. 419
10180 bracteoláta *Link.*	bracteolate	■	⊔	or	2	mr.my	Y	......	1823.	C	co	
1539. LEBECK'IA. *W.*	LEBECKIA.					*Leguminosæ.*		*Sp.* 4—12.				
10181 contamináta *W.*	narrow-leaved	■	⊔	or	5	ap.my	Br	C. G. H.	1787.	S	p.l	Pluk. am. 412.5
10182 serícea *W.*	silky	■	⊔	or	2	ap	Y	C. G. H.	1774.	S	p.l	
10183 cytisoídes *W.*	Cytisus-leaved	■	⊔	or	3	ap	Pk	C. G. H.	1774.	S	p.l	Com.hor.2. t.107
10184 subternáta *Link.*	yellow-flowered	■	⊔	or	3	jn.jl	Y	C. G. H.	1824.	C	co	
1540. U'LEX. *W.*	FURZE					*Leguminosæ.*		*Sp.* 2.				
10185 europæ'us *W.*	common	■		ag	6	ap.au	Y	Britain	san.he.	S	co	Eng. bot. 742
10186 nánus *W.*	dwarf	■		or	2	au.d	Y	Britain	dry he.	S	co	Eng. bot. 743
1541. ONO'NIS. *W.*	REST-HARROW.					*Leguminosæ.*		*Sp.* 24—73.				
10187 antiquórum *W.*	tall	⚘	△	un	1	jn jl	Pu	S. Europe	1790.	D	co	Lob. ic. 28
10188 spinósa *W.*	common	⚘	△	un	1	jn.au	F	Britain	...	D	co	Eng. bot. 682
10189 hircína *W.*	stinking	⚘	△	un	1¼	my.au	R	Italy	1596.	D	co	Jac. vind. 1. t. 93
10190 répens *W.*	creeping	⚘	△	un	1	jn au	Pk	Europe	...	D	co	Dill elt. t.25. f.28
10191 Colúmnæ *W.*	small-flowered	⚘	△	un	1	jn jl	Y	S. Europe	1732.	D	co	Jac. aust.3. t.240
10192 mitíssima *W.*	cluster-flowered		○	un	1	jn.jl	Pu	Portugal	1732.	S	co	Dill.elt. t 24.f 27
10193 alopecuroídes *W.*	Fox-tail		○	un	¾	jl.au	Pu	Portugal	1696.	S	co	Lap. pyr. 1. t. 9
10194 variegáta *W.*	variegated		○	un	½	jl au	Y	Spain	1784.	S	co	Desf. atl.2. t.185
10195 pubéscens *W.*	downy		○	un	1	jn.au	Pu	S Europe	1680.	S	co	
10196 cérnua *W.*	hanging-podded	¤	⊔	un	2	jl s	Y	C. G. H.	1774	C	co	Com. hort 2.t.82
10197 gemmáta *W.*	two-flowered	¥	⊔△	un	1½	jl s	Pk	C. G. H.	1787.	S	p l	
10198 reclináta *W.*	spreading	✱	○	un	½	jn.au	St	S. Europe	1800.	S	co	
10199 cenísia *W.*	narrow-leaved	⚘	△	un	¼	jn au	Pk	Italy	1759.	D	co	Al.ped.1 t.10.f.2
10200 vagináls *P. S.*	sheathed	¤	⊔	un	2	jn.au	Y	Egypt	1815.	C	co	Vent cels t 32
10201 Cherléri *W.*	dwarf	⚘	△	un	½	jn.jl	Pu	S. Europe	1771.	D	l.p	Bau. h. 2. 394. 1
10202 viscósa *W.*	clammy		○	un	1	jl.au	Y	S. Europe	1759	S	s.l	Barr. ic. 1239
10203 ornithopodioídes *W.*	Bird's-foot		○	un	1½	jl.au	Y	Sicily	1713	S	co	Cav. ic. 2. t. 192
10204 pínguis *W.*	greasy	¤	⊔	un	1½	jl	Y	S. Europe	1739.	C	co	
10205 Nátrix *W.*	yellow-shrubby	¤	⊔	un	1½	my s	Y	S. Europe	1683	S	p.l	Bot. mag 329
10206 hispánica *W.*	Spanish	¤	⊔	or	1½	my s	Y	Spain	1799.	C	p l	
β *oligophylla* Tenore	*few-leaved*	¤	⊔	or	1½	my.s	Y	Naples	1823.	C	p.l	Bot. mag 2450
10207 tridentáta *W.*	three-toothed	¤	⊔	or	1½	jn au	Pu	Spain	1752.	C	p.l	Cav. ic 2 t 152
10208 críspa *W.*	curl-leaved	¤	⊔	un	2	jn.au	Y	Spain	1739.	S	p l	Magn.mons t.17
10209 fruticósa *W.*	shrubby	✽		pr	2	my jn	Pk	S. France	1680.	S	s.l	Bot. mag. 317
10210 rotundifólia *W.*	round-leaved	✽		un	1	my.jl	Pk	Switzerl.	1570.	C	s.l	Bot. mag. 335
1542. ANTHYL'LIS. *W.*	KIDNEYVETCH.					*Leguminosæ.*		*Sp.* 14—35.				
10211 tetraphýlla *W.*	four-leaved		○	or	1	jl.au	W	S. Europe	1640.	S	co	Bot. mag. 108
10212 Vulneraria *W*	common	⚘	△	or	½	my.au	Y	Britain	ch.pas.	D	s.l	Eng. bot. 104
β *rúbra*	*red-flowered*	⚘	△	or	½	my.au	R	......	...	D	s.l	



History, Use, Propagation, Culture,

has proved serviceable in dropsical cases. A salt prepared from the ashes is recommended in the same disorder.

G. triquetra is the handsomest hardy species: it is evergreen, and produces a vast profusion of bloom.

1539. *Lebeckia.* Named by Thunberg: possibly in honor of some forgotten botanist. Young cuttings root freely in sand under close cover.

1540. *Ulex.* A word of very obscure meaning. De Theis derives it from *ac*, a point in Celtic. U. europæus, *Jonc-marin*, Fr., is a beautiful evergreen shrub, which flowers freely, both when wild and cultivated, the greater part of the year. It abounds in some places, and there it is despised by the common people; but the greatest botanists have admired its deep green shoots and leaves, brilliant yellow flowers, and tufted picturesque shape. About Petersburg, it forms one of their most valuable greenhouse plants, flowering in winter Linnæus lamented that he could hardly preserve it alive in a greenhouse. Many parts of Germany are wholly destitute of the furze bush, insomuch that Dillenius was in a perfect extasy when he first saw our commons covered with its golden flowers. And Gerard relates, that about Dantzic, Brunswick, and in Poland, there was not a branch of it growing, except some few plants and seeds that he sent, which were most curiously kept in their fairest gardens. As an agricultural plant the furze has been sown in several parts of the island as hedges; but excepting where it occupies a breadth of ten or twelve feet on a raised mound, it does not last long, getting naked below. Sown on a mound the sides may be cut, and the prunings used as fuel or as green food, and the fence thus rendered close at bottom and durable. It is sown in fields, and

10170 Leaves lanceolate silky, Branches striated round, Racemes 1-sided
10171 Leaves lanceolate acute, Pedunc. axill. 3 longer than leaves, Cor. smooth, Branches striated round
10172 Leaves lanceolate blunt silky beneath, Pedunc. axillary as long as leaf, Cor silky, Branches angular
10173 Leaves lanceolate complicate, Pedunc. axill. very short, Cor. hairy, Stem warted striated procumbent
10174 Leaves lanceolate smooth subciliate, Pedunc. axillary, Cor. smooth, Branches 3-cornered procumbent
10175 Leaves lanceolate silky beneath, Fl. terminal somewhat racemose, Cor. silky, Branches erect round
10176 Spines simple or compound, Flowering branches unarmed, Leaves oblong smooth, Racemes leafy term
10177 Spines warted compound, Fl. branches unarmed, Lvs. lanc hairy, Racemes term. naked, Keel pubesc.
10178 Spines compound pungent, Leaves lanceolate villous, Racemes terminal subcapitate
10179 Stem leafless, Spines crossing each other
10180 Leaflets ternate obovate, Racemes short, Bractes linear under the flower

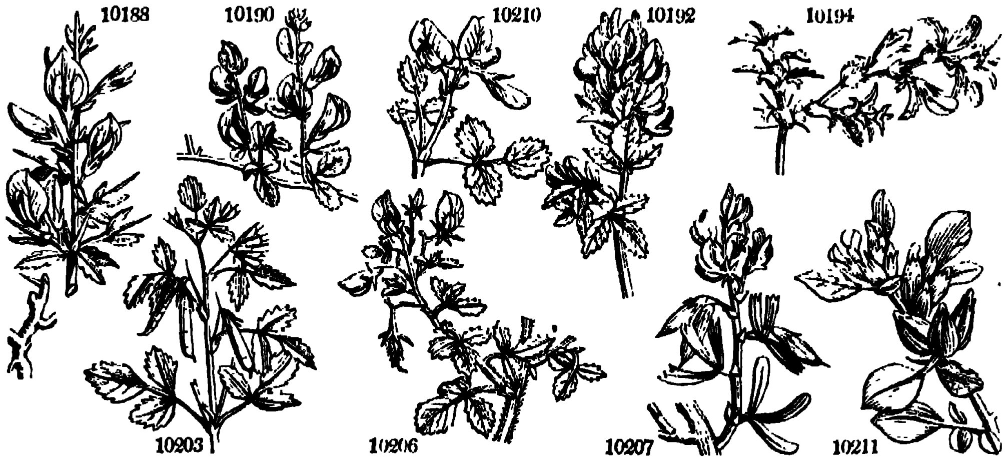
10181 Leaves simple linear filiform smooth, Flowers umbelled
10182 Leaves ternate silky, Leaves linear, Flowers racemose
10183 Leaves ternate villous, Raceme long terminal
10184 Leaves simple binate or ternate sessile lanceolate acute rough

10185 Teeth of cal. conniving, Bractes ovate loose
10186 Teeth of cal. distant, Bractes minute appressed

10187 Fl. solitary larger than leaflet, Lower leaves ternate lanceolate toothed at end, Branches spiny smooth
10188 Fl. twin axillary, Lower leaves ternate lanc. serrate, Branches spiny villous
10189 Fl. twin, Lower leaves ternate ellipt. serrate pubescent, Stem unarmed villous viscid
10190 Fl solitary axill. Lower leaves ternate roundish serrate, Branches ascending spiny villous
10191 Fl. subsess. lateral, Leaves ternate obl. pubesc. Stipules lanc. toothletted, Cal. scarious longer than cor.
10192 Fl. sessile spiked, Bractes stipular ovate ventricose scarious imbricated
10193 Fl. subsess lateral spiked, Leaves simple ovate blunt, Stipules dilated, Cal. larger than smooth corolla
10194 Fl. somewhat stalked axill. Lvs. simple obov. striated serrated, Stipules ovate toothed, Stem procumbent
10195 Pedunc. unarmed very short, Upper leaves simple, Stipules ovate lanc. entire
10196 Racemes straight, Leaves cuneiform, Pods nodding linear recurved
10197 Leaves ternate obovate, Pedunc. lateral 2-flowered
10198 Pedunc. unarmed 1-fl. Leaves ternate roundish crenate, Pods cernuous
10199 Pedunc. unarmed 1-fl. Leaves ternate cuneate, Stipules serrate, Stems prostrate
10200 Pedunc. 1-fl. awned, Leaves sessile ternate, Stipules sheathing toothed
10201 Pedunc 1-fl. awned, Leaves tern. cuneate toothed at end villous viscid, Cal. larger than corolla
10202 Pedunc. 1-fl. awned length of leaves, Leaves simple oblong serrated viscid : lower ternate
10203 Pedunc. 2-fl. awned shorter than petiole, Leaves tern. oblong, Pods linear cernuous
10204 Pedunc. 1-fl. awned longer than leaf, Awns length of cor. Leaves ternate lanc. serrated at end
10225 Pedunc. 1-fl. awned longer than leaf, Leaves ternate viscid obl. toothed at end
10206 Pedunc. awned about 1-fl. Leaves all ternate channelled recurved wholly serrated

10207 Shrubby, Leaves tern. linear fleshy 3-toothed, Pedunc. 2-flowered
10208 Shrubby, Leaves tern. roundish wavy toothed viscid, Pedunc. 1-flower unarmed
10209 Shrubby, Leaves sessile ternate lanceolate serrated, Stipules sheathing, Pedunc. 3-flowered
10210 Shrubby, Leaves tern. ovate toothed, Cal. with 3 bractes, Pedunc. 3-flowered

10211 Herbaceous, Leaves quaternate-pinnate, Flowers lateral
10212 Herbaceous, Leaves pinnated unequal, Head double



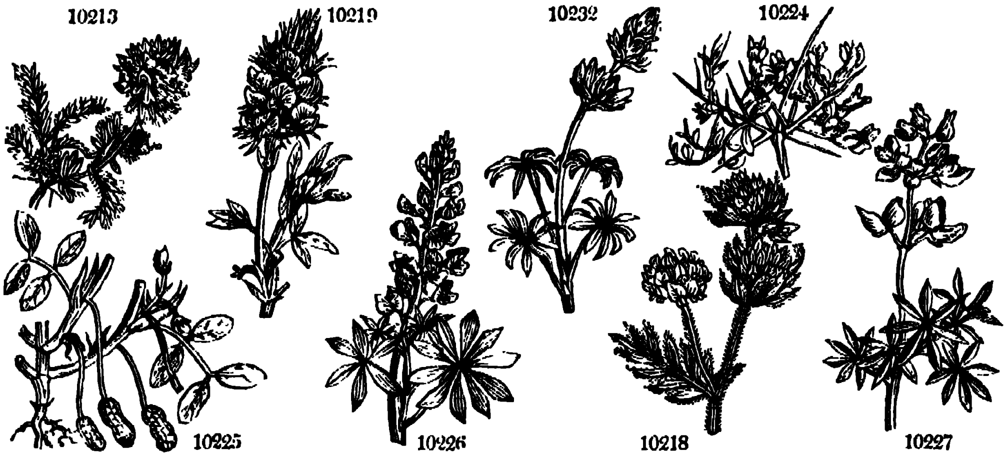
allowed to grow three or four years, and then it is cut down for fuel or for heating ovens; but the most profitable application of furze, whether sown or grown wild, is that of using it as green food for cattle. For this purpose, the shoots should not be more than two years old, and they require to be passed between rollers to bruise the ligneous parts and the thorns. It has been tried in this way by a number of agriculturists, and found a highly nutritive food for horses, oxen, and kine. Though a hardy plant and enduring the sea breeze, yet it is frequently killed by severe winters. It is never found on wet-bottomed clays, but generally on dry rocky or stony soils. There is a very luxuriant variety called the Irish whin, and one with double flowers found a few years ago in Devonshire, and now in propagation by cuttings in the nurseries.

U. nanus greatly resembles the common species, but is smaller in all its parts. It flowers from August to January, which renders it valuable in shrubberies as a successor to the other.

1541. *Ononis.* From ονος, an ass, because asses only feed upon so prickly a plant. O. spinosa, *Arrête boeuf*, Fr., *Rest harrow*, Eng., was formerly very troublesome in corn fields, on account of its long ligneous roots obstructing the progress of the plough, and its thorny branches the harrow: but in all properly cultivated lands the plant has disappeared. It is frequent in aboriginal pastures on dry soils, and is eaten by cows, sheep, and goats, but not freely by horses. All the species are of easy culture, and the greenhouse kinds are readily increased by young cuttings under a bell-glass in sand.

1542. *Anthyllis.* From ανθος, a flower, and ιουλος, a beard. So called from the silky appearance of its heads of flowers; whence also one species is called Barba Jovis. A. Vulneraria is recommended as a herbage

10213	montána *W.*	mountain	♃	△	or	¼	jn.jl	Pu	S. Europe	1759.	D	s.l	Bot. cab. 578
10214	serícea *W.*	wing-leaved	♃	⊡	or	½	jl.au	W	Barbary	1786.	C	p.l	Desf.ac.par.1.t.3
10215	cornicína *W.*	horny		○	or	1	jl.au	W	Spain	1759.	S	p.l	Cav.ic.1. t.39. f.2
10216	lotoídes *W.*	Lotus-like		○	or	¼	jn.jl	Y	Spain	1739.	S	co	Cav. ic. 1. t. 40
10217	Gerárdi *W.*	Gerard's		○	or	½	jn.au	W	Provence	1806.	S	co	Ger. prov. t. 18
10218	Bárba-jóvis *W.*	Jupiter's Beard	ħ	⊔	or	3	mr.my	Pa.Y	S. Europe	1640.	C	p.l	Bot. mag. 1927
10219	crética *W.*	Cretan	ħ	⊔	or	1½	jn.jl	Pk	Candia	1737.	C	p.l	Bot. mag. 1092
10220	heterophýlla *W.*	various-leaved	ħ	⊔	or	1	jn.jl	Pk	S. Europe	1768.	C	p.l	
10221	cytisoídes *W.*	downy-leaved	ħ	⊔	or	2	ap.jn	W	Spain	1731.	C	p.l	Barr. ic. 1182
10222	Hermánniæ *W.*	Lavender-lvd.	ħ	⊔	or	1½	ap.jl	Y	Levant	1739.	C	p.l	Alp. exot. t. 26
10223	tragacanthoídes *P.s.*	Goat's thorn like	ħ	⊔	or	1	jn.jl	W	Barbary	...	C	p.l	Desf. atl. 2. t.194
10224	erinácea *W.*	prickly	ħ	⊔	or	1	ap.my	Pu	Spain	1759.	C	s.p	Bot. mag. 676
1543.	A'RACHIS *W.*	Earth-Nut.					*Leguminosæ.*		*Sp.* 1—2.				
10225	hypogæ'a *W.*	American		⊡	clt	2	my.jn	Y	S. Amer.	1712.	O	s.l	Trew.pl.rar.3.t.3
1544	LUPI'NUS *W.*	Lupine.					*Leguminosæ.*		*Sp.* 14—16.				
10226	perénnis *Ph.*	smooth-perenn.	♃	△	or	2	my.jl	B	N. Amer.	1658.	D	p.l	Bot. mag. 202
10227	nootkaténsis *Ph.*	hairy-perennial	♃	△	or	6	jn.au	Pu	NootkaSo.	1794.	D	p.l	Bot. mag. 1311
10228	álbus *W.*	white		○	ag	3	jl.au	W	Levant	1596.	S	co	
10229	Thérmis *W.*	Egyptian		○	or	3	jn.jl	W	Egypt	1802.	S	co	
10230	várius *W.*	small-blue		○	or	3	jl.au	B.w	S. Europe	1596.	S	co	
10231	hirsútus *W.*	great-blue		○	or	2	jl.au	B	S. Europe	1629.	S	co	Bau.h.11.p.289
10232	microcárpus *B M.*	small-fruited		○	or	1½	ap	B	Chili	1821.	S	co	Bot. mag. 2413
10233	mexicánus *Lag.*	Mexican	♃	⊡	or	2	f	B	Mexico	1819.	S	co	Bot. reg. 457
10234	pilósus *W.*	rose		○	or	3	jl.au	F	S. Europe	1710.	S	co	
10235	angustifólius *W.*	narrow-leaved		○	or	2	jl.au	B	Spain	1686.	S	co	Knor.del.2 t.L.7
10236	linifólius *W.*	Flax-leaved		○	or	2	jl.au	B	......	1799.	S	co	Roth. abh.14 t.5
10237	lúteus *W.*	yellow		○	or	2	jl.au	Y	Sicily	1596.	S	co	Bot. mag. 140
10238	villósus *W.*	villous	♃	△⊔	or	½	jl.au	Pk	Carolina	1787.	R	s.l	
10239	arbóreus *H K.*	tree	♣	⊔	or	6	jl.au	Y	......	1793.	R	s.l	Bot. mag. 682
1545	AMOR'PHA. *W.*	Bastard-Indigo.					*Leguminosæ.*		*Sp.* 6.				
10240	fruticósa *W.*	shrubby	♣		or	6	jn.jl	Pu	Carolina	1724.	S	s.p	Bot. reg. 427
	β *emarginata*	*emarginate-lvd.*	♣		or	6	jn.jl	Pu	Carolina	1724.	C	s.p	
10241	microphýlla *Ph.*	dwarf	♣	⊔	ft	2	jl.au	Pu	Missouri	1811.	C	s.p	
10242	pubéscens *Ph.*	pubescent	♣	⊔	or	3	jn.jl	B	Carolina	1803.	C	s.p	Bot. cab. 689
10243	canéscens *Ph.*	canescent	♣	⊔	or	3	jl.au	B	Missouri	1812.	C	s.p	
10244	nána *Nutt.*	pygmy	♣	⊔	or	1½	jl.au	B	Missouri	1811.	C	s.p	
10245	cróceo-lanáta *Wats.*	yellow-haired	♣	⊔	or	5	jl.au	Pu	N. Amer.	1820.	C	s.p	Dend. brit. 139
1546.	A'BRUS. *W.*	Wild-Liquorice.					*Leguminosæ.*		*Sp.* 1.				
10246	precatórius *W.*	Jamaica	ʃ	▭	or	12	mr.my		W. Indies	1680.	S	s.p	Rhee. mal.8 t.39
1547.	PHASE'OLUS. *W.*	Kidney-Bean.					*Leguminosæ.*		*Sp.* 20—55.				
10247	vulgáris *W.*	common	ʃ	○	cul	1	jn.s	W	India	1597.	S	co	Lob. ic. 2. p. 59
10248	multiflórus *W.*	scarlet	ʃ	○	cul	12	jl.s	S	S. Amer.?	1633.	S	co	Sch.ha.2. t.199. a
10259	lunátus *W.*	scymetar-podded	ʃ	⊡	cul	12	jn.jl	G	E. Indies	1779.	S	co	H.n.h.10.t.63.f.1
10250	inamœ'nus *W.*	various-colored	ʃ	○	un	6	jl.au	G	Africa	1794.	S	co	Jac. vind. 1. t 66
10251	farinósus *W.*	mealy	ʃ	[△]	un	3	jl.au	Pk	E. Indies	1759.	C	co	N.ac.p.1730 t.42
10252	vexillátus *W.*	sweet-scented	ʃ	⊡	cul	3	jl.au	G	W. Indies	1732.	S	co	Jac.vind. 2.t.102
10253	hélvolus *W.*	pale red	ʃ	○	cul	3	jl.au	Pa.R	Carolina	1732.	S	co	Dil.el.t.233.f.300



History, Use, Propagation, Culture.

plant by some agricultural writers, as A. Young; and is by others confounded with Birdsfoot trefoil (Lotus corniculata, and major), and with the Liquorice-vetch (Astragalus glycyphyllos), to which, to a cursory observer, it bears considerable resemblance. Linnæus observes, that in Oeland, where the soil is a red calcareous clay, the flowers of Anthyllis vulneraria are red; but that in Gothland, where the soil is white, the flowers also are white: ours are yellow.

A. Barba Jovis is a silvery looking bush, with white and hairy leaves, pale yellow flowers, and woolly pods. Like most of the Leguminosæ, this genus seeds freely; but in default of seeds, increase may be effected by "young cuttings planted under a bell-glass in sand, which are not difficult to root: the glasses must be kept wiped, or the dew is apt to make them mouldy, which destroys them." (*Bot. Cult.* 135.)

1543 *Arachis.* *Aracos*, or *Aracidna*, is a name applied by Pliny to a plant which had neither stem nor leaves, but was all root. The moderns have applied it to a plant, the fruit of which is borne underground. The specific name *hypogæa* (υπο γη, below ground), is in allusion to the curious circumstance of the pods, as they increase in size, forcing themselves into the earth, where they ripen their seeds, thence called earth-nuts. The plant is generally cultivated in the warmer parts of North and South America, but is supposed to be originally from Africa. In South Carolina the seeds are used as chocolate; in the eastern countries as almonds, and in Cochin-China they furnish an oil used for lamps, and as a substitute for oil of olives. About Paris it is raised on hotbeds and transplanted into the open garden, where it ripens its seeds, which are used as other legumes. It has also been brought to maturity in a stove in England, and proved very prolific. (See *Hort. Trans.* vol. v. p. 372.)

1544. *Lupinus* Said to be derived from *lupus*, a wolf, because this plant devours, as it were, all the fertility

10213 Herbaceous, Leaves pinnated equal, Head terminal 1-sided, Flowers oblique
10214 Herbaceous, Leaves pinnated equal silky, Spike peduncled ovate
10215 Herbaceous, Leaves pinnated unequal, Head solitary stalked, Pods hooked blunt shorter than calyx
10216 Herbaceous, Cauline leaves ternate : radical pinnate unequal trifid or simple
10217 Herbaceous, Leaves pinnated unequal, Pedunc. lateral longer than leaf, Heads leafless
10218 Shrubby, Leaves pinnated equal silky, Bractes as long as globose many-flowered head
10219 Shrubby, Leaves pinnated equal and ternate villous, Flowers spiked
10220 Shrubby, Leaves pinnated : floral ternate
10221 Shrubby, Leaves ternate unequal, Calyxes woolly lateral
10222 Shrubby, Leaves ternate linear-cuneate somewhat stalked, Calyxes campanulate, Branches spiny
10223 Shrubby, Petioles spiny, Leaves pinnated, Flowers axillary subsessile, Cal. inflated
10224 Shrubby spiny, Leaves simple

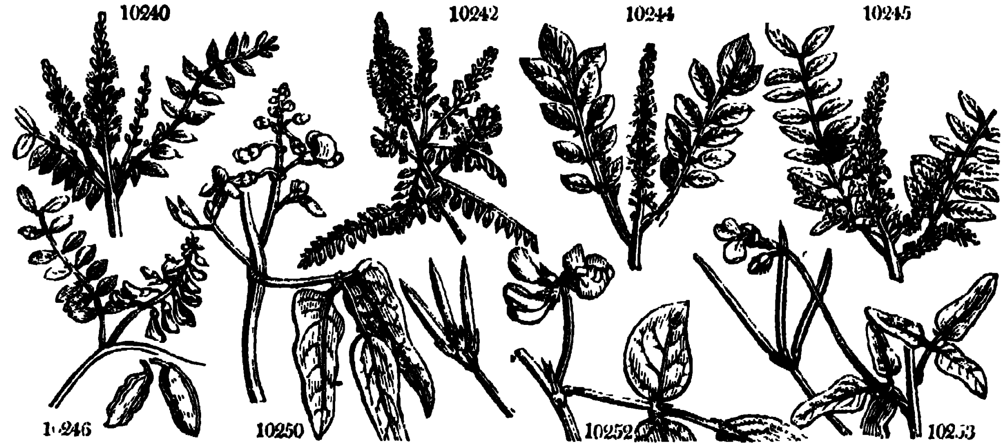
10225 Leaves in fours cuneate rounded, Stipules undivided, Stem nearly smooth

10226 Cal. altern. without appendage : upper lip emarginate ; lower entire
10227 Cal. whorled without appendage : lower lip entire, Stem and leaves hairy
10228 Cal. altern. without appendage : upper lip entire ; lower 3-toothed
10229 Cal. altern. with an appendage : upper lip entire ; lower 3-toothed
10230 Cal. half-whorled with an appendage : upper lip bifid ; lower about 3-toothed
10231 Cal. altern. with an appendage : upper lip 2-parted ; lower 3-toothed
10232 Leaves digitate, Cal. whorled without append. Upper lip emarg ; lower bifid, Pods 2-seeded
10233 Cal. altern. with an appendage : upper lip half-bifid ; lower obscurely 3-toothed
10234 Cal. whorled with an appendage : upper lip 2-parted ; lower entire
10235 Cal. altern. with an appendage : upper lip 2-fid ; lower entire, Leaflets linear-lanceolate flat
10236 Cal. altern. with an appendage : upper lip 2-fid ; lower subtrifid, Leaflets linear channelled
10237 Cal. whorled with an appendage : upper lip 2-parted ; lower 3-toothed
10238 Cal. half-whorled with an appendage : upper lip 2-fid ; lower undivided, Leaves simple obl. villous
10239 Shrubby, Cal. whorled without appendage stalked : lips acute entire

10240 Teeth of calyx 4 blunt, one acuminate
  β Leaflets emarginate, Calyxes hoary
10241 Smoothish, Leaves on short stalks blunt at each end, Spikes solitary short, Pods 1-seeded
10242 Leaves on short stalks without a point obtuse smooth, Spikes long panicled downy
10243 Hoary, Leaflets subsessile ovate-elliptical acute mucronate, Spikes panicled hoary
10244 Said to be the same as A. microphylla
10245 Ferruginous, Spikes simple clustered, Leaflets ovate-lanceolate downy mucronate

10246 The only species

10247 Raceme solitary shorter than leaves, Pedunc. 2, Bractes less than cal. spreading, Pods pendulous
10248 Raceme solitary length of leaves, Pedunc. 2, Bractes less than cal. appressed, Pods pendulous
10249 Pods scymetar-shaped somewhat lunate smooth
10250 Vexillum of flowers revolute, Calyxes whole colored
10251 Peduncles subcapitate, Seeds 4-cornered cylindrical powdery
10252 Peduncles thicker than petiole capitate, Wings subfalcate deformed, Pods linear straight
10253 Flowers capitate, Cal. bracteate, Vexill. short, Wings expanded very large, Leaflets deltoid oblong



and Miscellaneous Particulars.

of the soil: but this is a very doubtful explanation. The species are border flowers, in much esteem for their velvet-like leaves and fine large flowers. They are vigorous growing plants, and most of them would afford the agriculturist a considerable bulk of herbage.

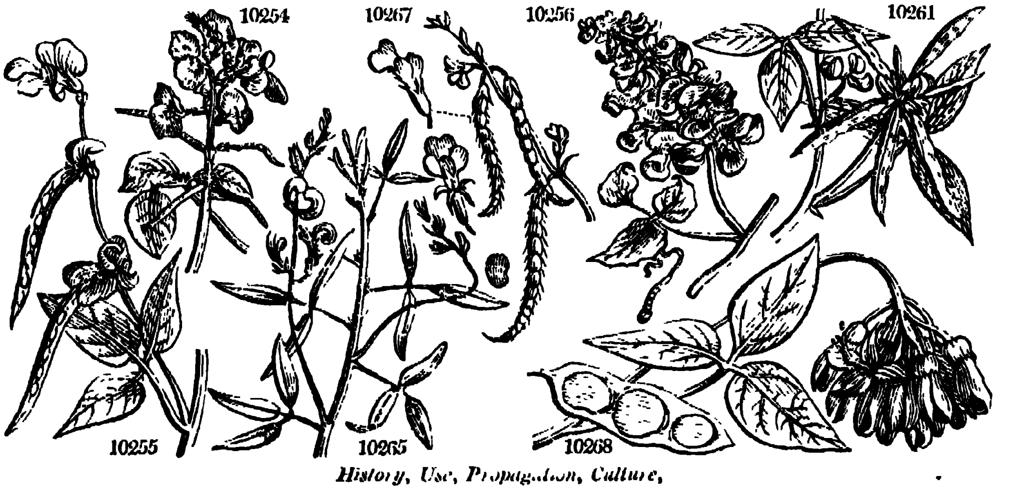
L. albus is supposed to be the species that was cultivated for this purpose by the Romans; though L. luteus is what is at present grown in the fields in the south of Italy as human food. In the south of France, it is grown in poor dry extensive plains, as a meliorating crop to be ploughed in where no manure is to be had, and the ground is too sterile for clover or other better plants. (*Villars.*) The perennial and ligneous species may be increased by pieces of the root, but they all seed freely.

1545. *Amorpha.* From α, privative, and μορφη, form, in allusion to the deformity of the corolla, which has neither alæ or carina. A. fruticosa was once used in Carolina as an indigo plant, but is now neglected. All the species are of easy cultivation, and increase by seeds or cuttings in sand.

1546. *Abrus.* From αβρος, elegant. The roots are used in the West Indies similarly to those of our liquorice, and the seeds are strung and worn as beads for ornaments, and also as rosaries, whence the specific name *precatorius*. They are frequently thrown, with other West Indian seeds, on the north-west coast of Scotland. Linnæus affirms, that they are very deleterious; but they are eaten in Egypt, though the hardest and most indigestible of the pulse tribe. In our stoves the plant requires a good deal of room and heat in order to flower freely. It is generally raised from seed, but cuttings will root in sand plunged in heat.

1547. *Phaseolus.* From *phaselus*, a little boat, which the pods may easily be supposed to resemble. P. vulgaris and multiflorus, *Haricot*, Fr., *Schminkbohne*, Ger., *Faginolo*, Ital., are well known culinary legumes. The dwarf kidney bean is earlier than the other, and better adapted for forcing; but much the largest crop

10254	**semieréctus** *W.*	dark red	‡	[○]	pr	2	jl	R	W. Indies	1732.	S	co	Bot. reg. 743
10255	**alátus** *W.*	winged	‡	[○]	un	3	jl	Pu	Carolina	1732.	C	s.l	Dil.el.t.235.f.303
10256	**Caracálla** *W.*	Snail-flower	‡	[△]	cul	1½	au s	G	India	1690.	S	r.m	Bot. rep. 341
10257	**aconitifólius** *W.*	Aconite-leaved		[○]	cu	2	jn.au	Pk	E. Indies	1731.	S	s.l	Jac. obs. 3. t. 52
10258	**trílobus** *W.*	three-lobed		[○]	un	2	jl.au	G	E. Indies	1777.	S	s l	Bur.ind. t.50. f.1
10259	**stipuláris** *W.*	large-stipuled		○	un	2	jl.au	Y.Br	Peru	1825.	S	s.l	
10260	**nánus** *W.*	common dwarf		○	un	1	jn s	W	India	...	S	s.l	
10261	**radiátus** *W*	rayed		○	un	1	jn.jl	Pu	China	1792.	S	s.l	Dil.el t.235.f.304
10262	**Max** *W.*	hairy-podded		○	cul	1½	jn jl	G	India	1758.	S	s.l	Rum.am.5. t.140
10263	**Múngo** *W.*	small-fruited		○	cul	1½	jn.jl	Y	India	1790.	S	s.l	
10264	**diversifólius** *P. S.* *trilobus* Ph.	various-leaved		○	un	1½	jn jl	Pu	N. Amer.	1805.	S	s.l	
10265	**lathyroídes** *W*	Lathyrus-like		[○]	or	2	jl.au	Sc	Jamaica	1786.	S	s.l	Slo. ja.1. t.116.f.1
10266	**subtrílobus** *Link*	three-lobed		[○]	un	1½	jl.au	Y	Brazil	1824.	S	co	
1548	**TERAM'NUS.** *Browne.*	TERAMNUS.					*Leguminosæ.*		*Sp.* 1—2.				
10267	**volúbilis** *Swz.*	hook-podded	$	□	or	10	...		Jamaica	1824.	C	r.m	
1549.	**CARPOPO'GON.** *Rox.*	CARPOPOGON.					*Leguminosæ.*		*Sp* 2.				
10268	**gigantéus** *Rox.*	gigantic	$	□	or	20	...	Pu	E. Indies	1815.	C	l.p	Rhee. mal. 8. 36
10269	**imbricatus** *Rox.*	imbricated	$	□	or	10	...	Pu	E. Indies	1815.	C	l.p	
1550.	**DO'LICHOS.** *W.*	DOLICHOS.					*Leguminosæ.*		*Sp.* 23—76.				
10270	**Láblab** *W.*	black-seeded	†	[○]	un	8	jn jl	Pu	Egypt	1694.	S	s.l	Bot. mag. 896
10271	**sinénsis** *W.*	Chinese	†	○	pr	6	jl.au	Pu	India	1776.	S	s.l	Bot. mag. 2232
10272	**lutéolus** *Ph.*	yellow	†	○	un	4	jl.au	Y	America	1805.	S	s.l	Jac. hort. t. 90
10273	**unguiculátus** *W.*	Bird's-foot	†	[○]	un	3	jn.jl	Y	W. Indies	1780.	S	s.l	Jac. vind. 1 t 23
10274	**tranquebáricus** *W.*	Tranquebar	†	[○]	un	3	jn jl	Y	E. Indies	1801.	S	s l	Jac vind. 3. t. 70
10275	**gladiátus** *W.*	sabre-podded	†	[○]	pr	6	au	Pk	E. Indies	1790.	S	s.l	Jac. ic. 3. t. 560
10276	**tetragonólobus** *W.*	square-podded	†	[○]	un	4	s n	Y	E. Indies	1816.	S	s l	
10277	**sesquipedális** *W.*	long-podded	†	[○]	un	.6	au	Pa.pk	W. Indies	1781.	S	s.l	Jac. vind. 1. t 67
10278	**hirsútus** *W.*	hirsute	$	⊔	or	10	jn	Pu	China	1802.	C	s.l	Kæmpf. ic. t. 41
10279	**pilósus** *W.*	hairy-podded	†	[○]	un	3	au	Pa	E Indies	1790.	S	s.l	
10280	**mínimus** *W.*	small	†	[○]	un	1½	jl.au	Y	Jamaica	1776.	S	s.l	Jac. obs. 1. t. 22
10281	**tetraspérmus** *W.*	four-seeded	$	[○]	un	3	my.au	Pa Y	E. Indies	1816.	S	s.l	
10282	**scarabæoídes** *W.*	silver-leaved	†	[○]	un	2	jn jl	Pa	E. Indies	1733.	S	s.l	Plu. alm.t 53. f.3
10283	**reticulátus** *W.*	net-leaved	$	⊔	un	3	jn jl	Pa	N. S W.	1781.	C	s l	
10284	**bulbósus** *W.*	bulbous	ɗ	[△]	un	4	jl	Pu	W. Indies	1781	S	s l	Rum am 5 t.132
10285	**purpúreus** *W.*	purple	$	[△]	or	12	au.s	Pu	E. Indies	1790.	S	s.l	Bot. reg 830
10286	**lignósus** *W*	woody	$	⊔	or	12	jl.au	Pu	E. Indies	1776	S	p.l	Bot. mag. 380
10287	**lúteus** *W.*	yellow-flowered	$	□	un	8	jl.au	Y	Jamaica	1812	S	s l	
10288	**ensifórmis** *W.*	scymetar-podded		[○]	un	3	jl.au	Pu	E. Indies	1778.	S	s l	Jac. ic. 3. t. 559
10289	**Sója** *W.*	Soy		[○]	cul	3	jl.au	Pk	E. Indies	1790.	S	s.l	Jac ic. 1. t 145
10290	**Cat iang** *W.*	small-fruited		[○]	cul	3	jl.au	Pa	E Indies	1793.	S	s l	Rhee.mal 8 t 41
10291	**biflórus** *W.*	two-flowered		[○]	un	3	jl au	Pa Y	E. Indies	1776.	S	s.l	Plu alm t 213 f.4
10292	**róseus** *W.*	Rose-colored	⚲	[○]	pr	3	jl au	Pk	Jamaica	1812.	S	s l	
1551.	**STIZOLO'BIUM.** *P. S.*	COW-AGE, or COW-ITCH.					*Leguminosæ.*		*Sp* 3—8				
10293	**altíssimum** *P. S.*	tall	$	□	or	50	...	Pu	Martinico	1779.	C	l.p	Ja.am. t.182. f.85
10294	**úrens** *P. S.*	broad-podded	$	□	cu	12	jn.jl	Y	W. Indies	1691.	C	l p	Plum ame. t.107
10295	**prúriens** *P. S.*	common	$	□	cu	12	...	Pu	India	1680.	C	l.p	Jac amer. t. 122



History, Use, Propagation, Culture,

is produced by the twining species. Neither sorts can be safely planted in the open air before the end of April, or first week of May, and the leaves are blackened by the first frosts of autumn. But in a stove or pit, green pods of the dwarf kinds may be gathered all the winter, and with this advantage over forced productions of the fruit kind required to be ripened, that the pods are as good from plants in the stove in midwinter, as from those in the open garden in midsummer. The garden culture of both species is so easy and universally known, that we shall not occupy ourselves with details. Though in this country the green pods only are used, on the continent the ripened seeds are as much the object of culture. In Holland, the twiner is grown in every cottage garden for both purposes, and in France and Switzerland, it is grown chiefly for the ripened seeds: in the latter countries it grows on very poor dry soil. On the first blackening of the leaves with frost, the plants are pulled up, dried like tobacco leaves under the dripping eaves of the houses; and in winter threshed out for the seeds, to be boiled and eaten with cream or butter, stewed in haricots, or put in soups. According to the analysis of Einhoff, 3840 parts of kidney bean afforded 1805 parts of matter analogous to starch, 857 of vegeto-animal matter, and 799 parts of mucilage: from which is to be inferred, that it is the most nourishing of all the legumes.

The perennial stove species thrive best in a light rich soil, and may be propagated readily from cuttings or from seed. P. caracalla, or Snail-flower, is a very curious species, and will grow and flower freely, if kept clear from the red spiders. This species was so named by the Portuguese, who first brought it from South America, in consequence of its hooded flower. Caracalla (from the Celtic words *car*, a head, and *cal*, a covering) was the name of a hooded dress much worn by the Gauls, and gave his nickname to the Emperor Marcus Aurelius Antoninus, who was accustomed to wear the dress.

10254 Flowers spiked, Cal. without bractes, Wings expanded larger, Leaflets ovate
10255 Flowers loosely spiked, Wings the length of vexillum
10256 Vexillum and keel spirally twisted together
10257 Stem hairy, Lateral leaflets 3-lobed: terminal 5-parted, Segm. lanceol. Peduncles 3-fl. shorter than petiole
10258 Stem smooth, Lateral leafl. 2-lobed; terminal 3-lobed: segments ovate, Pedunc. 3-fl. longer than petiole
10259 Stem smooth, Leafl. blunt: lateral sinuose; terminal hastate 3-lobed, Peduncles longer than leaf spiked
10260 Stem smooth, Bractes larger than calyx, Pods pendulous compressed rugose
10261 Stem round, Flowers capitate, Pods cylindrical horizontal
10262 Stem angular hispid, Pods pendulous hairy
10263 Stem flexuose round hairy, Pods capitate hairy
10264 Downy, Lower leaves rhomboid oval: upper 3-lobed, Heads on long stalks, Pods round subulate

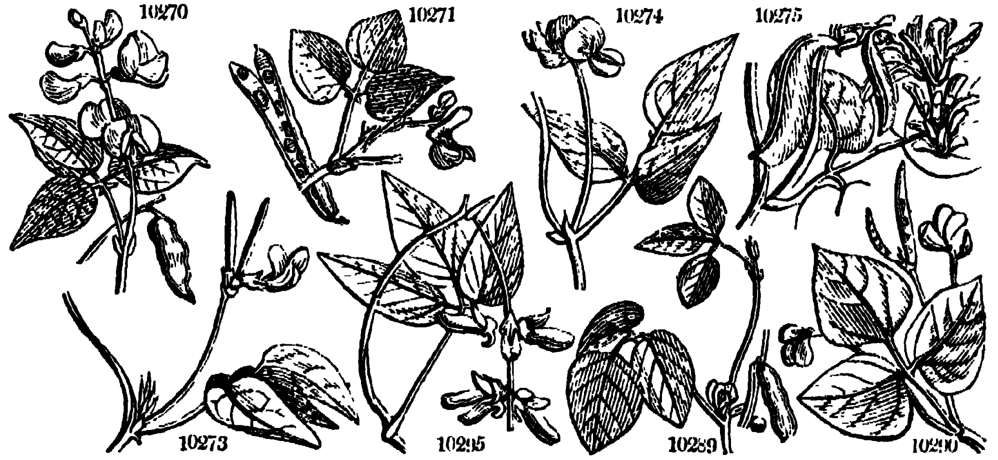
10265 Leaflets oblong acuminate, Peduncles elongated, Pods round subulate
10266 Leaflets about 3-lobed, Lobes acuminate, Racemes axillary

10267 Leaflets ovate-lanceolate downy

10268 Leaflets ternate smooth, Flowers in heads, Calyxes hairy campanulate
10269 Flowers imbricated

10270 Pods ovate acinaciform, Seeds ovate with a hilum curved towards one end
10271 Pods pendulous cylindrical torulose, Peduncles erect many-flowered
10272 Pods capitate many cylindrical, Seeds rounded
10273 Pods capitate subcylindrical with a recurved concave end
10274 Pods capitate few cylindrical with a mucronate straight point
10275 Pods racemose ensiform with 3 keels at back straight at point, Seeds with an arillus
10276 Pods membranous quadrangular
10277 Pods subcylindrical smooth very long
10278 Pods racemose compressed hairy, Outer leaflets 2-lobed
10279 Pods subracemose linear hairy, Leaflets ovate-lanceolate downy
10280 Pods racemose compressed 4-seeded, Leaflets rhomboid
10281 Pods racemose acinaciform 4-seeded, Leaflets rhomboid smooth
10282 Leaves ovate downy, Flowers solitary, Seeds 2-horned
10283 Leaves ovate acute rugose netted villous, Racemes few-flowered
10284 Leaves smooth toothed with many angles
10285 Stem smooth, Petioles downy, Wings of corolla spreading
10286 Peduncles capitate, Pods straight linear
10287 Flowers somewhat spiked, Pods subcylindrical smooth, Leaves roundish rhomboid blunt entire smooth
10288 Pods acinaciform with 3 keels
10289 Racemes axillary erect, Pods pendulous hispid about 2-seeded
10290 Pods twin linear nearly erect
10291 Stem smooth, Peduncles 2-flowered, Outer leaflets somewhat angular
10292 Stem creeping, Leaflets roundish shining, Fl. racemose, Pods with 3 keels at back

10293 Pods racemose hairy equal, Seeds surrounded by the hilum, Leaves smooth on each side
10294 Pods racemose with transverse lamellæ hairy, Seeds surrounded by the hilum
10295 Pods racemose: valves keeled hairy, Peduncles in threes



and Miscellaneous Particulars.

1548. *Teramnus.* So called by Browne, apparently in allusion to its delicately-shaped legume, *τεραμνοτης* being used particularly to express the tenderness of eatable pulse; *ατεραμνος* was a weed hostile to leguminous plants.

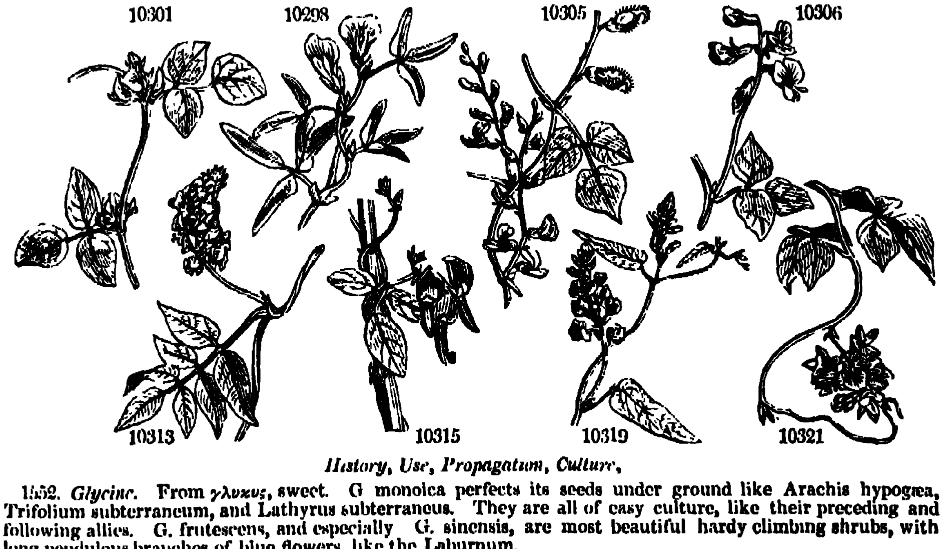
1549. *Carpopogon.* From *καρπος*, fruit, and *πωγων*, a beard; the pods being bearded. Rapid growing climbers of the easiest culture.

1550. *Dolichos.* A name under which Dioscorides describes a plant supposed to have been the kidney bean of the moderns. The species are climbers, some of them to the height of the highest trees. The pods of most of them are eatable, but far inferior to the kidney bean Some of them have tuberous roots which may be eaten. The seeds of D. Soja (*Sooja*, Jap.), which are usually called *Miso* in Japan, are put into soups, and are the most common dish there, insomuch that the Japonese frequently eat them three times a day. The Soja of the Japonese, which is preferred to the Kitjap of the Chinese, is prepared from these seeds, and is used in almost all their dishes instead of common salt. The Chinese also have a favorite dish made of these seeds, called *Teu hu* or *Tau hu*, which looks like curd, and though insipid in itself, yet with proper seasoning is agreeable and wholesome. (*Thunb.* and *Loureiro.*)

The perennial kinds are easily increased by cuttings, and all the species seed freely. D. purpureus and lignosus have the handsomest flowers, but none of them can be considered of much beauty.

1551. *Stizolobium.* From *στιζω*, to prick, and *λοβος*, a pod. S. urens and pruriens produce on the outside of their pods the irritating substance used in medicine as a vermifuge, under the name of Cowhage. The species are twining shrubs of the West Indies, with long bunches of yellow scentless flowers. The seeds of S. urens are often seen in cabinets of curiosities: many qualities are attributed to them by the superstitious Creoles. The French settlers call them *Yeux bourrique*, asses' eyes. S. pruriens is considered a powerful diuretic.

1552. GLY'CINE *L.*	Glycine.					*Leguminosæ.*		*Sp.* 19—55.				
10296 sarmentósa *W.*	sarmentose	⚘	○	un	2	jn.au	Pa	Carolina	1805.	S	s.l	Sch.bo.an.12. t.2
10297 monóica *W.*	pale-flowered	✳	△	cu	4	s	F	N. Amer.	1781.	C	s.p	W.inRœ. A.3.t.2
10298 angustifólia *W.*	narrow-leaved	⚘	⊔	un	6	jn.au	Y	C. G. H.	1795.	C	p.l	Jac.schœ.2.t.231
10399 débilis *W.*	hairy	⚘	[○]	un	1½	jn.jl	Pa	E. Indies	1778.	S	p.l	
10300 comósa *W.*	tufted	✳	△	un	1½	jl.s	B	N. Amer.	1812.	C	p.l	
10301 tomentósa *Ph.*	downy	⚘	△	un	1½	jn.s	Y	N. Amer.	1732.	C	p.l	Dill.elt. t.26.f.29
10302 renifórmis *Ph*	Kidney-leaved	✳	[△]	pr	2	jl.au	Y	Carolina	1806.	C	p.l	
10303 suavéolens *W.*	sweet-scented	■	□	or	3	jl s	Y.R	E. Indies	1816.	C	p.l	
10304 reticuláta *W.*	net-leaved	⚘	□	or	6	jl s	Y	Jamaica	1779.	C	p.l	
10305 caribæ'a *W.*	trailing	⚘	□	pr	2	s.o	Y	W. Indies	1742.	C	p.l	Bot. reg. 275
10306 bituminósa *W.*	clammy	⚘	⊔	pr	4	ap.s	Y	C. G. H.	1774.	C	p.l	Bot. reg. 261
10307 parviflóra *P. S.*	small-flowered	⚘	[○]	un	3	jl	Pa	E. Indies	1812.	C	p.l	
10308 sagittáta *W. en.*	arrow-leaved	⚘	□	un	4	my.au	Y	Havannah	1815.	C	p.l	
10309 rhombifólia *W.*	rhomb-leaved	⚘	□	un	6	my.au	...	E. Indies	1815.	C	p.l	
10310 vincentina *Ker.*	St. Vincent's	⚘	□	pr	2	my.au	Y	St. Vincen.	1822.	C	co	Bot. reg. 799
10311 phaseoloídes *Swz.*	Kidn.-bean-like	⚘	□	un	2	jn.jl	Br	Jamaica	1818.	C	p.l	Bot. mag. 2284
10312 sinénsis *B. M.*	Chinese	⚘		or	15	my.jn	B	China	1818.	L	r.m	Bot. mag. 2083
10313 A'pios *W.*	tuberous-rooted	✳	△	ft	6	au.s	Pk	N. Amer.	1640.	C	s.p	Bot. mag. 1198
10314 frutéscens *Ph.*	shrubby	⚘		or	10	jn.s	Pu	N. Amer.	1724.	R	s.p	Bot. mag. 2103
1553. KENNE'DIA. *Vent*	Kennedia.					*Leguminosæ.*		*Sp.* 6.				
10315 rubicúnda *V.*	dingy-flowered	⚘	⊔	or	10	mr.au	Br	N. S. W.	1788.	S	s.p	Bot. mag. 268
10316 coccínea *V.*	many-flowered	⚘	⊔	or	10	my.au	S	N. Holl.	1803.	S	s.p	Vent malm. 105
10317 prostráta *H. K.*	single-flowered	⚘	⊔	or	4	mr jn	S	N. S. W.	1790.	C	s.p	Bot mag. 270
10318 Comptoniána *B. R.*	Compton's	⚘	⊔	or	12	mr.jn	B	N. Holl.	1803.	C	s.p	Bot. rep. 602
10319 monophýlla *V.*	simple-leaved	⚘	⊔	or	10	mr.jn	Pu	N. S W.	1790.	S	s.p	Bot. mag. 263
10320 ováta *B. M.*	ovate	⚘	⊔	or	6	my.au	Pu	N. Holl.	1818.	C	s.p	Bot. mag 2169
1554 CYLIS'TA. *W*	Cylista.					*Leguminosæ.*		*Sp.* 3.				
10321 villósa *H. K.*	Cape	⚘	□	or	6	ap my	Y	C. G. H.	1776.	S	p.l	Bot. rep. 446
10322 albiflóra *B. M.*	white-flowered	⚘	□	or	6	ap my	W	Mauritius	...	C	p.l	Bot. mag. 1859
10323 scariósa *W.*	Coromandel	⚘	□	or	4	...	Y	E. Indies	1806.	S	p.l	Rox. cor. 1. t. 92
1555. GALAC'TIA. *Mi.*	Galactia.					*Leguminosæ.*		*Sp.* 1—5.				
10324 péndula *Pers.*	pendulous	⚘	□	pr	6	jl.au	R	Jamaica	1794.	C	l.p	Bot. reg. 269
1556 CLITO'RIA. *W.*	Clitoria.					*Leguminosæ.*		*Sp.* 8—16.				
10325 Ternátea *W.*	wing-leaved	⚘	□	or	4	jl.au	B	I Indies	1739.	C	s.p	Bot. mag. 1542
10326 heterophylla *Lam.*	various-leaved	✳	[○]	or	1	jl.au	B	Indies	1812.	S	s.p	Bot mag 2111
10327 brasiliána *W.*	Brazilian	✳	[○]	or	4	jl.au	Pu	zil	1759.	S	s.p	Breyn. cent. t. 1
10328 virginiána *W.*	small-flowered	⚘	[△]	or	6	jl.au	B	America	1732.	C	s.p	Par. lond. 51
10329 mariána *W.*	Maryland	⚘	△	or	3	au	B	N. Amer.	1759.	C	s.p	
10330 arboréscens *H. K.*	tree	■	□	or	8	au.s	Pk	Trinidad	1804.	C	s p	
10331 Plumiéri *Pers.*	Plumier's	⚘	□	or	6	s.n	W.R	W Indies	...	C	s.p	Bot. reg. 268
10332 mexicána *Link.*	Mexican	⚘	[△]	or	3	s.n	Pu	Mexico	1823.	S	co	
1557. O'ROBUS. *W.*	Bitter-Vetch					*Leguminosæ.*		*Sp* 16—42.				
10333 lathyroídes *W*	upright	✲	△	or	1½	jn	L B	Siberia	1758.	R	p.l	Am.ruth. t.7. f.2
10334 lúteus *W*	yellow	✲	△	or	1½	jn.jl	L Y	Siberia	1759.	R	h.l	Bot. cab. 783
10335 digitátus *Bieb.*	digitate	✲	△	or	1½	my	Pu	Tauria	1823.	R	co	Bux cent.2. t.38
10336 vérnus *W.*	spring	✲	△	or	1	mr.ap	Pu	Europe	1629.	R	s.l	Bot mag. 521
10337 tuberósus *W.*	tuberous	✲	△	cul	1	my.jn	Pu	Britain	heaths.	R	p.l	Eng. bot. 1153
10338 pallescens *Bieb.*	pallid	✲	△	or	1	my	W	Tauria	1823.	R	co	
10339 canéscens *L.*	hoary	✲	△	or	1½	my.jn	W.B	France	1816.	R	co	Bot. mag. 3117
10340 álbus *W.*	white-flowered	✲	△	or	1	my.jn	W	Austria	1794.	R	s.l	Sweet fl g. 22
10341 várius *Schneev.*	particolored	✲	△	or	1½	my.jn	Y R	Italy	1759.	R	p l	Bot. mag. 675
10342 lácteus *Bieb.*	milk-white	✲	△	or	1½	my.jn	W	Caucasus	1820.	R	co	
10343 hirsútus *L.*	hairy	✲	△	or	1	my.jn	B	Thrace	1822.	R	co	Bot. mag. 2345



History, Use, Propagation, Culture,

1552. *Glycine.* From γλυκυς, sweet. G monoica perfects its seeds under ground like Arachis hypogæa, Trifolium subterraneum, and Lathyrus subterraneus. They are all of easy culture, like their preceding and following allies. G. frutescens, and especially G. sinensis, are most beautiful hardy climbing shrubs, with long pendulous branches of blue flowers, like the Laburnum.

1553. *Kennedia.* Named after Mr. Kennedy, a nurseryman of celebrity in the vicinity of London. Handsome conservatory climbers of the easiest culture.

1554. *Cylista.* From κυλιξ, a calyx, that of the species so called being very large.

1555. *Galactia.* From γαλα, milk; the plant is milky in all its parts. A pretty flowering climber of easy culture in the soil indicated, and increased by cuttings in sand under a bell-glass.

1556. *Clitoria.* A name derived from an anatomical term, a resemblance to the subject of which has been fancied to exist in the flower. C. Ternatea was first brought to Europe from Ternate, one of the Molucca islands, which induced Tournefort to adopt Ternatea as a generic appellation, and it was continued by Linnæus as a specific one.

10296 Leaves ternate ovate smooth, Racemes filiform about 3-fl. Flowers apetalous, Pods oblong 2-seeded
10297 Leaves ternate ovate smooth, Stem hairy, Racemes pendulous, Fls. of stem with cor. of root apetalous
10298 Leaves ternate, Leaflets linear lanceolate silky, Fl. axillary solitary, Pods 2-seeded
10299 Leaves ternate, Leafl. oval hairy beneath, Pods subsolitary linear many-seeded, Style persistent straight
10300 Leaves ternate hairy, Racemes lateral
10301 Leaves ternate tomentose, Racemes axillary very short, Pods 2-seeded
10302 Downy, Leaves simple reniform rounded rugose netted, Racemes few-flowered
10303 Leaves ternate ovate acute hairy viscid, Peduncles jointed 1-2-fl. Pods oblong
10304 Leaves tern. ovate rhomboid pubesc. beneath netted tomentose, Racemes axillary, Pods subpubescent
10305 Leaves ternate ovate rhomboid beneath dotted with resin, Racemes longer than leaf
10306 Leaves ternate, Flowers racemose, Pods tumid villous
10307 Leaves ternate ovate somewhat hairy, Racemes axillary, Pods linear hooked at end
10308 Leaves simple sagittate, Petioles winged, Stem twining shrubby
10309 Leaves tern. roundish rhomboid smooth beneath dotted with resin, Racemes 1-sided longer than leaf
10310 Leaves pinnate, Leaflets 5 oblong apiculate, Flowers 3 axillary
10311 Leaves ternate villous beneath, Racemes terminal
10312 Leaves pinnated, Leaflets 11 ovate lanceolate silky, Raceme terminal nodding lax many-flowered
10313 Root tuberous, Lvs. pinn. Leafl. 5-7 ov. lanc. narrowed towards the end, Spikes dense shorter than leaves
10314 Leaves pinnated, Leaflets 9 ovate downy, Racemes dense terminal with bracteæ, Pods coriaceous

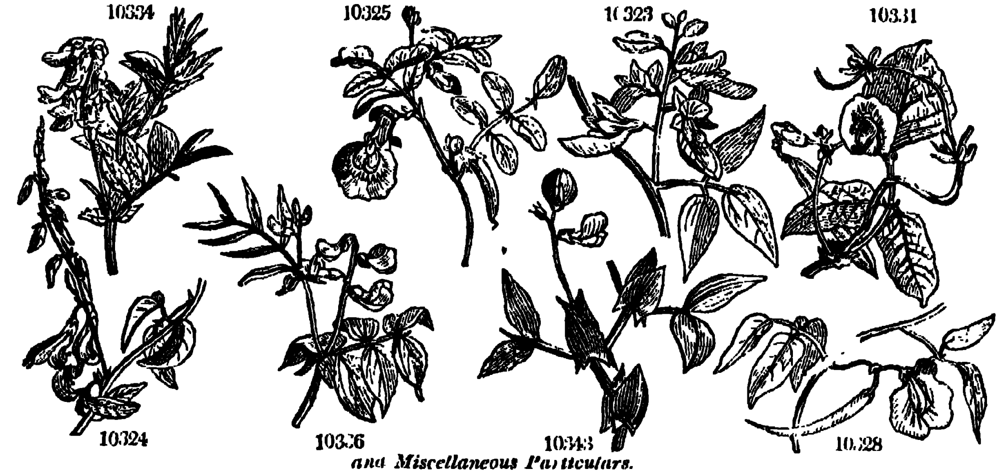
10315 Leaves ternate, Leaflets ovate, Pedunc. about 3-fl. Pods very hairy
10316 Leaves ternate, Leaflets obovate, Flowers capitate, Pods smoothish
10317 Leaves ternate, Leaflets obovate villous, Pedunc. 1-2-fl. Keel longer than obl. wings, Stem prostrate
10318 Leaves ternate, Leaflets ovate retuse netted, Racemes erect many-flowered
10319 Leaves simple smooth netted subcordate at base, Flowers racemose
10320 Leaves simple ovate, Racemes axillary few-flowered

10321 Cal. membranous, Upper segment bifid
10322 Down rusty, Cal. half 5-fid, Bractes ovate acuminate, Cor. larger than cal.
10323 Cal. scarious, Upper segment emarginate

10324 Leaves ternate, Raceme erect, Flowers pendulous

10325 Leaves quinate pinnate, Peduncles axilliary 1-flowered
10326 Leaves pinnate, Leaflets 5 round lanceolate or linear
10327 Leaves ternate, Calyxes solitary campanulate
10328 Leaves ternate, Calyxes twin campanulate
10329 Leaves ternate, Calyxes cylindrical
10330 Leaves ternate, Peduncles many-flowered, Ovary downy, Style villous
10331 Leaves ternate, Leaflets ovate-oblong acuminate, Cal. campanulate shorter than ovate bractes
10332 Leaves ternate, Leaflets mucronate glaucous beneath hairy, Cal. cylind. much larger than bractes

10333 Leaves conjugate subsessile, Stipules toothed
10334 Leaves pinnate in 4 or 5 pairs obl. glaucous beneath, Stipules half sagittate toothed at base
10335 Leaves of 2 pairs linear subulate approximating, Stip. half-sagittate subulate 1-toothed at base
10336 Leaves pinnate in 3 pairs ovate acuminate, Stipules half-sagittate entire, Stem simple
10337 Leaves pinnate in 3 or 4 pairs lanceolate, Stipules half-sagittate entire, Stem winged
10338 Leaves of 2 pairs linear-subulate downy, Stip. half-sagittate subulate nearly entire, Stem simple downy
10339 Stem branched, Leaves in 2 pairs linear, Stipules half sagittate subulate
10340 Leaves in 2 pairs ensiform stalked, Stipules simple, Stem simple
10341 Leaves in 4 pairs lin. lanc. Stipules half-sagittate entire, Stem winged branched upwards
10342 Leaves of 2 pairs lin-lanc. mucronate stalked nerved, Stipules half-sagittate toothed at base
10343 Leaves conjugate stalked, Stipules entire, Plant covered with long hairs

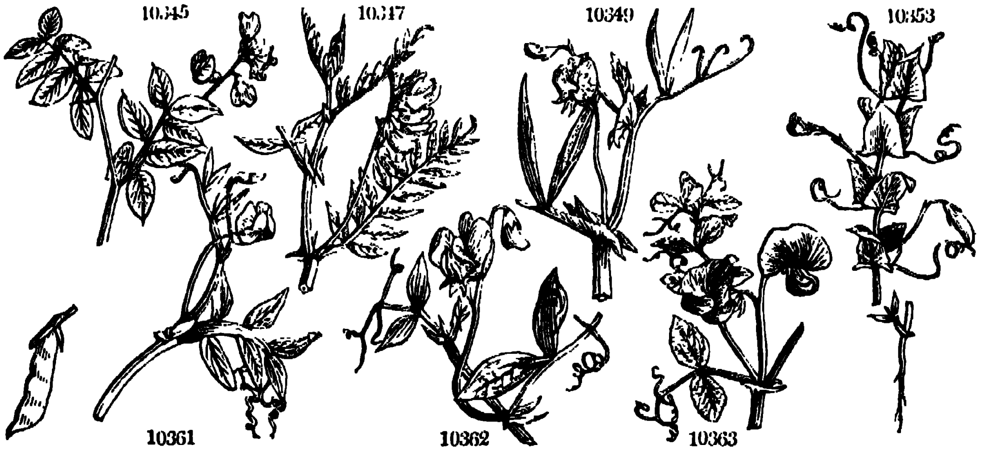


and Miscellaneous Particulars.

1557. *Orobus.* From ὀρω, to excite, and βους, an ox; that is to say, a food nourishing to cattle. Handsome plants, and free flowerers. O. luteus Haller considers as one of the handsomest of the papilionaceous tribe. O. tuberosus, according to Lightfoot, is in great esteem among the Highlanders of Scotland for the tubercles of the root; they dry and chew them in general to give a better relish to their liquor; they also affirm them to be good against most disorders of the thorax, and that by the use of them they are enabled to repel hunger and thirst for a long time. In Breadalbane and Ross-shire, they sometimes bruise and steep them in water, and make an agreeable fermented liquor with them. They have a sweet taste, something like the roots of liquorice, and when boiled are well flavored and nutritive, and in times of scarcity have served as a substitute for bread. (*Lightfoot.*)

Boiled well, a fork will pass through them, and dried slightly and roasted, they are served up in Holland and Flanders in the manner of chesnuts, which they resemble in flavor. Dickson (*Hort. Trans.* ii. 359.) recommends cultivating them in a bed or border of light rich soil, paved at the depth of twenty inches, to prevent their roots from running down. Plant the tubers six inches apart, and three inches below the surface;

10344	angustifólius *W.*	narrow-leaved	⚘	△	or	1	my.jn	W	Siberia	1766.	R	s.l	Gmel. sib. 4. t. 5
10345	niger *W.*	black	⚘	△	or	3	jn.jl	Pu	Europe	1596.	R	p.l	Bot mag. 2261
10346	pyrenáicus *W.*	Pyrenean	⚘	△	or	2	my.jn	Pu	Spain	1699.	R	p.l	Pl. alm. t.210. f.2
10347	sylváticus *W.*	wood	⸸	△	or	2	my jl	Cr	Britain	m.wo.	R	p l	Eng. bot. 518
10348	ochroleúcus *W. & K.*	sulphur-colored	⚘	△	or	2	my jl	Pa.Y	Hungary	1816.	R	p.l	Pl.rar.hu.2.t.118
1558.	LA'THYRUS *W.*	Lathyrus.					*Leguminosæ.*		*Sp.* 30—57.				
10349	Aphàca *W.*	yell. Vetchling	⸸	○	or	3	jn.jl	Y	England	san.fi.	S	co	Eng. bot. 1167
10350	Nissólia *W.*	crimson		○	or	2	my	Cr	England	bus.pl.	S	co	Eng. bot 112
10351	amphicárpos *W.*	Earth Pea	⸸	○	cu	1½	jn.jl	Ap	Levant	1680.	S	co	Mo.his.2. t.23 f.1
10352	Cicera *W.*	flat-podded	⸸	○	or	2	jn.jl	R	S. Europe	1633	S	co	Ger. emac. t. 3
10353	sativus *W.*	Chickling Vetch	⸸	○	ag	3	jn.jl	L.B	S. Europe	1640.	S	co	Bot. mag. 115
10354	inconspícuus *W.*	small-flowered	⸸	○	un	1	jl.au	Pu	Levant	1739.	S	co	Jac vind 1. t.86?
10355	setifólius *W.*	bristle-leaved	⸸	○	or	1	jn.jl	Sc	S. Europe	1739.	S	co	Bau. h. 2. p. 308
10356	coccineus *P S.*	scarlet	⸸	○	or	2	jn.jl	Sc	Italy	1800.	S	co	
10357	sphæ'ricus *W.*	round-seeded	⸸	○	or	2	jn jl	Cr	S. Europe	1801.	S	co	Decand. ic. t.32
10358	angulátus *W.*	angular-seeded	⸸	○	or	2	jn.jl	R	S. Europe	1683.	S	co	Bu.cen.3.t.42.f.2
10359	spurius *W en.*	bastard	⸸	○	or	2	jn.jl	Pu	......	1815.	S	co	
10360	monánthos *W.*	one-flowered	⸸	○	or	2	my.jl	Pk	Russia	1731.	S	co	
10361	articulátus *W.*	joint-podded	⸸	○	or	4	jl.au	F.w	S Europe	1640.	S	co	Bot. mag. 253
10362	odorátus *W.*	Sweet Pea	⸸	○	ft	4	jn.jl	W	Sicily	1700.	S	r.m	Bot. mag. 60
10363	grandiflórus *B. M*	perennial	⸸	△	or	4	jn.au	Pu	S. Europe	1814.	R	co	Bot. mag. 1938
10364	ánnuus *W.*	two-flowered	⸸	○	or	4	jn.au	Y	S. Europe	1621.	S	co	
10365	tingitánus *W.*	Tangier	⸸	○	or	4	jn.au	D.P	Barbary	1680.	S	co	Bot. mag. 100
10366	Clýmenum *W.*	various-flower.	⸸	○	or	4	jn.jl	Pu	Levant	1713.	S	co	Plu.alm.t.114.f.6
10367	hirsútus *W.*	rough-podded	⸸	○	or	4	jl	Pu	England	bor fi.	S	co	Eng. bot. 1255
10368	magellánicus *W.*	Ld. Anson's Pea	⸸	○	or	6	jn jl	Y	Cape Horn	1744	S	co	
10369	tuberósus *W.*	tuberous	⸸	△	cul	2	jl.au	R	Holland	1596.	R	co	Bot mag 111
10370	túmidus *L.*	tumid	⸸	○	or	1	jl.au	R	......	1820.	S	co	All. ped. 1. 26. 2
10371	rotundifólius *Bieb.*	round-leaved	⸸	○	or	1½	jl.au	Pu	Tauria	1822.	S	co	
10372	platénsis *W.*	meadow	⸸	△	or	3	jn au	Y	Britain	me.pa.	R	co	Eng. bot. 670
10373	sylvéstris *W.*	Wood Everlasting Pea	⸸	△	or	3	jl s	Pu	Britain	moi.w.	R	co	Eng bot. 805
10374	latifólius *W.*	broad-lvd Everlasting	⸸	△	or	6	jl.s	Pk	England	woods.	R	co	Eng. bot 1108
10375	heterophýllus *W.*	various-leaved	⸸	△	or	4	jl.s	F	Europe	1731	R	co	Bau. h. 2. p. 304
10376	palústris *W.*	marsh	⸸	△	or	4	jl.au	B	Britain	moi w.	R	co	Eng bot. 169
10377	incúrvus *W.*	curve-podded	⸸	△	or	2	jl.au	B	Russia	1802.	R	co	Bux cent.4 t 46
10378	pisifórmis *W.*	Siberian	⸸	△	or	3	jn.jl	W.B	Siberia	1759.	R	co	Lin. fil. dec. t. 20
1559.	O'CHRUS *Bauh.*	Ochrus					*Leguminosæ.*		*Sp*				
10379	pállida *P S.* *Pisum O'chrus* W.	yellow-flowered	⸸	○	or	3	jn jl	Y	S. Europe	1633.	S	s.l	Sch. han.2. t.260
1560.	PI'SUM *W.*	Pea					*Leguminosæ.*		*Sp* 3.				
10380	sativum *W*	common	⸸	○	cu	3	jn.s	W	S. Europe	...	S	co	Lam ill. t. 638



History, Use, Propagation, Culture,

the second year some will be fit to gather, and by taking only the largest, the bed will continue productive for several years, adding some fresh compost every year.

1558. *Lathyrus.* A name employed by Theophrastus to designate a leguminous plant. It is said by his commentator Bodæus a Stapel, to have been derived from λα, an augmentative particle, and θουρος, any thing which is exciting; and to have been applied to this plant in consequence of certain aphrodisiacal qualities ascribed to it. L. sativus, *Gesse*, Fr., is frequently sown in Switzerland for soiling horses. In several parts of the continent, a white light pleasant bread is made from the flour of this pulse, but it produced such dreadful effects in the last century, that the use of it was forbid by an edict of George, Duke of Wurtemburg, in 1671; and this not being observed, was enforced by two other edicts under his successor Leopold, in 1705, and 1714

Mixed with wheat flour in half the quantity, it makes a very good bread, that appears to be harmless. But bread made with this flour only has brought on a most surprising rigidity of the limbs in those who have used it for a continuance; insomuch that the exterior muscles could not by any means be reduced, or have their natural action restored. These symptoms usually appeared on a sudden, without any previous pain; but sometimes they were preceded by a weakness and disagreeable sensation about the knees. Baths, both hot and cold, fomentations and ointments of various kinds have been tried without effect; insomuch that it is regarded as incurable, and being neither very painful nor fatal, those who are seized with it usually submit to it with patience.

Swine fattened with this meal lost the use of their limbs, but grew very fat lying on the ground. A horse fed some months on the dried herb, was said to have his legs perfectly rigid. Kine are reported to grow lean on it, but sheep not to be affected. Pigeons, especially young ones, lose the power of walking by feeding on the seed. Poultry will not readily touch it, but geese eat it without any apparent damage. In some parts of Switzerland, cattle feed on the herb without any harm. It would be worth enquiring, therefore, whether the soil may not contribute something to the ill qualities of the plant: and it is remarked that the seed from a strong, fat, moist soil, is much more deleterious than from a light dry one. (*Duvernoy.*)

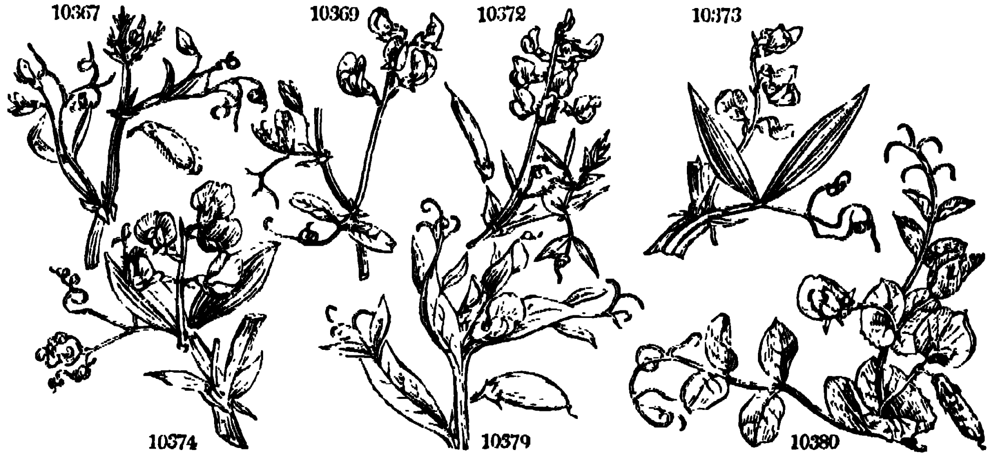
Fabbroni, from Florence, in 1786, says, that the government there has cautioned the peasants against the

10344 Leaves in 2 pairs ensiform, Stipules subulate, Stem simple
10345 Stem branched, Leaves in 6 pairs ovate oblong
10346 Stem branched, Leaves in 2 pairs lanceolate nerved, Stipules somewhat spiny
10347 Leaves pinnate hairy of many pairs ovate lanc. Stip half-sagitt. Stem branched decumbent hairy
10348 Leaves pinnate smooth of many pairs elliptical, Stipules ovate lanceol. Stem branched erect hairy

10349 Peduncles 1-flowered, Tendrils leafless, Stipules sagittate cordate
10350 Peduncles many-flowered, Leaves simple, Stipules subulate
10351 Peduncles 1-flowered longer than calyx, Tendrils 2-leaved simple
10352 Peduncles 1-flowered, Tendrils 2-leaved, Pods ovate compressed channelled at back
10353 Peduncles 1-flowered, Tendrils 2-leaved and 4-leaved, Pods ovate compressed with 2 edges at back
10354 Peduncles 1-flowered shorter than calyx, Tendrils 2-leaved simple, Leaflets lanceolate
10355 Peduncles 1-flowered, Tendrils 2-leaved, Leaflets setaceous linear
10356 Peduncles 1-flowered as long as cal. Petioles 2-leaved, Leaflets lanc. Pods linear roughish mucronate
10357 Peduncles 1-flowered awned, Tendrils 2-leaved simple ensiform
10358 Peduncles 1-flowered awned, Tendrils 2-leaved simple, Leaflets linear
10359 Peduncles 1-flowered, Tendrils 4-leaved, Petioles winged, Pods compressed
10360 Peduncles 1-flowered awned, Tendrils many-leaved, Leaflets linear truncate mucronate
10361 Peduncles about 1-fl. Tendrils many-leaved, Leaflets alternate lanceolate, Petioles winged
10362 Peduncles 2-flowered, Tendrils 2-leaved, Leaflets ovate oblong, Pods hairy
10363 Peduncles 2-flowered naked, Tendrils 2-leaved, Leaflets obovate wavy, Stems rigid 4-angled
10364 Peduncles 2-flowered, Tendrils 2-leaved, Leaflets ensiform, Pods smooth, Stipules 2-parted
10365 Peduncles 2-flowered, Tendrils 2-leaved, Leaflets altern. lanc smooth, Stipules lunate
10366 Peduncles 2-flowered, Tendrils many-leaved, Leaflets lanceolate, Stipules toothed
10367 Peduncles about 3-flowered, Tendrils many-leaved, Leaves lanc. Pods hairy, Seeds rough
10368 Peduncles long many-fl. Stipules broad cordate sagittate, Tendrils 2-leaved
10369 Pedunc. many-fl. Tendrils 2-leaved, Leaflets oval, Joints naked
10370 Pedunc. 1-fl. shorter than stipules, Tendrils 2-4-leaved, Stip. toothed, Pods erect turgid and villous
10371 Pedunc. many-fl. Tendrils 2-leaved, Leaflets roundish, Joints membranous
10372 Pedunc. many-fl. Tendrils 2-leaved quite simple, Leaflets lanceolate
10373 Pedunc. many-fl. Tendrils 2-leaved, Leaflets ensiform, Joints membranous
10374 Pedunc. many-fl. Tendrils 2-leaved, Leaflets lanceolate, Joints membranous
10375 Pedunc. many-fl. Tendrils 2-leaved and 4-leaved, Leaflets lanc. Joints membranous
10376 Pedunc. many-fl. Tendrils many-leaved, Leaflets linear lanc. acute
10377 Pedunc. many-fl. Tendrils many-leaved, Leafl. lanc. obl. blunt mucronate, Joints membran. Pods curved
10378 Pedunc. many-fl. Tendrils many-leaved, Leafl. ellipt. blunt, Stipules half-sagitt. ovate broader than leaflet

10379 Petioles decurrent membranous 2-leaved, Peduncles 1-flowered

10380 Petioles round, Stipules rounded below crenate, Peduncles many-flowered



and Miscellaneous Particulars.

use of Lathyrus sativus; swine having lost the use of their limbs, and become pitiable monsters by being fed on this pulse exclusively. The peasants, however, eat it boiled, or mixed with wheat flour, in the quantity of one-fourth, without any harm.

The poisonous Lathyrus from Barbary, is L. semine punctato of Casp. Bauhin, and seems to be only a variety; for in the crops of L. sativus in Italy, they find black seeds striped with white, as in the African seed. Fabbroni suspects it to be a mule between L. sativus and Cicera, for the flower and seed partake of the characters of both; having a black seed marked with white; and a white banner with a red keel to the corolla. (*Fabbroni's Letters in* MSS. *Banks.*)

L. odoratus is one of our most esteemed border annuals, and is extensively grown in pots for decorating chambers and windows. L. tingitanus, articulatus, and annuus are also sown as border annuals

L. tuberosus produces tubers on the roots, like those of the earth nut (Bunium bulbocastanum); these are sold in the markets of Holland, like those of Orobus tuberosus and Trapa natans, and their flavor is highly esteemed.

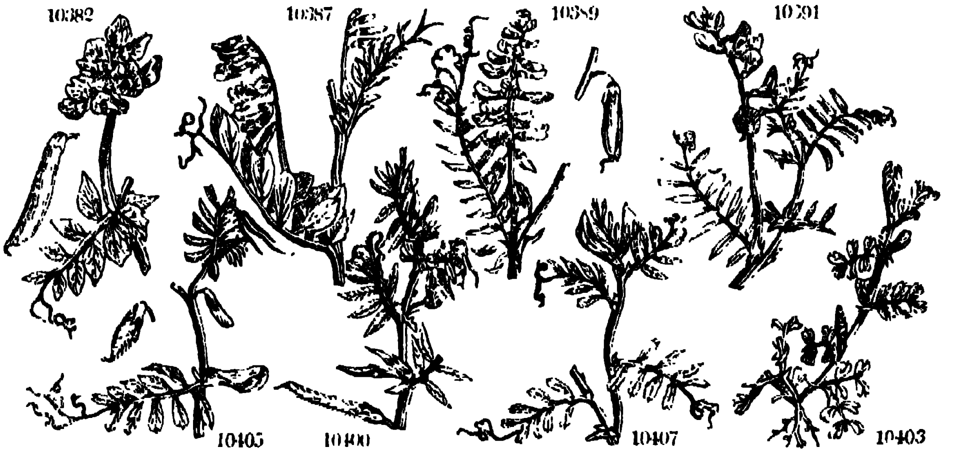
L. latifolius is a very shewy plant for shrubberies, arbors, and trellis work, and yields a great quantity both of green fodder and seeds, which some botanists have suggested might be applied to agricultural purposes.

1559. *Ochrus; ωχρος*, yellow, in allusion to the color of its flowers. A small annual plant with yellow flowers, native of hedges in the south of Europe.

1560. *Pisum.* From the Celtic *pis*, a pea. P. sativum, *Pois*, Fr., *Erbse*, Ger , and *Pisello*, Ital., is the most valuable of culinary legumes. Like most domestic plants of great antiquity, its native country is unknown, though it is commonly referred to the south of Europe. The varieties of the pea are numerous, and differ widely among themselves from the early frame, a low plant bearing only one white blossom on each footstalk, to the crown-bearing, having pink blossoms on a terminating corymb. The rouncival grows ten or twelve feet high, and the imperial not two feet. The sugar-pea has pods in which the inner film is wanting, or much less tough than usual, which admits of boiling the pods entire, and eating them in the same manner as kidney beans.

In the open garden, the pea is sown at intervals from January to the middle of July, and a succession of

10381	arven'se *W*	field	⚘	○	ag	3	jn s	R	S Europe	...	S	co	Mor. ox. 2 1. 4
10382	maritimum *W.*	sea	⚘	△	or	1½	jl	B	England	sea sh.	D	s.l	Eng. bot. 1046
1561.	VI'CIA. *W.*	Vetch					*Leguminosæ.*		*Sp.* 38—100.				
10383	pisifórmis *W.*	Pea-shaped	⚘	△	or	2	jl.au	Pa Y	Austria	1739.	R	co	Jac. aust. 4. t. 364
10384	dumetórum *W.*	great-wood	⚘	△	or	1	my.jn	Pu	France	1752.	R	co	Spreng fl. hal. t. 7
10385	sylvática *W.*	common-wood	⚘	△	or	6	jl.au	W	Britain	moi. w.	R	co	Eng. bot. 79
10386	cassúbica *W.*	Cassubian	⚘	△	or	3	jn jl	L B	Germany	1711.	*R	co	Jac aust. 3 t 229
10387	atropurpúrea *W.*	dark-purple	⚘	△	or	3	jn.jl	Pu	Algiers	1815.	R	co	Vent. cels. t. 84
10388	villósa *W*	villous	⚘	○	or	3	jn jl	D.Pu	Germany	1815.	S	co	
10389	Crac'ca *W.*	tufted	⚘	△	or	2	jn.au	V	Britain	hed.	R	co	Eng. bot. 1168
10390	tenuifólia *W.*	slender-leaved	⚘	△	or	1½	jn.jl	V	Germany	1799.	R	co	Bot. mag. 2141
10391	onobrychioides *W.*	Sainfoin	⚘	○	or	2	jn jl	Pu	S. Europe	1789.	S	co	Bot. mag. 2206
10392	biénnis *W*	biennial	⚘	⊙	or	2	jl.s	Pu	Siberia	1753	S	co	Gmel. sib. 4. t 2
10393	missohána *W*	red-flowered	⚘	○	or	3	jn jl	D Pu	Levant	1773.	S	co	Bot. reg. 871
10394	benghalénsis *W.*	Bengal	⚘	[○]	or	3	jn jl	D.Pu	E Indies	1792.	S	co	Her lugd. t. 625
10395	canéscens *W*	hoary	⚘	○	or	1	jn au	B	Libanus	1800.	S	co	Labill. syr. t. 7
10396	capénsis *W.*	Cape	⚘	⌊△⌋	or	1	jn au	Pa	C. G. H.	1802.	R	co	
10397	pellúcida *W.*	pellucid	⚘	⌊△⌋	or	1	jn au	Pa	C. G H.	1812.	R	co	Jac schœ. 2. t 222
10398	biflóra *W*	two-flowered	⚘	○	or	1½	jn.au	B	Algiers	1801.	S	co	Desf. atl. 2. t. 197
10399	globósa *W.*	globular	⚘	○	or	1½	jn au	B	......	1804	S	co	
10400	sativa *W*	common	⚘	○	ag	3	my jn	Pu	Britain	corn fi.	S	h.l	Eng bot. 334
	β segetális	*hedge*	⚘	○	ag	3	my jn	Pu	Britain	corn fi.	S	h l	
	γ nemorális	*wood*	⚘	○	ag	3	my jn	Pu	Britain	corn fi.	S	h.l	
10401	angustifólia *W*	narrow-leaved	⚘	○	or	1½	my jn	R	Germany	...	S	co	All. ped. t. 59. f. 2
10402	amphicárpos *W.*	subterraneous	⚘	○	or	1	my.jn	B	France	1815.	S	co	Clus exot. t 88
10403	lathyroides *W.*	spring	⚘	○	or	1½	ap jn	Pu	Britain	tall. fi	S	h.l	Eng bot. 30
10404	lútea *W*	yellow	⚘	△	or	1½	jn au	Y	Britain	sea sh.	R	co	Eng. bot. 481
10405	hybrida *W.*	hairy-flowered	⚘	△	or	1½	jn au	Y	England	thick.	R	co	Eng bot 482
10406	striáta *Bieb.*	streaked	⚘	○	or	1½	jn au	Pu	Tauria	1823.	R	co	
10407	lævigáta *W*	smooth-podded	⚘	△	or	1½	jl au	Pa. Y	England	sea sh.	R	co	Eng. bot. 483
10408	megalospérma *Bieb.*	Taurian	⚘	○	or	2	jl au	Pu	Tauria	1798.	S	co	
● 10409	articuláta *W. en.*	jointed	⚘	○	or	1½	jl au	Pu	......	1798.	S	co	
10410	pannónica *W.*	Hungarian	⚘	○	or	1½	jn jl	Pu	Hungary	1658	S	co	Jac. aust. 1 t 34
10411	sórdida *W.*	sordid	⚘	○	or	1	jn jl	Y	Hungary	1802.	S	co	Pl. rar hu 2. t. 153
10412	Michaúxii *W. en.*	white-flowered	⚘	○	or	1½	jl.au	Pu	.....	1803	S	co	
10413	peregrina *W*	broad-podded	⚘	○	or	1½	jl au	Pu	France	1779.	S	co	Plu. alm. t 255. f 6
10414	monántha *W.*	single-flowered	⚘	○	or	2	jl au	R	[illegible]	1790	R	co	
10415	sépium *W.*	bush	⚘	△	or	2	my jn	B	Britain	hed	R	h l	Eng. bot 1515
10416	bithýnica *W*	purple	⚘	△	or	1½	jl au	Pu	England	san fi	S	co	Jac vind. 2. t. 147
10417	platycárpos *W.*	flat-podded	⚘	○	or	1½	jl au	Pu	Germany	1723	S	co	Roth abhan t. 1
10418	narbonensis *W.*	broad-leaved		○	ag	3	jn jl	Pu	France	1596.	S	co	Roth abhan t. 2
10419	serratifólia *W.*	saw-leaved		○	ag	3	jn jl	Pu	Hungary	1723.	S	h l	Jac aust. app t 8
10420	Faba *W*	Garden Bean		○	cul	3	jn jl	Pa	Egypt	...	S	h.l	Blackw. her t. 19
	β equina	*Horse Bean*		○	ag	3	jn jl	Pu	.....	...	S	co	



History, Use, Propagation, Culture.

crops is thus obtained from the end of May to the beginning of November By raising in hotbeds and transplanting, the first crop may be gathered in the beginning of May; and by raising and maturing in pits, pease may be gathered in April. The pea, however, does not force well, and requires extraordinary attention to giving air, otherwise the blossoms will not set The culture of the pea is known to every countryman.

The grey pea, cultivated in agriculture, is by some considered as a species, though it is obviously a mere variety, not farther removed from the frame pea than is the blue Prussian, or the crown pea. A dry soil and season is essential for a good crop, unless the plants can be supported by sticks like the garden crops. The seed is chiefly used for feeding pigs, and splitting for soup In boiling split pease, some samples, without reference to variety, fall or moulder down freely into pulp, while others continue to maintain their form. The former are called boilers. This property of boiling depends on the soil; stiff land, or sandy land that has been limed or marled, uniformly produces pease that will not melt in boiling, no matter what the variety may be. Pease straw cut green and dried, is reckoned as nourishing as hay, and is considered as excellent for sheep. The produce of pease in flour is as three to two of the bulk in grain, and husked and split for soups as four to two. A thousand parts of pea flour afforded Sir H Davy 574 parts of nutritive or soluble matter; viz. 501 of mucilage, or vegetable animal matter, 22 of sugar, 35 of gluten, and 16 of extract, or matter rendered insoluble during the operation.

P. maritimum has seeds of a bitterish disagreeable taste, but are reported nevertheless to have been eaten in times of scarcity. (*Turner's Herbal.*)

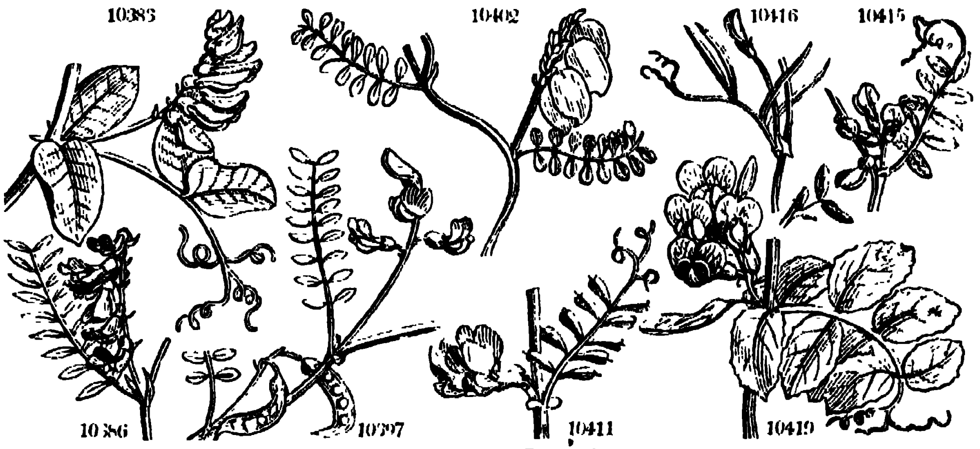
1561. *Vicia* From *gwig*, Celtic; whence *βικιον*, Greek, *vicia*, Latin, *vesce*, French, *vetch*, English, &c. V. sylvatica and cracca, where they occur in meadows, are considered valuable herbage plants. They yield great bulk of fodder, which is allowed to be very nutritive. Some have proposed to cultivate them alone, but Curtis observes, they would probably in that case choke themselves for want of support.

V. sativa, the winter and summer tare, fetch or vetch, is a valuable agricultural plant. Some consider the winter variety as a distinct species; but Professor Martyn proved, by cultivating both, that they were not

10381 Petioles 4-leaved, Stipules crenate, Peduncles 1-flowered
10382 Petioles flat above, Stem angular, Stipules sagittate, Peduncles many-flowered

10383 Peduncles many-fl. Petioles many-leaved, Leaflets ovate : lower sessile
10384 Peduncles many-fl. Leaflets reflexed ovate mucronate, Stipules somewhat toothed
10385 Peduncles many-fl. longer than leaf, Leaflets ellipt. Stipules lunate with setaceous teeth
10386 Peduncles many-fl. shorter than leaf, Leaflets oblong subpubesc. Stipules half sagittate entire lanceolate
10387 Peduncles many-fl. shorter than leaf, Teeth of calyx setaceous very villous, Leaflets lanceolate villous
10388 Peduncles many-fl. longer than leaf, Flowers imbricated, Leaflets obl. ovate villous, Stip. half-sagittate
10389 Peduncles many-fl. longer than leaf, Flowers imbricated, Leafl. lanc. blunt, Stip. half-sagitt. lin. subulate
10390 Peduncles many-fl. longer than leaf, Flowers imbricated, Leafl. lin. smoothish 3-nerved, Stip. lin. entire
10391 Peduncles many-fl. longer than leaf, Flowers distant, Leafl. lin. Stip. half-sagitt. lin. lanc. toothed at base
10392 Peduncles many-fl. Petioles sulcate 12-leaved, Leaflets lanc. smooth, Stip. half-sagittate stalked
10393 Peduncles many-fl. Leaflets obl. Stipules entire, Pods villous ovate oblong
10394 Peduncles many-fl. Leaves entire, Stipules entire, Pods nearly erect
10395 Peduncles many-fl. long, Upper leaves subcirrhous, Stipules half-sagittate entire, Leafl. oval-obl. hoary
10396 Peduncles many-fl. long, Leaves not cirrhous, Leafl. obl. lanc. silky beneath, Stip. lanceol. entire
10397 Peduncles many-fl. shorter than leaf which is not cirrhous, Leaflets obovate emarginate, Stip. oblong
10398 Peduncles 2-flowered awned shorter than leaf, Leaflets linear narrowed at each end, Stip. half-sagittate
10399 Pods subsessile solitary, Leaflets ovate, Stipules marked 4-toothed
10400 Pods sessile sub-binate, Leaflets obl. ovate truncate mucronate, Stipules toothed marked

10401 Pods sessile sub-binate spreading, Lower leaflets ovate emarginate : upper lin. entire, Seeds globose
10402 Pods sessile : lower subterranean, Leaflets linear truncate, Stipules half-sagittate
10403 Pods sessile solitary erect smooth, Leaflets 6 : lower subcordate
10404 Pods sessile solitary reflexed hairy, Stems diffuse, Stipules colored, Standard smooth
10405 Pods sessile solitary reflexed hairy 5-seeded, Standard villous
10406 Pods stalked reflexed, Standard silky, Stipules lanceolate marked, Upper leaflets obl. elliptical acute
10407 Pods sessile solitary reflexed smooth, Stems nearly erect, Leaves quite smooth
10408 Pods sessile solitary reflexed downy, Leaflets linear blunt, Stipules half-sagittate entire
10409 Pedunc. 1-fl. in fruit longer than leaf and awned, Leaflets linear blunt mucronate, Stipules multifid
10410 Pods stalked about 3, and the standard hairy, Stipules lanceolate marked
10411 Pods subsessile twin reflexed smooth, Leaflets obl. ovate retuse, Stipules marked
10412 Pedunc. 1-fl. very short, Leafl. lin. lanc. truncate, Stipules lanc. undivided, Pods finely downy
10413 Pods subsessile pendulous smooth 4-seeded, Leaflets linear emarginate
10414 Pedunc. 1-fl. awned, Leaflets lanceolate blunt, Stipules bifid
10415 Pods stalked about 4 erect, Leaflets ovate entire
10416 Pods stalked solitary erect, Leaflets 4 oval-lanceolate, Stipules toothed
10417 Pods subsessile solitary compressed somewhat inflated, Leaflets ovate toothed at end, Stip. cil. toothed
10418 Pods subsessile subternate compressed, Leaflets ovate entire, Stipules ciliate toothed at base
10419 Pods subsessile subternate, Leaves and stipules serrate
10420 Pods subsess. subtern. torulóse, Leaflets ovate entire, Petioles not cirrhous, Stip. sagittate toothed at base



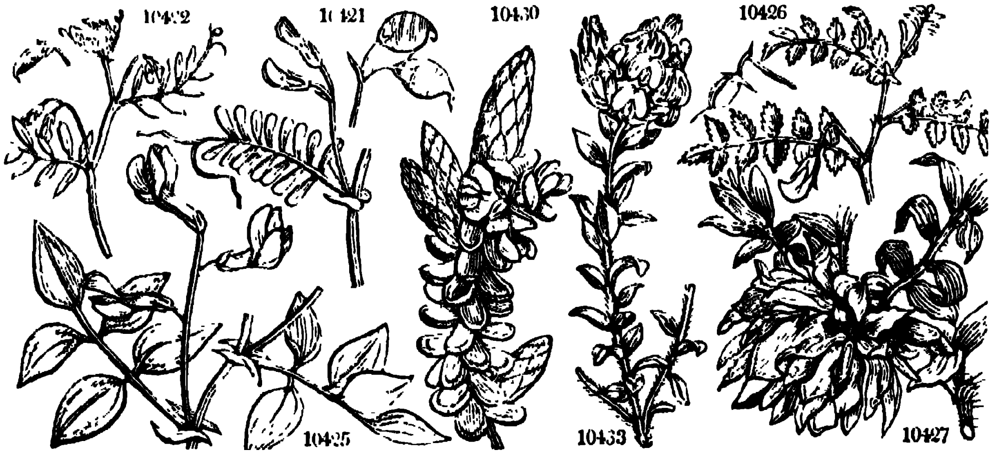
even very distinct varieties The winter variety is sown in September and October, and the summer at different periods, from February to June, for successional cuttings. The soil requires to be in a good heart, otherwise they will produce but a poor crop of herbage: on a good soil they will yield ten or twelve tons, which is found excellent for milch cows and working stock. The crop is seldom left to ripen its seeds, but when seeds are wanted; the only use made of them being for sowing or feeding pigeons.

V. narbonensis and serratifolia are cultivated in Germany in the same manner as our tare Vicia sepium has been recommended to be sown among clover for mowing.

V. Faba is a well known legume both of the garden and the field. The garden varieties are numerous; the earliest is a small seeded variety, the Mazagan, and the largest the Windsor. Beans are planted at the various times in which pease are sown; but the late sowings of this plant do not answer so well as those of the pea. When the ground is properly pulverised and in good heart, they succeed well when transplanted; and where a first crop is injured by insects, if the stems are cut down to the ground during their flowering season, they will send up a succession of shoots, which will bear a crop In this way, according to some, the bean may be rendered perennial, as it is certain the scarlet kidney bean may by merely protecting the roots from the frost.

The field bean, of which there is a larger and smaller sort. the latter called *ticks*, is sown in drills by a machine, so as to admit of horse hoeing, and otherwise ploughing or stirring between the rows. By this means a larger crop is produced, and the land cleaned and brought into a better state for a succeeding corn crop. Beans are excellent food for hard working horses, and for fatting hogs for bacon The flower of beans and pease is more nutritive than that of oats, but less easy of digestion. A bushel of beans is supposed to yield fourteen pounds more of flour than a bushel of oats, and a bushel of pease eighteen pounds more, or, according to some, twenty pounds. A thousand parts of bean flour were found, by Sir H Davey, to yield 570 parts of nutritive matter, of which 426 were mucilage or starch, 103 gluten, and 41 extract, or matter rendered insoluble during the process.

1562. **ER'VUM.** *W.*	Tare.					*Leguminosæ.*		*Sp.* 4—16				
10421 Lens *L.*	Lentil	⚘	○	clt	1	my	Pa	France	1548.	S	r.m	Rivini tet. t. 35
10422 tetraspérmum *W.*	smooth	⚘	○	un	1½	jn	Pu	Britain	corn fi.	S	h.l	Eng. bot. 1223
10423 hirsútum *W.*	hairy	⚘	○	un	2	jn jl	B	Britain	corn fi.	S	h.l	Eng. bot. 970
10424 dispérmum *W.*	two-seeded	⚘	○	un	1½	jn jl	Pa	E. Indies	1802.	S	co	
1563. **ERVI'LIA.** *Link.*	Ervilia.					*Leguminosæ.*		*Sp.* 1.				
10425 sativa *Link.*	common	⚘	○	clt	1½	jn.jl	Pu	S. Europe	1596.	S	co	Black. t. 208. f. 3
1564 **CI'CER** *W.*	Chick-Pea.					*Leguminosæ*		*Sp.* 1.				
10426 arietinum *W.*	common	⚘	○	clt	1	jl.au	Pa	S. Europe	1548.	S	co	Bot. mag. 2274
1565 **LIPA'RIA.** *W.*	Liparia.					*Leguminosæ.*		*Sp.* 8—13.				
10427 sphæ'rica *W.*	globe-flowered	♣	⊔	or	4	jl au	Or	C. G. H.	1794.	S	p.l	Bot. mag. 1241
10428 capitáta *W.*	headed	♣	⊔	or	3	jl au	Y	C. G. H.	1812.	C	co	
10429 tomentósa *W.*	downy	♣	⊔	or	3	jl.au	Y	C. G. H.	1812.	C	co	
10430 vestita *W.*	concave-leaved	♣	⊔	or	3	my jn	Y	C. G. H.	1800	S	p.l	Bot. rep. 382
10431 graminifólia *W.*	narrow-leaved	♣	⊔	or	3	jn jl	Y	C. G. H.	1800.	C	co	
10432 villósa *W.*	woolly	♣	⊔	or	3	jn.jl	Y	C. G. H.	1774.	C	co	Ho n h.5.t.29.f.1
10433 hirsúta *W.*	shaggy stem'd	♣	⊔	or	3	ap.d	Y	C. G. H.	1792	S	p.l	Bot. reg. 8
10434 sericea *W.*	silky-leaved	♣	⊔	or	3	jn jl	Y	C. G. H.	1794.	S	p.l	
1566 **CY'TISUS** *W.*	Cytisus.					*Leguminosæ.*		*Sp* 24—41.				
10435 Labúrnum *W.*	comm. Laburn.	🌳		tm	15	my.jn	Y	Switzerl.	1596	S	co	Bot. mag. 176
10436 alpinus *W. en*	Scotch Laburn.	🌳		tm	30	jn	Y	Europe	1596.	S	co	Schmidt arb.
10437 tomentósus *B R*	tomentose	♣	⊔	or	1½	jl.au	Y	C. G. H.	1798.	S	p l	Bot rep 2·7
10438 nigricans *W.*	black-rooted	♣		or	3	jn.jl	Y	Austria	1730.	S	s l	Bot. reg. 802
10439 foliolósus *W.*	leafy	♣	⊔	or	2	jl.au	Y	Canaries	1779.	C	p.l	Bot. mag 426
10440 divaricátus *W.*	clammy	♣	⊔	or	3	jl au	Y	S Europe	1676.	S	s l	Bot. mag 1387
10441 sessilifólius *W.*	common	♣		or	6	my jn	Y	Italy	1629.	S	s.l	Bot mag. 255
10442 wolgáricus *W.*	wing leaved	♣		or	2	my.jn	Y	Siberia	1786.	S	s.l	Pall ross 1. t.47
10443 Cájan *W.*	Pigeon-Pea	♣	▣	or	2	jl au	Y	E. Indies	1687.	S	s l	Rhee. mal 6 t 13
10444 nánus *W. en.*	dwarf	♣	⊔	or	½	my jn	Y	Levant	1816	S	s l	Dend brit 81
10445 hirsútus *W.*	hairy	♣		or	5	jn au	Y	S Europe	1739.	S	co	Jac. obs. 4 t. 96
10446 capitátus *W.*	cluster-flowered	♣		or	3	jn jl	Y	Austria	1774	S	s.l	Bot cab 197
10447 austriacus *W.*	Austrian	♣		or	3	jn.s	Y	Austria	1741.	S	s l	Jac. aust. 1 t 21
10448 leucanthus *W.*	cream-colored	♣		or	4	jn jl	Pa.Y	Hungary	1806	C	s l	Bot mag 1438
10449 purpúreus *W.*	purple flowered	♣		or	3	my au	Pu	Austria	1792	S	s.l	Bot. mag. 1176
β albiflórus	*white-flowered*											
10450 supínus *W.*	trailing	♣		or	1	my au	Y	S Europe	1755	S	s l	Jac aust 1. t 20
10451 biflórus *W.*	two-flowered	♣		or	3	my.jn	Y	Hungary	1760.	S	s l	Bot reg 308
10452 falcatus *W. & K.*	sickle-shaped	♣		or	3	jn au	Y	Hungary	1816.	S	s l	Bot cab. 520
10453 triflórus *W.*	three-flowered	♣		or	4	jn jl	Y	Spain	1640.	S	s l	
10454 elongátus *W. & K.*	long branched	♣		or	4	my jn	Y	Hungary	1804.	C	s.l	Pl.rar hu.2.t 183
10455 rhombifólius *Ph.*	rhomb-leaved	♣		or	3	......	Y	Louisiana	1811.	C	s l	
10456 proliferus *W.*	silky	♣	⊔	or	2	ap my	Y	Canaries	1779	C	p.l	Bot. reg. 121
10457 argenteus *W.*	silver-leaved	♣		or	3	au	Y	France	1759.	S	s.l	Bau.h.2.p.359
10458 calycinus *Bieb.* *pauciflórus* W.	few-flowered	♣		or	2	au	Y	Tauria	1820.	C	co	Bot. cab. 675



History, Use, Propagation, Culture,

1562. *Ervum.* From *erw*, tilled land, in Celtic, to which this plant is a pest E. lens (from *lentil*, Celtic), *Lentille*, Fr., *Lentze*, Ger., and *Lenticchia*, Ital., is a legume of the greatest antiquity, being in esteem in Esau's time, and much prized in eastern countries ever since. In Egypt and Syria they are parched in a frying-pan and sold in the shops, and considered by the natives as the best food for those who undertake long journies. There are three varieties of lentils cultivated in France and Germany, the small brown, which is the lightest flavored, and the best for haricots and soups; the yellowish, which is a little larger, and the next best, and the lentil of Provence, which is almost as large as a pea, with luxuriant straw, and more fit to be cultivated as a tare, than for the grain as human food A dry warm sandy soil is requisite for the lentil; it is sown rather later than the pea, at the rate of a bushel, or one and a half bushel, to the acre; in other respects its culture and harvesting are the same, and it ripens sooner The produce of the lentil in grain is about a fourth less than that of the tare; and in straw it is not a third as much, the plants seldom growing above one and a half foot high. The straw is, however, very delicate and nourishing, and preferred for lambs and calves, and the grain, on the continent, sells at nearly double the price of pease. Einhoff obtained from 3840 parts of lentils, 1260 parts of starch, and 1433 of a matter analogous to animal matter.

1563. *Ervilia.* A word with the same meaning as *Ervum* See that word

1564 *Cicer.* All authors agree in deriving the name from *κικυς*, force, on account of the eminent qualities the ancients attributed to it It grows naturally in the South of Europe, and is cultivated there for the same purposes as the lentil, but it is too delicate for field culture in this country. It is called *Arictinum*, because the young seed bears a very curious resemblance to a ram's head.

1565. *Liparia.* From *λιπαρος*, brilliant, in allusion to the surface of the leaves. "The species," Sweet observes, "thrive very well in a mixture of loam and peat, and do not require so much water as some other genera of the order L. villosa, vestita, sericea, and some others, if they get too much water over their leaves

10421 Pedunc. 2-fl. Seeds compressed, Leaflets entire
10422 Pedunc. about 2-fl. Pods smooth 4-seeded, Leaflets oblong truncate
10423 Pedunc. many-fl. Pods hairy 2-seeded, Leaflets lin. blunt
10424 Pedunc. 2-fl. awned, Pods smooth 2-seeded, Leaflets lin. lanceolate downy

10425 Pedunc. awned shorter than leaf, Leaflets obl. truncate smooth, Stipules hastate

10426 Pedunc. 1-fl. Seeds globose gibbous, Leaflets serrated

10427 Flowers capitate, Leaves lanceolate nerved smooth
10428 Flowers capitate: head erect, Leaves lanceolate smooth
10429 Flowers capitate, Leaves lanceolate downy
10430 Flowers capitate, Leaves ovate concave woolly beneath
10431 Flowers spiked hairy, Leaves lanceolate, and angular stem smooth
10432 Flowers fascicled, Leaves ovate villous downy
10433 Flowers racemose, Leaves obovate oblong smooth, Stem hairy
10434 Flowers somewhat spiked, Leaves ovate villous downy

10435 Racemes simple pendulous, Leaflets ovate oblong, Pods hairy
10436 Racemes simple pendulous, Leaflets ovate oblong rounded at base, Pods quite smooth
10437 Racemes lateral erect, Branches round spreading, Leaflets ovate downy
10438 Racemes terminal erect, Calyxes hairy: teeth minute, Leaflets ellipt. hairy
10439 Racemes terminal erect, Calyxes villous: segments falcate, Leafl. obovate oblong
10440 Racemes terminal erect, Calyxes and pods viscid, Leaflets oblong
10441 Racemes erect, Calyx with a triple bractea, Floral leaves sessile
10442 Racemes terminal 1-sided, Leaves pinnated hoary, Leaflets roundish elliptical
10443 Racemes axillary erect, Leaflets sublanceolate downy: the middle one in a long stalk
10444 Raceme term. 1-sided 4-fl. Leaflets obovate downy beneath, Calyxes deeply 3-parted
10445 Pedunc. aggregate subterminal, Calyxes hairy trifid, Leaflets obov. mucronate hairy beneath
10446 Flowers capitate, Branches straight round villous, Leaflets ovate ellipt. villous, Bract linear
10447 Fl. in term. umbels, Stems erect, Leaflets lanc. strigose pubescent
10448 Fl. umbelled term. Stems erect, Leaflets ellipt. smooth acute
10449 Fl. axillary solitary stalked, Stems procumbent, Leaflets obovate, Pods linear repand

10450 Fl. stalked sub-binate axillary, Stem decumbent, Leaflets obovate blunt
10451 Pedunc. sub-binate axillary, Stems diffuse-erect, Leaflets oblong lanceolate
10452 Flowers stalked lateral about 3 erect, Stem declinate branched, Leaflets obovate mucronate
10453 Flowers stalked axillary about 3, Calyxes campanulate, Leaflets obovate blunt hairy
10454 Flowers stalked lateral about 4, Stem erect, Branches long, Cal. tubular, Leaflets obovate
10455 Racemes term. erect, Leaflets obl. rhomboid blunt, Stipules rounded ovate oblique
10456 Flowers in lateral umbels, Stems erect, Leaves ellipt. erect silky beneath, Calyxes woolly
10457 Pedunc. about 3 term. Leaflets oblong lanceolate silky, Pods linear silky, Stems decumbent
10458 Flowers umbelled terminal, Cal. 3-parted: lower tooth trifid, Leaflets rounded obovate, Stems ascending

and Miscellaneous Particulars.

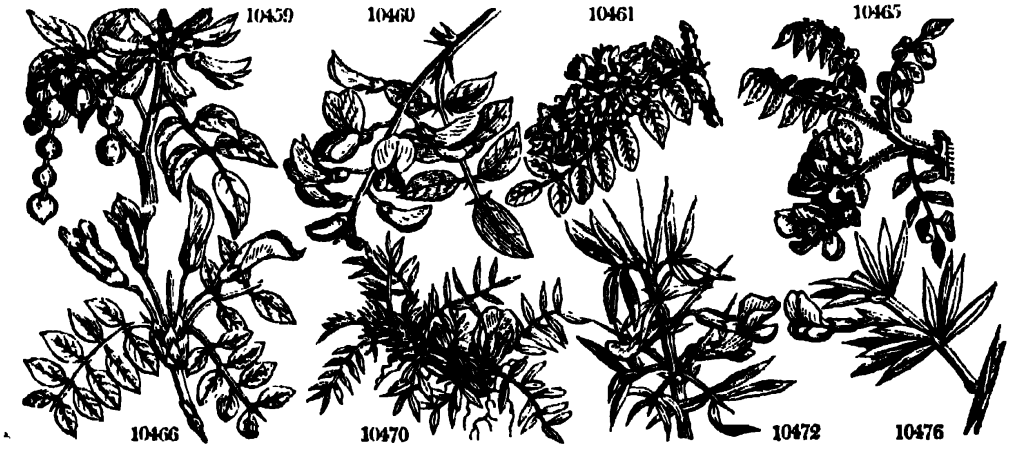
will be killed. Very young tops, taken off for cuttings, and planted under a bell-glass, in sand, are not difficult to root. (*Bot. Cult.* 217.)

1566. *Cytisus.* Pliny says it was so called because found in *Cythnus*, one of the Cyclades. The Cytisus of the ancients is believed to have been our Medicago arborea. A genus of ornamental trees and shrubs, of which the Laburnums, *Cytise des alpes*, Fr., *Bohnenbaum*, Ger., are well known and universally admired examples. There are two species of Laburnum, which are so much alike, that in most nurseries they are confounded together, or only one in cultivation. C. alpinus is the tree Laburnum, whose timber (the false ebony of the French) is much prized by cabinet-makers and turners, for its hardness, beauty of grain, and durability. The tree is frequently sown in plantations infested with hares and rabbits, who will touch no other tree as long as a twig of laburnum remains. "Though eaten to the ground in winter," as Boutcher observes, "it will spring again next season, and thus afford a constant supply for these animals, so as to save the other trees till of a size to resist their attacks. The timber has been sold for upwards of half a sovereign per foot." It becomes most valuable in light loams and sandy soils.

C. wolgaricus and purpureus are very handsome shrubs; and make a fine appearance when grafted on stocks of laburnum five or six feet in height.

C. cajan (an alteration of the Malay name, *Catjang*), *Pois d'Angola*, Fr., is frequently planted in the West India Islands, chiefly in rows as a fence to the sugar plantations, and will thrive on barren land. The seed is much eaten by poor people and negroes, and is esteemed a wholesome pulse. In the island of Martinico even the better sort of people hold it in estimation, and prefer it to the European pea. The chief use of it in Jamaica is for feeding pigeons, whence its name. The branches, with the ripe seed and leaves, are given to feed hogs, horses, and other cattle, which grow very fat on them. (*Sloane and Jacq. Obs.*)

1567.	**MULLE'RA.** *W.*	MULLERA.					*Leguminosæ.*		*Sp.* 1.				
10459	monilifórmis *W.*	bracelet	🌳	☐	or	20	......	Y	Guiana	1792.	C	l.p	Merian. sur. t.35
1568.	**ROBI'NIA.** *W.*	ROBINIA.					*Leguminosæ.*		*Sp.* 6—10.				
10460	Pseudacácia *W.*	comm. Acacia	🌳		tm	40	my.jn	Pa.pu	N. Amer.	1640.	S	s.l	Schmid.ar.1.t.38
	β *inérmis* W.	*smooth large-lv.*	🌳		tm	40	my.jn	Pa.pu	N. Amer.	...	S	s.l	
10461	viscósa *W.*	clammy	🌳		tm	30	jn.au	Pk	N. Amer.	1797.	G	s.l	Bot. mag. 560
10462	violácea *W.*	Ash-leaved	🌳	☐	or	12	......	V	W. Indies	1759.	S	p.l	
10463	purpúrea *Link.*	purple	🌳	⊔	or	15	jl.au	Pu	......	1810.	G	co	
10464	guineen'sis *W. en.*	Guinea	♣	☐	or	6	...	Y	S. Leone	1822.	C	p.l	
10465	híspida *W.*	Rose-acacia	♣		or	10	my.s	Pk	Carolina	1743.	G	s.l	Bot. mag. 311
	β *rósea*	*upright*	♣		or	10	my.s	Pk	......	...	G	s.l	
1569.	**CARAGA'NA.** *Royen.*	SIBERIAN PEA-TREE.					*Leguminosæ.*		*Sp.* 11—13.				
10466	sibírica *Roy.* *Robinia Caragana* L.	common	🌳		or	15	ap.my	Y	Siberia	1752.	S	co	Schm.arb.1.t.33
10467	arenária *Downe*	sand	♣		or	1	jn.jl	Y	Siberia	1802.	Sk	s.l	Bot. mag. 1886
10468	grandiflóra *Bieb.*	large-flowered	♣		or	½	jn.jl	Y	Iberia	1823.	G	s.l	
10469	Altagána *W.*	flat-podded	♣		or	3	ap.jn	Y	Siberia	1789.	G	s.l	L'her.stirp.t.76
10470	jubáta *W.*	bearded	♣		or	1½	...	Y	Siberia	1796.	G	s.l	Bot. cab. 522
10471	tragacánthoides *W.*	Goat's thn.-like	♣		or	4	ap.my	Y	Siberia	1816.	G	s.l	Pa.act.pet.10.t.7
10472	spinósa *W*	thorny	♣		or	6	ap.my	Y	Siberia	1775.	L	s.p	Schm.arb.1.t.36
10473	Halodéndron *W.*	salt-tree	·♣		or	6	my.jn	Pu	Siberia	1779.	R	s.l	Bot. mag. 1016
10474	Chamlágu *W.*	shining	♣		or	4	my.jn	Y	China	1773.	G	co	L'her. stirp. t.77
10475	frutéscens *W.*	shrubby	♣		or	2	ap.my	Y	Siberia	1752.	L	co	Schm.arb. 1.t. 34
10476	pygmæ'a *W.*	dwarf	♣		or	1	ap.my	Y	Siberia	1751.	Sk	s.p	Schm. arb.1.t. 37
1570.	**SWAINSO'NIA.** *H. K.*	SWAINSONIA.					*Leguminosæ.*		*Sp.* 2.				
10477	galegifólia *H. K.*	red-flowered	♣	⊔	or	2	jl.au	R	N. S. W.	1800.	S	s.p	Bot. mag. 792
10478	coronillifólia *H. K.*	purple-flowered	♣	⊔	or	2	jl.au	Pu	N. S. W.	1802.	S	s.p	Bot. mag. 1725
1571.	**SUTHERLAN'DIA.** *H. K.*	SUTHERLANDIA.					*Leguminosæ.*		*Sp.* 1.				
10479	frutéscens *H. K.*	scarlet	♣	⊔	or	3	jn.jl	Sc	C. G. H.	1683.	S	s.l	Bot. mag. 181
1572.	**LESSER'TIA.** *H. K.*	LESSERTIA.					*Leguminosæ.*		*Sp.* 4.				
10480	ánnua *H. K.*	annual		⊔⊙	or	1	jn.jl	R	C. G. H.	1731.	S	s.l	Ex. fl. 84
10481	diffúsa *H. K.*	procumbent	✱	⊔⊙	or	1	jl.au	R	C. G. H.	1792.	S	s.l	Jac. ic. 3. t. 576
10482	perénnans *H. K.*	perennial		⊔△	or	1	au	R	C. G. H.	1753.	C	s.l	Jac. vind. 3. t. 3
10483	púlchra *B. M.*	pretty		⊔⊙	pr	1½	my	R	C. G. H.	1817.	S	co	Bot.mag. 2064
1573.	**COLUTE'A.** *L.*	BLADDER-SENNA.					*Leguminosæ.*		*Sp.* 4—12.				
10484	arboréscens *W.*	common	♣		or	10	jn.au	Y	France	1568.	S	co	Bot. mag. 81
10485	média *W. en.*	smaller	♣		or	10	jn.au	Or	......	...	L	co	Dend. brit. 140
10486	cruénta *W.*	oriental	♣		or	4	jn.jl	Sc	Levant	1710.	L	co	Schm. arb. t. 119
10487	Pocóckii *W.*	Pecock's	♣		or	6	my.o	Y	Levant	1752.	S	co	Schm. arb. t. 120



History, Use, Propagation, Culture,

1567. *Mullera.* In honor of Otho Frederick Müller, a Dane, one of the editors of the Flora Danica. There have also lived four other Mullers, Germans, and botanists The fruit is remarkable for its form, which is that of a necklace; a number of little balls being united by stalks, and not opening as in other leguminosæ, but always remaining closed. The flowers are pink, and the size of a bunch of Laburnum.

1568. *Robinia.* In memory of Jean Robin, herbarist to Henry IV. of France, author of Histoire des Plantes, &c., Paris, 1620. His son, Vespasian, was subdemonstrator at the Jardin de Roi, and was the first person who cultivated the R. pseudacacia in Europe.

R. pseudacacia is a thorny fast-growing tree, of middling stature, of no great beauty as a tree, but ornamental when young, and very well adapted for copse-wood and rough timber. The leaves come out late in spring, and fall off early in autumn, like those of the ash. The timber is much valued in North America, and said to be superior to that of the laburnum; "being close-grained, hard, and finely veined; and in America more valued by the cabinet-maker than any other native timber whatever. Pursh, in his Flora, asserts, that being nearly incorruptible, it is equally useful for posts and gates. We are informed by a friend, that gate-posts of this timber, on a property near Baltimore, have remained fresh for nearly a century. The finest pinnated leaves, and pendulous white odorous flowers, add greatly to its beauty. Its value is scarcely known in this country." (*Caled. Mem.* ii. 414.) It prefers a deep sandy soil, and rather sheltered situation; being very apt to throw up suckers from the running roots, and as it stoles freely, it seems peculiarly calculated for coppice-woods. Beatson (*Com. to Board of Agr.*) has cultivated it in this way to great advantage.

In North America the use of the locust-tree has hitherto been confined to trenails on account of its scarcity, but were it as plentiful as oak, it would be applied for more purposes by the shipwright, such as knees, floor-timbers, and foot-hooks, being much superior to oak for its strength and duration, and, from the tree spreading into branches, affords full as large a proportion of crooks or compass timber as oak.

A cubic foot of acacia, in a dry state, weighs from 48 to 53 pounds avoirdupois. If we compare its toughness in an unseasoned condition with that of oak, it will not be more than 8—100 less. Its stiffness is equal to 99—100 of oak; and its strength nearly 96—100; but were it properly seasoned, it might, possibly, be found much superior to oak in strength, toughness, and stiffness. A piece of unseasoned acacia, two feet six inches long, and an inch square in the vertical section, broke when loaded with a weight of 247 pounds avoirdupois. Its medium cohesive force is about 11,500 pounds. (*Dict. of Archi.*)

10459 The only species

10460 Racemes with 1-fl. pedicels, Leaves pinnated with an odd one, Stipules spiny, Pods smooth

10461 Racemes with 1-fl. pedicels, Leaves pinnated with an odd one, Branches and pods viscid with glands
10462 Racemes with 2-fl. pedicels, Cal. truncate, Leaves pinnated with an odd one, Stem unarmed
10463 Petioles somewhat spiny, Leaflets lanceolate mucronate downy, Pedic. 1-flowered
10464 Racemes axillary few-flowered, Calyxes and branchlets finely bristly
10465 Racemes axillary, Leaves pinnate with an odd one, Stem hispid

10466 Pedunc. simple several, Leaves in 4 pairs, Petioles unarmed, Pods cylindrical

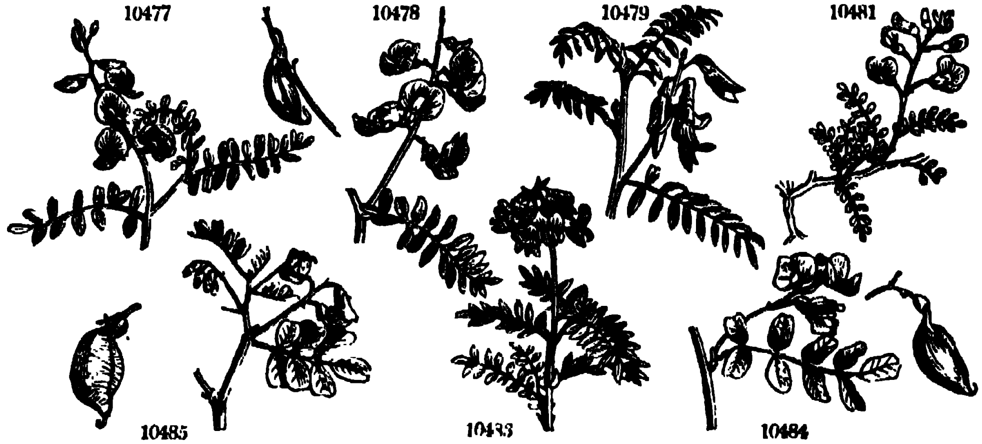
10467 Leaves about 4 pair; leaflets obcordate, Peduncles twin shorter than flower
10468 Pedunc. simple, Leaves 4 stalked hoary terminated by a weak spine, Pods downy
10469 Pedunc. simple solitary, Leaves in about 8 pairs, Stipules spiny, Pods compressed
10470 Pedunc. simple, Leaves in many pairs downy, Petioles filiform spiny, Branches villous
10471 Pedunc. simple, Leaves in 2 pairs, Leafl. obl. lanc. silky, Stipules and petioles spiny
10472 Pedunc. simple, Leaves in 4 pairs, Leafl. cuneate smooth, Stipules and petioles spiny
10473 Pedunc. 3-fl. Leaves in 2 pairs silky, Petioles spiny persistent, Pods bladdery
10474 Pedunc. simple, Leaves in 2 pairs, Leaflets obovate shining, Stipules and petioles spiny
10475 Pedunc. simple, Leaves about 4 somewhat petiolated terminated by a weak spine
10476 Pedunc. simple, Leaves 4 sessile

10477 Stalk of pod longer than persistent filaments
10478 Stalk of pod shorter than persistent filaments

10479 Leaflets obl. blunt hoary beneath, Stem shrubby, Branches silky with down

10480 Leaflets linear emarginate smooth, Stem weak, Raceme axillary
10481 Leaflets linear emarginate hairy, Cal. without bractes with black hairs
10482 Leafl. obl. downy, Stem erect, Racemes terminal
10483 Leaflets in 7 pairs ovate acute smoothish, Racemes axillary subcapitate 1-sided

10484 Leaflets ellipt. retuse, Prominences of the standard short
10485 Leaflets obcordate glaucous, Pedunc. about 6-flowered, Pods closed at end
10486 Leafl. obovate emarginate glauc. Prom. of standard blunt very small, Pods open at end
10487 Leafl. roundish ellipt. very blunt mucronate, Prom. of standard long ascending, Stem shrubby



and Miscellaneous Particulars.

R. hispida is a very handsome shrub, but it requires a sheltered situation, otherwise the branches are very liable to be shattered or blown off by high winds. In young trees grafted above ground, the fracture commonly takes place at the graft, so that a good preventative is to graft on the root a little below the surface. Grafts in this manner are also much more certain of success.

R. viscosa resembles, in its leaves and flowers, the common acacia; but is, altogether, a much handsomer tree.

1569. *Caragana.* This genus has been confounded by Linnæus and his followers with Robinia. The name is derived from the appellation of the most common species in Tartary, where it is called among the Moguls, *Carachaná.* Altagana, the name of another species, is in like manner a slight alteration of the Tartar name Aldachaná.

C. spinosa, on account of the length and toughness of the branches, and its large stout thorns, is admirably adapted to form impenetrable hedges, and is sufficiently hardy to bear our climate. About Pekin, they stick the bushes in clay on the tops of their walls, to prevent persons from getting or looking over them. (*Pallas.*)

C. Halodendron is a handsome shrub, and grows in Siberia on dry naked salt-fields, and it is probably from the want of this principle in our garden soils, that it so seldom flowers here.

C. pygmæa is a weak low shrub, with a shining yellow bark, with wood of a deep bay, almost as hard as horn.

C. frutescens is used by the Tartars for the same purposes as osiers, for which its tough shoots render it proper.

C. jubata is remrakable plant, its shoots always remaining covered by the persistent brown stipulæ of the fallen leaves. It is extremely difficult to propagate, and is rarely even seen in this country. The most successful cultivators of it are Messrs. Loddiges and Son.

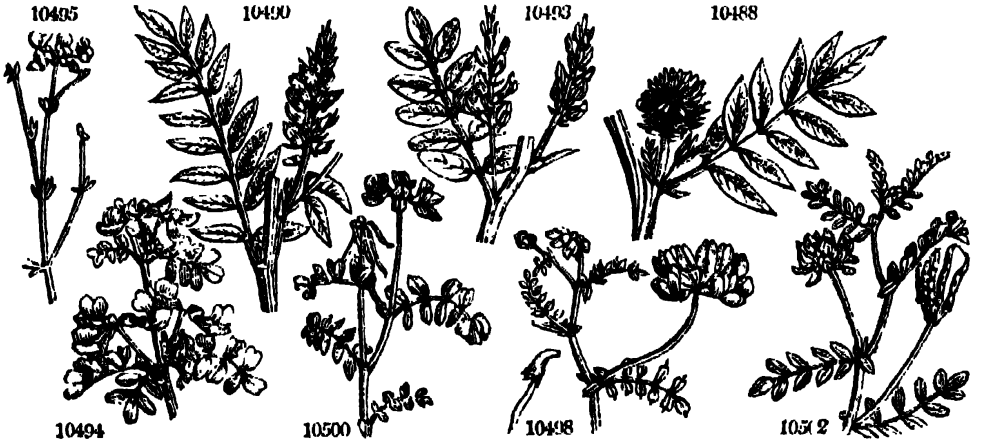
1570. *Swainsonia.* Named after the late Mr. Isaac Swainson, who had a botanic garden at Twickenham.

1571. *Sutherlandia.* In honor of Mr. James Sutherland, who published, in 1683, an 8vo. catalogue of the Physic Garden at Edinburgh. This and the former genus seed freely, and may also be readily increased by cuttings.

1572. *Lessertia.* Named by Decandolle in honor of M. Stephen Delessert, to whose mother Rousseau's Letters on Botany were addressed.

1573. *Colutea.* An ancient name of a bush with sweet-scented flowers; probably similar to the genus now

1574. GLYCYRRHI'ZA. *W.*		Glycyrrhiza.					*Leguminosæ.*		*Sp.* 5—6.				
10488	echináta *W.*	prickly-headed	⚘	△	or	3	jn.s	Pa	Italy	1596.	R	s.p	Bot. mag. 2154
10489	glandulífera *W.*	glandulous	⚘	△	or	3	jn.au	Pa	Hungary	1805.	R	l.p	Pl.rar.hu. 1.t. 21
10490	lepidóta *Ph.*	silky-leaved	⚘	△	or	3	jl.au	Pa	Missouri	1811.	R	s.l	Bot. mag. 2150
10491	aspérrima *W.*	rough	⚘	△	clt	2	jl.au	L.B	Siberia	1795.	R	s.p	Pall. i.ap.t.M.f.3
10492	hirsúta *W.*	hairy	⚘	△	clt	3	jl.au	Pa	Levant	1739.	R	s.p	
1575. LIQUORI'TIA. *Mönch.*		Liquorice.					*Leguminosæ.*		*Sp.* 1.				
10493	officinális *Mønch.*	common	⚘	△	clt	4	jl.au	L.B	S. Europe	1562.	R	r.m	Lam. ill.t.625.f.2
1576. CORONI'LLA. *H. K.*		Coronilla.					*Leguminosæ.*		*Sp.* 12—25.				
10494	E'merus *W.*	Scorpion Senna	♣		or	3	ap.jn	R	France	1596.	L	co	Bot. mag. 445
10495	júncea *W.*	Rush	♣	⊔	or	3	jn jl	Y	France	1656.	C	r.m	Bot. cab. 235
10496	valentína *W.*	nine-leaved	♣	⊔	or	2	mr.n	Y	S. Europe	1596.	C	r.m	Bot. mag. 185
10497	glaúca *W.*	seven-leaved	♣	⊔	or	2	my.s	Y	France	1722.	C	r.m	Bot. mag. 13
10498	vimináiis *H. K.*	slender	♣	⊔	or	3	my.n	Y	Mogador	1798.	C	l.p	Par. lond. 13
10499	coronáta *W.*	large-headed	£	△	or	2	jn.jl	Y	S. Europe	1776.	C	co	Bot. mag. 907
10500	mínima *W.*	least	£	△	or	½	jl	Y	S. Europe	1658.	C	co	Bot. mag. 2179
10501	argéntea *W.*	silvery-leaved	♣	⊔	or	2	my.jn	Y	Crete	1664.	L	s.l	Mil.ic.2.t. 289.f.1
10502	vária *W.*	purple	⚘	△	or	4	jl.n	Pu	Europe	1597.	C	co	Bot. mag. 258
10503	crética *W.*	Cretan		○	or	2	jn.jl	St	Candia	1731.	C	s.l	Jac. vind. 1. t. 25
10504	Securidáca *W.*	Hatchet-Vetch		○	or	1½	jl.au	Y	Spain	1562.	C	co	G.de f.2.t.153.f.3
10505	ibérica *Bieb.*	Iberian	♣		or	2	jl.au	Y	Iberia	1822.	C	co	Bot. cab. 789
1577. HIPPOCRE'PIS. *W.*		Horseshoe-Vetch.					*Leguminosæ.*		*Sp* 4—7.				
10506	unisiliquósa *W.*	single-podded		○	pr	1	jn jl	Y	Italy	1570.	S	co	Lam.ill.t.630
10507	multisiliquósa *W.*	many-podded		○	pr	1	jl.au	Y	S. Europe	1683.	S	co	Schk. ha. 2.t.206
10508	baleárica *W.*	shrubby	♣	⊔	pr	2	my.jn	Y	Minorca	1776.	C	r.m	Bot. mag. 427
10509	comósa *W.*	tufted	⚘	△	pr	½	ap.au	Y	England	ch hil.	D	s.l	Eng. bot. 31
1578. ORNITHO'PUS. *W.*		Bird's-Foot.					*Leguminosæ.*		*Sp.* 6—10.				
10510	perpusíllus *W.*	common		○	pr	½	my.au	R	Britain	dry pas.	S	co	Eng.bot. 369
10511	ebracteátus *Brot.* *O. durus* Cav.	round-podded	⚘	○	pr	½	my jn	Vy	Portugal	...	S	co	Cav. ic. 1 t. 41
10512	compréssus *W.*	hairy		○	pr	½	jn jl	Vy	S. Europe	1720.	S	co	
10513	scorpioídes *W.*	Purslane-leav'd		○	pr	½	jn jl	Vy	S. Europe	1596.	S	co	Cav. ic. 1. t. 37
10514	repándus *P. S.*	repand		○	pr	½	jn jl	Vy	Barbary	1805	S	co	Lam. ill.t.631.f.2
10515	satívus *P. S.*	Serradilla		○	ag	3	jn.jl	Vy	Portugal	1818.	S	co	
1579. SCORPIU'RUS. *W.*		Caterpillar					*Leguminosæ.*		*Sp.* 4.				
10516	vermiculáta *W.*	common	✱	○	pr	2	jn.jl	Y	S. Europe	1621.	S	co	Mor.hi. 2 t.11.f.3
10517	muricáta *W.*	two-flowered	✱	○	pr	2	jn jl	Y	S. Europe	1640.	S	co	Mor.hi 2 t 11 f.4
10518	sulcáta *W.*	three-flowered	✱	○	pr	2	jn.jl	Y	S. Europe	1596.	S	s.l	Mor. ox. 2. 11. 1
10519	subvillósa *W.*	four-flowered	✱	○	pr	2	jn jl	Y	S. Europe	1731.	S	co	Mor.hi.2. t.11.f.2
1580. SMI'THIA. *Salisb.*		Smithia.					*Leguminosæ.*		*Sp.* 1—2.				
10520	sensitíva *Sal.*	annual	✱	[○]	un	½	jl.s	Y	E. Indies	1785.	S	s.l	Par. lond. 92



History, Use, Propagation, Culture,

so called. Shrubs with membranaceous inflated pods, free-growers and flowerers, well adapted to introduce in extensive shrubberies.

C. arborescens grows on Mount Vesuvius, even in the ascent to the crater, where there are scarcely any other plants. The leaves are recommended as answering all the purposes of senna, and Allioni has given particular directions for the preparation of them. A larger dose seems to be required to produce the same effect. The seeds, in a quantity of a drachm or two, excite vomiting. It is said by Haller and Ray to afford food grateful to cattle.

1574. *Glycyrrhiza.* From γλυκυς, sweet, and ῥιζα, a root; the sweet taste of the liquorice root is well known. But the species from which the name is derived now constitutes a different genus. See Liquiritia.

1575. *Liquoritia.* A Latinized appearance of our common English word *Liquorice*, which in its turn is said to be an alteration or corruption of the French word *Reglisse*, itself a corruption of *Glycyrrhiza*. So, at least, says De Theis. To others, however, it is appears more probable that the name alludes to the quantity of *liquor* or *liquid* which the roots contain, and which constitutes their great value.

L. officinalis is a deep-rooting perennial, which has long been much cultivated in Spain; and since Elizabeth's time has been grown in different parts of England. The soil should be a deep sandy loam, trenched by the spade or plough, or with the aid of both, to two and a half or three feet in depth, and manured, if necessary. The plants are procured from old plantations, and consist of the side-roots, which have eyes or buds. These may be taken off, either in autumn, when a crop of liquorice is taken up for use, and laid in earth till spring; or taken from a growing plantation, as wanted for planting. The planting season may be either October, or February and March. In general the latter is preferred. The plants are dibbled in, in rows three feet apart, and from eighteen inches to two feet in the row, according to the richness of the soil. The after-culture consists in horse-hoeing and deep stirring, in weeding, and in cutting over and carrying away the haulm every autumn, after it is completely withered. As the plants do not rise above a foot the first season, a crop of onions or beans is sometimes taken in the intervals. The plants must have three summers' growth, at the

10488 Pods echinate, Fl. capitate, Stipules lanc. Leaflets smooth oblong mucronate
10489 Pods glandular echinate, Fl. racemose, Stipules withering, Leafl. oblong lanc. emarg. clammy beneath
10490 Leaflets oblong acute silky, Pods racemose oblong hispid
10491 Pods smooth moniliform, Raceme term. Stipules lanc. Leafl. obovate emarg. rough beneath
10492 Pods hirsute, Leafl. obl. lanc. Flowers racemose

10493 Pods smooth, Stipules 0, Leaflets ovate retuse clammy beneath

10494 Pedunc. about 3-fl. Claws of cor. three times as long as calyx, Stem angular
10495 Leaves 5-nate and 3-nate linear lanceolate fleshy blunt
10496 Leaflets about 9, Stipules nearly round
10497 Leaflets 7 very blunt, Stipules lanceolate
10498 Leaflets 6-10 pair more or less obovate and retuse, Pods very long curved upwards
10499 Leaflets 9 ellipt.: inner close to stem, Stipules opp. the leaves lanceolate
10500 Procumbent, Leafl. 9 ovate, Stipule opp. the leaf emarg. Pods angular knotty
10501 Leaflets 11 silky: the outer the largest
10502 Leaflets several lanceolate smooth, Pods rounded erect
10503 Leaflets 15 cuneate retuse, Pods rounded erect 5 together
10504 Leaflets several obl. cuneate, Pods compressed ensiform
10505 Leaflets 9 very blunt somewhat emarginate, Stipules round toothletted

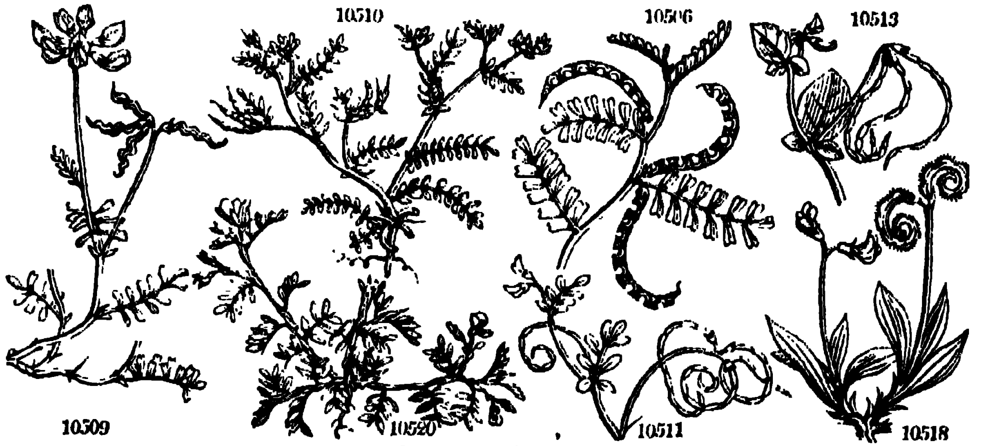
10506 Pods sessile solitary erect
10507 Pods stalked clustered circular: lobed on one edge
10508 Pods stalked clustered smooth lobed on the outer edge, Leaves and cal. hairy
10509 Pods stalked clustered arcuate rough sinuated on one side

10510 Leaves pinnated, Flowers capitate with a bractea, Pods roundish incurved
10511 Leaves pinnated, Flowers capitate without a bractea, Pods round incurved

10512 Leaves pinnated, Flowers capitate with a bractea, Pods compressed recurved rugose
10513 Leaves ternate subsessile: the odd one very large
10514 Leaves ternate or quinate: the odd one largest, Stipules large membranous 2-toothed
10515 Leaves pinnated, Pods rugose pendulous scarcely bowed, Joints compressed roundish

10516 Pedunc. 1-fl. Pods covered over with blunt scales
10517 Pedunc. 2-fl. Pods bluntly aculeate outwardly
10518 Pedunc. about 3-fl. Pods bearing outwardly distinct acute spines
10519 Pedunc. about 4-fl. Pods bearing outwardly clustered acute spines

10520 Lips of calyx entire, Racemes stalked few-flowered



and Miscellaneous Particulars.

end of which the roots may be taken up by trenching over the ground. The roots are either immediately sold to the brewers' druggists, or to common druggists, or preserved, like carrots or potatoes, in sand, till wanted for use. They are used in medicine and porter-brewing.

1576. *Coronilla.* From *corona*, a crown. Its pretty flowers are disposed in little tufts like coronets. "Handsome free-flowering shrubs, of easy culture. C. valentina, glauca, and viminalis are valuable as flowering in winter, and often all the summer. C. argentea bears a profusion of flowers, which have a strong sweet scent. The silvery color of this plant is occasioned by its growing on a poor dry soil; and if it is removed into better ground, it will take a glaucous color; and the contrary. C. emerus is a popular shrub of much beauty.

C. varia is a strong coarse-growing plant, and has been grown as an adjunct to clover, lucern, &c. Curtis says, it is bitter; but others have found horses and cows to eat it greedily.

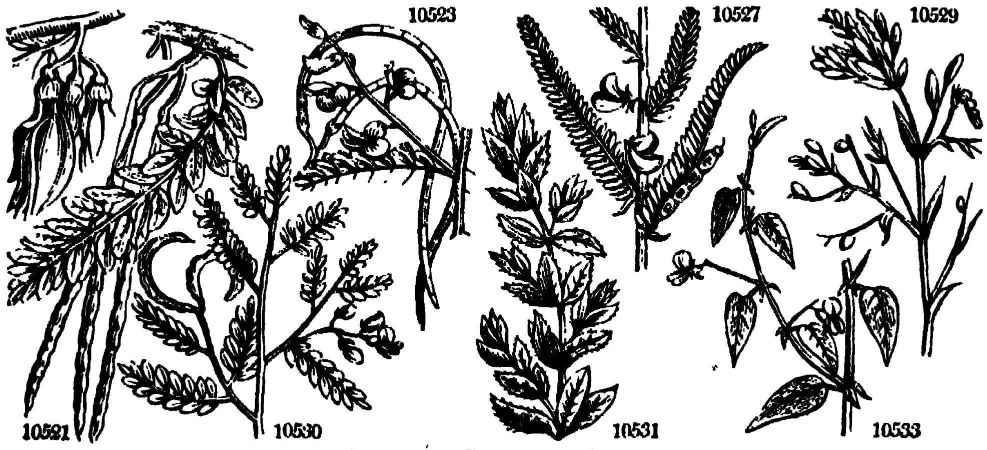
1577. *Hippocrepis.* From *ιππος*, an horse, and *κρηπις*, a shoe; in allusion to the form of its pod. Pretty little annual plants, with bright yellow flowers.

1578. *Ornithopus.* From *ορνις*, a bird, and *πους*, a foot. The pods are twisted and curved in such a manner as to resemble the claws of a small bird. Curious on account of their jointed pods, but not worth culture as plants of ornament. O. sativus is a most valuable agricultural plant. It was introduced for purposes of field culture about the year 1818, from Portugal, under the name of Serradilla. Sown upon the barren, light, sandy downs of Thetford, in Norfolk, it produced an abundant crop of most excellent fodder, where nothing else would grow. It is exceedingly like O. scorpioides, except that it arrives at the height of two feet instead of as many inches.

1579. *Scorpiurus.* From *σκορπιος*, a scorpion, and *ουρα*, a tail; on account of the twisted pod, which is very like the tail of some reptile.

1580. *Smithia.* In memory of Sir James Edward Smith, M. D., F. R. S., knight, president of the Linnean Society, possessor of the Linnean herbarium, and author of various elementary and other useful botanical works. These are inconspicuous worthless weeds; possessing little interest beyond their irritable foliage.

1581.	**SESBA'NIA.** *H. K.*	SESBA'NIA.						*Leguminosæ.*	*Sp.* 5—9.				
10521	grandiflóra *H. K.*	great-flowered	■	☐	or	10	jl.au	Or	E. Indies	1768.	C	l.p	Rhee.mal.1.t.51
10522	ægyptiaca *H. K.*	Egyptian	£	[○]	or	4	jl.au	Y	Egypt	1680.	S	co	Al.ægypt.81.t.82
10523	aculeáta *H. K.*	prickly		[○]	or	4	jl.au	Y	E. Indies	1690.	S	co	Jac. ic. 3. t. 564
10524	cannabina *P. S.*	Hemp		[○]	or	4	jl.au	Y	E. Indies	1800.	S	co	
10525	picta *Cav.*	painted	■	☐	or	6	jl.au	Y	W. Indies	1823.	C	co	Bot. reg. 873
1582.	**ÆSCHYNO'MENE.** *H. K.*	ÆSCHYNOMENE.						*Leguminosæ.*	*Sp.* 5—27.				
10526	sensitiva *W.*	shrubby	■	☐	or	3	...	Y	W. Indies	1733.	C	s.l	Plum. ic. t. 149
10527	áspera *W.*	rough-stemmed		[○]	or	2	jn.jl	Y	E. Indies	1759.	S	s.l	Breyn.cent.t.52
10528	hispida *W.*	hispid		○	or	2	au	Y	N. Amer.	1803.	S	s.l	
10529	americána *W.*	hairy		[○]	or	2	jl.au	Y	Jamaica	1732.	S	s.l	Sloa.h.1.t.118.f.3
10530	indica *W.*	Indian		[○]	or	2	jn.jl	Y	E. Indies	1799.	S	s.l	Rhee. mal.9.t.18
1583.	**STYLOSAN'THES** *Swz.*	STYLOSANTHES.						*Leguminosæ.*	*Sp.* 1—7.				
10531	procúmbens *Swz.*	procumbent	£	[△]	un	1	jl.au	Y	W. Indies	1821.	S	co	Slo. jam.t.110.f.2
1584.	**HAL'LIA.** *Th.*	HALLIA.						*Leguminosæ.*	*Sp.* 3—10.				
10532	fláccida *W.*	long-leaved	£	⌊○⌋	un	1½	au.s	Pu	C. G. H.	1789.	C	l.p	
10533	cordáta *W.*	heart-leaved	£	⌊△⌋	un	2	au	Pu	C. G. H.	1787.	D	l.p	Jac.schœ.3 t.296
10534	imbricáta *W.*	imbricated	▬	⌊ ⌋	un	1½	au	Pu	C. G. H.	1812.	C	s.l	Bot. mag. 1850
1585.	**LESPEDE'ZA.** *Mich.*	LESPEDEZA.						*Leguminosæ.*	*Sp.* 7—14.				
10535	fruticósa *P. S.*	shrubby	■		pr	4	jl.au	Pu	Virginia	1739.	C	l.p	Jac. vind. 3. t. 89
10536	sessiliflóra *Ph.*	sessile-flowered	¥	△	pr	3	jl	Pu	N. Amer.	...	D	l.p	
10537	júncea *P. S.*	slender-branch.	£	[△]	pr	2	jl.au	W	India	1776.	D	l.p	Lin. fil. dec.1.t.4
10538	capitáta *Ph.*	headed	¥	△	pr	2	jn jl	W	N. Amer.	1789.	D	l.p	
10539	polystáchia *Ph.*	hairy	¥	△	pr	3	jn.au	W	N. Amer.	1789.	D	l.p	Mic.amer. 2.t.40
10540	violácea *Ph.*	violet-flowered	¥	△	pr	2	jl.au	Pu	N. Amer.	1789.	D	s.l	
10541	lagopodioides *P. S.*	Hare's foot-like	£	⌊△⌋	pr	2	my.jn	Pa	China	1790.	D	s.l	Bur. ind. t.53.f.2
1586.	**FLEMIN'GIA.** *Rox.*	FLEMINGIA.						*Leguminosæ.*	*Sp.* 6—10.				
10542	stricta *H. K.*	straight	£	[△]	un	2	jl.s	Pu	India	1798.	D	s.p	Rox. cor. 348
10543	semialáta *H. K.*	many-spiked	▬	☐	un	3	jl.au	Pu	Nepaul	1805.	S	p.l	Rox. cor. 349
10544	congésta *H. K.*	crowded-spiked	▬	☐	un	3	jl.s	Pu	India	1802.	C	l.p	
10545	nána *H. K.*	dwarf	▬	☐	un	1½	au	Pu	India	1804.	C	l.p	
10546	lineáta *H. K.*	branch-spiked	£	[○]	un	2	jl.au	Pu	India	1793.	C	l.p	Bur. ind. t.53.f.1
10547	strobilifera *H. K.*	Beech-leaved	▬	☐	un	3	jl.au	Pu	E. Indies	1787.	C	p.l	Bot. reg. 617
1587.	**ZOR'NIA.** *Mich.*	ZORNIA.						*Leguminosæ.*	*Sp.* 2—7.				
10548	pulchélla *P. S.*	neat-Indian	▬	☐	un	1½	jl.au	Pu	E. Indies	1799.	C	l.p	Burm. zeyl. t. 52
10549	diphýlla *P. S.*	two-leaved		[○]	un	1	jl.au	Pu	India	1733.	S	l.p	Rhee.mal.9.t.82
1588.	**HEDY'SARUM.** *W.*	HEDYSARUM.						*Leguminosæ.*	*Sp.* 56—220.				
10550	Alhági *W.*	prickly-stem.	▬	⌊ ⌋	un	2	jl.au	R	Levant	1714.	C	s.l	Rauw. it. 94.t.14
10551	bupleurifólium *W.*	Hare's-ear-lv.	£	[○]	un	1	jl.au	Pu	India	1793.	S	s.l	Roxb.cor.2.t.194
10552	nummularifólium *W.*	Money-wort lv.		○	un	1	jl.s	Pu	India	1777.	S	l.p	Pet. gaz. t. 26.f.4
10553	styracifólium *W.*	Storax-leaved	▬	☐	un	2	...	Pu	E. Indies	1796.	C	l.p	
10554	gangéticum *W.*	oval-leaved		[○]	un	1½	jl.au	Pa.Y	E. Indies	1762.	S	r.m	Bur.zeyl. t.49.f.2
10555	triquetrum *W.*	triangul.-stalk.	£	[○]	or	1	jl.au	Pu	E. Indies	1802.	S	l.p	Bur. ind. t.52.f.2
10556	maculátum *W.*	spotted		[○]	un	1	jl.au	Pu	India	1732.	S	l.p	Dil.el.t.141.f.168
10557	vaginále *W.*	sheathed		[○]	un	¾	jl.au	R	E. Indies	1790.	S	l.p	Bur.zeyl.t.49.f.1
10558	sagittátum *P. S.*	arrow-leaved	▬	☐	un	3	...	R	E. Indies	1807.	C	l.p	
10559	vespertiliónis *W.*	bat-winged	£	[○]	un	1	jl.au	W	C. China	1780.	C	r.m	Jac. ic. 3. t. 566



History, Use, Propagation, Culture,

1581. *Sesbania.* The Arabic name *Sesban*, a little Latinized. Most of these plants are ornamental. S. grandiflora is a beautiful plant; it grows in peat and loam, and cuttings root in sand under a hand-glass.

1582. *Æschynomene.* A name given by Pliny to a plant which withdrew its leaves from the contact of the hand. It is derived from αισχυνομαι, to be modest. One of the species of Æschynomene is sensitive, but it is not the plant of Pliny.

1583. *Stylosanthes.* From στυλος, a style, and ανθος, a flower: a flower with a very long style. Worthless tropical weeds.

1584. *Hallia.* Named after Birger Martin Hale, a pupil of Linnæus, and the student under whose name the thesis called Nectaria florum stands in the Amœnitates Academicæ.

1585. *Lespedeza.* Named by Michaux, in honor of Lespedez, a governor of Florida, who protected that botanist in his botanical researches. Herbaceous, chiefly North American plants with little merit.

1586. *Flemingia.* Named after Dr. John Fleming, president of the East India Company's Medical Board at Bengal.

1587. *Zornia.* Supposed to have been named after Mr. John Zorn, an apothecary at Kempten, in Bavaria, author of a work called Icones Plantarum Medicinalium, in five volumes, octavo, between the years 1779 and 1784. There was also a Dr. Bartholomew Zorn, of Berlin, author of Botanologia Medica, 1714, &c. &c.

1588. *Hedysarum.* From ἡδυς, sweet, and αρωμα, smell; some the species have fragrant flowers. A

10521 Racemes about 3-fl. Leafl. obl. emarg. smooth, Pods filiform straight compressed
10522 Racemes many-fl. Leafl. lin. blunt mucronate, Rachis of leaves smooth, Pods filiform round
10523 Racemes few-fl. Leafl. linear blunt mucronate, Rachis of leaves prickly, Pods filiform round
10524 Pedunc. 1-fl. Leafl. lin. blunt mucronate, Rachis of leaves smooth
10525 Racemes many-fl. pendulous, Leafl. lin. blunt, Pods filiform round monilliform

10526 Stem smooth, Leafl. lin. blunt, Racemes few-flowered, Pods smooth
10527 Stem rough below, Leafl. lin. blunt, Racemes comp. hispid, Joints of pod rough in middle
10528 Stem hispid, Leafl. lin. blunt, Racemes simple, Pods hispid
10529 Stem hispid, Leafl. lin. falcate acuminate, Racemes simple, Joints of pods roundish distinct smooth
10530 Stem smooth, Pods smooth torose on one side and blunt, Leaflets blunt

10531 Leaves ovate lanc. smooth, Spikes many-fl. Bractes smooth mucronate, Stem downy

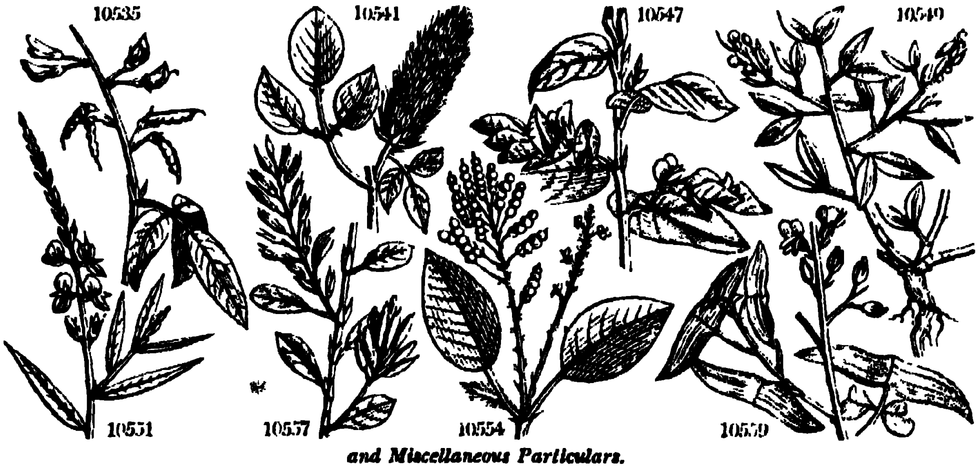
10532 Leaves lanc. mucronate smooth, Pedunc. 1-fl. the length of leaves
10533 Leaves cordate obl. acute smooth, Pedunc. the length of leaves
10534 Leaves cordate ovate convolute imbricated, Flowers axillary sessile

10535 Leafl. subovate villous beneath, Flowers in sessile fasicles, Stem shrubby
10536 Leafl. oblong, Fasicles of flowers sessile numerous, Pods nearly naked acute
10537 Leafl. somewhat lin. hairy beneath, Racemes axillary, Pods smooth length of calyx
10538 Simple, Leafl. ellipt. Spikes capitate on short stalks axillary and terminal, Cal. vill. length of cor.
10539 Branched villous, Leafl. round oval, Spikes axillary on long stalks, Cor. as long as calyx
10540 Branched diffuse, Leafl. ellipt. blunt hairy beneath, Racemes short umbelled
10541 Leaves ternate ovate, Racemes oblong, Pods inflexed, Calyx hairy

10542 Stem subsimple upright, Leafl. broad lanc. smooth, Racemes axill. sol. length of petiole
10543 Branched nearly upright, Leafl. ellipt. smooth, Petioles winged, Racemes panicled term. and axillary
10544 Nearly erect, Leafl. broad-lanc. Racemes axillary clustered
10545 Somewhat branched, Leafl. obovate, Petioles winged, Racemes clustered, Pods gland. viscid
10546 Erect branched, Leafl. obovate cuneate, Racemes axill. on long stalks dichotomous
10547 Leaves simple, Spikes like cones, Bractes cucullate foliaceous netted

10548 Leaves ternate large, Bractes numerous orbicular lined
10549 Leaves binate ovate-lanc. Bractes ovate acute

10550 Leaves simple lanc. blunt, Stem spiny
10551 Leaves simple lanc. acute, Stem unarmed, Stipules scarious
10552 Leaves simple obovate roundish, Stipules scarious shorter than petiole, Pods smooth netted
10553 Leaves simple cordate-roundish blunt smooth above downy beneath
10554 Leaves simple ovate acute with stipules
10555 Leaves simple cordate oblong stalked winged, Branches 3-cornered
10556 Leaves simple ovate blunt
10557 Leaves simple cordate oblong, Petioles simple, Stipules sheathing
10558 Leaves simple cordate lanc. sagittate, Flowers solitary, Pedunc. capillary very long
10559 Leaves simple and ternate intermediate 2-lobed : lobes spreading lanc. Joints of pod wavy plaited



and Miscellaneous Particulars.

numerous genus, not remarkable for beauty, but containing two curious species, the manna plant, and the turning Hedysarum; and one of considerable importance in European agriculture, the Saint-foin.

H. Alhagi is a thorny shrub, with lanceolate leaves, and coriaceous, subcylindric, and scarcely jointed pods. It is on this plant that Manna Trungebeen is found in Mesopotamia (*Russ. Alepp*) and other eastern countries. It is chiefly gathered about Tauris, where the shrub grows plentifully. Sir George Wheeler found it growing in Tinos; Tournefort also found it in many plains of Armenia and Georgia, and made a distinct genus of it, under the name of Alhagi, from the Arabic *Aghul* or *Al-gul*.

H. gyrans is a native of Bengal near the Ganges; and is called there *Buram Chadali*, or *Burram Chandali*. This is a wonderful plant, Linnæus observes, on account of its voluntary motion, which is not occasioned by any touch, irritation, or movement in the air, as in Mimosa, Oxalis, and Dionæa; nor is it so evanescent as in Amorpha. No sooner had the plants raised from seed acquired their ternate leaves, than they began to be in motion this way and that; this movement did not cease during the whole course of their vegetation, nor were they observant of any time, order or direction; one leaflet frequently revolved, whilst the other on the same petiole was quiescent; sometimes a few leaflets only were in motion, then almost all of them would be in movement at once: the whole plant was very seldom agitated, and that only during the first year. It continued to move in the stove during the second year of its growth, and was not at rest even in winter. (*Supp. Linn.*) Swartz observes, that the motion is irregular, and that it sometimes ceases entirely; that in a very hot day it is immoveable, being agitated only in the evening, and that slowly. In our climate, the leaves, in

10560	**tomentósum** *W.*	woolly	♄	⍙	un	1½	jn.jl	Pu	China	1782.	C	l.p	
10561	**umbellátum** *W.*	umbel-flowered	⊓	□	un	3	...	W	E. Indies	1801.	C	l.p	Jac.schœ.3.t.297
10562	**biarticulátum** *W.*	two jointed	⊓	□	un	3	...	Pu	E. Indies	1808.	C	l.p	Bur. zeyl.t.50.f.2
10563	**latifólium** *Roxb.*	broad-leaved	⊓	□	pr	2	au	Pu	China	1818.	C	l.p	Bot. reg. 355
10564	**uncinátum** *Jacq.*	hooked	■	□	un	2	...	Pu	Caraccas	1823.	C	co	Jac. schön. t.298
10565	**lagocéphalum** *Link.*	woolly-headed	♄	⍙	un	2	jl	Y	Brazil	1824.	C	co	
10566	**aparines** *Link.*	Bedstraw	■	□	un	2	jn.jl	Pu	Mexico	1823.	C	p.l	
10567	**malacophýllum** *Link.*	soft-leaved	♄	⊠	un	2	jn.jl	Pu	Manilla	1822.	C	p.l	
10568	**gýrans** *W.*	Moving-plant	♄	⊡	cu	3	jl.au	Pu	E. Indies	1775.	S	p.l	Jac. ic. 3. t. 565
10569	**trigónum** *W.*	three-sided	■	□	un	1	jl.au	Pu	Jamaica	1738.	D	s.l	
10570	**canadénse** *W.*	Canadian	♃	△	un	6	jl.au	Pu	N. Amer.	1640.	D	s.l	Corn.canad.t. 45
10571	**canéscens** *W.*	hoary	♃	△	un	2	jl.au	W.pu	N. Amer.	1733.	D	s.l	
10572	**marilándicum** *W.*	Maryland	♃	△	un	1½	jl.o	Pu	N. Amer.	1725.	D	s.l	Dil.el.t.144.f.171
10573	**obtúsum** *W.*	obtuse	♃	△	un	2	jl.au	V	N. Amer.	1805.	D	s.l	
10574	**capitátum** *W.*	headed	■	□	un	3	jl	Pu	Ceylon	...	C	s.l	Bur.ind.t.54.f.1
10575	**tortuósum** *W.*	twisted-podded	■	□	un	3	jl.au	Pu	Jamaica	1781.	C	s.l	Slo. ja 1.t.116.f.2
10576	**viridiflórum** *W.*	green-flowered	♃	△	un	3	jl.s	G	N. Amer.	1787.	D	s.l	Plu.alm.t.308.f.5
10577	**paniculátum** *W.*	panicled	♃	△	pr	2	jl	Pu	N. Amer.	1781.	C	s.l	Pl. man.t.492. f.6
10578	**tuberósum** *W.*	tuberous	⊥	□	un	3	...	Pu	E. Indies	1806.	D	s.l	
10579	**cuspidátum** *W.*	sharp-pointed	♃	△	un	1½	jl.au	V	N. Amer.	1806.	D	s.l	
10580	**glutinósum** *W.*	glutinous	♃	△	un	1½	jl.au	Pu	N. Amer.	1805.	D	s.l	
10581	**serotinum** *W. en*	late-flowering	♃	△	un	1½	jl.s	V	......	...	D	s.l	
10582	**triflórum** *W.*	three-flowered	♄	⊡	un	2	jn.jl	Pu	India	1796.	S	s.l	Bur. ind. t. 54.f.2
10583	**volúbile** *W.*	twining	ʃ	△	un	3	jl.s	Pu	N. Amer.	1727.	C	s.l	Dil. el.t.143.f 170
10584	**píctum** *W.*	painted-leaved	■	□	un	6	...	Pu	E. Indies	1788	C	p.l	Jac. ic. 3. t. 567
10585	**argénteum** *L.*	silver-leaved	♃	△	un	½	jl.au	Pa.pu	Siberia	1796.	D	s.l	Pall. it. 2. t. 9
10586	**fruticósum** *W.*	Siberian-shrub.	■		el	4	jn.jl	Pu	Siberia	1782.	C	s.l	Pall. it. 3. t. 5 f.1
10587	**sennoides** *W.*	Senna-like	■	□	un	3	jl.au	Pu	......	1823.	C	co	
10588	**alpínum** *W.*	alpine	♃	△	el	4	jn.jl	Pu	Siberia	1798.	D	s.l	Bot. reg. 808
10589	**obscúrum** *W.*	creeping-rooted	♃	△	el	½	jl.au	Pu	Alps of Eu.	1640.	D	s.l	Bot. mag. 282
10590	**taúricum** *W.*	Taurian	♃	△	pr	½	jl	Pa.pu	Tauria	1804.	D	s.l	
10591	**róseum** *H. K.*	Rose-colored	♃	△	pr	[illegible]	jl.au	Pk	Caucasus	1803.	S	s.l	Bot. mag. 996
10592	**coronárium** *W.*	Fr. Honeysuckle	♄	◎	ag	4	jn.jl	Sc	Italy	1596.	S	co	
10593	**flexuósum** *W.*	wave-podded		○	un	1	jl.au	Pu	Asia	1680.	S	s.l	Sck.hand.2.t.207
10594	**húmile** *W.*	dwarf	✱	△	un	½	jl.au	Pu	Spain	1640	D	s.l	
10595	**muricátum** *W.*	prickly-podded	✱	⍙	un	1½	jn.jl	Y	Patagonia	1793.	D	s.l	Jac. ic. 3. t. 568
10596	**spinosíssimum** *W.*	thorny	✱	○	un	1	jl.au	Pa.pu	Spain	1731.	S	s.l	Plu. alm. t.50.f.2
10597	**Onobrýchis** *W.*	Saint-foin	♃	△	ag	1	jn.jl	Pk	Britain	ch.pa.	D	s.l	Eng. bot. 96
10598	**saxátile** *W.*	rock	♃	△	or	1	jn.au	L.Y	Europe	1790.	D	s.l	All.ped.1 t.19.f.1
10599	**álbum** *W.*	white	♃	△	pr	1	jn.au	W	Hungary	1804.	D	s.l	Pl.rar.hu.2.t.111
10600	**ascéndens** *Swz.*	ascending	⊓	□	un	1½	jn.au	Pu	Jamaica	1818.	C	s.l	
	β *cærúleum* Lindl.	*blue*	⊓	□	un	2	jn.au	B	W. Indies	1818.	C	s.l	Bot. reg. 815
10601	**grandiflórum** *Bieb.*	large-flowered	♃	△	or	1½	jn.au	Pu	Tauria	1821.	D	co	Bieb cent.t.63
10602	**cándidum** *Bieb.*	white	♃	△	pr	½	my.jn	Pu	Tauria	1824.	D	co	
10603	**Cáput-gálli** *W.*	Cock's-head		○	pr	1½	jl.au	F	France	1731.	S	s.l	
10604	**Crísta-gálli** *W.*	Cock's-comb		○	pr	1	jn.au	F	S. Europe	1710	S	s.l	
10605	**crinítum** *W.*	crook-podded	■	□	un	4	jl.s	Pk	E. Indies	1780.	C	s.l	Burm. ind. t. 53

History, Use, Propagation, Culture,

general, only make a faint and feeble attempt towards the middle of the day at exerting their extraordinary faculty. (*Shaw.*)

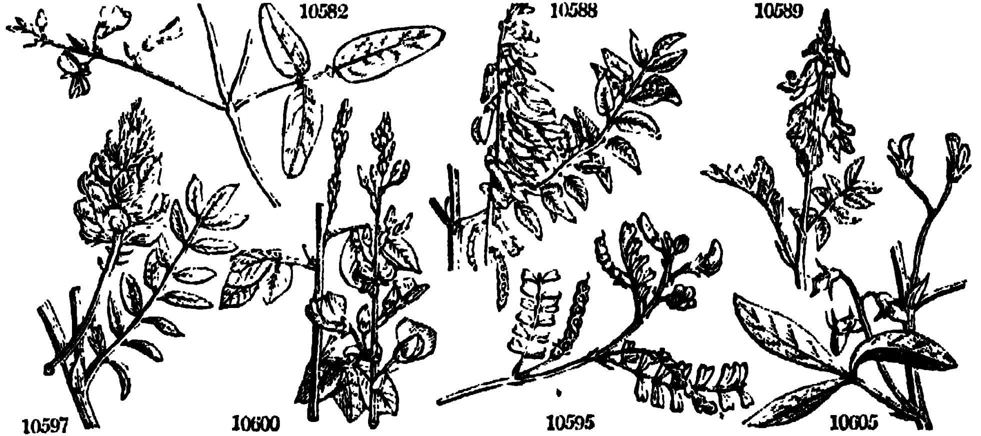
This motion does not depend upon any external cause that we can trace, and we are not able to excite it by any art that we possess. It is not the action of the sun's rays, for this plant is fond of shade, and the leaves revolve well on rainy days, and during the night: exposed to too much wind or sun, it is quiet. Perhaps, says Linnæus, there may be some part in vegetables, as in animals, where the cause of motion resides.

H. coronarium, *Sulla*, or *Sainfoin à bouquets*, Fr., is an esteemed border biennial, and some speculative agriculturists recommend it for cultivation as a field plant. In Calabria it grows wild in great luxuriance, near four feet high, affording excellent nourishment to horses and mules, both green and made into hay: but it does not well bear the spring in the north of Italy: we may presume, therefore, that it will scarcely bear our climate well enough to answer the purposes of husbandry. Osbeck mentions, that he saw it brought into Cadiz in great bundles, as food for cattle.

H. Onobrychis, *L'esparcet*, Fr., *Esparzette*, Ger., and *Cedrangolo*, Ital., is a deep rooting perennial, with branching spreading stems, compound leaves, and shewy red flowers. It is a native of many parts of Europe, but never found but on dry warm chalky soils, where it is of great duration. It has been long cultivated in France, and in other parts of the continent, and as an agricultural plant, a good deal in England, in the chalky districts; and its peculiar value is, that it may be grown on soils unfit for being constantly under tillage, and which would yield little undergrass. This is owing to the long and descending roots of the saint-foin, which will penetrate and thrive in the fissures of rocky and chalky understrata. Its herbage is said to be equally suited for pasturage or for hay, and eaten green it is not so apt to swell or hove cattle as the clovers or lucern. Arthur Young says, that upon soils proper for this grass no farmer can sow too much of it, and in

10560 Leaves ternate downy beneath, Stem angular downy, Racemes axillary
10561 Leaves ternate roundish ovate and branches 3-cornered hairy, Pedunc. umb. axill. shorter than petiole
10562 Leaves ternate oblong, Stem branched, Raceme terminal, Pods with 2 joints strigose
10563 Leaves simple reniform cordate repand, Racemes axillary with hooked hairs
10564 Leaves ternate ovate villous, Stem climbing, Racemes terminal
10565 Leafl. roundish hairy beneath, Panic. term. contracted bracteate, Pedunc. and cal. very hairy
10566 Leaves tern. Stem hairy rough, Leafl. roundish and obl. pale beneath somew. hairy, Racemes terminal
10567 Leaves tern. obl. subcordate pale and soft beneath, Raceme terminal
10568 Leaves tern. oval-lanc. blunt: lateral very minute, Panicle terminal, Pods repand below pendulous
10569 Leaves tern. ovate-acute hairy, Stem climbing 3-cornered, Racemes very long axillary
10570 Leaves tern. obl. lanc. Stipules filiform, Fl. racemose, Pods hispid
10571 Leaves tern. roundish downy beneath, Stipules ovate acuminate, Stem angul. cil. hispid
10572 Leaves tern. oblong villous beneath, Stipules subulate, Racemes panicled, Pods with 3 joints
10573 Leaves tern. ovate blunt subcordate at base, Stipules lanc. subulate, Panicle terminal
10574 Leaves tern. roundish obovate downy beneath, Stipules lanc. Racemes axillary
10575 Leaves tern. ovate-obl. blunt smoothish, Racemes erect axillary, Pods tortuous
10576 Leaves tern. ovate-obl. rough beneath, Stip. lanc. cuspid. Racemes panicled with bractes
10577 Leaves tern. oblong-lanc. smooth, Panic. term. Joints of pod rhomboid downy
10578 Leaves tern ovate acute, Raceme term. very long, Pods repand villous
10579 Leaves tern. ovate acum. Panicle term. Joints of pod netted downy at edge
10580 Leaves tern. roundish ovate acuminate, Panicle scape-like from the base of stem, Peduncles viscid
10581 Leaves tern. ellipt. blunt beneath and petioles hirsute, Raceme term. simple
10582 Leaves tern. obcordate, Stem procumb. Pedunc. 1-fl. axillary, Pods with upper edge repand
10583 Leaves tern. lanc. blunt, Racemes axillary, Stem twining
10584 Leaves pinnate lanc. Raceme very long spiked, Joints of pod ellipt. plaited
10585 Leaves pinnate oval broader at base silky beneath, Cal. shorter than corolla, Joints of pod downy rough
10586 Leaves pinnate, Leafl. ellipt. blunt downy beneath alternate, Joints of pod netted
10587 Leaves pinn. Leafl. altern. smooth obovate retuse, Racemes axill. few-fl.
10588 Leaves pinn. ovate lanc. smooth, Racemes long axill. Bractes shorter than peduncle
10589 Leaves pinn. ovate smooth, Racemes axill. Bractes longer than peduncle
10590 Leaves pinn. lanc. linear downy beneath, Joints of pod roundish roughish
10591 Leaves pinn. in 7 pairs ellipt. Racemes capitate axillary stalked, Standard striped
10592 Leaves pinn. roundish ellipt. Joints of pod roundish aculeate naked
10593 Leaves pinn. oblong, Pods flexuose, Joints prickly
10594 Leaves pinn. linear cuneiform, Wings very short, Joints of pod roundish hairy prickly
10595 Leaves pinn. obovate emarg. hispid at edge, Raceme term. Pods with many joints muricated
10596 Leaves pinn. obovate emarg. Flowers in capitate racemes, Joints of pod round villous acuminate
10597 Leaves pinn. cuneate smooth, Wings as long as calyx, Pods smooth 1-seeded prickly
10598 Leaves pinn. linear smooth, Wings shorter than calyx, Pods smooth 1-seeded prickly
10599 Leaves pinn. linear silky beneath, Wings shorter than cal Pods downy 1 seeded prickly-toothed
10600 Leaves ternate roundish downy beneath, Stem round, Branches declinate ascending hairy

10601 Leaves pinnate ellipt. silky, Cal. as long as wings, Joints of pod villous
10602 Leaves pinnate silky shining roundish ovate, Cal. length of corolla, Joints of pod rugose downy
10603 Leaves pinnate obl. smooth, Wings shorter than cal. Pods 1-seeded prickly, Teeth of crest subulate
10604 Leaves pinnate obl. smooth, Petals nearly equal, Pods 1-seeded prickly, Teeth of crest lanceolate
10605 Leaves pinnate, Racemes long, Pods inflexed



and Miscellaneous Particulars.

The Code of Agriculture, it is said to be " one of the most valuable herbage plants we owe to the bounty of providence."

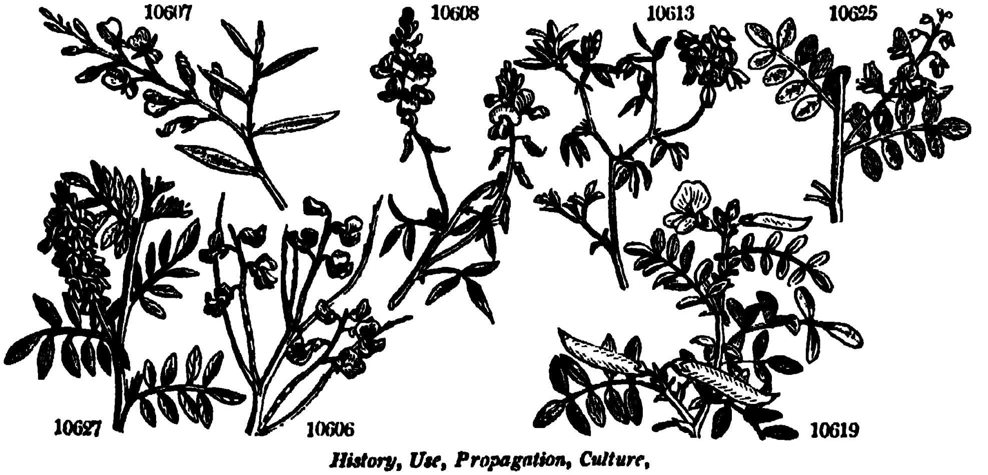
The deeper the soil is stirred previously to sowing the better; the seed is generally put in broad cast, at the rate of three or four bushels the acre, and sometimes a little red clover is sown afterwards to produce a crop the second season, when the saint-foin plants are but small. When saint-foin is annually mown, it should be top-dressed with manure; but if only occasionally mown, the benefits derived from the grazing of sheep or cattle will, to a considerable extent, answer for surface dressings in a plant that derives a part of its nutriment from the subsoil. Saint-foin is highly nutritive, either cut green or made into hay. The produce, on a medium of soils and cultivation, may probably be estimated at from about one and a half to two tons the acre. And on the poorer and thinner staple sorts of land, it will perhaps seldom afford less than from a ton to a ton and a half on the acre. One thousand parts of saint-foin afforded Sir H. Davy thirty-nine of nutritive matter, which is the same as that afforded by the red and white clover.

The usual duration of saint-foin, in a profitable state, is from eight to ten years. It usually attains its perfect growth in about three years, and begins to decline towards the eighth or tenth on calcareous soils, and about the seventh and eighth on gravels. There are instances, however, of fields of saint-foin, which had been neglected and left to run into pasture, in which plants have been found upwards of fifty years from the time of sowing. It has been cultivated upwards of a century on the Cotswold hills, and there roots of it have been traced down into stone quarries from ten to twenty feet in length, and in Germany, Von Thaer found them attain the length of sixteen feet. In general, the great enemy to the endurance of saint-foin, is the grass which accumulates, and forms a close turf on the surface, and thus chokes up the plant.

1589. **INDIGOFERA.** *W.*	INDIGO.					*Leguminosæ.*	*Sp.*	—				
10606 filifólia *W.*	naked-stalked	■	⊔	or	1	jl.o	Pu	C. G. H.	1812.	C	s.l	Bot. reg. 104
10607 linifólia *W.*	Flax-leaved	⁎	⊡	or	1	jl.au	Pu	E. Indies	1792.	S	s.l	Rox. cor. 2.t.194
10608 psoraloides *W.*	long-piked	■	⊔	or		jl.s	R	C. G. H.	1758.	S	s.p	Bot. mag. 476
10609 cándicans *W.*	white-leaved	■	⊔	or		my.s	R	C. G. H.	1774.	C	s.p	Bot. mag. 198
10610 amœ'na *W.*	scarlet-flowered	■	⊔	or		mr.ap	Sc	C. G. H.	1774.	C	s.p	Bot. reg. 300
10611 incána *W.*	hoary	■	⊔	or	2	my.jl	Pu	C. G. H.	1812.	C	s.p	
10612 sarmentósa *W.*	dwarf	£	⊔△	or	½	jn.jl	Pu	C. G. H.	1786.	C	s.p	
10613 denudáta *W.*	smooth-leaved	■	⊔	or		my.jl		C. G. H.	1790.	C	s.p	Bot. cab. 500
10614 trita *W.*	oval-leaved	£	⊡	or	1	jn.jl	Pk	E. Indies	1808.	C	s.p	
10615 microphýlla *Lam.*	small-leaved	■	⊔	or	½	ja.d	Pu	C. G. H.	1812.	C	s.p	
10616 coriácea *W.*	leathery-leaved	■	⊔	or	3	jl.au	Pu	C. G. H.	1774.	C	s.p	
10617 enneaphýlla *W.*	trailing	⁎	⊡	or	4	jl.au	Pu	E. Indies	1776.	C	s.p	Bur. ind. t. 55.f.1
10618 cytisoides *W.*	angular-stalked	■	⊔	or		jl.au	R	C. G. H.	1774.	C	s.p	Bot. mag. 742
10619 stricta *W.*	upright	■	⊔	or	3	jl.au	Pu	C. G. H.	1812.	C	s.p	Jac. schœ.2.t.226
10620 hirsúta *W.*	hairy-leaved	■	□	or	3	...	Pu	E. Indies	1759.	C	s.p	Burm. zeyl. t. 14
10621 angustifólia *W.*	narrow-leaved	■	⊔	or		jn.o	Pu	C. G. H.	1774.	C	s.p	Bot. mag. 465
10622 austrális *W.*	Botany-Bay	■	⊔	or		mr.jn	Pk	N. S. W.	1790.	S	s.p	Bot. cab. 149
10623 viscósa *W.*	clammy		⊡	or	1	jn.jl	Pu	E. Indies	1806.	C	s.p	Sert. han. 2. t. 12
10624 A'nil *W.*	West-Indian	£	⊡	clt	3	jl.au	Pu	W. Indies	1731.	C	s.p	
10625 tinctória *W.*	East-Indian	■	□	clt	3	jl.au		E. Indies	1731.	C	s.p	Rhe. mal. 1 t. 54
10626 argéntea *W.*	silver-leaved	■	□	clt	2	jl.au	Pu	W. Indies	1776.	C	s.p	L'Her. stirp.t.79
10627 endecaphýlla *W.*	eleven-leaved		⊡	el	4	jl.au	Sc	S. Leone	1823.	S	co	Bot. reg. 789
10628 stipuláris *Link.*	large-stipuled	■	⊔	un	1½	...	...	C. G. H.	1824.	C	s.p	
10629 aphýlla *Link.*	leafless	■	⊔	un	1½	...	...	C. G. H.	1825.	C	s.p	

1590. **TEPHRO'SIA.** *P. S.*	TEPHROSIA.					*Leguminosæ.*	*Sp.*	—				
10630 toxicária *P. S.*	Fish-Poison	■	□	clt	3	...	Pu	S. Amer.	1791.	S	p.l	Plum. ic. t. 135
10631 virginiána *Ph.*	Virginian	⚘	△	or	4	jn.au	Pk	N. Amer.	1765.	C	s.p	Plu. alm.t. 23.f.2
10632 grandiflóra *P. S.*	Rose-colored	■	⊔	or	4	my.s	Pk	C. G. H.	1774.	C	p.l	Bot reg. 769
10633 stricta *P. S.*	straight-podded	■	⊔	or	3	my.jn	Pk	C. G. H.	1774.	C	p.l	Scop. insub. 1.t.2
10634 pállens *P. S.*	pale-flowered	■	⊔	or	3	jn.au	Pk	C. G. H.	1787.	C	p.l	
10635 villósa *P. S.*	villous	▬	□	or	2	jn.jl	W	E. Indies	1779.	S	p.l	Plu. alm. t.59.f.6
10636 piscatória *P. S.*	woolly	£	⊡	or	2	jn.jl	Pu	India	1778.	C	l.p	
10637 purpúrea *P. S.*	purple	£	[△]	or	2	jl.au	Pu	E. Indies	1768.	C	l.p	Burm. zeyl. t. 32
10638 capituláta *Link.*	capitellate	£	[△]	or	1½	jl.au	Pu	Owhyhee	1823.	C	co	
19039 lanceæfólia *Link.*	lance-leaved	■	□	or	3	jl.au	Pa.Y	.....	1820.	C	co	

1591. **GALE'GA.** *P. S.*	GOAT'S-RUE.					*Leguminosæ.*	*Sp.*	—				
10640 officinális *W.*	officinal	⚘	△	or	4	jn.s	B	Spain	1568.	D	co	Sc.ha.2.t.208.a.
β alba	*white-flowered*	⚘	△	or	4	jn.s	W	Spain	...	D	co	
10641 orientális *W.*	oriental	⚘	△	or	4	jn.au	W	Levant	1801.	C	p.l	Bot. mag. 2192
10642 caribæ'a *W.*	Caribean	▬	□	or	3	jn.jl	Pa	Caribees	1786.	C	l.p	Jac. amer. t. 125
10643 ochroleúca *W.*	sulphur-colored	▬	□	or	3	...	Pa.Y	......	1799.	C	l.p	Jac. ic. 1. t. 150
10644 mucronáta *Thunb.*	mucronate	■		or	2	jn.jl	Pa	C. G. H.	1823.	C	l.p	



History, Use, Propagation, Culture,

1589. *Indigofera.* That is to say, a plant bearing *indigo.* The species are elegant little shrubs, free-flowerers, and of easy culture. Most of them will yield the dye, but those chiefly cultivated for this purpose are the I. Anil (*Alnyl*, Arab.), in the West Indies, and the I. tinctoria, argentea, and some other species in the East Indies. The indigo is one of the most profitable articles of culture in Hindustan; because an immense extent of land is required to produce but a moderate bulk of the dye; because labor and land here are cheaper than any where else; and because the raising of the plant and its manufacture may be carried on without even the aid of a house. The first step in the culture of the plant is to render the ground, which should be friable and rich, perfectly free from weeds, and dry if naturally moist. The seeds are then sown in shallow drills about a foot apart. The rainy season must be chosen for sowing, otherwise if the seed is deposited in dry soil, it heats, corrupts, and is lost. The crop being kept clear of weeds, is fit for cutting in two or three months, and this may be repeated in rainy seasons every six weeks. The plants must not be allowed to come into flower, as the leaves in that case become dry and hard, and the indigo produced is of less value; nor must they be cut in dry weather, as they would not spring again. A crop generally lasts two years. Being cut, the herb is first steeped in a vat till it has become macerated and parted with its coloring matter; then the liquor is let of into another, in which it undergoes the peculiar process of beating, to cause the fecula to separate from the water. This fecula is let off into a third vat, where it remains some time, and is then strained through cloth bags, and evaporated in shallow wooden boxes placed in the shade. Before it is perfectly dry, it is cut in small pieces of an inch square; it is then packed in barrels, or sowed up in sacks for sale. Indigo was not extensively cultivated in India before the British settlements were formed there; its profits were at first so considerable, that, as in similar cases, its culture was carried too far, and the market glutted with the commodity. The indigo is one of the most precarious of oriental crops; being liable to be destroyed by hail storms, which do comparatively little injury to the sugar-cane and other plants.

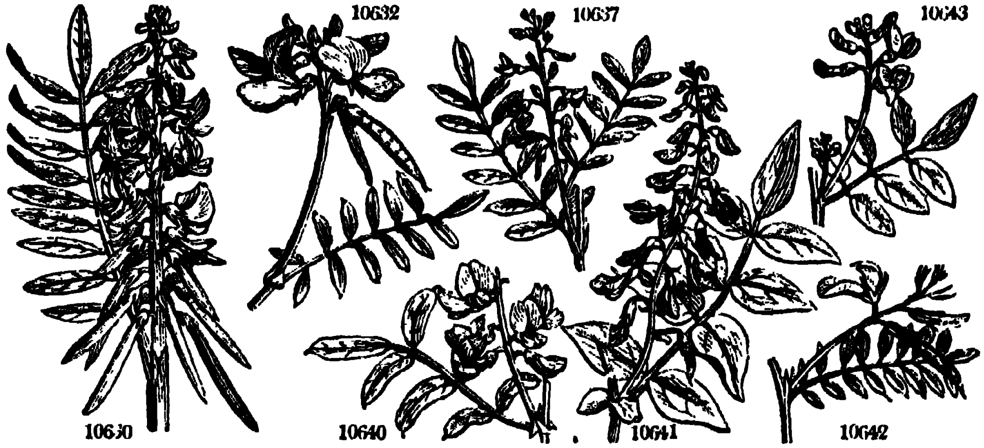
The indigo cultivated in the West Indies, thrives best in a free rich soil, and a warm situation, frequently refreshed with moisture. Having first chosen a proper piece of ground, and cleared it, hoe it into little

10606 Leaves simple filiform, Flowers racemose
10607 Leaves simple linear hoary, Pods globose
10608 Leaves ternate lanc. silky beneath, Racemes longer than leaf, Pods pendulous
10609 Leaves ternate lin. lanc. silky beneath, Racemes longer than leaf few-fl. Pods straight
10610 Leaves ternate oblong downy beneath, Racemes longer than leaf, Pods reflexed appressed
10611 Leaves ternate obovate silky beneath, Raceme term. long, Stem decumbent
10612 Leaves ternate, Leafl. ovate mucronate sessile, Pedunc. axill. about 2-fl. Branches filiform spreading
10613 Leaves ternate obcordate smooth, Racemes longer than leaf, Pods pendulous
10614 Leaves ternate ovate acute, Racemes short, Stem erect
10615 Leaves ternate obovate on short stalks, Pedunc. long filiform, Pods pendulous
10616 Leaves quinate obovate mucronate hairy, Stipules subulate, Pods straight smooth
10617 Leaves pinnate cuneate 7, Racemes as long as leaves, Pods 4-cornered 2-seeded
10618 Leaves pinnate 5 or 7 oblong narrowed at each end, Racemes longer than leaf
10619 Leaves pinnate 7 or 9 oblong downy beneath, Racemes about 5-flowered sessile, Stem straight
10620 Leaves pinnate of 4 or 5 pairs hoary beneath, Racemes length of leaves spiked, Pods 4-cornered villous
10621 Leaves pinnate linear, Racemes axillary, Stem shrubby downy
10622 Leaves pinnate smooth of many pairs oblong, Racemes shorter than leaf, Standard smooth
10623 Leaves pinnate of 6 pairs obovate strigose, Racemes shorter than leaf, Pods pendulous, Stem viscid
10624 Leaves pinnate oblong of 3 pairs, Racemes shorter than leaf, Pods falcate
10625 Leaves pinnated obl. smooth of 4 pairs, Racemes shorter than leaf, Pods round arcuate
10626 Leaves simple ternate and pinnate silky, Pods torulose pendulous
10627 Leaves pinn. obl. smooth, Racemes spiked shorter than leaf, Pods 4-cornered reflexed
10628 Stem muricate downy, Leafl. oval hairy, Stip. oval acute, Racemes longer than leaves
10629 Leaves about 3, Leafl. lanc. blunt mucronulate smooth deciduous, Petioles persistent

10630 Leafl. obl. lanc. blunt downy beneath, Raceme terminal long, Pods round spreading
10631 Pods falcate backwards compressed villous spiked, Calyxes woolly, Leafl. oval-obl. acuminate
10632 Leafl. obl. mucronate downy beneath, Stip. ovate acuminate, Raceme 4-fl. terminal, Pods pendulous
10633 Leafl. cuneate-obl. recurved mucronate villous beneath, Stipules subulate, Raceme few-fl.
10634 Pods straight spreading ciliated, Stip. subulate, Leafl. 9-11 obl. acute downy beneath
10635 Leafl. lanc. cuneate retuse silky beneath, Stip. setaceous, Pods falcate backwards villous pendulous
10636 Pods straight ascending villous, Stip. subulate, Pedunc. 2-edged, Leafl. obl. blunt
10637 Leafl. obl. cuneate emarg. mucronate smooth, Stip. subulate, Pods racemose straight ascending
10638 Leafl. inversely lanc. obtuse emarg. silky beneath, Racemes terminal short
10639 Leafl. inversely lanc. emarg. mucronate hairy, Stip. subulate, Racemes terminal

10640 Leafl. lanc. mucronate smooth, Stip. lanc. sagittate, Pods erect straight

10641 Leafl. ovate acuminate smooth, Stip. ovate, Flowers cernuous
10642 Leafl. obl. acute downy beneath, Stip. subulate, Pods smooth racemose pendulous
10643 Leafl. ovate acute downy, Stip subulate, Pods straight pendulous smooth racemose
10644 Leaves pinn. ovate mucron. villous, Stem erect, Branches downy



and Miscellaneous Particulars.

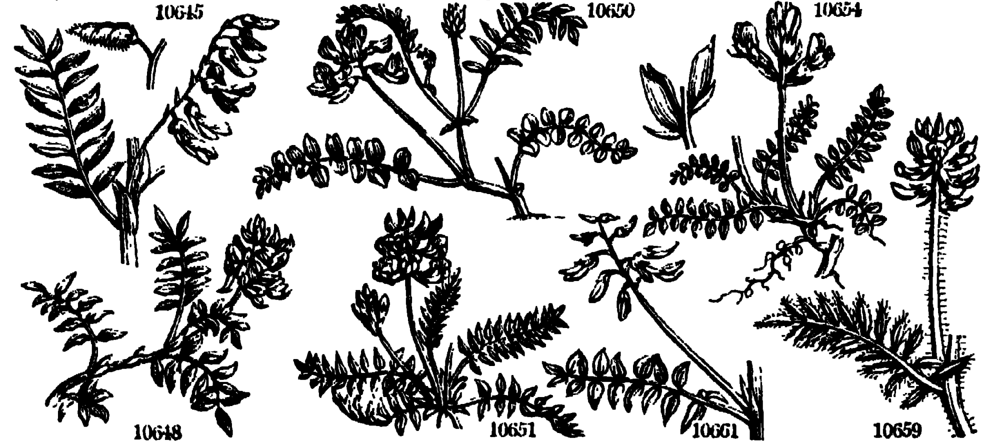
trenches, not above two inches, or two inches and a half in depth, not more than fourteen or fifteen inches asunder. In the bottom of these, at any season of the year, strew the seeds pretty thick, and immediately cover them. As the plants shoot, they should be frequently weeded, and kept constantly clean, until they spread sufficiently to cover the ground. Those who cultivate great quantities, only strew the seeds pretty thick in little shallow pits, hoed up irregularly, but generally within four, five, or six inches of one another, and covered as before. Plants raised in this manner, are observed to answer as well, or rather better, than the others; but they require more care in the weeding. They grow to full perfection in two or three months, and are observed to answer best when cut in full blossom. The plants are cut with reaping hooks, a few inches above the root, tied in loads, carried to the works, and laid by strata in the steeper. Seventeen negroes are sufficient to manage twenty acres of indigo; and one acre of rich land, well planted, will, with good seasons and proper management, yield five hundred pounds of indigo in twelve months, for the plant ratoons (i. e. it sends out stolones), and gives four or five crops a year; but must be replanted afterwards.

Indigo has long been cultivated in Spain, but is on the decline in that country, owing to the more favorable circumstances of the East and West Indies. It was tried in the south of France and Italy, during the Buonaparte dynasty, but found not worth following for the same reason.

1590. *Tephrosia.* From τεφρος, ash-colored, in allusion to the color of the foliage. T. toxicaria is a spreading shrubby plant. The leaves and branches, well pounded, and thrown into a river or pond, very soon affect the water, and intoxicate the fish, so as to make them float on the surface, as if dead; most of the large ones recover after a short time, but the greatest part of the small fry perish on these occasions. It has been introduced to Jamaica, and cultivated there, on account of its intoxicating qualities. (*Browne*)

1591. *Galega.* A name of unexplained meaning. Ruellius says, it is the word *Glaux*, Italianized! G. officinalis was formerly accounted cordial and sudorific, but is now out of repute. The species are handsome border flowers.

1592.	PHA'CA. *W.*	Bastard Vetch.					*Leguminosæ.*		*Sp.* 6—14.				
10645	bœ'tica *W.*	hairy	⚘	△	pr	4	jl	R	Spain	1640.	R	s.l	Moris. s. 2.t.8.f.1
10646	frígida *W.*	small	⚘	△	pr	1	jl	Y	Austria	1795.	R	s.l	Jac. aust. t. 166
10647	alpina *W.*	smooth-Alpine	⚘	△	pr	2	jl	Y	Austria	1759.	R	s.l	Jac. ic. 1. t. 151
10648	austrális *W.*	trailing	⚘	△	pr	½	my.jn	B	S. Europe	1779.	R	s.l	Bot. cab. 490
10649	arenária *W.*	sand	⚘	△	pr	½	jl.au	B	Siberia	1796.	R	s.l	Pal.it.3. t.cc.f.1.2
10650	astragalina *P. S.*	procumbent	⚘	△	pr	1	jn.jl	W.B	N. Europe	1771.	R	s.l	Bot. cab. 429
1593.	OXY'TROPIS. *Dec.*	Oxytropis.					*Leguminosæ.*		*Sp.* 12—21.				
10651	montána *Dec.*	mountain	⚘	△	pr	½	jl.au	Pu	Austria	1581.	D	s.l	Bot. mag. 843
10652	Lambérti *Ph.*	Lambert's	⚘	△	pr	1	au.s	Pu	Missouri	1811.	D	s.l	Bot. mag. 2147
10653	uralénsis *P. S.*	silky	⚘	△	pr	¼	jl	Pu	Siberia	1800.	D	s.l	Pall. astrag. t. 42
10654	sórdida *P. S.*	hairy-mountain	⚘	△	pr	¼	my.au	Y.Pu	Scotland	...	D	s.l	Eng. bot. 466
	Astrágalus uralen'sis E. B.												
10655	campéstris *Dec.*	field	⚘	△	pr	½	jn.jl	Pu	Germany	1778.	S	s.l	Pl.rar.hu.2.t.130
10656	uncáta *Dec.*	Aleppo		○	pr	1	jl.au	W	Aleppo	1768.	D	co	
10657	altáica *Dec.*	Altaic	⚘	△	pr	½	jl.s	B	Siberia	1802.	S	co	Pall. astrag. t 45
10658	cymbicárpos *Dec.*	boat-podded		○	pr	½	jl.au	Pa	Portugal	1800	S	co	
10659	pilósa *Dec.*	pale-flowered	⚘	△	pr	½	jn.au	Pa.Y	Siberia	1732.	D	s.l	Bot. cab. 544
10660	dealbáta *Dec.*	mealy	⚘	△	pr	¼	jl.au	Pu	Caucasus	1803.	D	s.l	Pal. ast.t.23.f.2,3
10661	deflěxa *Dec.*	small-flowered	⚘	△	pr	½	jn.jl	Pu	Siberia	1800.	D	s.l	Jac. ic. 1. t. 153
10662	dichóptera *Dec.*	pubescent	✳	△	pr	½	jn.jl	Pu	Siberia	1815.	D	s.l	Pall. astrag. t.39
1594.	ASTRA'GALUS. *Dec.*	Milk Vetch.					*Leguminosæ.*		*Sp.* 63—110.				
10663	christiánus *W.*	great-yellow	⚘	△	or	3	jl	Y	Armenia	1737.	D	s.l	Tourn. it.2.t.254
10664	tomentósus *W.*	downy-leaved	⚘	⌊△⌋	or	3	jl	Y	Egypt	1800.	C	p.l	Dec. astrag. t.29
10665	alopecuroídes *W.*	Fox-tail-like	⚘	△	or	2	jn.jl	L.Y	Spain	1737.	C	s.l	Pall. astrag. t 8
10666	vulpinus *W.*	Fox-tail	⚘	△	or	2	jn.jl	L.Y	Siberia	1815.	C	s.l	Pall. astrag. t. 7
10667	narbonénsis *W.*	French	⚘	△	or	3	jn jl	Pa.Y	S. Europe	1789.	C	s.l	Pall. astrag. t.10
10668	capitátus *W.*	headed	⚘	△	or	3	jl.au	Pa.Y	Levant	1759.	C	s.l	
10669	sulcátus *W.*	furrowed	⚘	△	pr	4	jl	L.B	Siberia	1785.	C	co	Jac. vind. 3. t. 40
10670	meliloteídes *W.*	Melilot-like	⚘	△	pr	3	jn jl	Pu	Siberia	1785.	C	co	Pall. astrag. t.41
10671	virgátus *W.*	twiggy	⚘		pr	3	my au	Vi	Siberia	1806.	C	co	Pall astrag t.18
10672	tenuifólius *W.*	fine-leaved	⚘	△	pr	1	jl.au	Pu	Siberia	1780.	C	p.l	Sweet fl. g. 73
10673	as'per *W.*	rough Astracan	⚘	△	pr	3	jl.au	Pa.Y	Astracan	1796.	C	p.l	Jac. ic. t. 152
10674	galegifórmis *W.*	Goat's-Rue-lv.	⚘	△	or	2	jn.au	Y.G	Siberia	1729.	C	s.l	Pall astrag t.29
10675	chinénsis *W.*	upright Chinese	⚘	⌊△⌋	or	1	jn jl	R	China	1795.	C	p.l	Linn. fil. dec. t.3
10676	viréscens *Dec.*	green-flowered	⚘	△	or	3	jn jl	G.Y	Siberia	1757.	D	p.l	
10677	falcátus *Dec.*	sickle-podded	⚘	△	or	3	jn jl	Pa Y	Siberia	...	D	p.l	Dec astrag. t. 26
10678	uliginósus *W.*	marsh	⚘	△	or	2	jn au	L.B	Siberia	1752.	D	p.l	Pall. astrag. t.26
10679	caroliniánus *W.*	Carolina	⚘	△	or	1½	jl.au	G.Y	N. Amer.	1732.	D	s.l	Dill. elt. t.39.f 45
10680	canadénsis *W.*	woolly	✳	△	or	1¼	jn jl	Y	N. Amer.	1732	D	s.l	Dodar. mem t 64
10681	semibiloculáris *Dec.*	semibilocular	⚘	△	or	1½	jn au	Pa.Y	Siberia	1804.	D	s l	Dec. astrag t 23
10682	Cicer *W.*	bladdered	✳	△	or	2	jn jl	Y	Europe	1570.	D	s.l	Jac. aus. t. 251
10683	carnósus *Ph.*	fleshy-podded	✳	△	or	2	jn jl	W	Louisiana	1811.	D	s.l	
10684	caryocárpus *B. reg.*	swelled-podded	⚘	△	or	1	jn jl	Pu	N. Amer	1811.	D	s.l	Bot. reg. 176
10685	glycyphýllus *W.*	sweet	✳	△	or	3	jn jl	Y G	Britain	ch wo.	D	s.l	Eng. bot. 203
10686	microphýllos *W.*	small-leaved	⚘	△	or	1	jn jl	Y	Siberia	1773.	D	p.l	
10687	triméstris *W.*	Egyptian	✳	○	or	½	jn.jl	Y	Egypt	1739.	S	co	Jac. vind. 2.t.174
10688	Búceras *W. en.*	horned	✳	○	or	2	jn jl	Pu	......	1816.	S	co	
10689	hamósus *W.*	hook-podded	✳	○	or	1	jn jl	Pa.Y	Spain	1633.	S	co	Lam. ill.t.622.f 4
10690	canaliculátus *W. en.*	channel-podded		○	or	2	jn.jl	W	......	1816.	S	co	
10691	contortuplicátus *W.*	wave-podded	✳	○	or	1	jl.au	Y	Siberia	1764.	S	co	Pall. astrag. t. 79
10692	bœ'ticus *W.*	triang.-podded	✳	○	or	3	jn.jl	Pu	S. Europe	1759.	S	co	Bocc. sic. 7 t. 4
10693	Stélla *W.*	star-podded	✳	○	or	½	jl au	Pu	S. Europe	1658.	S	co	Plu. alm. t.79. f. 4
10694	ægíceras *W. en.*	Goat's-horned	✳	○	or	1	jl.au	Pa.Y	......	1818.	S	co	
10695	brachycárpus *Bieb.*	short-fruited	✳	△	or	1½	jn jl	Pu	Caucasus	1820.	D	s.l	Bot. mag. 2335
10696	stipulátus *B. M.*	large-stipuled	⚘	△	or	1	jn.jl	Y	Nepal	1822.	D	s.l	Bot. mag. 2380
10697	cruciátus *Link.*	cruciate	✳	○	or	1½	jn.jl	Vi	......	1820.	S	s.l	
10698	verticilláris *W.*	whorled	⚘	△	or	1¼	jn.jl	Pk	Siberia	1822.	D	s.l	
10699	sesámeus *W.*	Bird's-foot	✳	○	or	1	jn jl	Pa.B	S. Europe	1616.	S	s.l	Garid. prov. t.12
10700	annuláris *W.*	ring-podded	✳	○	or	1½	jn.jl	Pu	Egypt	1800.	S	s.l	
10701	pentaglottis *W.*	rough-Spanish	✳	○	or	¼	jn jl	Pu	Spain	1739.	S	s.l	Cav. ic. 2. t. 188
10702	epiglóttis *W.*	heart-podded	✳	○	or	½	jn.jl	W	S. Europe	1737.	S	s.l	Herm. lugd. t.77



History, Use, Propagation, Culture.

1592. *Phaca.* Φακη, or φακος, was the Greek name of the lentil; and was derived from φαγω, to eat. These are pretty herbaceous plants, with the habit of Astragalus.

1593. *Oxytropis.* From οξυς, pointed, and τροπις, a keel. A genus entirely resembling Astragalus in habit; but considered distinct by modern botanists.

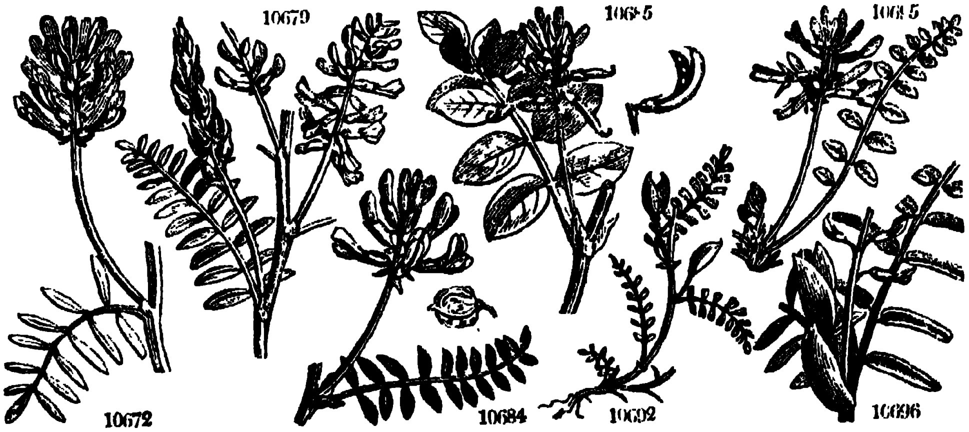
1594. *Astragalus.* This was a name given by the Greeks to one of their leguminous plants, but it is not known to which. The modern genus is composed of plants, the greater number of which are very orna-

10645 Erect hairy, Leafl. oval acute, Stip. lanc. Pods obl. cymbiform compressed
10646 Erect undivided, Leafl. 11 obl. blunt subciliated, Pods oblong inflated
10647 Erect branched downy, Leafl. in many pairs obl. lanc. blunt, Pods half ovate acute
10648 Branched ascending, Leafl. about 17 lanc.: the odd one subsessile, Alæ bifid
10649 Branched ascending smooth, Leafl. about 11 lin.-lanc.: the odd one subsess. Pods obovate inflated erect
10650 Caulescent procumb. Fl. pendulous racemose, Pods acute at each end hairy

10651 Stemless villous, Pods erect roundish-obl. villous acuminate with style half 2-celled
10652 Stemless silky, Leafl. 19 lanc. ellipt. acute at each end, Spikes capitate
10653 Stemless villous silky, Pods erect ovate cylindr. inflated 2-celled
10654 Stemless, Leafl. lanc. silky, Scape longer than leaf and calyxes silky, Heads few-fl. cernuous

10655 Stemless, Calyx and pods villous, Leafl. lanc. acute, Stem decumbent
10656 Stemless, Pods subulate hooked longer than leaf, Leafl. obcordate
10657 Stemless, Leafl. lanc. smooth, Scapes as long as leaves hairy, Flowers in obl. heads
10658 Stemless, Leafl. cuneiform retuse subsessile, Pods smooth, Flowers nearly apetalous
10659 Caulescent erect hairy, Leafl. lanc. acute, Spikes stalked longer than leaf, Pods subulate hairy
10660 Caulescent erect hairy, Leafl. 3-pair lanc. acute, Stip. obl. acum. Spikes stalked longer than leaf
10661 Caulescent ascending, Leafl. ovate lanc. deflexed hairy, Spikes stalked longer than leaf
10662 Caulescent diffuse downy, Stipules united, Wings emarg. Peduncles as long as leaf

10663 Caulescent erect, Leafl. ellipt. stalked, Stip. lin. subulate, Pedunc. about 3-fl. axill. clustered
10664 Caulescent erect, Leafl. roundish cordate sessile downy, Stip. ovate acuminate, Pedunc. 1-fl. axill.
10665 Caulescent erect, Spikes cylindrical subsessile, Cal. and pods woolly
10666 Caulescent erect, Heads of flowers stalked globose, Pods 4-seeded inclosed in woolly calyx
10667 Caulescent erect, Heads of flowers sessile axill. short, Corolla larger than calyx
10668 Caulescent erect, Heads globose, Pedunc. very long, Leafl. emarginate
10669 Caulescent erect striated, Leafl. lin. lanc. smooth, Stip. lanc. Racemes longer than leaf
10670 Caulescent erect panicled, Leaves of 2 or 3 pair linear cuneate retuse smooth, Racemes filiform
10671 Caulescent erect shrubby, Leaves in 6 pairs lin. lanc. hoary, Racemes long spiked
10672 Caulescent erect, Leafl. linear lanc. Spikes obl. stalked longer than leaf, Standard twice as long as alæ
10673 Caulescent erect rough, Leafl. lin. lanc. Spikes stalked longer than leaves straight, Pods 3-cornered
10674 Caulescent erect straight smooth, Leafl. ellipt. blunt, Fl. racemose pendulous, Pods 3-cornered smooth
10675 Caulescent erect straight smooth, Leafl. ellipt. blunt, Fl. racemose pendulous, Pods inflated rugose
10676 Caulescent erect smooth, Leafl. lanc. acute, Racemes longer than leaf, Pods falc. acute pendulous
10677 Caulescent erect, Peduncles as long as leaves, Leaflets 33-41, Pods about 3-cornered arcuate
10678 Caulescent erect, Leafl. obl. downy, Spikes stalked, Bractes obl. length of calyx
10679 Caulescent erect, Leafl. obl. downy beneath, Spikes stalked, Bractes lanc. length of peduncle
10680 Caulescent diffuse, Pods subcylindrical mucronate, Leafl. naked beneath
10681 Pedunc. as long as leaves, Leafl. 33-41 scarcely downy, Pods 3-cornered bowed nodding
10682 Pedunc. as long as lvs. Leafl. smoothish obl. blunt mucro. Stip. lanc. Racemes stalked longer than leaf
10683 Pedunc. as long as lvs. silky-white, Leafl. 21 ellipt. smooth above, Spikes subsessile, Pods fleshy
10684 Pedunc. longer than leaf, Fl. erect closely spiked, Pods half 2-celled
10685 Caulescent prostrate, Leafl. smooth ovate mucronate blunt, Stip. ovate-lanceolate
10686 Caulescent erect spread. Leafl. ov. hairy, Stip. solitary opp. the lvs. 2-parted, Spikes stalked long. than leaf
10687 Caulescent, Scapes 2-fl. Pods hooked subulate with 2-keels
10688 Caulescent prostrate, Leafl. ellipt. cuneate emarg. Racemes few-fl. Peduncles longer than leaf
10689 Caulescent procumbent, Leafl. cuneate emarg. Stip. ov. Racemes few-fl. stalked shorter than leaf
10690 Caulescent erect, Leafl. obl. retuse, Fl. axill. sol. subsessile, Pods deeply channelled
10691 Caulescent procumbent downy, Leafl. obovate emarg. Racemes stalked arcuate twisted
10692 Caulesc. procumb. Leafl. obl. blunt mucro. Spikes stalked few-fl. shorter than lvs. Pods obl. hooked at end
10693 Caulescent diffuse, Heads stalked lateral, Pods straight subulate mucronate
10694 Caulescent diffuse, Leafl. ellipt. emarg. Racemes few-fl. stalked shorter than leaf, Pods hooked
10695 Stemless, Leaves ellipt. downy, Scapes racemose longer than leaf, Pods obovate the length of calyx
10696 Caulescent, Leaflets oval-oblong or obovate smooth, Stipules very large leafy
10697 Stem decumb. Leafl. obl. downy, Pedunc. axill. few-fl. Pods arcuate with elevated veins
10698 Stemless, Leafl. subulate 4 whorled pilose, Scapes spiked longer than leaf, Lower flowers remote
10699 Caulescent diffuse, Heads subsessile lateral, Pods erect subulate with a reflexed point
10700 Caulescent diffuse, Pods subulate incurved smooth, Leafl. obovate
10701 Caulescent procumb. Leafl. obl. retuse, Heads stalked shorter than leaf, Pods half ovate squamose at end
10702 Caulescent procumb. Leafl. lin. narrowed at base, Heads subsessile, Pods half ovate reflexed downy

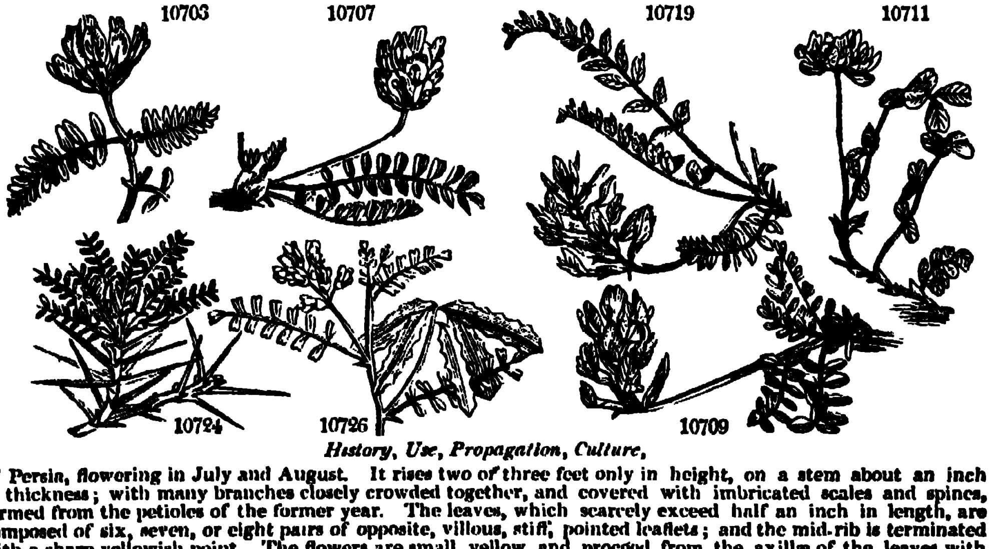


and Miscellaneous Particulars.

mental. A. glycyphyllos is the largest of the European species. The leaves are sweet, with a mixture of bitterness, and do not seem to be agreeable to cattle; at least the plant, in its wild state, is left untouched; otherwise it might have been desirable to cultivate it.

A. Tragacantha was formerly considered as the plant yielding the gum Tragacanth of commerce; but Olivier (*Voyage dans l'Empire Ottoman*, v. 342. pl. 44.) discovered that it was generally procured from A. verus. It is probable that both species, and perhaps some others, yield [illegible] gum. A. verus is a native of the north

10703 hypoglóttis *W.*	purple-mountain	✱	△	or	¼	jn.jl	Pu	Britain	sa.hea.	D	s.l	Eng. bot. 274
10704 austrìacus *W.*	Austrian	✽	△	or	½	jn.jl	Pa.B	Austria	1640.	D	s.l	Jac. aus. 2. t. 195
10705 fruticósus *W.*	woody	▬		or	1½	jn.jl	Vi	Siberia	1804.	D	s.l	Pall. astrag. t.19
10706 arenárius *W.*	sand	✱	△	or	1	jn.jl	B	Germany	1798.	D	s.l	Retz. obs. 3. t. 3
10707 leucophæ'us *W.*	dwarf-white	✱	△	or	¼	my.au	W	......	1776.	D	s.l	Bot. cab. 111
10708 deprèssus *W.*	depressed	✱	△	or	¼	my.jn	W	Europe	1772.	D	s.l	Bot. cab. 680
10709 leontìnus *Jac.*	Lion's-tail	✱	△	or	½	my.jn	B	Austria	1816.	D	s.l	Bot. cab. 432
10710 Glaux *W.*	small-Spanish	✱	○	or	½	jn.jl	Pu	Spain	1596.	S	s.l	Clus. hist.2.t.241
10711 sìnicus *W.*	Chinese-annual	✱	○	or	½	jl.au	Pu	China	1763.	S	s.l	Bot. mag. 1350
10712 álbidus *W.*	white-Italian	✱	△	or	½	jl.au	W.Y	Europe	1737.	D	s.l	Pl.rar.hun.1.t.40
10713 Onobrýchis *W.*	purple-spiked	✱	△	el	1½	jn.jl	Pu	Austria	1640.	D	s.l	Jac. aus. 1. t. 38
10714 Laxmánni *W.*	Laxmann's	✱	△	or	1	jn.au	B	Siberia	1804.	D	s.l	Jac. vind. 3. t. 37
10715 physódes *W.*	inflated	✽	△	or	¾	jn.jl	Pu	Siberia	1759.	D	s.l	Dec. astrag. t. 48
10716 halicácabus *Lam.*	bladdered	✽	△	or	½	jn	Pa.Y	Armenia	1806.	D	s.l	Schreb.decad.t.3
10717 caprìnus *W.*	goat-scented	✽	△	or	1	jn.jl	Pa.Y	Barbary	1683.	D	s.l	Mor.hi.2. t.24.f.3
10718 longiflórus *W.*	long-flowered	✽	△	or	½	jn.jl	Y	Tartary	1806.	D	s.l	Pall. astrag. t.80
10719 monspessulánus *W.*	Montpelier	✽	△	or	1	jl au	Pu	France	1710.	D	s.l	Bot. mag. 375
10720 incánus *W.*	hoary	✽	△	or	½	jn jl	Pu	Montpel.	1759.	D	s.l	
10721 exscápus *W.*	hairy-podded	✽	△	or	½	my.jl	Y	Hungary	1787.	D	s.l	Jac. ic. 3. t.561
10722 tragacanthoìdes *W.*	Armenian	✽	△	or	½	my.jl	Y	Armenia	1791.	D	s.l	Bu.cen.3.t.38.f.2
10723 aristátus *W.*	awned	▬		or	1	my.jl	Pu	Pyrenees	1791.	D	s.l	Pall. astrag. t. 3
10724 Tragacántha *W.*	gt.Goat's Thorn	▬		or	1	my.jl	Pa.Y	S. Europe	1640.	C	s.p	Dend. brit. 84
10725 Potérium *W.*	sm.Goat's Thorn	▬		or	½	jnj.l	W	Levant	1640.	C	s.p	Park. theat. f. 2
1595. BISER'RULA. *W.*	Hatchet Vetch.					*Leguminosæ.*		*Sp.* 1.				
10726 Pelecìnus *W.*	bastard		○	pr	1	jl.au	Pu	S. Europe	1640.	S	s.p	Lam. ill. t. 622
1596. DA'LEA. *P. S.*	Dalea.					*Leguminosæ.*		*Sp.* 9—19.				
10727 Cliffortiána *W.*	Vera Cruz		○	pr	1½	jl.au	B	Vera Cruz	1737.	S	co	Linn. cliff. t. 22
10728 alopecuroìdes *W.*	Fox-tail		○	pr	1	jl.au	Pa.B	Missisippi	1812.	S	co	Mich. am. 2. t.38
10729 aúrea *Ph.*	golden	✽	△	pr	2	jl.au	Y	Louisiana	1811.	D	co	
10730 laxiflóra *Ph.*	loose-flowered	✽	△	pr	6	jl.au	W	Louisiana	1811.	D	co	
10731 enneaphýlla *W.*	nine-leaved	■	⊡	pr	5	jl.au	Pk	W. Indies	1772.	S	co	
10732 citriodóra *W.*	leafy		⊡	or	1	o.n	Pk	N. Spain	1780.	S	co	Cav. ic. 3. t. 271
10733 Lagópus *W.*	downy-spiked		⊡	or	4	o.n	Vi	Mexico	1780.	S	co	Cav. ic. 1. t. 86
10734 mutábilis *W.*	changeable	■	⊔	or	1½	o.n	Pu	Mexico	1818.	C	co	Bot. mag. 2486
10735 bicolor *W. en.*	two-colored	■	⊔	or	2	o.n	Y.B	S. Amer.	1817.	C	co	Hook. ex. fl. 43
1597. PSORA'LEA. *W.*	Psoralea.					*Leguminosæ.*		*Sp.* 8—62.				
10736 pinnáta *W.*	wing-leaved	■	⊔	or	6	my jl	B	C. G. H.	1690.	C	p.l	Bot. rep. 474
10737 odoratis'sima *W.*	fragrant	■	⊔	or	6	my jl	Pa.B	C. G. H.	1795.	C	p.l	Jac schœ.2.t.229
10738 verrucósa *W.*	warted	■	⊔	or	3	my.au	B	C. G. H.	1774.	C	p.l	Jac.schœ.2.t.226
10739 aculeáta *W.*	prickly	■	⊔	or	4	jn jl	B	C. G. H.	1774.	C	p.l	Bot. mag. 2158
10740 bracteáta *W.*	oval-spiked	■	⊔	or	4	jn.jl	Pu	C. G. H.	1731.	S	p.l	Bot. mag. 446
10741 spicáta *W.*	long-spiked	■	⊔	or	4	jl.au	B	C. G. H.	1774.	C	p.l	Bot. rep. 411
10742 aphýlla *W.*	leafless	■	⊔	or	2	jn.jl	B	C. G. H.	1790.	S	p.l	Bot. mag. 1727
10743 multicaúlis *W.*	many-stalked	£	⊔	or	3	au.o	W.B	C. G. H.	1793.	C	p.l	Jac.schœ. 2.t.230
10744 tenuifólia *W.*	fine-leaved	■	⊔	or	2	mr.jl	W.B	C. G. H.	1793.	C	p.l	Jac.schœ. 2.t.225
10745 decúmbens *W.*	trailing	♀	⊔	or	2	ap.my	W.B	C. G. H.	1774.	S	p.l	Bot. cab. 282
10746 hirta *W.*	hairy	■	⊔	or	3	my.au	W.B	C. G. H.	1713.	C	p.l	Jac. schœ.2.t.228
10747 Stáchydis *W.*	Stachys-leaved	■	⊔	or	3	ap.my	Br	C. G. H.	1793.	C	s.l	
10748 répens *W.*	creeping	♀	⊔△	or	1½	jl.au	B	C. G. H.	1774.	C	s.l	
10749 bituminósa *W.*	bituminous	■	⊔	or	4	ap.s	Pa.B	S. Europe	1570.	C	p.l	Lam. ill.t. 614.f.1
10750 glandulósa *W.*	Mexican tea	■	⊔	or	4	my.au	Pa.B	Peru	1770.	C	p.l	Bot. mag. 990
10751 pedunculáta *B. reg.*	flat-headed	■	⊔	or	3	o.au	Pu	C. G. H.	1815.	C	p.l	Bot. reg. 223
10752 palæstina *W.*	Palestine	£	⊡	or	2	ap.s	Vi	Levant	1771.	S	p.l	Jac. vind.2.t.184



History, Use, Propagation, Culture,

of Persia, flowering in July and August. It rises two or three feet only in height, on a stem about an inch in thickness; with many branches closely crowded together, and covered with imbricated scales and spines, formed from the petioles of the former year. The leaves, which scarcely exceed half an inch in length, are composed of six, seven, or eight pairs of opposite, villous, stiff, pointed leaflets; and the mid-rib is terminated with a sharp yellowish point. The flowers are small, yellow, and proceed from the axillæ of the leaves with cottony bractes. The calyx is five-toothed, and shorter than the corolla, which is papilionaceous. The gum exudes in summer, more or less copiously according to the heat of the weather, in tortuous filaments, which are allowed to dry on the plant before being collected. A large portion of the Tragacanth collected in Persia, is sent to India, Bagdad, Bassorah, and Russia. But what we receive is sent to Aleppo, whence it is exported, packed in cases.

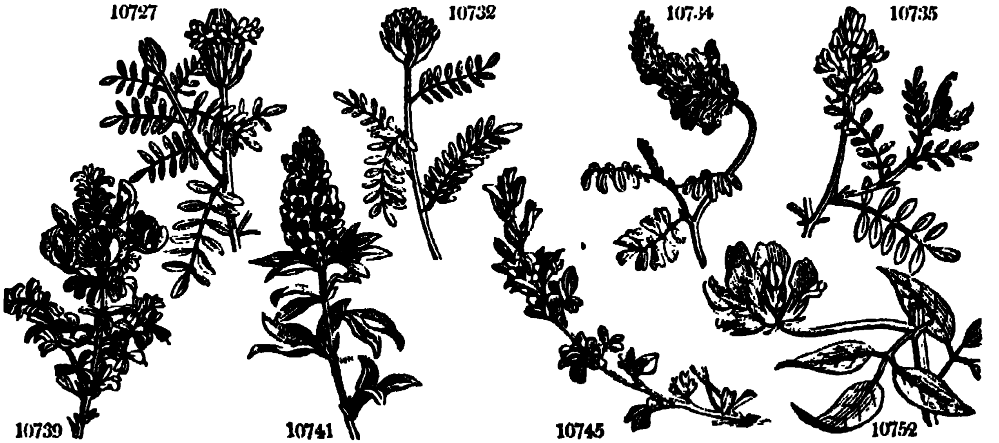
Good gum Tragacanth is inodorous; impressing a very slightly bitter taste as it dissolves in the mouth. Its mucilage differs from that of acacia gum, in being precipitated by the superacetate of lead, and oxymuriate of tin; and not by silicated potass (*Bostock. Nich. Journ.* lviii. 30.), or the oxysulphate of iron. Medically it is de-

10703 Caulescent procumb. Leafl. obl. blunt, Spikes ov. stalked longer than leaf, Pods erect ovate channelled
10704 Caulescent procumb. Leafl. lin. trunc. emarg. Racemes stalked longer than leaf, Wings of cor. bifid
10705 Caulescent erect. Lvs. 7 pairs obl. bluntish subpubescent, Heads few-flowered stalked, Pods obl. villous
10706 Caulescent branched prostrate, Leafl. lin. lanc. silky complicate, Racemes 6-fl. longer than leaf
10707 Caulescent procumb. Leafl. obcordate silky beneath, Racemes stalked as long as leaves
10708 Subcaulescent procumb. Leafl. obovate. Racemes shorter than petiole, Pods round lanc. reflexed
10709 Caulescent decumb. Leafl. ellipt. blunt, Spikes obl. stalked longer than leaf
10710 Caulescent diffuse, Heads stalked imbricated ovate, Fl. erect, Pods ovate callous inflated
10711 Caulescent prostrate, Umbels stalked, Pods prismatical 3-cornered erect subulate at end
10712 Caulescent diffuse hoary, Leaves 5 pairs, Leafl. ellipt. blunt, Spikes stalked longer than leaf
10713 Caulescent diffuse, Pedunc. spiked, Standard twice as long as flower
10714 Caulescent procumb. Spikes long, Pods oblong 3-cornered furrowed mucronate villous
10715 Stemless, Leafl. ov. glauc. Scapes longer than leaf, Fl. capitate, Pods inflated membranous smooth
10716 Stemless smooth, Calyxes bladdery contracted at mouth
10717 Stemless, Leafl. ov. obl. acute hairy, Scapes racemose erect twice as short as leaf, Pods ovate villous
10718 Stemless, Leafl. ellipt. retuse somewhat hairy, Scapes racemose few-fl. twice as short as leaf
10719 Stemless, Leafl. ellipt. blunt, Scapes racemose declinate longer than leaf, Standard long
10720 Stemless, Scapes decumb. Leafl. ovate subsessile downy beneath, Pods hoary
10721 Stemless, Leafl. obl. blunt hairy, Flower somewhat stalked aggregate, Cal. appressed hairy
10722 Nearly stemless, Fl. numerous radical subsessile
10723 Petioles spiny, Leafl. obl. mucro. hairy, Pedunc. very short about 4-fl. Cal. teeth setaceous
10724 Petioles spiny, Leafl. ellipt. hoary, Pedunc. about 4-fl. as long as leaves, Cal. teeth ovate
10725 Petioles spiny, Leafl. obl. hoary, Pedunc. very short 2-flowered

10726 The only species

10727 Pentandrous, Spikes obl. stalked terminal, Bractes length of cal. Leaves in 6 pairs lin. cuneate retuse
10728 Pentandrous, Spikes cylindric. stalked term. Bractes shorter than cal Lvs. in 10 pairs ellipt. retuse mucr.
10729 Spikes obl. term. sol. Lvs. about 3 pair obl. and obovate obtuse
10730 Spikes long panicled, Lvs. about 4 pairs linear
10731 Decandrous, Spikes capitate stalked axillary, Leaves in 4 pairs obl. blunt
10732 Decandrous, Spikes capitate stalked term. Lvs. in 10 pairs obovate
10733 Decandrous, Spikes cylindr. terminal, Lvs. of 15 pairs lanc. blunt
10734 Decandrous, Spikes cylindr. terminal, Lvs of 10 pairs obcordate
10735 Decandrous, Spikes term. long, Lvs. of 5 pairs obovate

10736 Lvs. pinn. of 2 pairs lin. Pedunc. axill. 1-fl.
10737 Lvs. pinn. of 7 pairs lin.-lanc. Pedunc. 1-fl. axillary
10738 Lvs. pinn. and tern. lanc. Pedunc. axill. 1-3-flowered, Branches warted
10739 Lvs. tern. cuneiform recurve mucronate, Flowers axillary solitary approximated
10740 Lvs. tern obovate recurve mucro. with pellucid spots, Spike term. capitate, Bractes ciliated
10741 Lvs. tern. obovate recurve mucronate dotted beneath, Spike terminal oblong
10742 Lvs. of the stem and branches ternate and simple; of the branchlets none, Stipules imbricated
10743 Upper lvs. simple; rest ternate, Leafl lin. lanc. mucronate, Pedunc axill. clustered capitate
10744 Upper lvs. simple; rest ternate, Leafl. lin. lanc. mucro. Pedunc. axill. solitary
10745 Leaves tern. lanc. cuneate with a recurved mucro. Pedunc. axill aggregate
10746 Leaves tern. obovate with a recurved mucro, Pedunc. axill. solitary
10747 Leaves tern. stalked obl. mucro. Spikes terminal interrupted, Calyxes villous
10748 Leaves tern. obovate emarg. Stem creeping, Flowers in umbels
10749 Leaves tern. Leafl. ov.-lanc. Petioles downy smooth, Spikes capitate stalked axillary
10750 Leaves tern. Leafl. ov.-lanc. acum. Petioles rough, Racemes axillary
10751 Leaves ternate silky beneath, Pedunc. axillary about twice as long as leaves, Heads depressed involucred
10752 Leaves tern. ovate, Petioles downy sulcate, Spikes capitate stalked axillary



and Miscellaneous Particulars.

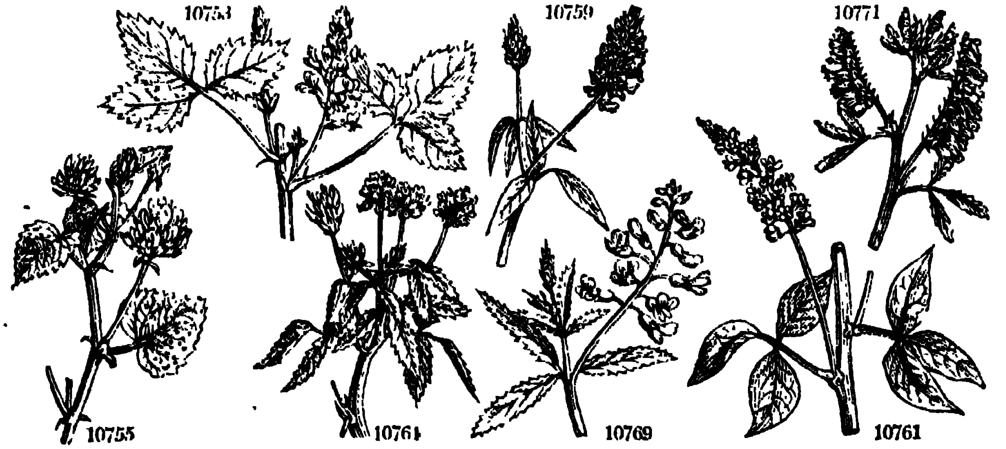
mulcent, and may answer the purposes of the acacia gum; being even better adapted for allaying tickling cough, and sheathing the fauces in catarrhal affections, owing to its great viscidity. It is chiefly, however, employed for pharmaceutical purposes. (*Thomson's London Dispensatory*, 187.) The seeds of A. bœticus are roasted, ground, and used as a substitue for coffee in Hungary.

1595. *Biserrula.* From *bis*, twice, and *serrula*, a little saw. The pods are toothletted on each edge. Pelecinon was the name given by the Greeks to the plant called by the Latins *Securidaca*.

1596. *Dalea.* Named after Thomas Dale, an English botanist, who lived in the beginning of the last century. There was another Dale, an author of a Pharmacologia. These are pretty little plants, with the aspect of Psoralea.

1597. *Psoralea.* From ψωραλεος, warted, on account of the numerous little tubercles with which most of the species are covered. The species are chiefly low shrubs; some of them are ornamental, and all are of easy culture and propagation by young cuttings in sand or seeds, which they produce in abundance. P. esculenta, the bread-root of America, is cultivated in Missouri, and other parts of that country. In this climate it will

10753	americána *W.*	Madeira	■	⊔	or	½	jl.au	Pu	Madeira	1640.	C	p.l	Jac.schœ.2.t.227
10754	capitáta *W.*	headed	■	⊔	or	2	jl.au	Pu	C. G. H.	1793.	S	p.l	
10755	corylifólia *W.*	Hazel-leaved	♃	⧈	or	2	jn.jl	Vi	India	1739.	C	p.l	Bot mag. 665
10756	esculénta *Ph.*	Bread-root	♃	△	clt	3	jn.jl	B	Missouri	1811.	C	p.l	Pursh.amer.t.22
10757	cuspidáta *Ph.*	large-rooted	♃	△	or	3	jn jl	Pu	Louisiana	1811.	C	p.l	
10758	Lupinéllus *Ph.*	small-flowered	♃	△	or	2	jn jl	B	Carolina	1812.	C	p.l	
10759	melilotoides *Mich.*	Melilot-like	♃	△	or	3	au	Vi	Carolina	1814.	C	p.l	Bot. mag. 2063
10760	arbórea *B. M.*	tree	■	⊔	or	6	my	Pa.pu	C. G. H.	1814.	C	p.l	Bot. mag. 2090
10761	onobrýchis *Nutt.*	rough-podded	♃	△	or	3	au	Pu	N. Amer.	1818.	C	p.l	Bot. reg. 453
10762	divaricáta *W. en.*	divaricating	■	☐	or	3	au	Pu	S. Amer.	1820.	C	p.l	
10763	pubéscens *W. en.*	downy	■	☐	or	2	au	B	Mexico	1825.	C	p.l	
1598.	MELILO'TUS. *J.*	Melilot.					*Leguminosæ.*		*Sp.* 16—25.				
10764	cærúlea *P. S.*	blue		○	m	3	au.s	L.B	Germany	1562.	S	co	Bot. mag. 2283
10765	indica *P. S.*	Indian		○	un	2	jn.au	W	India	1680.	S	co	Plu.alm.t.45.f.4
10766	rugulósa *W. en.* *M. parviflora* Desf.	white-Indian		○	un	3	jn.au	W	India	1798.	S	co	
10767	messanénsis *P. S.*	Sicilian		○	un	3	jn.au	Y	Sicily	1680.	S	co	
10768	polónica *P. S.*	Polish		○	un	2	jn.au	L.Y	Poland	1778.	S	co	
10769	macrorhiza *P. S.*	long-rooted	♃	△	un	3	jl.au	Y	Hungary	1801.	D	co	Pl.rar.hun.1 t.26
10770	dentáta *P. S.*	toothed	♃	△	un	3	jn.au	Y	Hungary	1802.	D	co	Pl.rar.hun.1.t.46
10771	officinális *W. en.*	common		○	ec	1	jl s	Y	Britain	bus. pl.	S	s.l	Eng. bot. 1340
10772	vulgáris *W. en.*	white-flowered	♃	⦶	un	3	jl.s	W	Europe	...	S	co	
10773	Kochiána *W. en.*	smooth-podded	♃	⦶	un	3	jn.s	Y	Germany	1816.	S	co	
10774	Petitpierreána *W. en*	rough-podded	♃	⦶	un	2	jn s	W	Germany	1816.	S	co	
10775	itálica *P. S.*	Italian		○	un	2	jn au	Y	Italy	1596.	S	co	Camer.hort. t.29
10776	crética *P. S.*	Cretan		○	un	1½	jn au	Y	Candia	1713.	S	co	Bau.prodr.t. 142
10777	ornithopodioides *P. S.*	Bird's-foot		○	un	1	jn jl	R	Britain	bar hea.	S	co	Eng. bot. 1047
10778	mauritánica *Schousb.* *M. sulcáta* P. S.	Moorish		○	un	2	jn.jl	Y	Barbary	1798.	S	co	
10779	hamósa *Link.*	hooked		○	un	1		Y	Tauria	1824.	S	co	Bux.ce.2.t.44.f.1
1599.	LUPINAS'TER. *Ph.*	Bastard-Lupine.					*Leguminosæ.*		*Sp.* 1.				
10780	pentaphýllus *Ph.*	five-leaved	♃	△	el	1½	jl.au	Pu	Siberia	1741.	D	co	Bot. mag. 879
1600.	TRIFO'LIUM. *J.*	Trefoil.					*Leguminosæ.*		*Sp.* 60—140.				
10781	refléxum *W.*	reflexed	♃	△	pr	1	jn.au	Pu	Virginia	1794.	D	s.l	
10782	angulátum *W.*	angular	✱	○	pr	1½	jn au	R	Hungary	1803.	S	s.l	Pl.rar.hu 1.t.27
10783	strictum *W.*	upright		○	pr	1	jl.au	W	S. Europe	1805.	S	s.l	Pl rar.hu. 1.t. 37
10784	hýbridum *W.*	mule	✱	△	pr	¾	jl au	Pu	Europe	1777.	D	s.l	Mic ge t.25 f.2.6.
10785	Micheliánum *P. S.*	Italian		○	pr	½	jl.au	Pu	Italy	1815.	S	s.l	Mi n g pl.t25 f 2
10786	cæspitósum *W.*	turfy	♃	△	pr	½	jn au	Pu	Switzerl.	1815.	D	s.l	Vill.delph. 3 t.41
10787	répens *W.*	white Clover	✱	△	ag	1½	my s	W	Britain	mea.	D	co	Eng bot. 1769
10788	comósum *W.*	tufted	♃	△	pr	½	jn jl	W	America	1798.	D	s.l	
10789	alpínum *W.*	Alpine	♃	△	pr	¼	jn au	Pu	Italy	1775.	D	co	Pon bald t 340
10790	palléscens *P. S.*	pale	♃	△	pr	1	jn.au	Pu	Carinthia	1804.	D	s.l	Mic. ge. t. 25. 3
10791	subterráneum *W.*	subterraneous		○	pr	¼	my	W	England	bar he.	S	s.l	Eng. bot. 1048
10792	globósum *W.*	globular		○	pr	1	jn.au	Pu	Levant	1713.	S	s.l	
10793	Cherléri *W.*	hairy		○	pr	½	my.jn	Pu	Montpel.	1750.	S	s.l	Barr. ic. 859
10794	pictum *W.*	painted		○	or	1	jl au	Pu	......	1800	S	s.l	
10795	lappáceum *W.*	burr		○	pr	½	jn.au	W	Montpel.	1787.	S	s.l	
10796	diffusum *W.*	diffuse	✱	○	pr	½	jl.au	Pu	Hungary	1801.	S	s.l	Pl rar. hu. 1.t.50



History, Use, Propagation, Culture,

grow in the open air, but requires the protection of a frame to produce abundant crops of roots, which are used like those of the potatoe in the countries where it is a native. (*Pursh. Amer.* t. 22.)

1598. *Melilotus.* From *Mel*, honey, and *Lotus.* These plants are similar to the Lotus, and are the favorite resort of bees. M. officinalis is the chief ingredient in flavoring the Gruyère cheese. This cheese no doubt owes its chief excellence to the mixture of herbs in the mountain pasturage which surrounds the valley of Gruyère, but partly also to the flowers and seeds of this plant, which are bruised and mixed with the curd before it is pressed.

1599. *Lupinaster.* That is to say, *Lupine-like.* A pretty little herbaceous plant, with bright flowers.

1600. *Trifolium.* A plant with three leaves; the τριφυλλον, of the Greeks, *trèfle*, of the French, and *trefoil*, of the English. This genus includes the two most valuable herbage plants adopted in European agriculture, the white and red clover. Notwithstanding all that has been said of the superiority of lucern to clover, and of the excellence of saint-foin, and various Leguminosæ of the pea kind, yet the red clover for mowing, and the white species for pasturage, are, and probably ever will be, found to excel all other plants in these respects. The yellow clover, T. procumbens, and the cow or meadow clover, T. medium, are also in cultivation, but are far inferior to the others. The meadow clover is a useful addition to the white sort in laying down permament pastures; the yellow grows on poor soils, but the herbage is not much liked by cattle. The soil best adapted for clover is a deep sandy loam, which is favorable to its long tap-roots: but it will grow in any soil, provided it be dry. So congenial is calcareous matter to clovers, that the mere strewing of lime on

10753 Leaves tern. roundish ovate repand at end, Spikes interrupted axillary
10754 Leaves tern. and simple linear, Head terminal
10755 Leaves simple ovate somewhat toothed, Spikes ovate
10756 Leaves digitate quinate lanc. unequal flat entire villous, Spikes axillary dense
10757 Leaves digitate quinate obovate mucro entire, Spikes axillary dense
10758 Leaves digitate quinate very narrow, Spike few-flowered, Pods ovoid
10759 Leaves 3 lanc. Spikes obl. Bractes with long points, Pods round rugose
10760 Leaves pinnated of 5 pairs, Leaflets linear lanceolate, Pedunc. axillary 1-fl. longer than leaf
10761 Leaves ternate, Leaflets ovate-lanceolate somewhat downy, Racemes 1-sided on long stalks
10762 Leaves ternate lanc. smooth, Spikes interrupted stalked axill. longer than leaf
10763 Leaves tern. ovate-obl. downy, Spikes interrupted stalked axill. shorter than leaf

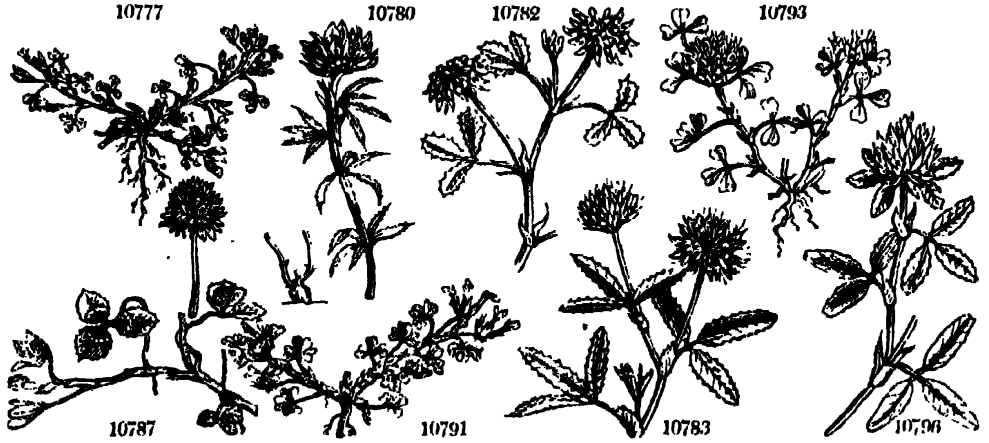
10764 Racemes obl. stalked, Stipules lanc. membranous
10765 Pods racemose naked smooth mucronate 1-seeded
10766 Pods racemose about 4-seeded oblong rugose, Leaflets ellipt. toothed

10767 Pods 1-seeded ovate acute naked rugose, Racemes shorter than leaf
10768 Pods racemose naked 2-seeded lanceolate
10769 Pods racemose naked rugose 1-seeded, Stems and branches ascending, Leafl linear
10770 Pods racemose naked 2-seeded somewhat rugose acute, Stipules toothed at base
10771 Pods racemose naked 2-seeded rugose acute, Stipules lanc. subulate undivided
10772 Pods racemose naked 1-seeded rugose obovate acute, Stipules setaceous
10773 Pods racemose naked 2-seeded smoothish ovate acute compressed, Stipules toothed
10774 Pods racemose naked 1-seeded rugose obovate, Stipules setaceous
10775 Pods racemose naked 2-seeded rugose blunt, Leaflets entire
10776 Pods racemose naked 2-seeded membranous oval, Stem nearly erect
10777 Pods naked 8-seeded about 3 times as long as calyx, Stems declinate
10778 Pods 1-seeded obovate blunt naked rugose, Racemes longer than leaf, Stems diffuse

10779 Pods racemose naked compressed 1-seeded nerved hooked, Stipules subulate

10780 Heads halved, Leaves quinate sessile

10781 Heads in fruit reflexed, Pods 3-seeded
10782 Heads umbelled: in fruit reflexed, Pods 4-seeded, Stem angular with furrows flexuose
10783 Heads globose, Pods 2-seeded, Cal. the length of corolla, Leafl serrulate, Stipules rhomboid
10784 Heads umbelled, Pods 4-seeded, Teeth of cal. nearly equal, Leafl. ovate-obl. emarg. serrulate
10785 Heads umbelled stalked, Teeth of cal. subulate equal, Leafl obcord. serrate
10786 Heads umbelled, Pods 4-seeded, Teeth of calyx equal, Leafl. obovate blunt serrated
10787 Heads umbelled, Pods 4-seeded, Teeth of calyx nearly equal, Leafl ovate obl emarg. serrulate
10788 Heads in globose umbels imbricated, Standards deflexed persistent, Pods 4-seeded
10789 Heads umbelled, Scape naked, Pods 2-seeded pendulous, Leaves linear lanc
10790 Heads umbelled, Pods 2-seeded, Teeth of cal. unequal, Leafl. obovate blunt toothed
10791 Heads villous 5-flowered, Central tuft reflexed rigid wrapping up the fruit
10792 Heads villous globose, Upper calyxes without florets
10793 Heads villous globose terminal solitary, Teeth of calyx setaceous longer than corolla
10794 Heads villous globose terminal solitary, Teeth of calyx setaceous shorter than corolla
10795 Heads subglobose hispid, Teeth of calyx subulate as long as cor. Leafl. obovate retuse
10796 Spikes roundish ovate villous, Teeth of calyx unequal setaceous as long as corolla



and Miscellaneous Particulars.

some soils will call into action clover-seeds, which it would appear have lain dormant for ages At least this appears the most obvious way of accounting for the well-known appearance of white clover in such cases.

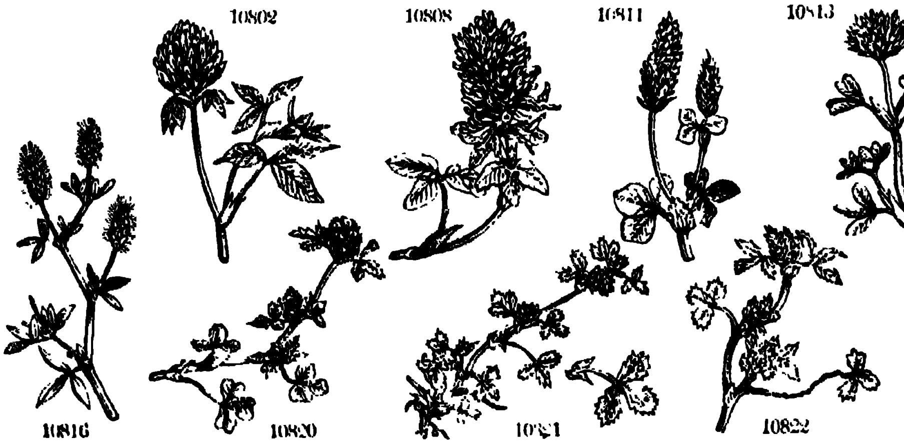
The climate most suitable for the clovers, as of most plants natives of Europe, is one neither very hot nor very dry and cold. Most leguminous plants delight both in a dry soil and climate, and warm temperature; and the clover will be found to produce most seed under such circumstances; but as the production of seed is only in some situations an object of the farmer's attention, a season rather moist, provided it be warm, is always attended by the most bulky crops of clover herbage.

The time of sowing seeds is generally the spring, during the corn-seed time, or from February to May; but they may also be sown from August to October; and when they are sown by themselves, that is, unaccompanied by any corn crop, this will be found the best season, as the young plants are less liable to be dried up and impeded in their progress by the sun, than when sown alone in spring, and remaining tender and unshaded during the hot and dry weather of July.

The manner of sowing is almost always broad-cast. When sown with spring corn, clover and grass-seeds are usually put in immediately after the land has been pulverized by harrowing in the corn-seed, and are themselves covered by one course more of the harrows; or, if the corn is drilled, the small seeds are sown immediately before or after hand-hoeing; and the land is then finished by a course of the harrows.

In the operation of sowing, some consider it best to sow the clover and rye-grass separately, alleging that that the weight of the one seed and lightness of the other, are unfavorable to an equal distribution of both.

10797	nóricum *Pers.*	alpine	✱	○	pr	½	jl.au	W	Al. of Eur.	1821.	S	s.l	
10798	híspidum *Desf.*	hispid		○	pr	1	jl.au	Pu	Barbary	1817.	S	s.l	Desf. atl. t. 209. f. 1
10799	malacánthum *Link.*	soft-flowered		○	pr	1	jl.au	Pa	......	1824.	S	s.l	
10800	saxátile *W.*	rock	⚘	⦶	pr	½	my.jl	Pu	Switzerl.	1816.	S	s.l	All. ped. t. 59. f. 3
10801	rúbens *W.*	long-spiked	⚘	△	pr	2	jn.s	D.R	S. Europe	1633.	D	co	Jac. aust. 4. t. 385
10802	praténse *W.*	common Clover	⚘	△	ag	2	my.s	Pu	Britain	me pa.	D	h.l	Eng. bot. 1770
10803	pensylvánicum *W. en.*	Buffalo Clover	⚘	△	pr	1½	jn.s	R	N. Amer.	1811.	D	l.p	
10804	médium *W.*	Cow-grass	⚘	△	ag	2	jn.jl	Pu	England	dr pa.	D	h.l	Eng. bot. 190
10805	alpéstre *W.*	oval-spiked	⚘	△	pr	1	jl	D.P	Europe	1789.	S	co	Jac. aust. 5. t. 433
10806	bracteátum *W. en.*	large-bracted	⚘	⦶	pr	1	jn.jl	Pu	Morocco	1804.	S	s.l	
10807	pannónicum *W.*	Hungarian	⚘	△	pr	1	jn.jl	W.y	Hungary	1752.	S	co	Jac. obs. 2. t. 42
10808	canéscens *W.*	gray	⚘	△	pr	1	my.jn	W.y	Caucasus	1803.	S	co	Bot. mag. 1168
10809	marítimum *W.*	teasel-headed		○	pr	½	jn.jl	Pa.pu	Britain	sal m.	S	s.l	Eng. bot. 220
10810	squarrósum *W.*	various-leaved		○	pr	½	jl	Pa.pu	Spain	1640.	S	s.l	Mor. hi. 2. t. 13. f. 1
10811	incarnátum *W.*	flesh-colored		○	pr	1	jl	F	Italy	1596.	S	co	Bot. mag. 328
10812	pállidum *W.*	pale-flowered		○	pr	1	jn.jl	W	Hungary	1803.	S	s.l	Pl. rar. hu. 1. t. 36
10813	ochroleúcum *W.*	sulphur-colored	⚘	△	pr	1	my.jl	Sul	England	dr pa.	D	s.l	Eng. bot. 1224
10814	angustifólium *W.*	narrow-leaved		○	pr	1½	jn.au	Pu	S. Europe	1640.	S	s.l	Barr. ic. t. 698
10815	lanocéphalum *Link.*	woolly-leaved		○	pr	1½	jn.au	Pu	C. G. H.	1823.	S	co	
10816	arvénse *W.*	Hare's-foot		○	w	1	jl.au	F	Britain	s. n.fi.	S	s.l	Eng. bot. 944
10817	stellátum *W.*	starry	✱	○	pr	½	jl	Pu	England	so.co.	S	s.l	Eng. bot. 1546
10818	clypeátum *W.*	oriental		○	pr	1	jn.au	W.y	Levant	1711.	S	s.l	Alp. exot. t. 306
10819	álbidum *W.*	white		○	pr	1½	jl.au	W	......	1796.	S	s.l	
10820	scábrum *W.*	rough	✱	○	pr	½	my.jn	W	Britain	san.fi.	S	s.l	Eng. bot. 903
10821	glomerátum *W.*	round-headed	✱	○	w	¼	jn	Pk	England	gra.pa.	S	s.l	Eng. bot. 1063
10822	striátum *W.*	soft-knotted		○	w	½	jn	Pu	Britain	bar.gr.	S	s.l	Eng. bot. 1843
10823	alexandrínum *W.*	Egyptian		○	pr	1	jn.jl	Pa.Y	Egypt	1798.	S	s.l	
10824	suffocátum *W.*	suffocated	✱	○	w	¼	jn.jl	W	England	sea sh.	S	s.l	Eng. bot. 1049
10825	involucrátum *W.*	involucrated		○	pr	1	jn.jl	Pa.pu	Morocco	1802.	S	co	
10826	spumósum *W.*	bladdered	✱	○	un	½	jn.jl	R	France	1771.	S	s.l	
10827	resupinátum *W.*	resupinate	✱	○	un	¼	jn.jl	Pu	Germany	1713.	S	s.l	Barr. ic. t. 872
10828	recúrvum *P. S.*	recurved		○	or	½	jn.jl	W	Hungary	1805.	S	s.l	Pl. rar. hu. 2. t. 165
10829	tomentósum *W.*	woolly	✱	○	pr	¾	jn.jl	Pu	S. Europe	1640.	S	s.l	Mag. mons. t. 2. f. 4
10830	fragíferum *W.*	Strawb.-headed	✱	△	w	½	jl.au	F	England	moi.p.	D	s.l	Eng. bot. 1050
10831	montánum *W.*	mountain	⚘	△	or	1	jl.au	W	Europe	1786.	D	co	Flor. dan. t. 1172
10832	bádium *P. S.*	villous-stalked	⚘	△	pr	½	jn.au	Y	Pyrenees	...	D	s.l	Barr. ic. 1024
10833	spadíceum *W.*	bay-colored	⚘	△	pr	½	jn.au	Br	Europe	1778.	D	s.l	Bot. mag. 557
10834	speciósum *W.*	large-flowered	✱	△	el	1	jn.jl	Pu	Candia	1752.	D	s.l	
10835	agrárium *W.*	golden		○	pr	½	jn.jl	Y	Europe	1815.	D	s.l	Flor. dan. t. 538
10836	procúmbens *H. K.*	Hop	✱	○	ag	1	jn.jl	Y	Britain	dr.pa.	S	s.l	Eng. bot. 945
10837	mínus *H. K.*	lesser-yellow	✱	○	w	½	jn.jl	Y	Britain	gra.gr.	S	s.l	Eng. bot. 1256
10838	filifórme *W.*	slender-yellow	✱	○	w	½	my.jl	Y	Britain	gra.pa.	S	co	Eng. bot. 1257
10839	phleoídes *W.*	Cats'-tail-head.		○	un	½	my.jl	W.y	Spain	1818.	S	co	
10840	stríctum *L.*	upright		○	pr	½	my.jl	W	Spain	1805.	S	co	Mic. gen. t. 25. f. 7
1601.	LOTUS. *W.*	Bird's-Foot Trefoil					*Leguminosæ.*		*Sp.* 24—60				
10841	édulis *W.*	esculent	✱	○	clt	½	jl.au	Y	Italy	1710.	S	s.l	Cav. ic. 2. t. 157
10842	peregrínus *W.*	flat-podded	✱	○	pr	½	jl.au	Y	S. Europe	1713.	S	s.l	Scop. del. 1. 6



History, Use, Propagation, Culture,

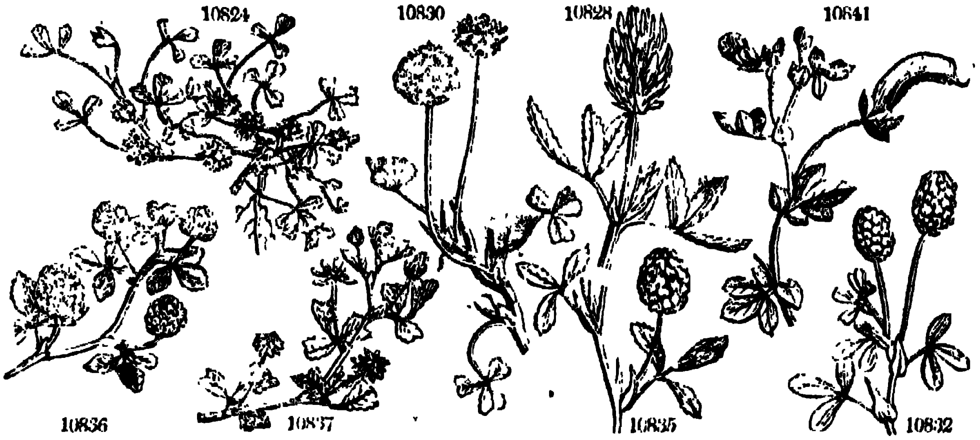
The quantity of seed varies from eight to fourteen pounds per acre, according to the intention of the crop, the quantity of grass-seeds sown, &c. The after culture of clover and rye-grass consists chiefly of picking off any stones or rather hard bodies which may appear on the surface in the spring succeeding that in which it was sown, and cutting out by the roots any thistles, docks, or other large grown weeds. After this, the surface should be rolled once to smooth it for the scythe. This operation is best performed in the first dry weather of March. Some give a top-dressing of soot, gypsum, common lime, peat, or wood-ashes, at this time or earlier; gypsum has been particularly recommended as a top-dressing for clovers and the other herbage legumes, because as their ashes afford that substance in considerable quantities, it appears to be a necessary ingredient of their food.

The taking of the clover, or clover and rye-glass crop, is either by cutting green for soiling, by making into hay, or by pasturing. It is observed in *The Code of Agriculture*, that it is a most important point to ascertain, in what cases cutting or feeding is most beneficial. If fed, the land has the advantage of the dung and urine of the pasturing stock; but the dung being dropt in irregular quantities, and in the heat of summer, when it is devoured by insects, loses much of its utility. If the dung arising from the herbage, whether consumed in soiling, or as hay, were applied to the land in one body and at the proper season, the operation would be more effectual. The smother of a thick crop, continued for any time upon the ground, greatly tends to promote its fertility; and it has been pretty uniformly found, after repeated trials, upon soils of almost every description, that oats taken after clover that has been cut, either for soiling or hay, is superior to the crop taken after clover pastured by sheep.

The produce of clover-hay, without any mixture of rye-grass, on the best soils, is from two to three tons per acre, and in this state in the London market it generally sells twenty per cent. higher than meadow-hay, or

10797 Spikes term. globose hairy subsessile, Leafl. oval entire and stem densely villous
10798 Heads villous globose term solitary, Teeth of calyx setaceous shorter than cor. Leafl. obovate entire
10799 Stem flexuose hairy, Leafl. obcord. hairy, Cal. camp. lined
10800 Leaves obovate hirsute, Heads lateral and terminal minute, Stem erect
10801 Spikes cylindr. obl. Teeth of cal. villous; lower as long as monopetalous unequal cor.
10802 Spikes dense ovate, Stipules awned, Leafl. oval nearly entire
10803 Leafl. ovate ellipt. blunt entire, Stipules awned, Spikes ovate cylindr. solitary dense
10804 Spikes lax subglobose sol. Stipules subulate, Leafl. ellipt. finely serrulate, Stems branched flexuose
10805 Spikes dense subglobose twin, Stipules setaceous, Leafl. lanc. finely serrulate, Stems quite simple
10806 Spikes ovate conical dense sol. sessile, Corolla monopetalous, Leafl. ovate blunt
10807 Spikes dense obl. ellipt. solitary, Leafl. obl. lanc entire emarg. vill. Stem simple straight
10808 Spikes ovate lax sol Leafl. obovate emarg. villous, Stem simple ascending
10809 Spikes subglobose dense, Leafl. obovate lanc. serrulate at end hairy
10810 Spikes obl. somewhat hairy, Lower tooth of cal. very long reflexed, Stem herbaceous erect
10811 Spikes obl. villous blunt leafless, Leafl roundish obcordate ovate crenate villous
10812 Spikes sol. roundish, Stipules membranous, Leafl. roundish, Edge of corolla bearded inside
10813 Spikes villous elliptical, Stem erect branched downy, Leafl. obl : lower obcordate
10814 Spikes vill conical obl. Teeth of cal. setaceous nearly equal, Leafl. linear
10815 Stem erect hairy, Leafl linear, Calyx hairy with lanc. subulate spreading teeth
10816 Heads very hairy subcylindrical, Cal teeth setaceous longer than the cor. Leafl. narrow obovate
10817 Spikes hairy ovate, Calyxes much spreading, Stem diffuse, Leafl. obcordate
10818 Spikes ovate, Calyxes spreading: lower tooth very large lanc Leafl. obovate
10819 Spikes subglobose stalked, Cal spreading: lower tooth subulate linear, Leafl oblong
10820 Heads term. and axill. sess. ov. Cal teeth unequal narr. lanc. rigid at length recurved, Leafl. obcor serru.
10821 Heads round axill. sessile, Teeth of cal equal subulate spreading rigid, Leafl. obovate serrulate
10822 Heads term. and axill ov subsol subsess Cal striat. hairy with unequal straight teeth. Leafl obcor. nearly
10823 Heads obl. stalked, Cal. vill. : teeth subul. unequal, Upper lvs opp Leafl ellipt toothletted [entire pubesc.
10824 Heads sessile lateral roundish smoothish, Teeth of cal. lanc acute recurved longer than cor.
10825 Heads orbicular stalked in a round toothed involucre, Stipules awned
10826 Heads ovate, Cal. in fruit ovate ventricose smooth, Comm involucre membranous 5-leaved
10827 Heads roundish, Cor. resupinate, Cal. of fruit inflated membranous downy, Leafl obovate acute
10828 Heads ov. obl. Cal. of fruit inflated naked, Branches recurved, Leafl. setaceous serrulate
10829 Heads round, Cal. of fruit inflated membranous downy, Teeth obliterated [creep Leafl. obcord. serrated
10830 Heads upon long stalks round Cal. after flow. inflat. membran. pubesc. : two of teeth setaceous reflex. Stems
10831 Spikes about 3 somewhat imbricated, Standard subulate withering, Cal naked
10832 Spikes round imbr. Standard deflexed persistent, Leafl. obcord serrate, Stem hirsute
10833 Spikes oval imbr Vexillum deflexed persistent, Leafl obovate : intermediate sessile
10834 Spikes obl with reflexed flowers, Standard roundish flat toothletted persistent, Stem flexuose
10835 Spikes oval imbr Standard deflexed persistent, Teeth of cal. subulate unequal smooth
10836 Spikes oval imbr Standard deflexed persistent sulcated, Stems procumbent, Leafl. obovate [upwards
10837 Spikes capit. hemispherical, Pedunc. straight, Standards smoothish, Stems procumb. Petiole lengthened
10838 Heads lax of few-fl Pedunc. capillary flexuose, Standards smooth, Stems procumb. Leafl. subsessile
10839 Heads obl. Cal teeth subulate unequal rigid spreading, Leafl. obl. nearly entire emarg.
10840 Heads ellipt. Pods 2-seeded, Cal. length of cor. Leafl. lanc. blunt serrulate

10841 Pods subsolitary gibbous incurved
10842 Pods subunate compressed lin cernuous, Leafl. obovate hairy, Stem procumbent



and Miscellaneous Particulars.

clover and rye-grass mixed. The weight of hay from clover and rye-grass varies according to the soil and the season, from one to three tons per English acre, as it is taken from the tramp-ricks; but after being stacked, and kept till spring, the weight is found to be diminished twenty-five or thirty per cent.

The value of clover and rye-grass hay, in comparison with the straw of beans or pease, may be in the proportion of three to two, and with the finest straw of corn crops, in the proportion of two to one. One acre of red or broad clover will go as far in feeding horses or black cattle, as three or four of natural grass. And when it is cut occasionally, and given to them fresh, it will probably go still much farther, as no part of it is lost by being trod down.

The saving of clover seed is attended by considerable labor and difficulty. Clover will not perfect its seeds, if saved for that purpose early in the year; therefore it is necessary to take off the first growth either by feeding or with the scythe, and to depend for the seed on those heads that are produced in the autumn.

The produce in seed may generally be from three to four or five bushels per acre, when perfectly clean, weighing from two to three hundred weight. But there is great uncertainty in the produce of clover-seed, from the lateness of the season at which it becomes ripe; and the fertility of the soil is considerably impaired by such a crop. Yet the high value of the seed is a great inducement to the saving of it, in favorable situations.

T. incarnatum is sometimes sown as a border flower.

1691 *Lotus.* Λωτος, in Greek. There were three sorts of Lotus distinguished by the ancients; viz. their *tree* lotus, which was our Zizyphus lotus; the *marsh* lotus, which was our Nymphæa lotus; and the *herbaceous* lotus, which appears to have been the present genus.

The pods of L. edulis are still eaten in Candia, by the poorer inhabitants. Lotus rectus has by some been

10843	**glaúcus** *W.*	glaucous	⚘	[○)]	pr	1	jn.au	Y	Madeira	1777.	C	s.l	
10844	**anthyllöides** *V.*	Anthyllis-like	ᵯ	⊔	pr	¾	jn.au	Y	C. G. H.	1812.	S	s.l	Vent. malm. t.92
10845	**angustissimus** *W.*	narrow-podded	⚘	○)	pr	1	jl.au	Y	France	1683.	S	s.l	Bauh. hist. 2. f 2
10846	**grácilis** *W. & K.*	slender		○	pr	1	jl.au	Y	Hungary				
10847	**diffúsus** *W.*	slender-podded	✱	○	pr	1½	my jn	Y	England	rocks.	S	s.l	Eng. bot. 925
10848	**coimbrénsis** *W.*	Portugal		○	pr	½	jn.jl	W	Portugal	1800.	S	s.l	
10849	**arábicus** *W.*	red-flowered	✱	○	pr	½	jl.s	Pk	Arabia	1773.	S	s.l	Jac. vind. 2.t 155
10850	**austrális** *H. K.*	New Holland	ᵯ	⊔	el	2	my.s	Pk	N. S. W.	1803.	S	s.p	Bot. mag. 1365
10851	**Dioscóridis** *W.*	Dioscorides's		○	pr	1	jn.jl	Y	Crete	1658.	S	s.l	Al ped. 1.t.59.f.1
10852	**ornithopodioides** *W.*	claw-podded	✱	○	pr	½	jn.au	Y	Sicily	1683.	S	s.l	Cav. ic. 2. t. 163
10853	**jacobæ'us** *W.*	dark-flowered	ᵯ	⊔	or	2	ja.d	D.Br	C. Verd. Is.	1714.	C	r.m	Bot. mag. 79
	β lúteus	*yellow-flowered*											
10854	**créticus** *W.*	silver-leaved	ᘐ	⊔	pr	1½	jn.s	Y	Levant	1680.	C	p.l	Cav. ic. 2. t. 156
10855	**ténuis** *W. & K.*	slender	✱	△	pr	1	jn.au	Y	Hungary	1816.	D	p.l	Waldst. & Kit.t
10856	**hirsútus** *W.*	hairy	ᵯ	⊔	pr	2	jn.au	W	S. Europe	1683.	C	p.l	Bot. mag. 336
10857	**réctus** *W.*	upright	⚘	△	pr	3	jn au	F	S. Europe	1640.	D	co	Mor s.2.t.18 f 13
10858	**odorátus** *H. K*	sweet-scented	⚘	[△]	ft	1½	jn.au	Y	Barbary	1804.	D	s.l	Bot. mag. 1233
10859	**pedunculátus** *W.*	long-peduncled	✱	△	pr	1	jn au	Y	Spain	1814.	D	s.l	Cav. ic 2 t 164
10860	**május** *E. B*	greater	✱	△	ag	1½	jn.au	Y	Britain	w.sh g	D	s.l	Eng. bot. 2091
10861	**corniculátus** *E. B.*	common	✱	△	ag	1½	jn.au	Y	Britain	pas	D	co	Eng bot. 2090
10862	**cytisoídes** *W.*	downy	✱	△	pr	1	jl.au	Y	S. Europe	17 2	D	co	All.ped. 1 t.20 f 1
10863	**parviflórus** *Desf*	small-flowered	✱	○	un	1	jl au	Y	Barbary	1810.	S	co	Desf. atl. t. 211
10864	**Gebélia** *Vent.*	Aleppo	ᘐ	[△]	ed	1	my.jn	Pk	Aleppo	...	D	co	Vent. cels t. 57

1602. TETRAGONO′LOBUS. *Roth.* Tetragonolobus. *Leguminosæ.* *Sp.* 4.

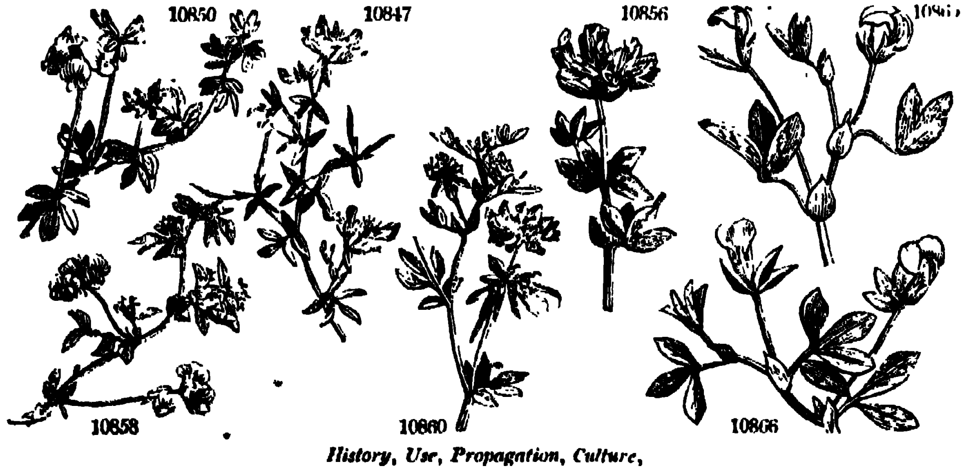
10865	**marítimus** *Roth.*	sea	✱	△	or	1	my o	Y	Europe	1683.	D	co	Fl. dan. 800
10866	**siliquósus** *Roth.*	square-podded	✱	△	or	½	jl.au	Y	S. Europe	1683.	D	co	Jac. aust 4 t 361
10867	**édulis** *Link.*	Winged-Pea	✱	○	elt	1	jl au	D.R	Sicily	1796	S	co	Bot. mag. 151
	Lotus tetragonolobus W												
10868	**conjugátus** *Link.*	twin-podded	✱	○	or	1	jl.au	Y	Montpel	1754.	S	s.l	

1603. TRIGONE′LLA. *W.* Fenugreek. *Leguminosæ.* *Sp.* 19—32.

10869	**ruthénica** *W.*	small	✱	△	un	1½	jn jl	Y	Siberia	1741.	S	p.l	Gmel sib 4. t. 8
10870	**platycárpos** *W.*	round-leaved	✱	○)	un	1	jn s	W	Siberia	1741	S	co	Gmel. sib. 4 t 9
10871	**hýbrida** *P S.*	hybrid	✱	○)	un	1	jn s	W y	France	1806	S	s.l	
10872	**polycérata** *W.*	broad-leaved		○	un	1	jl s	Y	S. Europe	1640.	S	s.l	
10873	**hamósa** *W.*	Egyptian	✱	○	un	¾	jl.au	Y	Egypt	1640.	S	s.l	Alp ægypt t 124
10874	**spinósa** *W.*	thorny		○	un	½	jl au	Y	Candia	1710.	S	s.l	Lam ill t 611 f 2
10875	**corniculáta** *W.*	horse-shoe		○	ft	½	jn jl	Y	S. Europe	1597	S	s.l	Mor s 2 t 16 f 11
10876	**monspeliaca** *W.*	Montpelier	✱	○	un	1	jn jl	Y	Montpel.	1710	S	s.l	Pl rar hu 2 t 142
10877	**pinnatífida** *W.*	cut-leaved	✱	○	un	½	jn au	Y	Spain	1801.	S	s.l	Cav ic 1 t 38
10878	**Fœ'num-græ'cum** *W.*	common		○	ec	2	jn au	Y	Montpel.	1597	S	co	Sch s ha.2 t 211
10879	**esculénta** *W. en*	esculent		[○]	elt	1½	jn au	Y	E. Indies	1815	S	s.l	
10880	**índica** *W.*	Indian	✱	[○]	un	1	jn au	Y	E. Indies	1793	S	s.l	Plu.alm.t 200.f 7
10881	**striáta** *L.*	striated		○	un	1	jn au	Y	Abyssinia	1800	S	co	
10882	**cancelláta** *Desf*	cancellate	✱	○	un	¾	jn jl	Y	......	1823	S	co	
10883	**ténuis** *Bieb*	slender		○	un	½	jn jl	Y	Tiflis	1824	S	co	
10884	**flexuósa** *Bieb.*	flexuose		○	un	½	jn jl	Y	Tiflis	1820.	S	co	
10885	**calliceras** *Bieb.*	neat-podded		○	un	½	jn jl	Y	Tiflis	1823.	S	co	
10886	**elongáta** *Link.*	long		○	un	¾	jn jl	Y	......	1823	S	co	
10887	**gladiáta** *Bieb.*	sword-podded	✱	○	un	½	ap my	W	Tauria	1825.	S	co	
	T. prostrata Dec.												

1604. DORY′CNIUM. *W.* Dorycnium. *Leguminosæ.* *Sp* 2—3.

10888	**monspeliense** *W.*	shrubby	♣	⊔	or	3	jl s	W	S. Europe	1640.	S	p.l	Par. thea.360.f.
10889	**herbáceum** *W.*	herbaceous	⚘	△	or	2	jn s	W	S Europe	1802		co	Vil. dauph.3.t 4



History, Use, Propagation, Culture,

supposed the Cytisus of Virgil, but, as other contend, without sufficient foundation. Lotus jacobæus is a valuable greenhouse plant, as flowering all the year. L. major and corniculatus are very suitable to sow with white clover and cow-grass, in laying down lands to permanent pasture. Dr. Henderson has written a good deal in their favor; Miller is against them; but Sinclair, in his work on the British Grasses, found it a valuable ingredient in meadows, especially where the soil was rather moist. (*See Ency. of Agr.* p. iii. b. 6.) *Gebelia* is the Arabic name (*Gébèlié*) of the species to which it has been applied.

1602. *Tetragonolobus.* From τετρας, four, γωνια, an angle, and λοβος, a bean, in allusion to the four wings of the pods. Tetragonolobus edulis is now a popular border annual, on account of its curious pods; but it was formerly an esculent legume, these pods being used like those of the kidney bean, by the poor of Sicily and Spain.

1603. *Trigonella.* From τρεις, three, and γωνια, an angle. The standard of the flower is flat, and the keel very small and narrow, which gives the flower a triangular appearance. T. fœnum-græcum, a plant cultivated by the Romans, is still occasionally employed in the agriculture of the south of Europe. The seeds have a strong

10843 Pods subbinate cylindr. smooth, Leafl. subcuneif. fleshy hoary, Stip. leaf-shaped
10844 Heads few-fl , Leafl. and bractes 3-leaved subspatulate
10845 Pods subbinnate lin. straight erect, Stem erect, Pedun. alternate
10846 Pods subternate round subulate straight, Cal. cil. Leafl. obl. Stem erect
10847 Pedunc. about 1-fl. Stem much branched decumb. Pods round straight very slender
10848 Pedunc. about 1-fl. Stem branched procumb. Leafl. obovate smooth, Pods lin. compressed
10849 Pods cylindr. awned, Pedunc. 3-fl Bractes 1-leaved
10850 Heads few-fl. with bractes, Leafl. and stipules obovate cuneate equal, Pods cylindr. smooth
10851 Pods round torulose, Pedunc. 3-fl. Bractes 3-leaved
10852 Pods usually in threes arcuate compressed, Stems diffuse
10853 Pods usually in threes, Stem herbaceous erect, Leafl. linear

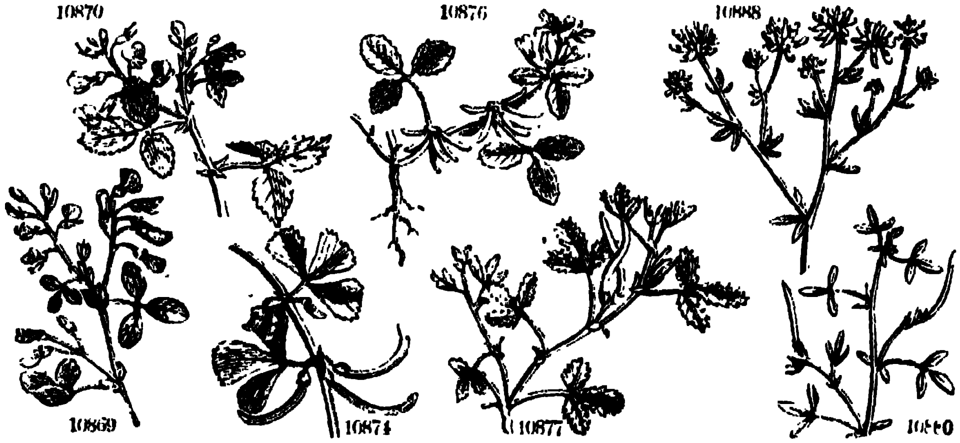
10854 Pods usually in threes, Stem half-shrubby, Leaves silky shining
10855 Pods about 4 rounded awned, Stem branched, Leafl. lin. lanc. smooth
10856 Heads roundish, Stem erect hairy, Pods ovate
10857 Heads roundish, Stem erect smooth, Pods straight smooth
10858 Hairy, Heads halved, Bractes 1-leaved, Pods straight torulose mucronate
10859 Heads depressed on long stalks, Leafl. obl. lanc. acuminate, Stipules ovate
10860 Heads depressed many-fl. Pods spreading cylindr Claws of carina linear
10861 Heads depressed, Stems decumb. Legumes cylindr spreading
10862 Heads halved, Stem diffuse much branched, Leaves downy
10863 Heads halved, Pods obl. compressed, Cal. as long as cor. Bractes 1-leaved
10864 Pods straight cylindr. mucronate, Stems decumb smooth, Pedunc. few-fl,

10865 Pods solitary, Leaves smooth, Bractes lanceolate
10866 Pods solitary, Leaves procumb Leaves downy beneath
10867 Pods solitary, Bractes ovate, Intermediate leaflets somewhat toothed

10868 Pods in pairs, Bractes oblong ovate

10869 Pods stalked heaped obl lin. straight, Leafl. obl. truncate mucronate
10870 Pods stalked heaped pendulous oval compressed, Leaflets roundish
10871 Pods stalked compressed ovate veiny, Leafl. cuneiform nearly entire smooth
10872 Pods subsessile heaped erect straightish long linear, Pedunc not awned
10873 Pods stalked racemose hooked round, Pedunc. spiny longer than leaflet
10874 Pods stalked heaped declinate subfalcate compressed, Pedunc. spiny very short
10875 Pods stalked heaped declinate subfalcate, Pedunc long somewhat spiny
10876 Pods sessile heaped arcuate divaricating inclined short, Pedunc. mucronate unarmed
10877 Pods sessile about 3 linear nearly erect, Leaves truncate cuneate pinnatifid toothed
10878 Pods sessile straight nearly erect a little falcate acuminate
10879 Racemes stalked, Common pedunc. longer than leaf, Pods linear falcate heaped pendulous
10880 Pods sessile subsolitary subfalcate, Leaflets entire
10881 Pods stalked longer than leaf, Leaves streaked
10882 Pods stalked umbelled erect incurved, Leafl cuneate serrate, Stem much branched
10883 Pods about 4 arcuate erect, Pedunc. unarmed : when in flower as long as leaf, Leafl. cuneate
10884 Pods about 6 arcuate erect wavy torulose, Pedunc unarmed : when in fl. longer than leaf, Leafl. cuneate
10885 Pods stalked heaped declinate falcate furrowed, Pedunc awned longer than leaf
10886 Pedunc. very short spiny, Pods short curved upwards
10887 Pods subsessile nearly erect falcate acuminate downy, Stem spreading

10888 Leafl. linear lanc. acute, Teeth of calyx ovate
10889 Leafl. obate blunt, Teeth of calyx ovate



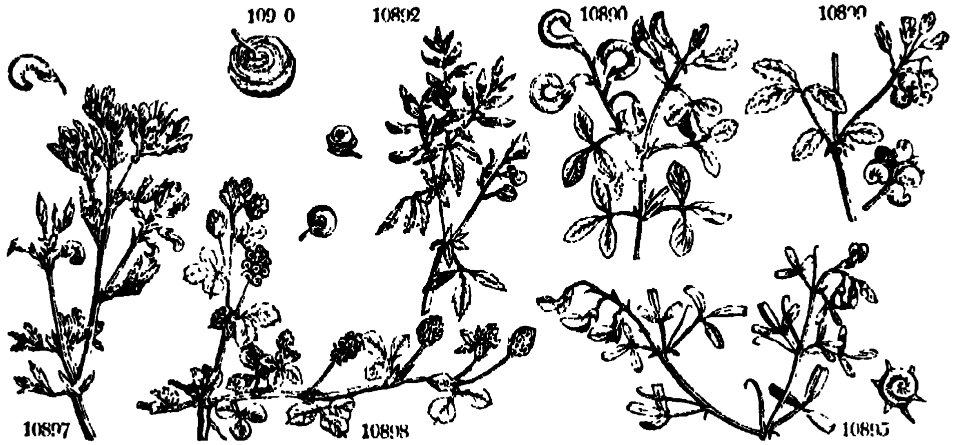
and Miscellaneous Particulars.

disagreeable smell, and an unctuous farinaceous taste, accompanied with a slight bitterishness. An ounce renders a pint of water thick and slimy. To rectified spirit, they give out the whole of their distinguishing smell and taste, and afterwards to water a strong flavorless mucilage. These seeds are never given internally, their principal use being in cataplasms and fomentations, for softening, maturating, and dispersing tumours; and in emollient glysters. They were also an ingredient in the *oleum e mucilaginibus*; but this has no longer a place in the pharmacopœia. (*Woodville* and *Lewis*.) They are used by grooms and farriers for horses. Fenugreek has not been cultivated in any quantity for use in England, because it is an uncertain crop, occasioned by the inconstancy of our weather.

1604 *Dorycnium.* The Greek name of an herb, supposed to be the Convolvulus Dorycnium of the moderns. The plant now called by the name has no resemblance to that of the ancients. D. hirsutum is a beautiful half-hardy shrub, well deserving cultivation.

1605. MEDICA'GO. *W.* Medick. *Leguminosæ.* *Sp.* 40—76.

10890	arbórea *W.*	Moon-Trefoil	♣	_|	or	8	my.n	Y	Italy	1596.	C	s.l	Lob. Ic.2.p.46.f.2
10891	cretácea *W. en.*	shrubby	✱	○	cu	4	jl	Y	Tauria	1805.	C	s.l	
10892	sativa *W.*	Lucern	✱	△	ag	2	jn.jl	V	England	me.pa.	D	r.m	Eng. bot. 1749
10893	glomeráta *W. en.*	clustered	✱	△	cu	1	jn jl	Y	Italy	...	D	s.l	
10894	glutinósa *Bieb.*	clammy	✱	○	cu	½	jn.jl	Y	Tauria	...	S	co	
10895	prostráta *W.*	prostrate	✱	△	cu	¾	jn.jl	Y	Hungary	1793.	D	s.l	Jac. hor.vin.t.89
10896	brachycárpa *Bieb.*	short-podded	✱	○	cu	½	jn.jl	Pa.Y	Tifliz	1823.	S	co	
10897	falcáta *W.*	yellow	✱	△	ag	2	jl	Y	England	bor fi.	S	co	Eng. bot. 1016
10898	lupulina *W.*	Nonesuch	✱	○	ag	1	my.au	Y	Britain	pas.	S	co	Eng. bot. 971
10899	obscúra *W.*	doubtful	✱	○	cu	1	jl.au	Y	......	1734.	S	co	Ret.ob. 1.p.24.t.1
10900	orbiculáris *W.*	flat-podded	✱	○	cu	1	jl.au	Y	S. Europe	1688.	S	co	Moris.s.2.t.15.f.1
10901	marginàta *W. en.*	margined	✱	○	cu	1	jl.au	Y	S. Europe	1816.	S	co	
10902	élegans *W.*	elegant	✱	○	cu	1	jl.au	Y	Sicily	1680.	S	co	Moris.s.2.t 15.f.4
10903	scutelláta *W.*	Snail	✱	○	cu	1	jn.au	Y	S. Europe	1562.	S	co	Moris.s.2.t.15.f.3
10904	Hélix *W*	many fl.-Snail	✱	○	cu	1	jn.au	Y	......	1816.	S	co	
10905	tornata *W.*	smooth-podded	✱	○	cu	1	jn.au	Y	S. Europe	1658.	S	co	
10906	turbináta *W*	Turban	✱	○	cu	1	jn.au	Y	S. Europe	1640	S	co	Moris.s 2.t 15.f 5
10907	tuberculáta *W.*	wart-podded	✱	○	cu	1	jn.au	Y	S. Europe	1658.	S	co	Moris.s.2.t.15.f 6
10908	aculeáta *W*	spiny	✱	○	cu	1	jn au	Y	......	1802.	S	co	
10909	granadénsis *W. en.*	Spanish	✱	○	cu	¾	jn.au	Y	Spain	1816.	S	s.l	Jac. coll. t. 15.f.2
10910	Murex *W.*	prickly	✱	○	cu	1	jn.au	Y	......	1802.	S	s.l	
10911	intertexta *W.*	hedgehog	✱	○	cu	1	jn.au	Y	S Europe	1629.	S	co	Moris.s.2.t.15.f.7
10912	ciliaris *W.*	fringed	✱	○	cu	1	jl au	Y	France	1686.	S	co	
10913	carstiénsis *W*	creeping-rooted	✱	△	cu	1	jn.jl	Y	Carinthia	1789	D	co	Bot. mag 909
10914	maculata *W.*	spotted	✱	○	cu	1½	my.jn	Y	England	gra pa.	S	s.l	Eng. bot. 1616
10915	coronáta *W*	crowned	✱	○	cu	1	jn.jl	Y	S. Europe	1640.	S	s.l	Mor.s.2.t. 15.f 16
10916	apiculáta *W.*	tufted	✱	○	cu	1	jn.jl	Y	S. Europe	1800.	S	s.l	
10917	tentaculáta *W*	bur-podded	✱	○	cu	1	jn jl	Y	S. Europe	...	S	co	Gært. sem. t.155



History, Use, Propagation, Culture,

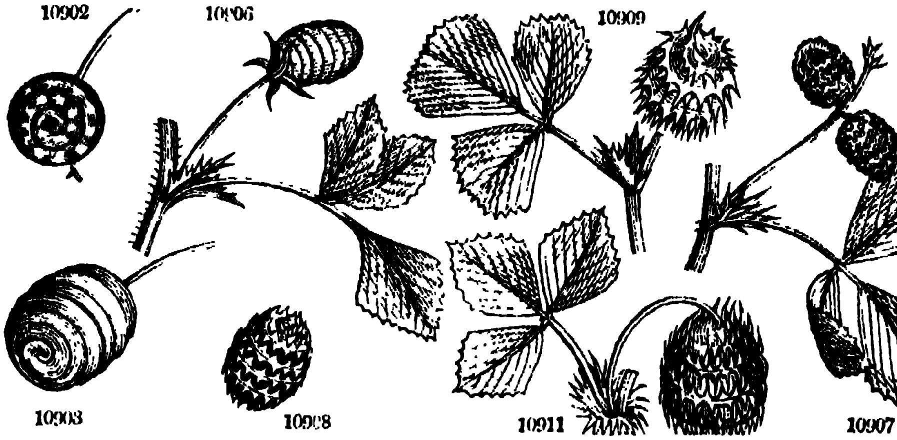
1605. *Medicago.* A native of the country of the *Medes,* whence this plant was brought to Greece during the expedition of Darius M. arborea, the Cytisus of the ancients, flowers great part of the year, and when sheltered is seldom destitute of flowers. In the open air it begins to flower in April, and continues till December. Those flowers which appear early in summer, will have the seeds ripe in August, or the beginning of September, and the others will ripen in succession. It grows in great plenty in Abruzzo, and many parts of the kingdom of Naples, where the goats feed upon it, and with their milk abundance of cheese is made there It also abounds in several of the islands in the Archipelago, where the Turks use the wood to make handles for their sabres; and the caloyers, or Greek monks, form their beads of it In old shrubs, the heart is of a dark color, and hard like ebony.

According to Miller, this shrub bids the fairest of any to be the Cytisus of Virgil, Columella, and the other ancient writers on husbandry; and being celebrated by them as an excellent fodder, has been recommended for cultivation here. But however useful it may be in Candia, Rhodes, Sicily, Abruzzo, and other dry warm countries, yet it will never thrive in England, (where we have also many plants of this leguminous tribe far more succulent than this,) so as to be of any real advantage; for in severe frost it is very subject to be destroyed, or at least so much damaged, as not to recover its former verdure before the middle or end of May; (and even after a mild winter, it will generally appear injured by our cold spring winds, even at that season; so that it cannot be of any use here for early spring fodder) Besides, the shoots will not bear cutting above once in a summer, and then will not be of any considerable length and the stems growing very woody, the cutting of it will be very troublesome. Upon the whole, therefore, it is not worth the trial, though in hot, dry, rocky countries, where few other plants will thrive, it may be cultivated to great advantage. But, however unfit Tree Medick may be for use as fodder in England, yet for the beauty of its hoary leaves, abiding all the year, together with its long continuance in flower, it deserves a place in every good garden and plantation, with shrubs of the same growth (*Dict. in loco, and Martyn's Virgil*)

M. sativa, *Foin de Bourgogne,* Fr, *Alfalfa,* Span, and *Lucerne,* Eng, (from the Languedoc pâtois *Lauserda*), is a deep rooting perennial plant, sending up numerous small and tall clover-like shoots, with blue or violet spikes of flowers. It is highly extolled by the Roman writers; it is also of unknown antiquity in old Spain, Italy, and the south of France; is much grown in Persia and Peru, and mown in both countries all the year round. It is mentioned by Hartlib, Blythe, and other early writers, and was tried by Lisle; but it excited little attention till after the publication of Harte's Essays, in 1757. But though it has been so much extolled, it has yet found no great reception in this country. If any good reason can be given for this, it is, that lucern is a less hardy plant than red clover, requires three or four years before it comes to its full growth, and is for these and other reasons ill adapted to enter into general rotations. When the climate and soil suit, perhaps, a field of it may be advantageously sown, adjoining the homestall, to afford early cutting or food for young or sick animals, for which it is said to be well adapted; but though it will produce good crops for eight or ten years, yet from the time the farmer must wait till this crop attains its perfection, and from the care requisite to keep it from grass and weeds, we do not think it is ever likely to come into general culture.

There are no varieties of the lucern deserving the notice of a cultivator. What is called the yellow lucern, or Swiss lucern, is the Medicago falcata, a much more hardy and coarser plant, common in several parts of England, but not cultivated any where excepting in some poor soils in Switzerland.

10890 Pods lunate entire at edge, Stem arborescent
10891 Pedunc. many-fl. racemose, Pods reniform 1-seeded, Leafl. rhomboid roundish mucronate
10892 Pedunc. racemed, Legume smooth spirally twisted, Stipules entire, Leafl. long toothed
10893 Pedunc. racemed, Pods twisted-falcate downy, Leafl. lin. truncate toothletted at end
10894 Pedunc. racemose, Pods twisted falcate and cal. viscid villous. Leafl. obovate toothed at end
10895 Pedunc racemose, Pods smooth cochleate twisted, Stipules toothed at base, Leafl. lin. toothed at end
10896 Heads axill. sessile, Pods half orbicular acute lined 1-seeded
10897 Pedunc. racemose, Pods twisted falcate downy, Leafl. obl. toothed at end
10898 Spikes oval, Legumes reniform 1-seeded, Stipules entire, Leafl. obovate
10899 Pods racemose reniform 2-seeded, Stip toothed, Leafl. rhomboid ovate
10900 Pedunc. 2-fl. Pods unarmed cochleate orbicular flattish, Stip. setaceous multifid, Leafl. obov. toothed
10901 Pedunc. 2-fl. Pods unarmed cochleate orbicular very flat at each end, Folds loose
10902 Pedunc. 2-fl Pods unarmed cochleate orbicular flat transversely rugose at edge, Stip. toothed
10903 Pedunc. 2-fl. Pods unarmed cochleate orbicular convex at base: flat above with concentrically spiral folds
10904 Pedunc. many-fl. Pods unarmed cochleate orbicular flat with distant folds
10905 Pedunc. many-fl. Pods unarmed cochleate cylindr flat at each end with distant folds
10906 Pedunc. 2-fl. Pods unarmed cochleate cylindr. convex at each end with imbricated folds
10907 Pedunc. 2-fl. Pods unarmed cochleate cylindr. flattish at each end with tubercled folds
10908 Pedunc. about 2-fl. Pods cochleate cylindr flattish at each end, Folds muricated at edge
10909 Pedunc. about 2-fl. Pods cochleate cylindr. flat at each end, Prickles subulate appressed
10910 Pedunc. about 2-fl. Pods cochleate cylindr. convex at each end aculeate, Aculei straight
10911 Pedunc. about 2-fl. Pods cochleate oval with downy pubescent setaceous appressed reflexed prickles
10912 Pedunc. about 2-fl. Pods cochleate oval with straight subulate downy prickles
10913 Pedunc. many-fl. Pods cochleate compressed at each end with subulate straight prickles
10914 Pedunc. about 2-fl Pods cochleate compressed at each end with subulate arcuate prickles
10915 Pedunc. many-fl Pods cochleate cylindr. flat at each end pubesc. with close-pressed subul. prickles
10916 Pedunc. many-fl. Pods cochleate flat at each end with 3 netted folds muricate at edge
10917 Pedunc. about 2-fl. Pods cochleate cylindr. flat at each end with smooth lanc. distich. close-pressed prickles



and Miscellaneous Particulars.

The soil for lucern must be dry, friable, inclining to sand, and with a subsoil not inferior to the surface; unless the soil be good and deep, it is in vain to attempt to cultivate lucern.

The preparation of the soil consists in deep ploughing and minute pulverisation; and, in our opinion, the shortest way to effect this, is to trench it over by the spade to two or three feet in depth, burying a good coat of manure in the middle, or at least one foot from the surface. This is the practice in Guernsey, where lucern is highly prized.

The climate for lucern, as we have already hinted, must be warm and dry; it has been grown in Scotland and Ireland, and might probably do well in the southern counties of the latter country, but in the former it has not been found to answer the commendations of its admirers.

The season most proper for sowing lucern, is as early as can be done in the spring months, as in this way the plants may be fully established before the season becomes too hot. If the plants be intended to be transplanted out in the garden method, it will also be the best practice to sow the seed-bed as early in the spring as the frosts will admit, in order that they may be strong, and fit to set out about the beginning of August.

The manner of sowing lucern is either broad-cast or in drills, and either with or without an accompanying crop of corn for the first year. Broad-cast, and a very thin crop of barley or other spring corn, is generally, and, in our opinion, very properly preferred.

The quantity of seed, when the broad-cast method is adopted, is said to be from fifteen to twenty pounds per acre, and from eight to twelve if drilled. The seed is paler, larger, and dearer than that of clover; it is generally imported from Holland, and great care should be had to procure it plump and perfectly new, as two years old seed does not come up freely. The same depth of covering as for clover will answer.

The after-culture of lucern, sown broad-cast, consists in harrowing, to destroy grass and other weeds; rolling, after the harrowing, to smooth the soil for the scythe, and such occasional top-dressings of manure as the state of the plants may seem to require.

The top-dressings given to lucern may be either of the saline or mixed manures. Ashes are greatly esteemed, and also gypsum and liquid manure of any kind.

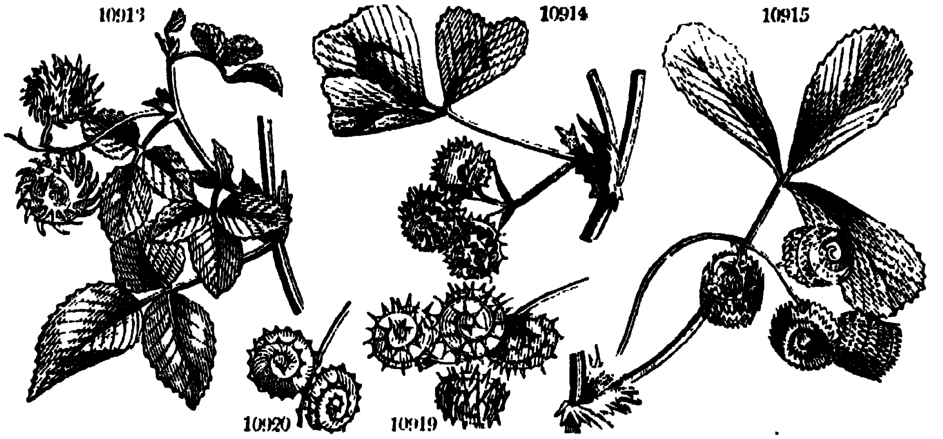
The taking of lucern by mowing for soiling, or hay, or by tethering, hurdling, or pasturing, may be considered as the same as for clover. Lucern frequently attains a sufficient growth for the scythe towards the end of April, or beginning of the following month; and in soils that are favorable for its culture, will be in a state of readiness for a second cutting in the course of a month or six weeks longer, being capable of undergoing the same operation at nearly similar distances of time during the whole of the summer season.

The application of lucern is also the same as of clover. The principal and most advantageous practice, in the application of lucern, is that of soiling horses, neat cattle and hogs, but as a dry fodder, it is also capable of affording much assistance, and as an early food for ewes and lambs, may be of great value in particular cases. All agree in extolling it as food for cows, whether in a green or dried state.

The produce of lucern, cut three times in a season, has been stated at from three to five and even eight tons per acre. In soiling, one acre is sufficient for three or four cows during the soiling season, and a quarter of an acre, if the soil be good, for all sorts of large stock, for the same period, or half an acre on a moderate soil.

The nutritive product of lucern, according to Sir H. Davy, is 2-3-tenths per cent., and is to that of the

10918	**denticuláta** *W.*	toothed	✱	○	cu	1	jn jl	Y	S. Europe	1800.	S	s.l	
10919	**muricáta** *W.*	prickly	✱	○	cu	1	my.jn	Y	England	sea co.	S	co	Mor. s.2.t.15.f.11
10920	**Gerárdi** *W.*	Gerarde's	✱	○	cu	1	jn.au	Y	Hungary	1816.	S	co	Mor.s.2.t. 15.f.18
10921	**marina** *W.*	sea	✱	△	cu	1	jn.au	Y	S. Europe	1596.	D	s.l	Cav. ic. 2. t. 130
10922	**Terebéllum** *W.*	short-spined	✱	○	cu	1	jn.au	Y	S. Europe	1798.	S	s.l	
10923	**tribuloides** *W.*	Caltrops-like	✱	○	cu	1	jn.au	Y	S. Europe	1730.	S	s.l	
10924	**rigidula** *W.*	thorny-podded	✱	○	cu	1	jn.au	Y	S. Europe	1730.	S	s.l	
10925	**minima** *W.*	least	✱	○	cu	1	my jn	Y	England	ch.so.	S	co	Fl. dan. 211
10926	**nigra** *W*	black	✱	○	cu	1	jl.au	Y	S. Europe	1789.	S	s.l	Mor.s.2.t.15.f. 19
10927	**græ'ca** *W en.*	villous	✱	○	cu	½	jl.au	Y	Greece	1804.	S	s.l	
10928	**laciniáta** *W.*	cut-leaved	✱	○	cu	½	jl.au	Y	S. Europe	1683.	S	s.l	Breyn. cent. t.34
10929	**uncináta** *W.*	hooked	✱	○	cu	1	jl.au	Y	S. Europe	...	S	co	
1606.	**HYMENOCAR'PUS.** *W.*	Hymenocarpus.						*Leguminosæ.*	*Sp.* 3.				
10930	**radiátus** *W.*	ray-podded	✱	○	pr	½	jn.jl	Y	Italy	1629.	S	s.l	Lob. ic.2.p.38.f.2
10931	**circinátus** *W.*	kidney-podded	✱	○	pr	½	jl.au	Y	Italy	1640.	S	co	Gær. sem.2.t.155
10932	**nummulárius** *W en.*	money-leaved	✱	○	pr	½	jl.au	Y	Italy	1640.	S	co	



History, Use, Propagation, Culture,

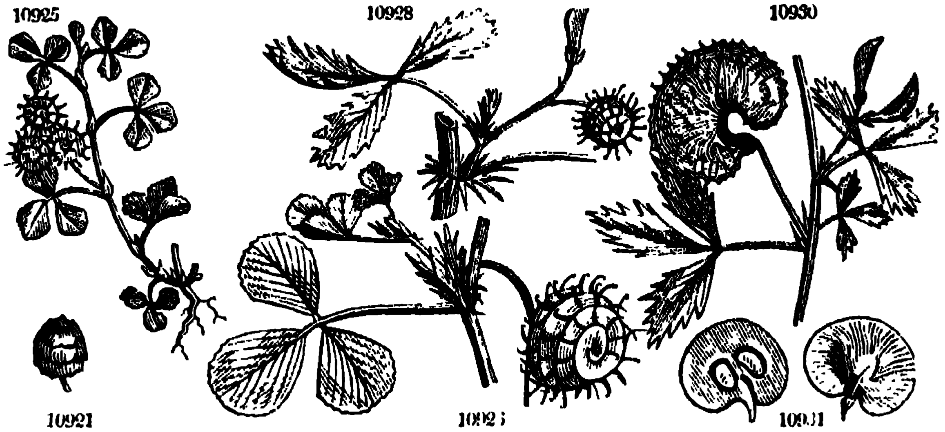
clovers and saintfoin as 23 to 39. This result does not very well agree with the superior nutritive powers attributed to lucern; and is one proof, among many, how little the analysis of the chemist agrees with the experience of the farmer.

To save seed, the lucern may be treated precisely as the red clover, and it is much easier threshed, the grains being contained in small pods, which easily separate under the flail, or a threshing machine, or clover mill.

M. lupulina, Hop-trefoil, sometimes called Shamrock, and in Norfolk Black Nonesuch, is cultivated occa-

10918 Pedunc. many-fl. Pods cochleate flat at each end, Folds 2 reticulated with prickles of their edges diverging
10919 Pedunc. many-fl. Pods cochleate flat at each end smooth, Folds 5 with short subulate prickles
10920 Pedunc. about 2-fl. Pods cochleate flat at each end villous, Folds 5 with subulate hooked prickles
10921 Pedunc many-fl. Pods cochleate roundish muricate, Leafl. downy obovate entire
10922 Pedunc. many-fl. Pods cochleate cylindr. flat at each end, Folds 5 with short subulate reflexed prickles
10923 Pedunc. 2-fl. Pods cochleate cylindr. flat at each end with conical distichous reflexed prickles
10924 Pedunc. many-fl. Pods cochleate cylindr. Prickles conical straight spreading
10925 Pedunc many-fl. Pods cochleate hairy, Prickles subulate straight hooked
10926 Pedunc. 2-fl. Pods cochleate cylindr. with close folds, Prickles subulate straight hooked
10927 Pedunc. many-fl. Pods cochleate somewhat hairy, Prickles subulate straight hooked
10928 Pedunc. 2-fl. Pods cochleate cylindr. with subulate straight hooked prickles, Leafl. lin. truncate
10929 Pedunc. many-fl. Pods cochleate villous flat at each end with 5 folds, Prickles subulate straight hooked

10930 Pods toothed at edge, Leaves ternate
10931 Pods toothed at edge, Leaves pinnate
10932 Pods entire at edge, Leaves pinnate



and Miscellaneous Particulars.

sionally along with the perennial clovers, and sometimes confounded with the common yellow clover, which is an annual and much smaller plant. Its treatment is the same as that of white clover, but its herbage is little relished by cattle, and both it and the yellow clover are going fast out of repute.

M scutellata and intertexta are sown as border flowers for the curiosity of their pods

1086. *Hymenocarpus.* From ὑμην, a membrane, and καρπος, fruit, in allusion to the membranous texture of the pods. Little inconspicuous plants resembling Trifolium.

Class XVIII. — POLYADELPHIA. Stamens united into several parcels.

One of the smallest of the Linnean classes, characterized by the cohesion of the filaments in several parcels It almost wholly consists of plants remarkable either for their beauty or importance otherwise. From the Theobroma the nutritious substance which forms the basis of Chocolate is procured. Melaleuca and its allies are among the most elegant of New Holland plants The genus Symplocos contains a plant useful as a dye. To Citrus belong the Orange, Lemon, Lime, and all their delicious varieties; and the Loasa, with which the class is here concluded, consists of some of the most ornamental and curious of our garden annuals.

By some botanists this class is distributed among others, especially Icosandria and Polyandria.

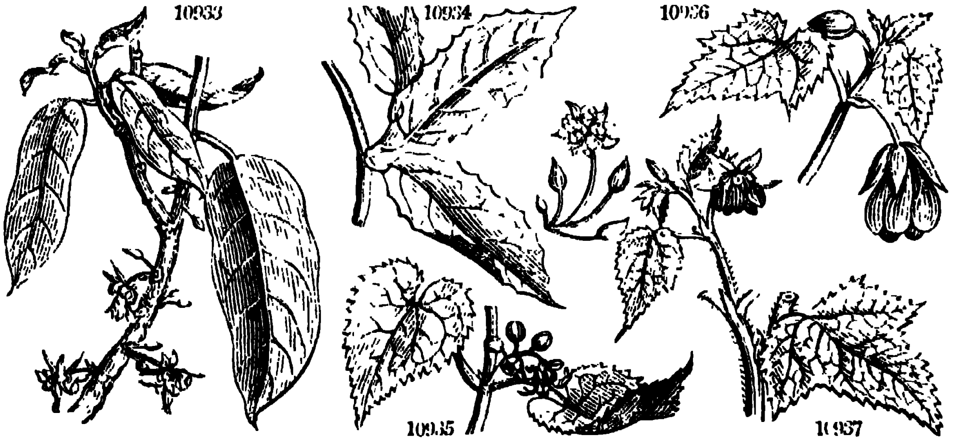
Order 1. DECANDRIA. Stamens 10 or 12.

1607. *Theobroma* Cal 5-leaved Petals 5, fornicate. Nectary urceolate, with 5 horns. Filaments 5, each with 2 anthers. Style filiform Stigma 5-parted. Caps. 5-celled, without valves. Seeds in a buttery pulp

1608 *Bubroma* Cal. 3-leaved Petals 5, 2-horned. Nect campanulate, 5-fid. Filam 5, attached to the outside of nectary, each with 3 anthers. Style simple. Capsule woody, warted, valveless, bored with 12 rows of holes.

DECANDRIA.

1607 THEOBRO'MA *W.*	Chocolate Nut.					*Byttneriaceæ*	*Sp* 2—5.					
10933 Cacáo *W.*	smooth-leaved	♀	□	clt	16	...	Br	S Amer.	1739	C	r m	Bot cab 515
10934 guianénsis *W*	woolly-leaved	♀	□	or	16	...	Br	Guiana	1803.	C	r.m	Aub. gui.2.t.275
1608. BUBRO'MA. *W.*	Bastard Cedar					*Byttneriaceæ*	*Sp* 1—3					
10935 Guazúma *W*	Elm-leaved	♀	□	tm	40	au s	Y	Jamaica	1739	C	p l	Trew. ehret t.76
1609 ABRO'MA. *W.*	Abroma					*Byttneriaceæ*	*Sp* 2—3.					
10936 augústa *H K.*	smooth-stalked	♀	□	or	10	au	Pu	E. Indies	1770.	C	l.p	Jac. vind. 3. t. 1
10937 fastuósa *H. K.*	prickly-stalked	♀	□	or	10	jn o	Pu	N. S W.	1800.	C	l.p	Par. lond. 102



History, Use, Propagation, Culture,

1607 *Theobroma.* From Θεος, God, and βρωμα, food, in allusion to the excellent nature of its produce. The Mexicans call the beverage obtained from it *Chocolatl* (*Nieremb*) T Cacao is a tree which grows in a very handsome form to the height of twelve or sixteen feet, the trunk is upright, and about as high as a man before the head spreads out, the wood is light and of a white color; the bark brownish Leaves lanceolate-oblong, bright green, quite entire; flowers small, reddish, inodorous Fruits smooth, yellow, red, or of both colors, about three inches in diameter rind fleshy, near half an inch in thickness, flesh-colored within: pulp whitish, the consistence of butter, separating from the rind in a state of ripeness, and adhering to it only by filaments, which penetrate it and reach to the seeds. Hence it is known when the seeds are ripe, by the rattling of the capsule when it is shaken The pulp has a sweet and not unpleasant taste, with a slight acidity; it is sucked and eaten raw by the natives The seeds are about twenty five in number: when fresh they are of a flesh-color: gathered before they are ripe, they preserve them in sugar, and thus they are very grateful to the palate: they quickly lose their power of vegetation, if taken out of the capsule; but kept in it, they preserve that power for a long time. The tree bears leaves, flowers, and fruit all the year through; but the usual seasons for gathering the fruit are June and December. In two years from the seed it is above three feet high, and spreads its branches, not more than five of which are suffered to remain: before its third year is complete it shows for fruit. A tree yields from two to three pounds of seeds annually. These seeds are remarkably nourishing, and agreeable to most people; which occasions them to be commonly kept in most houses in America, as a necessary part of the provisions of the family: they are generally ground or pounded very fine, a little arnatto added, and made into paste: they are much charged with oil, but mix well with milk or water, and are formed into rolls of one pound each.

This simple preparation of chocolate is the most natural and the best. It is in daily use amongst most

1609. *Abroma.* Cal. 5-part. Petals 5, with saccate dilated claws Cup of stamens 10-fid; with 5 segments, each bearing 3 anthers; the other 5 petaloid. Styles 5. Caps. 5-celled, 5-winged, many-seeded.

Order 2. POLYANDRIA. Stamens indefinite.

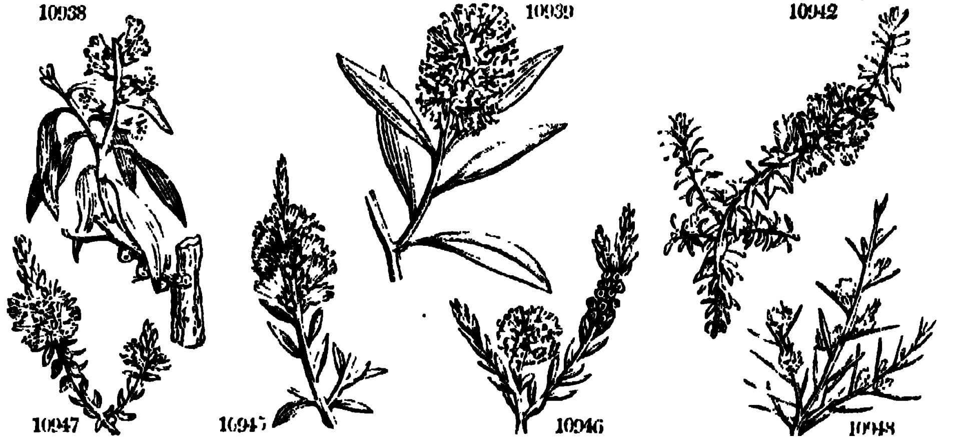
1610. *Melaleuca.* Parcels of stamens 5, opposite the petals, long; anthers incumbent. Caps. 3-celled, many-seeded, connate, and included in the thickened tube of the calyx which is grown to the branch.
1611. *Tristania.* Parcels of stamens 5, opposite the petals, and scarcely longer than they are; anthers incumbent. Caps. 3-celled, many-seeded, united with the turbinate stalked tube of the calyx.
1612. *Calothamnus.* Parcels of stamens 4-5, opposite the petals (some either connate or sterile). Anthers inserted by the base, entire. Caps 3-celled, many-seeded, connate, and included in the thickened tube of the calyx, which is grown by the base to the branch.
1613 *Beaufortia.* Parcels of stamens 5, opposite the petals. Anthers inserted by the base, bifid at the end, with deciduous lobes. Caps 3-celled, 1-seeded, connate, and included in the thickened tube of the calyx, which is grown by the base to the branch
1614 *Symplocos* Cal 5-fid, superior. Petals 5-8; cohering at the base in a tube. Stamens united to the corolla in 4 rows. Drupe dry, 5-celled.
1615. *Citrus.* Cal 5-fid. Petals 5, oblong. Anthers 20; the filaments variously divided. Berry 9-celled.
1616. *Xanthochymus.* Cal. 5-leaved. Petals 5. Nectaries 5. Stamens united in 5 parcels. Apple 1-5-seeded.
1617. *Hypericum* Cal 5-parted. Petals 5. Filaments many in 3 or 5 parcels. Capsule superior.
1618. *Ascyrum.* Cal 4-leaved. Petals 4. Caps 1-celled, 2-3-valved.
1619. *Loasa.* Cal. 5-leaved. Petals 5. Nectary 5-leaved. Caps. ½-inferior, 1-celled, ½-3-valved, many-seeded.

DECANDRIA.

10933 Leaves entire smooth
10934 Leaves acuminate repand-toothed downy beneath

10935 Leaves cordate ovate acute with unequal serratures

10936 Leaves 7-angled: floral ov.-lanc. acuminate somewhat toothed, Pedunc. axill. Branches unarmed
10937 Adult lvs. with simple and stellate hair beneath, Wings of caps. subtruncate at end, Branches muricated



and Miscellaneous Particulars.

families in Jamaica, where the tree is largely cultivated, and affords a nutritious food for children, as well as adults But as chocolate made abroad cannot by law be imported into this country, consequently all chocolate consumed in Britain ought to be made here It is composed principally of the kernel of the cocoa, as above mentioned, but the art is in very few hands: and we believe that a small portion of soap is added to most British chocolate, in order to cause it to froth when it is dissolved in hot water.

Cocoa is a simple preparation made in Britain, from the cocoa-nut, or from the shells of it, or from a mixture of both. It is considered much easier of digestion than chocolate, and very nourishing.

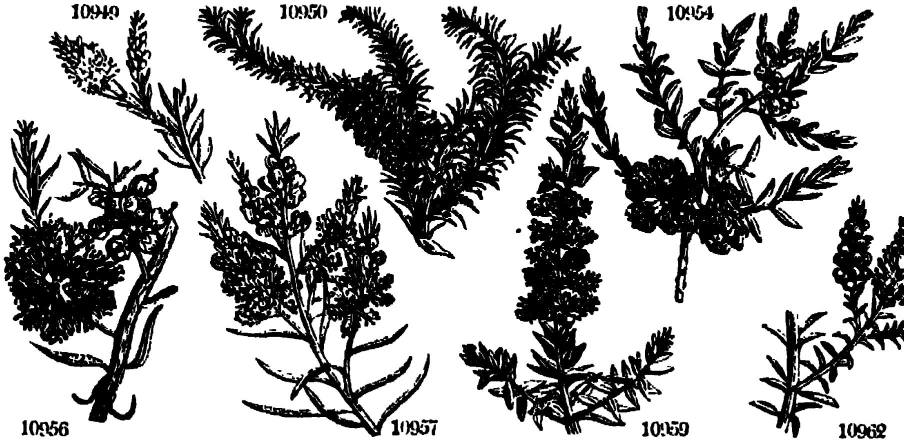
In our stoves Theobromas thrive in light rich soil, and cuttings root in sand under a hand-glass.

1608 *Bubroma.* In contradistinction to Theobroma; from βους, an ox, and βρωμα, food, as if producing a substance fit only to be eaten by cattle *Orme d'Amerique*, Fr. A wide spreading tree, not unlike the Elm, with oblong heart-shaped leaves, which sleep hanging quite down, whilst the petioles remain entirely stiff and straight. It grows in the lowlands of Jamaica, forming a very agreeable shade for the cattle, and supplying them with food in dry weather, when all the herbage is burned up or exhausted The seeds are very mucilaginous, but otherwise agreeable to the palate. The wood is light, and so easily wrought, that it is generally used by coachmakers in all the side pieces. (*Browne*) It is also frequently cut into staves for casks. A decoction of the inner bark is very glutinous, and very like that of the elm. In our stoves it thrives well in a loamy soil, and cuttings root freely in sand under a hand-glass.

1609. *Abroma.* Still named with reference to the two preceding genera, from α, privative, and βρωμα, food; as if unfit for either gods or oxen. This, Sweet observes, "is a hardy stove genus, and easily managed; the species flower freely at various seasons, and will grow in the common garden soil: but a mixture of good loam with a little peat is an excellent compost for them. They propagate freely by seeds and cuttings." (*Bot. Cult.* 10.)

POLYANDRIA.

	1610. MELALEU'CA. *H. K.*	Melaleuca.					*Myrtaceæ.*		*Sp.* 25—30.				
10938	Leucadéndron *W.*	Cajeputi Tree	⚲	☐	or	15	...	W	E. Indies	1796.	C	s.l.p	Rum.amb.2.t.16
10939	viridiflora *W.*	green-flowered	⚲	☐	or	10	...	G	N. S. W.	1798.	C	s.l.p	Cav. ic. 4. t. 333
10940	paludósa *Br.*	long-leaved red	●	☐	or	6	jl.s	R	N. Holl.	1803.	C	s.l.p	
10941	globífera *Br.*	globe-fruited	●	☐	or	4	...	...	N. Holl.	1803.	C	s.l.p	
10942	diosmifólia *Br.*	Diosma-leaved	●	☐	or	4	jn.jl	G	N. Holl.	1794.	C	s.l.p	Bot. rep. 476
10943	stypheloides *Br.*	Styphelia-leav.	●	☐	or	4	my.jn	...	N. S. W.	1793.	C	s.l.p	
10944	genistifólia *Br.*	Broom-leaved	●	☐	or	4	...	...	N. S. W.	1793.	C	s.l.p	
10945	striáta *Br.*	striated	●	☐	or	4	...	Pu	N. Holl.	1803.	C	s.l.p	La.no.ho.2.t.165
10946	thymoídes *Br.*	yellow spear-lv	●	☐	or	3	...	Pu	N. Holl.	1803.	C	s.l.p	Lab. nov.2 t.167
10947	squámea *Br.*	scaly-branched	●	☐	or	4	jn jl	Pu	V. Di. L.	1805.	C	s.l.p	Bot. reg. 477
10948	nodósa *Br*	Whin-leaved	●	☐	or	2	jn.jl	Pu	N. S. W.	1790.	L	s.l.p	Ex. bot. 1. t. 35
10949	ericifólia *Br*	Heath leaved	●	☐	or	3	jl.s	G	N. S. W.	1788.	L	s.l.p	Ex. bot. 1. t. 34
10950	armilláris *Br.*	pale-flowered	●	☐	or	2	jn.jl	G	N. S. W.	1788.	L	s.l.p	Bot. rep 175
10951	uncináta *Br.*	hook-leaved	●	☐	or	3	jn.s	Pu	N. Holl.	1803.	C	s.l.p	
10952	scábra *Br.*	rough-leaved	●	☐	or	3	t.s	Pu	N. Holl.	1803.	C	s.l.p	
10953	pulchélla *Br.*	neat	●	☐	or	2	jn s	Pu	N. Holl.	1803.	C	s.l.p	Bot. cab. 200
10954	thymifólia *Br.*	Thyme-leaved	●	☐	or	2	jn.s	Pu	N. S. W.	1792.	C	s.l.p	Bot. mag. 1868
10955	decussáta *Br.*	decussate	●	☐	or	4	jl.s	Pu	N. Holl.	1803.	C	s.l.p	Bot mag 2268
10956	fúlgens *Br.*	splendid	●	☐	or	6	jl s	S	N. Holl.	1803.	C	s.l.p	Bot. reg. 103
10957	linariifólia *Br.*	Toad-Flax-lvd.	●	☐	or	3	jn.au	Pu	N. S. W.	1793.	C	s.l.p	Exot bot.1 t. 56
10958	hypericifólia *Br.*	Hypericum-lv.	●	☐	or	3	jn.au	S	N. S. W.	1792.	C	s.l.p	Bot. rep. 200
10959	squarrósa *Br*	Myrtle-leaved	●	☐	or	2	...	W	N. S. W.	1794.	C	s.l.p	Bot. mag. 1935
10960	calycína *Br.*	permanent-cup	●	☐	or	3	jn.au	Pu	N. Holl.	1803.	C	s.l.p	
10961	dénsa *Br.*	whorl-leaved	●	☐	or	2	...	Pu	N. Holl.	1803.	C	s.l.p	
10962	incána *Br.*	hoary	●	☐	or	3	jn.au	Y	N. Holl.	1817.	C	s.l.p	Bot reg. 410
	1611. TRISTA'NIA. *Br*	Tristania.					*Myrtaceæ*		*Sp* 3.				
10963	neriifólia *Br.*	Oleander-leav.	●	☐	or	6	jn s	Y	N. S. W.	1804.	C	s p	Bot. mag. 1059
10964	laurina *Br.*	Laurel-leaved	●	☐	or	6	...	Y	N. S. W.	1798.	C	s.p	
10965	conferta *Br.*	Pittosporum-lv	●	☐	or	6	jl.s	Y	N. S. W.	1805.	C	s.p	
	1612. CALOTHAM'NUS *Lab.*	Calothamnus					*Myrtaceæ.*		*Sp.* 3.				
10966	quadrífida *Br.*	four-cleft	●	☐	or	3	jl s	S	N. Holl.	1803.	C	s p	Bot. mag 1506
10967	villósa *Br.*	hairy	●	☐	or	3	jl.s	S	N. Holl.	1803.	C	s p	
10968	grácilis *Br.*	slender-leaved	●	☐	or	3	jl.s	S	N. Holl.	1803.	C	s.p	
	1613. BEAUFOR'TIA. *Br.*	Beaufortia.					*Myrtaceæ.*		*Sp.* 2.				
10969	decussata *Br*	splendid	●	☐	spl	3	my.jl	S	N Holl	1803.	C	s.p	Bot. reg. 18
10970	spársa *Br.*	alternate-leav.	●	☐	spl	3	...	R	N Holl.	1803.	C	s.p	
	1614. SYM'PLOCOS. *L.*	Symplocos.					*Symplocaceæ.*		*Sp.* 2—6.				
10971	tinctoria *W.*	Laurel-leaved	●	☐	or		...	Y	Carolina	1780.	L	p.l	Cat. car. 1. t. 54
10972	sinica *Ker.*	Chinese	●	☐	or	3	my	W	China	1822.	C	p.l	Bot. reg 710
	1615. CI'TRUS. *W.*	Orange-Tree.					*Aurantiaceæ.*		*Sp.* 8—15.				
10973	Limónum *Risso*	Lemon	⚲	☐	fr	15	my jl	W	Asia	1648.	B	r.m	Ga.fr.2.t 121.f.2
10974	Lamétta *Risso*	Lime	⚲	☐	fr	8	my jl	W	Asia	1648.	B	r.m	Blackw. t. 362
10975	Aurántium *Risso*	sweet	⚲	☐	fr	15	my.jl	W	Asia	1595.	B	r m	Lam.ill. t.639.f.2
10976	vulgáris *Risso*	Seville	⚲	☐	fr	15	my.jl	W	Asia	...	B	r.m	
	β *myrtifolia* Hort	*myrtle-leaved*	●	☐	fr	3	my jl	W	Asia	...	B	r.m	Bot reg 346



History, Use, Propagation, Culture,

1610. *Melaleuca.* From *μελας*, black, and *λευκος*, white: because the original tree has black wood and white branches. A beautiful Australasian genus, which grows and flowers freely in equal parts of sandy loam and peat, with common greenhouse treatment. "Some cultivators," Sweet observes, "grow them entirely in peat, in which they will grow very well for a time; but they will not be strong and healthy, nor flower so well as in a mixture. Ripened cuttings, not too old, will root freely in sand under a bell-glass." (*Bot. Cult.* 223.)

The bark of Melaleuca Leucadendron is used by the Chinese as oakum, for making good the spaces between the timbers of their vessels. They also use it in the roofing their houses. From the same tree is obtained the Cajeputi oil, remarkable for its green color, its peppermint flavor, and turpentine smell. It is rarely to be procured in Europe in an unadulterated state. When pure it is one of the best preservatives of preparations of natural history, and is used externally with much success as a cure for rheumatic affections and pains in the joints.

1611. *Tristania.* From *τρεις*, three, and *ἱσταμαι*, to stand; in allusion to the ternate disposition of the flowers and leaves. The species may be treated like Melaleuca, and are pretty little evergreen shrubs.

1612. *Calothamnus.* From *καλος*, beautiful, and *θαμνος*, a rod, in allusion to the splendid appearance of the branches covered with scarlet blossoms. The species are beautiful plants, and not difficult of culture or propagation in sand, and the air kept still and moderately moist by covering with a hand-glass.

*POLYANDRIA.

10938 Leaves alternate lanc. acuminate oblique 5-nerved, Branches and petioles smooth
10939 Leaves alternate ellipt. lanc. coriaceous 5-nerved, Branches and petioles downy
10939 Leaves linear-lanc. long equal-sided straight 3-nerved : lateral nerves close to the scabrous edge
10941 Leaves obl. 5-nerved equal-sided narrower at base, Heads spherical, Capsules connate
10942 Leaves oval or oblong obsoletely 1-nerved stalked flat close and branches quite smooth, Spikes obl. smooth
10943 Leaves ov. acuminate with a pungent point striated with many nerves sess. smooth, Spikes downy
10944 Leaves lin. lanc. obsoletely 1-3-nerved, Spikes lax leafy smooth, Parcels of anthers polyandrous
10945 Leaves lanc. lin. acute dotted obsoletely striated rigid subsess Tube of calyx woolly [3-nerved
10946 Lvs. lanc. occasionally obl. 3-nerved stalked and branches smooth, Heads glob. or oval, Segm. of cal. acute
10947 Leaves ov. lanc. acuminate 3-nerved : young lvs. and branches villous, Heads globose downy
10948 Leaves subulate lin. mucro. rigid 1-nerved flat, Heads globose, Segm. of cal. membranous smooth
10949 Leaves lin.-subul. nerveless pointless spreading and subrecurved, Spikes oval smooth
10950 Leaves lin.-subul. mucro recurved at end, Spikes cylindr. very smooth
10951 Leaves angular filiform mucro. erect ; hooked back at end, Branches virgate, Heads oval
10952 Leaves roundish mucro. rough clustered, Heads round, Parcels of stamens [illegible]-androus
10953 Leaves scattered and somewhat opp. oval blunt obsoletely 3-nerved, Flowers subsolitary smooth
10954 Leaves opp lanc. nerveless, Spikes few-fl. Parcels of stamens polyandrous
10955 Leaves opp. decussate oval-lanc 3-nerved, Spikes oval quite smooth, Parcels of stamens polyandrous
10956 Leaves opp. lanc. lin. acute 1-nerved, Spikes oval quite smooth, Parcels of stamens multifid
10957 Leaves opp. lanc. lin acute 3-nerved, Spikes obl smooth, Parcels of stamens longitudinally pinnated
10958 Leaves opp. ellipt. obl. 5-nerved : lateral nerves obsol. and close to the recurved edge, Spikes quite smooth
10959 Leaves opp. ovate acute 5-7-nerved stalked, Spikes obl and oval, Bractes leafy
10960 Leaves opp. ovate-lanc. 3-5-nerved subsess. Clusters few-fl. Segm. of cal. acute nerveless
10961 Leaves ternate obovate 3-nerved smooth, Spikes oblong or oval
10962 Leaves tern. lin. lanc. hoary on both sides, as are the branches, Spikes oval or oblong

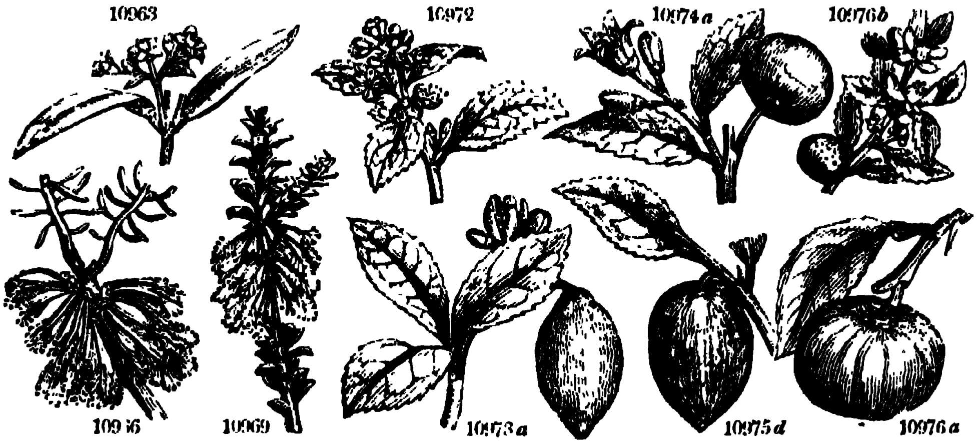
10963 Leaves opp. lanc. Parcels of stamens 3-5 androus
10964 Leaves altern cun lanc. Branches and calyxes downy, Caps half superior
10965 Leaves lanc. ellipt. acute alternate : terminal clustered, Segm. of calyx acute leafy

10966 Flowers 4-fid, Parcels of stamens distinct equal 12-15-androus, Old leaves and fruit smooth
10967 Flowers 5-fid, Parcels of stamens distinct equal polyandrous, Old leaves and fruit villous
10968 Flowers 5-fid, Parcels of stamens distinct equal 3-androus, Leaves very long and fruit smooth

10969 Leaves opp. decussate ovate or oval many-nerved
10970 Leaves scattered oval many-nerved

10971 Flowers clustered sessile, Leaves glaucous
10972 Leaves ellipt. lanc. downy on each side corrugate veiny, Sepals acuminate

10973 Peti. somew. winged, Lvs obl. acute toothed, Fl 35-androus, Fruit obl with a thin rind and very acid pulp
10974 Petioles naked, Lvs. ov rounded serrated, Fl. 30-androus, Fruit globose with a nipple and sweet pulp
10975 Petioles nearly naked, Lvs ov. obl. and acute, Fl 20-androus, Fruit globose with a thin skin and sweet pulp
10976 Peti. winged, Lvs. ellipt acute crenulat. Fl. 20-androus, Fruit glob with a thin rough skin and bitter pulp



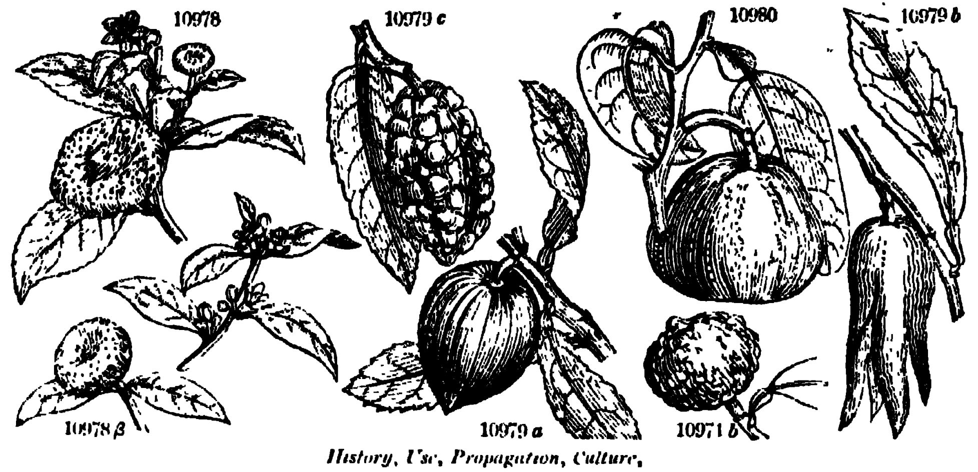
and Miscellaneous Particulars.

1613 *Beaufortia.* So called in honor of Mary, Duchess of Beaufort, who died January 7, 1714, in the 85th year of her age. She had a fine collection of plants at Badmington, in Gloucestershire, during the life-time of her husband, Henry, first duke of Beaufort Splendid plants, free-growers, and abundant flowerers, with common greenhouse treatment, in two-thirds peat, and one-third loam. Cuttings, Sweet found to answer best when "taken from nearly ripened wood, planted in sand, and covered with a bell-glass."

1614. *Symplocos.* From συμπλοκη, connection ; union. The petals are naturally five, but united at the base so as to seem but one. A tree with oblong fragrant shining leaves, and sweet-smelling flowers, succeeded by subsessile drupes. A decoction of the leaves is used in North America for dying linen and silk of a bright yellow color.

1615. *Citrus.* The meaning of this word has escaped the ingenuity of etymologists. An ancient genus, combining in its species many excellencies, handsome evergreen shining tree-like forms, most odoriferous flowers, and brilliant, fragrant, delicious fruits It is one of the most striking of fruit-bearing trees, and must have attracted the notice of aboriginal man long before other fruits of less brilliancy, but of more nutriment or flavor. The golden apples of the heathens, and forbidden fruit of the Jews, are supposed to allude to this family, though it is remarkable that we have no authentic records of any species of Citrus having been known; certainly none were cultivated by the Romans. The citron was introduced into Europe from Media, under the name of *malus medica*, and was first cultivated in Italy by Palladius, in the second century. The orange

10977	**buxifòlia** *P. S.*	Box-leaved	●	⊔	fr	3	my.jl	W	China	...	B	r.m	
10978	**nóbilis** *H. K.*	Mandarin	●	⊔	fr	15	my.jl	W	China	1805.	B	r.m	Bot. rep. 608
	β minor	*smaller*	●	⊔	fr	15	my.jl	W	China	1805.	B	r.m	Bot. reg. 211
10979	**médica** *Risso*	Citron	●	⊔	fr	8	my.jl	W	Asia	...	B	r.m	Ferr. hesp. t. 39
10980	**Decumána** *W.*	Shaddock	♀	⊔	fr	15	my.jl	W	India	1724.	B	r.m	Ru.am 2.t.24.f.2



History, Use, Propagation, Culture,

is supposed to have been introduced into Italy in the fourteenth century, above a thousand years after the citron. In England, these trees have been cultivated since 1629. Parkinson, writing at that time, says, "the orange hath abiden with some extraordinary looking and tending, when neither citron nor lemon trees could be preserved any length of time." The orange trees he alludes to were those of Beddington, in Surrey, introduced from Italy by a knight of the noble family of the Carews (*Gibson's* edit. of *Camb. Brit.*), and the first that were brought into England; they were planted in the open ground and placed under a moveable cover during the winter months. It has been said that these trees were raised by Sir Francis Carew, from seeds brought to England by Sir Walter Raleigh; but as such trees would not have readily borne fruit, Professor Martyn thinks it much more likely that they were plants brought from Italy. Bradley says, they always bore fruit in great plenty and perfection; that they grew on the outside of a wall, not nailed against it, but at full liberty to spread; they were fourteen feet high, the girt of the stem twenty-nine inches, and the spreading of the branches one way nine feet, and twelve feet another. These trees, Evelyn informs us, were neglected in his time, during the minority of their owner, and finally entirely killed by the great frost in 1739-40; they were planted before 1595.

During the latter end of the seventeenth and beginning of the eighteenth centuries, the orange tree was a very fashionable article of growth in conservatories, when there were but few exotics of other sorts kept there. The plants were procured from Genoa, with stems generally from four to six feet in height; they were planted in large boxes, and were set out during summer to decorate the walks near the house, in the manner still practised at Versailles and the Thuilleries. About the middle of the eighteenth century, when a taste for botany and forcing exotic fruits became general, that for superb orange trees began to decline; many of these large trees have decayed through neglect, and those which are now to be found in the greater number of greenhouses, are generally dwarf plants bearing few fruit, and those of small size. In some places, however, are still to be found large and flourishing trees. Those at Smorgony, in Glamorganshire, are the largest in Britain; they are planted in the floor of an immense conservatory, and bear abundantly. It is said that the plants were procured from a wreck on the coast in that quarter, in the time of Henry VII.

At Nuneham, near Oxford, are some fine old trees, planted under a moveable case, sheltered by a north wall. In summer the case is removed, and the ground turfed over, so that the whole resembles a native orange grove. At Wormleybury, Hertfordshire, and Shipley Hall, in Derbyshire, are very fine large orange and lemon trees grown in borders and in boxes. (*Hort. Trans.* vol. ii. 295, and iv. 306.)

At the Wilderness, Kent, are three trees in boxes, not surpassed by any trees so grown in Europe.

At Woodhall, near Hamilton, trees of all the species of Citrus are trained against the back walls of forcing houses, in the manner of peaches, and produce large crops of fruit.

In the south of Devonshire, and particularly at Salcombe, one of the warmest spots in England, may be seen, in a few gardens, orange trees that have withstood the winter in the open air upwards of a hundred years. The fruit is as large and fine as any from Portugal. Trees raised from seed, and inoculated on the spot, are found to bear the cold better than trees imported.

The common character of the Citrus family is that of low evergreen trees, with ovate or oval-lanceolate, entire or serrated leaves. On the ungrafted trees are often axillary spines. The flowers appear in peduncles, axillary or terminating, and one or many-flowered. The fruits are large berries, round or oblong, and generally of a yellow color. The species seem best distinguished by the petiole, which in the orange and shaddock is winged; in the citron, lemon, and lime, naked. The form of the fruit, although not quite constant, may also serve for a distinction. In the orange and shaddock it is spherical, or rather an oblate spheroid, with a red or orange-colored rind; in the lime, spherical, with a pale rind; in the lemon, oblong, rough, with a nipple-like protuberance at the end; in the citron, oblong, with a very thick rind. The flowers of the citron and lemon have ten stamens, and those of the orange more. It is very difficult to determine what is a variety, and what is a species in this genus; many of the sorts in cultivation are by buds.

Dr. Sickler, who spent several years in Italy, and paid great attention to the kinds and culture of the orange, published in 1815, Der Vollkommen Orangerie-Gartner (The complete Orange Gardener), in which he describes above seventy sorts of Citrus.

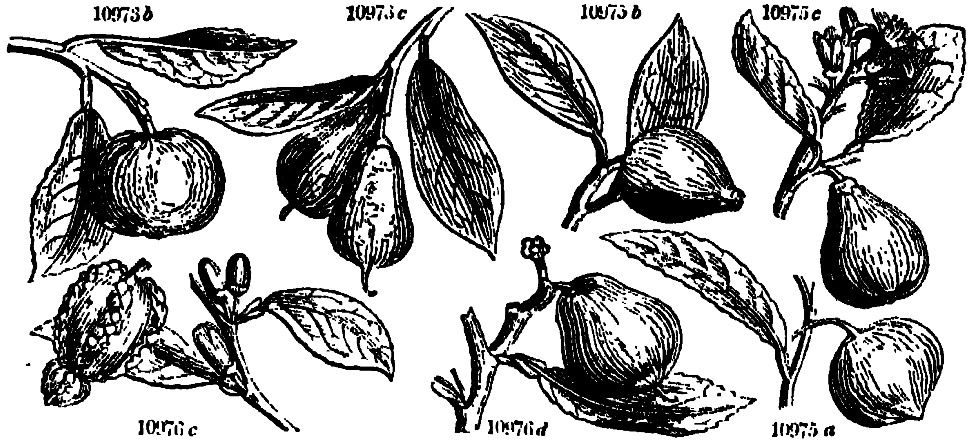
Gallesio (*Traité du Genre Citrus*, &c. Savonna, 1818.) has given a synopsis of the forty principal sorts cultivated in Italy.

The most splendid work on oranges which has yet appeared is the Histoire Naturelle des Orangers, by Risso, of Nice, and Poiteau, of Versailles. (Paris, fol. 1818.) Here 169 sorts are described, and 105 of them figured, and their French and Italian culture given at great length. They are arranged as sweet oranges, of which they describe 42 sorts; bitter and sour oranges, 32 sorts; bergamots, 5 sorts; limes, 8 sorts; shaddocks, 6 sorts; lumies, 12 sorts; lemons, 46 sorts; citrons, 17 sorts.

All the species of Citrus endure the open air at Nice, Genoa, and Naples; but at Florence and Milan, and often at Rome, they require protection during the winter, and are generally placed in conservatories and sheds. The largest conservatory in Italy is that of Prince Antonio Borghese, at Rome, which contains seventy select sorts of *agrumi*. The largest trees are at Sorenta, Terracina, Gaeta, and Naples; but the most regular and garden-like culture of the orange, is in the orange-orchards at Nervi, Monaco, and other places in the neighbourhood of Genoa. At Nervi are also the orange nurseries which may be said to supply all Europe with trees; they are, in general, wretchedly cultivated, and the stocks inoculated in the most unscientific manner; but the fine climate, strong clayey soil, and abundant manurings, supply in a great degree the nicer practices

10977 Petioles lin. very short, Lvs. ovate retuse, Flowers racemose
10978 Petioles sublinear straight, Branches ascending unarmed, Fruit depressed, Skin separated from flesh

10979 Petioles naked, Lvs. obl. acute, Fl. 40-androus, Fruit obl. rugose with acid pulp
10980 Petioles winged, Lvs. blunt emarg. Fruit very large with a thick skin



and Miscellaneous Particulars.

of gardening. There the names of varieties vary as much as those of gooseberries do in England; but from upwards of 180 names, not above 40 distinct sorts can be procured. Good plants of the Maltese and other varieties of orange may be procured from Malta; and some sorts also from Lisbon. From the nurseries at Paris about thirty sorts may be obtained, much smaller plants than those from the other places named, but more scientifically grafted or inoculated. The catalogues of London nurserymen enumerate above thirty varieties of oranges, twelve of lemons, and several varieties of the other species; the plants are partly Genoese, partly French, and partly propagated here.

The C. aurantium, the common orange, *orange*, Fr., *pomeranze*, Ger., and *arancio*, Ital., is a middle-sized evergreen tree, with a greenish-brown bark; and, in its wild state, with prickly branches. The fruit is nearly round, from two to three inches in diameter, and of a gold color. It is now cultivated in most countries of Europe; in the open air in Italy and Spain; and in conservatories or greenhouses in Britain and the north of Europe.

The two principal varieties are the sweet or China orange, the *orange douce* of the French, and *porto-gallo* or *poma de sino* of the Italians; and the bitter or Seville, the *bigarade* of the French, and *arancio volgaro* of the Italians. The Maltese orange, distinguished by its red pulp, is also a noted and much-esteemed sort. The box leaved, willow-leaved, and some others, are cultivated more as curious varieties than for their fruit.

C. Medica, the citron, *citron*, Fr., *citronier*, Ger., and *cedrate*, Ital., in its wild state grows to the height of about eight feet, erect and prickly, with long reclining branches. The leaves are ovate, oblong, alternate, subserrate, smooth, pale green. The fruit or berry is half a foot in length, ovate, with a protuberance at the tip. There are two rinds, the outer thin, with innumerable miliary glands, full of a most fragrant oil; the inner thick, white, and fungous.

In China they have a variety of the C. Medica, of very considerable size, quite solid, with scarcely any pulp or cells, and divided at the end into five or more long round lobes, on which account it is called *Phat thu*, or finger-orange. The fruit is laid upon fine porcelain vessels in the sitting-rooms of the Chinese, for the sake of its agreeable perfume.

Dr. Sickler enumerates only about a dozen citrons and citronates as grown in Italy. The French nurseries have nearly twenty names in their lists. In England six are cultivated for sale.

C. Limonium, the lemon, *limon*, Fr., *limonier*, Ger., and *limone*, Ital., has the fruit less knobbed at the extremities, is rather longer and more irregular, and the skin is thinner than in the citron; the wood is more knotty, and the bark rougher.

Dr. Sickler enumerates twenty-eight varieties as grown in Italy. The French, according to Ville Hervé, have eleven sorts; in the London nurseries are cultivated twelve.

C. Lametta, the lime, by some esteemed a variety of the C. Medica, *lime*, Fr., Ital., and Ger., grows to the height of about eight feet, with a crooked trunk, and many diffused branches, with prickles. The leaves are ovate lanceolate, almost quite entire. Berry an inch and a half in diameter, almost globular, with a protuberance at the top; the surface regular, shining, greenish-yellow, with a very odorous rind, enclosing a very acid juice.

The French have two sorts of lime; and, according to Dr. Sickler, the Italians have four varieties; five kinds are grown in the London nurseries.

C. decumana, the shaddock, *orange pampelmouse*, Fr., *arancio massimo*, Ital., is above the middle size, with spreading prickly branches. The leaves are ovate, subacute, seldom obtuse; the petioles are cordate, winged; the wings as broad as the leaves. The berry spheroidal, frequently retuse at each end, of an even surface, and greenish yellow color; pulp red or white, juice sweet or acid; rind white, thick, fungous, and bitter. Thunberg says, the fruit in Japan grows to the size of a child's head, and Dr. Sickler states its weight as fourteen pounds, and its diameter as from seven to eight inches. It is a native of China and Japan, and was brought to the West Indies by Captain Shaddock, from whom it has derived its name.

The Italians, according to Dr. Sickler, have one, and the French, according to [illegible] Nouveau Cours, &c., four sorts. Four are grown in the English nurseries.

All the sorts may be propagated by seeds, cuttings, layers, and grafting, o[illegible]

The object of raising plants from seed is either to obtain new varieties or [illegible] grafting. To attempt raising new varieties in Britain will in general be found a tedious process, [illegible] do not even in Italy show fruit for six or eight years or more; and there is now in the botanic garden [illegible], a large handsome tree, of twenty-five years' growth, which in 1819 had not blossomed. Shaddock stocks are the strongest, and next to these the citron. Budding and grafting are performed at the usual season, but these operations may be performed at any time when the sap is in motion.

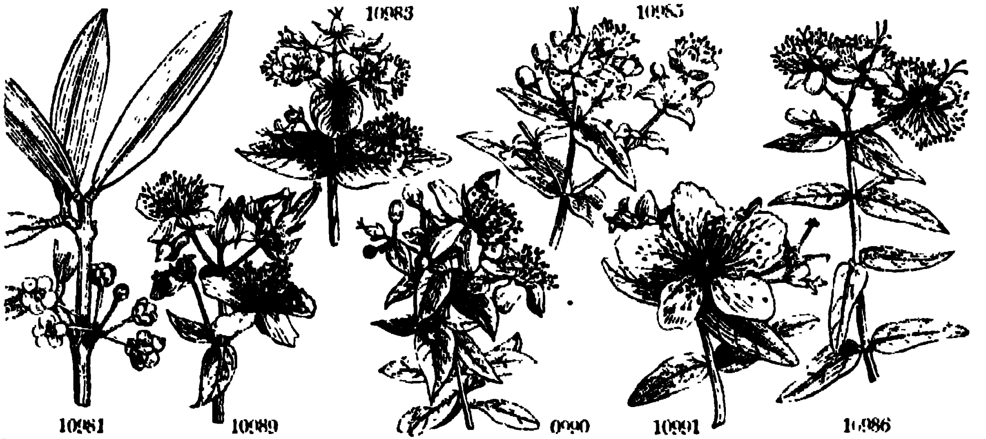
Henderson, of Woodhall, a most superior cultivator of the Citrus tribe, considers cuttings as the quickest mode of getting plants, and has practised it for thirty-seven years past: his directions are as follows: "Take the strongest young shoots, and also a quantity of the two years old shoots; these may be cut into lengths from nine inches to eighteen inches. Take the leaves off the lower part of each cutting to the extent of about five inches, allowing the leaves above that to remain untouched: then cut right across, under an eye; and make a small incision in an angular direction on the bottom of the cutting. When the cuttings are thus prepared, take a pot, and fill it with sand; size the cuttings, so that the short ones may be all together, and those that are taller in a different pot. Then, with a small dibble, plant them about five inches deep in the sand, and give them a good watering overhead, to settle the sand about them. Let them stand a day or two

1616. **XANTHOCHY'MUS.** *Rox.* XANTHOCHYMUS. *Guttiferæ.* *Sp.* 2—4.

10981	pictórius *H. K.*	painter's	⚲ ⊔	fr	20	...	Y	E. Indies	1796.	S	r.m	Roxb.cor.2.t.196
10982	ovalifólius *Roxb.*	oval-leaved	⚲ ⊔	fr	12	...	Y	E. Indies	1824.	S	r.m	

1617. **HYPE'RICUM.** *W.* ST. JOHN'S WORT. *Hypericineæ.* *Sp.* 63—133.

10983	elátum *H. K.*	tall	♠	or	5	jl.au	Y	N. Amer.	1762.	L	s.l	Dend. brit. 85
10984	frondósum *Mich.*	green	♠	or	5	jl.au	Y	N. Amer.	1806.	C	s.l	
10985	amœ'num *Psh.*	elegant	♠	or	4	jl.au	Y	Carolina	1812.	L	s.l	Dil.el t.151.f 182
10986	hircínum *L.*	stinking	♣	or	3	jl.s	Y	S. Europe	1640.	L	s.l	Dend. brit. 86
10987	foliósum *H. K.*	shining	♠ ⊔	or	3	au	Y	Azores	1778.	C	p.l	
10988	floribúndum *H. K.*	many-flowered	♠ ⊔	or	3	au	Y	Madeira	1779.	C	p.l	Com.hort.2. t.68
10989	olýmpicum *L.*	Olympian	♣	or	4	jl.s	Y	Levant	1706.	S	s.l	Bot. mag. 1867
10990	canariénse *L.*	Canary	♠ ⊔	or	2	jl.s	Y	Canaries	1699.	C	p.l	Bot. cab. 953
10991	monógynum *L.*	Chinese	♠ ⊔	or	3	mr.s	Y	China	1753.	C	p.l	Bot. mag. 334
10992	cordifólium *Chois.*	heart-leaved	♠ ⊔	or	2	...	Y	Nepal	1825.	C	co	
10993	pyramidátum *H. K.*	pyramidal	⚘ △	or	1	jl.au	Y	Canada	1759.	D	p.l	Vent. malm. 118
10994	Ascýron *L.*	Siberian	⚘ △	or	1	jn.s	Y	Siberia	1774.	Sk	co	Gmel. sib.4. t.69
10995	ascyroídes *W.*	large-capsuled	⚘ △	or	1	jn.jl	Y	N. Amer.	1812.	Sk	co	
10996	pátulum *Thunb* *H. uralum* B. M.	spreading	♣	or	1	jn.jl	Y	Nepal	1823.	C	co	Bot. mag. 2375
10997	Kalmianum *Lam.*	Kalmia-leaved	♣	or	2	jn.jl	Y	N. Amer.	1759.	C	s.l	
10998	calycínum *L.*	large-flowered	♣	or	1	jn.s	Y	Ireland	...	Sk	co	Eng. bot. 2017
10999	balcáricum *L.*	warted	♠ ⊔	or	1½	mr.s	Y	Majorca	1714.	C	r.m	Bot. mag. 137
11000	Androsæ'mum *L.*	Tutsan	⚘ △	or	2	jl.s	Y	Britain	woods.	Sk	co	Eng. bot. 1225
11001	cochinchinénse *Lour.*	red-flowered	♠ ⊔	pr	3	jl.au	R	China	1821.	C	co	
11002	paludósum *Chois*	marsh	⚘ △	pr	2	jl.au	Y	N. Amer.	1821.	D	co	
11003	virgínicum *L.* *Elodea campanuláta* Ph.	Virginian	⚘ △	or	1½	jl.s	Y	N. Amer.	1800.	D	p.l	
11004	angulósum *Mich.*	toothed-flower.	⚘ △	or	2	jn.jl	Y	N. Amer.	1812.	D	p.l	Plu.alm.t.245 f.6
11005	punctátum *Lam.*	dotted	♣	or	1½	jn.jl	Y	N. Amer.	1823.	D	co	
11006	dolabrifórme *Vent.*	hatchet-leaved	⚘ △	or	2	jn.jl	Y	N. Amer.	1821.	D	co	Vent. cels. t. 45
11007	procúmbens *Mich.*	procumbent	⚘ △	or	½	au.s	Y	N. Amer.	1822.	D	co	
11008	rosmarinifólium *Lam*	Rosemary-lv.	♣ ⊔	or	2	jn.au	Y	Carolina	1812	L	s.l	
11009	virgátum *Lam*	twiggy	⚘ △	or	1½	jn.au	Y	N. Amer.	1800.	D	co	
11010	myrtifólium *Lam.*	myrtle-leaved	⚘ △	or	1	jl.au	Y	N. Amer.	1818.	D	co	
11011	prolíficum *L.*	prolific	♣	or	4	jn.au	Y	N. Amer.	1758.	S	s.l	Dend. brit. 88
11012	glaucum *Mich.*	glaucous	♣ ⊔	or	1½	jl.au	Y	N. Amer.	1812.	C	p.l	
11013	lævigatum *H. K.*	smooth	⚘ △	or	1½	jl.s	Y	N. Amer.	1772.	D	p.l	
11014	nudiflorum *Mich.*	naked-panicled	♣ ⊔	or	1½	s.o	Y	N. Amer.	1811	C	p.l	
11015	quadrángulum *L.*	square-stalked	⚘ △	or	1½	jl.au	Y	Britain	m. me.	C	p.l	Eng. bot. 370
	β *dúbium* W.	*imperforate*	⚘ △	or	3	jl.au	Y	Britain	m. thi	C	p.l	Eng. bot. 296
	γ *maculátum* All.	*spotted*	⚘ △	or	2	jl.au	Y	N. Amer.	1789	C	p.l	
	δ *undulátum* W. en.	*wave leaved*	⚘ △	or	1	jl.au	Y	Barbary	1802.	D	p.l	
11016	attenuátum *Chois.*	narrow-leaved	⚘ △	or	1½	jl.au	Y	Dahuria	1822	D	p.l	
11017	japónicum *Thunb.*	Japanese	⚘ △	or	1½	jl.au	Y	Nepal	1823.	D	p.l	



History, Use, Propagation, Culture,

in a shady place, and if a frame be ready with bottom heat, plunge the pots to the brim. Shade them well with a double mat, which may remain till they have struck root; when rooted, take the sand and cuttings out of the pot, and plant them into single pots, in the proper compost. Plunge the pots with the young plants again into a frame, and shade them for four or five weeks, or till they are taken with the pots; when they may be gradually exposed to the light. From various experiments, I found that pieces of two year old wood struck quite well; and in place, therefore, of putting in cuttings six or eight inches long, I have taken off cuttings from ten inches to two feet long, and struck them with equal success. Although I at first began to put in cuttings only in the month of August, I now put them in at any time of the year, except when the plants are making young wood. By giving them a gentle bottom heat, and covering them with a hand-glass, they will generally strike root in seven weeks or two months. The citron is most easily struck, and is the freest grower; I, therefore, frequently strike pieces eighteen inches long, and as soon as they are put into single pots, and taken with the pots, they are grafted with other sorts, which grow freely. I am not particular as to the time either of striking cuttings or of grafting." (*Caled. Hort. Mem.* iii. 308.)

At Genoa and Florence, citrus trees are grown in a strong yellow clay, which is richly manured; and this soil is considered by the first Italian gardeners as best suited to their natures.

The French gardeners, in preparing a compost for the orange-tree, endeavour to compensate for quantity by quality; because the pots or boxes in which the plants are placed ought always to be as small as possible, relatively to the size of the tree. The following is the composition recommended: to a fresh loam, which contains a third of clay, a third of sand, and a third of vegetable matter, and which has lain a long time in a heap, add an equal bulk of half-rotten cow-dung. The following year turn it over twice. The succeeding year mix it

10981 Leaves oblong
10982 Leaves smaller oval blunt

§ 1. *Sepals united at base and unequal. Stamens* 00. *Styles* 3-5. ASCYREIA.

10983 Young stem winged, Lvs. ov. obl. acute dilated at base somew. emarg, revolute at edge, Fl. corymbose
10984 Branches double-edged, Lvs. ov. elongated blunt at end narrow at base, Fl. large subsolitary
10985 Branches double-edged, Lvs. obl. ellipt. bluntish at end narrowed at base with a crisp revolute edge
10986 Branches winged, Lvs. emarg. at base dilated sess. acute at end ovate lanc. glandular at edge
10987 Branches winged, Lvs. sess. open ovate obl. somewhat acute slightly perforated
10988 Stem round, Lvs. sess. lanc. not dotted numerous, Peduncles dilated at end
10989 Stem round, Lvs. ellipt. ovate bluntish with pellucid dots, Calyx ovate acute
10990 Stem obsoletely quadrangular, Branches compressed, Lvs. ov.-lanc. acute, Cal. blunt ovate
10991 Stem round, Lvs. ellipt. blunt a little dotted with black, Styles united
10992 Stem round shrubby, Lvs. ov. amplexicaul. cordate not dotted clustered, Flowers few
10993 Stem winged, Lvs. amplexicaul. obl. lanc. acute revolute at edge, Pedunc. short thick
10994 Stem square herbaceous simple erect, Leaves amplexicaul lanc. acute with pellucid dots
10995 Stem winged at base square at end herbaceous simple, Lvs. obl. lanc. acute
10996 Stem round suffruticose purple, Lvs. ovate lanc acute narrowed at base revolute at edge with pellucid dots

10997 Branches square, Lvs. lin. lanc Flowers in terminal corymbs
10998 Styles 5, Fl. solitary, Segm. of the cal. unequal obovate obtuse, Lvs. obl. Stem shrubby branched square
10999 Stem square warted, Lvs ovate blunt amplexicaul. warted
11000 Styles 3, Caps pulpy, Stem shrubby compressed, Cal. leaflets unequal, Leaves ovate sessile

§ 2. *Sepals 5, equal, entire. Stamens deeply triadelphous; parcels pencilled at end. Styles* 3. TRIDESMOS.

11001 Flowers trigynous, Leaves subpetiolate very dense, Pedunc. about 5-fl axillary

§ 3. *Sepals 5, equal, entire. Styles* 3. *Filaments definite in number*, 9-15-18, *deeply united.* ELODEA

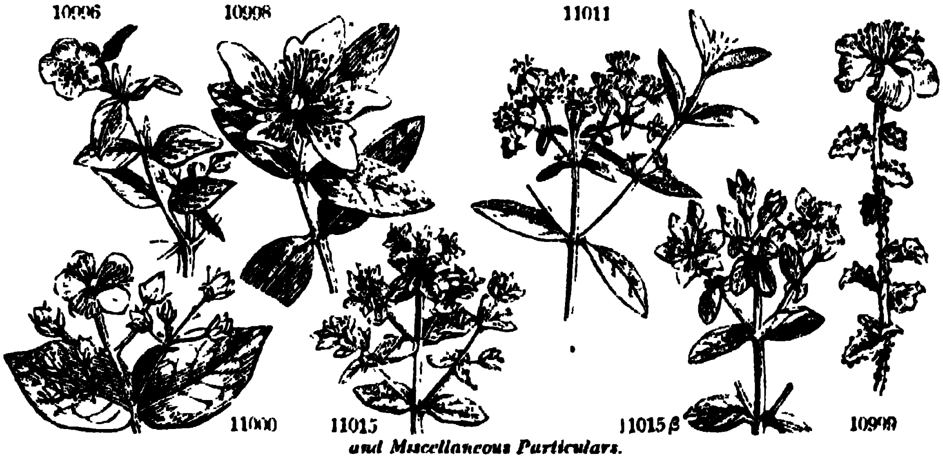
11002 Stem herbaceous round, Leaves oblong blunt narrowed into a stalk with pellucid dots
11003 Stem round half-shrubby, Leaves oblong blunt amplexicaul. with pellucid dots

§ 4. *Sepals 5, equal, sometimes entire, sometimes toothed, or with glandular teeth, Stamens* 00. *Styles usually* 3. PERFORARIA.

* *Sepals entire.*

11004 Stem herbaceous square erect, Leaves distant long ovate amplexicaul sinuated at edge acute not dotted
11005 Stem round black dotted, Leaves ovate-lanc. somewhat acute amplexicaul dotted with black
11006 Stem erect purple, Leaves lin lanc. reflexed with pellucid dots, Flowers corymbose
11007 Stem procumbent square herbaceous, Leaves linear-lanceolate blunt revolute at edge with pellucid dots
11008 Stem round straight, Leaves amplexicaul blunt ovate revolute at edge, Styles united
11009 Stem straight square, Leaves ovate-lanceol slightly amplexicaul. dotted with black revolute at edge
11010 Stem round, Leaves ovate cordate amplexicaul. or cuneate lanc. revolute at edge
11011 Stem round, Branches angular, Lvs linear lanc. revolute at edge with pellucid dots, Styles often united
11012 Stem round, Leaves cordate amplexicaul. blunt revolute at edge glaucous with pellucid dots
11013 Flowers trigynous, Styles united, Lvs ovate subamplex Sepals ov. acute, Middle flower of panicle sessile
11014 Stem square and winged, Leaves ovate obl. blunt needle-dotted not pellucid, Panicle naked
11015 Styles 3, Stem herbaceous 4-angular somewhat branched, Leaves ovate with pellucid dots, Cal. lvs. lanc
β Stem obsoletely quadrangular, Leaves elliptical ovate obtuse destitute of pellucid dots, Cal lvs. elliptical

11016 Stem round dotted with black, Leaves ovate obl blunt amplexicaul. dotted with black
11017 Stem weak square smooth, Leaves ovate subcordate blunt revolute at edge scarcely dotted beneath



und Miscellaneous Particulars.

with nearly one-half its bulk of decomposed horse dung. Turn it over twice or three times, and the winter before using add a twelfth-part of sheep dung, a twentieth of pigeon dung, and a twentieth of dried ordure.

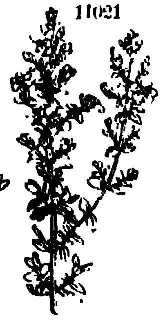
Henderson, already mentioned, takes one part of light-brown mould from a piece of ground that has not been cropped nor manured for many years; one part of peat earth, such as is used for growing heaths; two parts of river sand, or pit sand, if it be free from mineral substances; and one part of rotted hot-bed dung, with one part of rotted leaves of trees, and mixes them all well together, so as to form a compost-soil of uniform quality. (*Caled. Hort. Mem.* iii. 302.)

Though orange-trees will grow exceedingly well in large pots and boxes, yet to have them produce the finest crop of fruit they should be planted in the ground like peach-trees, and trained like them, or as standard cherries in a conservatory. The latter has by far the best effect, especially when the stems of the trees are seven or eight feet high, and the head forms a handsome cone; but the largest fruit is produced when the trees are planted against the back-wall trellis of a narrow house, and treated like peach-trees. Henderson grows his largest fruit in this manner, and we have seen them fully as large as any we ever saw at Genoa or Naples.

1616. *Xanthochymus* From ξανθος, yellow, and χῦμα, any thing which exudes: in allusion to the color of the juice which flows from the ripe fruit when wounded, and which, being inspissated, yields a material for water-color painting which is as good as Gamboge. Handsome plants, of the usual culture in light loam, and propagated by cuttings in sand under a hand-glass.

1617. *Hypericum.* A name of unknown meaning. The species are chiefly under-shrubs, generally with dotted leaves, and almost, without exception, yellow flowers. The hardy species are useful for the fronts of

11018 críspum *L.*	curl-leaved	⚘	△|	or	1	jl.au	Y	Greece	1688.	C	p.l	Bocc. mus. t. 12
11019 setósum *H. K.*	unbranched	⚘	△|	or	1	jl.au	Y	Carolina	1759.	D	p.l	
11020 heterophýllum *Vent.*	various-leaved	●	⊔	or	2	jl au	Y	Persia	1812.	D	l.p	Vent. cels t. 68
11021 ægyptíacum *L.*	Egyptian	●	⊔	or	2	jn.jl	Y	Egypt	1787.	C	p.l	Bot. reg. 195
11022 humifúsum *L.*	trailing	⚘	△	or	½	jl au	Y	Britain	pas.	D	co	Eng. bot. 1226
11023 perforátum *L.*	perfoliate	⚘	△	or	1½	jl.au	Y	Britain	bu pl.	D	p.l	Eng bot. 295
11024 canadénse *L.*	Canadian	⚘	△	or	1	jl s	Y	N. Amer.	1770.	D	p.l	Bot. cab. 953
11025 fasciculátum *W.*	clustered	●	⊔	or	1½	jl	Y	N. Amer.	1806.	C	s.l	
11026 Elódes *L.*	marsh	⚘	△	or	½	jl.au	Y	Britain	sp.bo.	D	p.l	Eng. bot 109
11027 tomentósum *L.*	woolly	⚘	△|	or	1	jl.s	Y	S. Europe	1648.	C	r m	
11028 hirsútum *L.*	hairy	⚘	△	or	2	jn jl	Y	Britain	ch.ba.	D	p.l	Eng. bot. 1156
11029 nummulárium *L.*	money-leaved	⚘	△	pr	1	jn.jl	Y	S. Europe	1823.	D	co	Lam. ill. t. 643
11030 élegans *Steph.*	elegant	⚘	△	pr	1½	jn.jl	Y	Siberia	1822.	D	co	Spreng fl.hal.t.9
11031 glandulósum *H. K.*	glandular	●	⊔	or	2	my.au	Y	Madeira	1777.	C	p l	
11032 refléxum *L.*	hanging-leaved	●	⊔	or	1½	jn s	Y	Teneriffe	1778.	C	p l	
11033 púlchrum *L.*	small upright	⚘	△	or	1½	jl	Y	Britain	woods.	D	p.l	Eng. bot. 1227
11034 barbátum *L.*	bearded	⚘	△	or	2	jn.o	Y	Scotland	sc.thi.	D	co	Eng. bot. 1986
11035 dentátum *Lois.*	toothed	⚘	△	pr	2	jn.o	Y	Mediterr	1820.	D	co	Lois fl. gall. t. 17
11036 montánum *L.*	mountain	⚘	△	or	1½	jl.au	Y	Britain	m.wo.	D	p l	Eng. bot 371
11037 fimbriátum *Lam*	fringed	⚘	△	pr	2	jl au	Y	Pyrenees	1821.	D	p.l	Vill delph t. 44
β *alpinum* W. & K	*alpine*	⚘	△	pr	2	jl.au	Y	Hungary	1822.	D	p l	Wal & Kit. t 285
11038 serpyllifólium *Lam.*	Thyme-leaved	●		or	½	jl.au	Y	Levant	1688.	C	r m	M.h.2. s.5. t.6. f 2
11039 ciliátum *Lam*	fringe-flowered	⚘	△|	or	2	jl	Y	Levant	1759.	D	l.p	Bocc. mus. t. 127
11040 triplinérve *Vent*	three nerved	⚘	△	pr	1½	jl	Y	N. Amer.	1821	D	co	Vent cels. t. 58
11041 hyssopifólium *Vill.*	Hyssop-leaved	⚘	△	pr	1	jl au	Y	S Europe	1823	D	co	Vill delph. t 44
11042 empetrifólium *W.*	fine-leaved	●	⊔	pr	1	jl au	Y	S. Europe	1820.	C	p l	Dend. brit 141
11043 Córis *L.*	Heath-leaved	●	⊔	pr	1	my.s	Y	Levant	1640.	C	p l	Bot mag. 178
11044 ericoídes *L.*	Heath-like	●	⊔	pr	1	jn jl	Y	Spain	1821.	C	p l	Cav. ic. t. 122
11045 aspalathoídes *W.*	Aspalathus like	●	⊔	or	1	jn au	Y	Carolina	1811	C	s l	
1618. ASCY'RUM. *W*	ASCYRUM.					*Hypericineæ.*		*Sp.* 5—6				
11046 púmilum *Ph*	dwarf	⚘	⊔△	pr	½	jn.au	Y	Georgia	1806.	C	l p	
11047 Crux A'ndreæ *Ph*	St. Andrew's Cross	●	⊔	pr	2	jl	Y	N. Amer.	1759.	C	l p	Pluk alm. 419. 5
11048 hypericoídes *Ph.*	Hyperum-like	●	⊔	pr	1½	jl s	Y	N. Amer	1759	C	l p	
11049 stans *W.*	large-flowered	●	⊔	pr	1½	jl s	Y	N Amer	1806	C	l.p	Vent malm 90
11050 amplexicaúle *Ph*	stem-clasping	●	⊔	pr	2	jl s	Y	N. Amer	1823.	C	co	
1619. LOA'SA. *L.*	LOASA.					*Loaseæ.*		*Sp* 10.				
11051 Plácei *Lindl.*	Place's		○	or	4	jn s	Y	Chile	1822	S	co	Bot reg 785
11052 nítida *Lam.*	shining		○	or	2	jn s	Y	Chile	1822	S	co	Bot. reg 667
11053 volúbilis *Juss.*	twining		⊔○	el	1½	mr s	Y	Chile	1824	S	s l	Jus an m t. 5. f 2
11054 grandiflóra *Lam.*	large-flowered		⊔○	or	2	...	Y	Caraccas	1825	S	co	Jus an m t. 4 f. 2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History, Use, Propagation, Culture,

shrubberies. H. calycinum soon spreads over a considerable surface, and being evergreen, and growing under the shade, it is well adapted for covering bare spots under trees, and at the base of walls where few plants will thrive.

H Androsænum; from ανηρ, a man, and ἁιμα, blood, because the fresh capsules, bruised between the fingers, give out a blood-colored juice, is called Tutsan from *Toute-saine*, Fr., from its bruised capsules being formerly applied to fresh wounds.

H. perforatum was formerly used in external wounds and hæmorrhages as a balsamic, and was reputed to have other medical properties The semi-transparent dots on the leaves are the receptacles of an essential oil. The flowers tinge spirits and oils of a fine purple color; and the dried plant, boiled with alum, dyes wool of a yellow color. The common people in France and Germany gather it with great ceremony on St. John's day, and

11018 Stem round much branched, Lvs. sess. lanc. undul. wavy at base with pellucid dots, Cal. very small blunt
11019 Flowers 2-3-gynous terminal, Cal. lanc entire, Leaves lanc. oblong and erect, Stem simple downy
11020 Stem round, Lvs. lin. lanc. with pelluc. dots: low. closely imbric. very short blunt, Cal. acute rather unequal
11021 Stem round, Leaves very small ovate close not dotted, Flowers few subsessile, Cal. acute lanceolate
11022 Styles 3, Flowers terminal subcymose, Stems comp prostrate, Leaves oblong obtuse glabrous
11023 Styles 3, Stem compressed, Leaves elliptico-oblong-obtuse with pellucid dots, Cal. leaves lanceolate
11024 Stem herbaceous upright 4-winged, Lvs. lin. somewhat blunt with fine pellucid dots and black dots beneath
11025 Stem round diffuse, Leaves lanceol. linear narrow at base revolute at edge, Calyx somewhat unequal

** *Sepals toothed, or toothed glandular.*

11026 Styles 3, Cal. with (reddish) glandular serratures glabrous, Lvs. roundish pubesc. Stem rounded creeping
11027 Stem downy round ascend Lvs. ovate blunt somewhat amplexicaul. with black dots at edge, Cal acuminate
11028 Styles 3, Cal. with (black) glandular serratures, Stem erect rounded pubesc. Lvs. ov. slightly downy beneath
11029 Stem round ascending, Leaves orbicular stalked, Calyx ovate blunt
11030 Stem straight slightly wing. Lvs. ov.-lanc. subamplex. blunt. with pellucid dots, Anthers dotted with black
11031 Stem round straight branched, Lvs. ellipt. lanc. acute glandular at edge with pellucid dots, Cal lanc acute
11032 Stem round a little villous at end, Leaves amplexicaul. lanceol. acute generally reflexed, Panic. lax few fl
11033 Styles 3, Cal. with (black) glandul. serratures, Stem erect, Lvs. cord. glab. amplexicaul [dots beneath
11034 Sty 3, Corymbs term Cal fring. with long peduncul. glands, Stem erect round. Lvs. ov. with (black) scattered
11035 Stem round ascending, Leaves amplexicaul. oblong bluntish with pellucid dots: upper sometimes toothed
11036 Styles 3, Fls paniculate-corymb. Cal. with glandul. serratures, Stem erect round. smooth, Lvs ov. glabrous
11037 Stem round purplish simple, Lvs. amplexicaul. ovate dotted with black at the edge, Cal. ov. acute ciliated

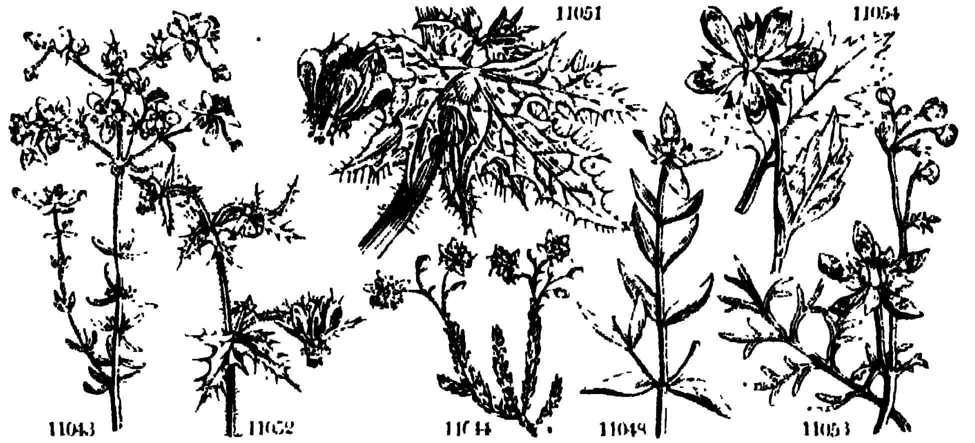
11038 Stem round, Leaves ovate blunt with a small petiole revolute at edge, Calyx ovate blunt [with black
11039 Stem round slightly winged, Lvs amplexicaul subcord ovate obl. blunt with pellucid dots, Anthers dotted
11040 Stem with 2 angles decumbent at base, Lvs linear-lanc. spreading blunt revolute at edge, Cal ovate acute
11041 Stem round ascending, Lvs. obl. lanc bluntish narrowed at each end with pellucid dots, Cal. somewhat blunt
11042 Stem round, Branches somewhat winged, Leaves in threes linear revolute at edge, Calyx very small blunt
11043 Stem round ascending, Leaves whorled linear revolute at edge, Calyx linear somewhat blunt
11044 Stem round tortuous minute, Leaves round acute clustered dotted glaucous very small

§ 5 *Sepals 5, entire, equal, like the leaves* *Stamens* ∞. *Styles* 3-5. BRATHYS

11045 Stem round compressed at end, Leaves dense not dotted channelled revolute at edge, Cal equal straight

11046 Stem small simple quadrangular, Leaves oval blunt fascicled, Pedicels 6 lines long reflexed
11047 Stem round, Branches erect, Lvs ovate linear blunt generally fascicled in the axillæ, Inner sepals orbicular
11048 Stem round, Leaves oblong linear blunt with 2 glands at base, Inner sepals somewhat orbicular
11049 Stem winged straight, Leaves ovate ellipt. blunt glaucous, Inner sepals cordate orbicular
11050 Stem dichotomous panicled, Leaves ovate cordate crisp, Corymb naked, Styles 3

11051 Sepals scarcely toothed reflexed as long as petals, in fruit reflexed and longer than the obovate capsule
11052 Sepals toothed shorter than petals, in fruit erect and shorter than the pear-shaped capsule
11053 Stem twining, Leaves bipinnatifid with narrow obtuse segments
11054 Hispid, Leaves opposite and alternate cordate ovate lobed, Petals flattish, Flower very large



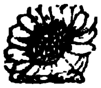
and Miscellaneous Particulars.

hang it in their windows as a charm against storms, thunder, and evil spirits, mistaking the meaning of some medical writers, who have fancifully given this plant the name of *Fuga Dæmonum*, from a supposition that it was good in maniacal and hypochondriacal disorders In Scotland it was formerly carried about as a charm against witchcraft and enchantment

H. humifusum is one of the prettiest little plants of the genus, well adapted for growing in pots

1618. *Ascyrum.* From α, privative, and σκυρος, roughness; that is to say, a smooth plant, *Linn* Curious little plants, of the same culture as the Hypericums

1619. *Loasa.* A name applied to these plants by Adanson, but of unknown meaning Stinging, mostly annual plants; some of the species are handsome hardy annuals, remarkable for the beauty of their highly curious flowers L. volubilis will not succeed in the open air



Class XIX. — SYNGENESIA. Stamens 5. Anthers united by their edges.

This is one of the most extensive and best defined of all the Linnean classes. Its essential character depends, as its name indicates, (συν, together, and γενεσις, generation,) upon the adhesion of the antheræ or male organs of the flower into a single tube. It comprehends the whole of the Corymbiferæ, Cichoraceæ, and Cinarocephalæ of Jussieu; and, with the exception of Acicarpheæ, nothing else. The genera constituting the order Monogamia of Linnæus are excluded by Linnean botanists of the present day.

In addition to the cohesion of the anthers, upon which this class immediately depends, it is further characterized by the flowers, commonly called florets, being clustered together in heads, and inserted upon a common receptacle, which is surrounded by an involucrum, commonly, but very improperly, termed calyx. The few genera, such as Kuhnia, Euxenia, Acicarpha, &c., in which a union of anthers either does not exist at all, or in a very incomplete degree, are therefore retained in Syngenesia, because of their congruity in the structure of their inflorescence.

The real nature of the various constituent parts of syngenesious inflorescence being, from its complicated nature, very puzzling to the unlearned, and, as it would seem, to some professors also, it may be useful to explain briefly the analogy the various parts bear to the organs of other plants, and the terms employed in describing them.

The *Head* or *Capitulum* is a cluster of flowers of the nature of an umbel, inserted upon a common rachis, which, by contraction or incomplete developement, assumes the form of a conical or flat body, out of which the flowers proceed, and which is called a receptacle. This is surrounded by the involucrum. M. Cassini calls the head *Calathide*.

The *Involucrum* is the most external part of the head. It consists of a more or less considerable number of *scales or leaves, placed in a single row, either distinctly from each other, or united at their edges, in which case the involucrum is called one-leaved; or placed in many rows, becoming gradually shorter as they are external,* in which case they are called imbricated. If the external scales surround the internal at the base in a regular manner, then the involucrum is said to be calyculate. The involucrum was called *common calyx* by Linnæus, and has been more recently denominated a perianthium. M. Cassini names it *Periclinium*.

The *Receptacle* (Clinanthium of Cassini, is a cellular fungous surface surrounded by the involucrum, and bearing the florets. It is either columnar, conical, flat, or depressed: and naked, or covered with appendages called hairs or bristles, according to their nature, or paleæ, when they are dilated and have a glumaceous appearance. If naked, and merely scarred by the insertions of the florets, it is called dotted or puncticulate; when the scars are more considerable and deeper, the receptacle is said to be scrobiculate; if the insertions are so deep as to appear to be divided by membranous partitions, it is cellular, or favose, or alveolate; if furnished with hairs, it is villose; if with paleæ, it is paleaceous or chaffy.

The *Paleæ* are of the same nature as bracteæ, and exist in various degrees of developement. Occasionally they are as large as the scales of the involucrum, which they in that case closely resemble.

The flower, usually termed *Floret*, consists of two parts, the ovarium and the corolla, each with its appendages.

The *Ovarium* is always one-celled, but it occasionally has two additional obsolete cells, as in Arctotis. It is either naked, or covered with hairs in various degrees, occasionally becoming enveloped in fine wool, and it is surmounted by an organ named the pappus.

The *Pappus* has generally been esteemed a superior calyx, and it is the opinion of M. Cassini that it is analogous to the scales of the receptacle, and the leaves of the involucrum.

The *Corolla* is placed on the top of the ovarium. It is either funnel-shaped, with a limb divided into four or five equal lobes, in which case the florets are denominated *tubular*; or it is split on one side, and spread open into the form of a strap, when the florets are called *ligulate*; or it is divided into two portions, of which one is unequal to the other; this form is called bilabiate or two-lipped. Bilabiate corollas may be either ligulate or flosculous, according to the species to which they belong. Occasionally the corolla appears to be absent.

The *Stamens* are attached to the orifice of the tube of the corolla, just below the limb. Their *filaments* are usually, but not always, distinct; their *anthers* are adherent by their edges, and furnished with a little membranous appendage at the tip, and sometimes with two spur-like processes at their base.

The *Style* is filiform, and either split at the summit into two linear spreading stigmas, or consists of a single piece from the base to the summit. The form and surface of the stigma, and the upper part of the style are subject to a great diversity of appearances, which are of the utmost importance in determining the affinities of the genera.

The *Florets* are either hermaphrodite, unisexual, or neuter. Upon these differences of sex the orders of Linnæus are founded.

In *Syngenesia æqualis* the florets are all hermaphrodites.

In *Syngenesia superflua*, those of the disk or centre are hermaphrodite, of the circumference or ray female, (and *superfluous*.)

In *Syngenesia frustranea*, those of the disk are hermaphrodite, of the ray neuter, (and *useless*.)

In *Syngenesia necessaria*, those of the disk are male, of the ray female, (and *necessary*.)

Syngenesia segregata is only characterized by the heads themselves being clustered and surrounded by a common involucrum.

The genera of Syngenesia have always attracted much attention from systematic botanists, who have met with very unequal success in characterizing them. The older botanists comprised them all under a few general heads or names. Tournefort, with his usual happiness, pointed out a large proportion of the most natural genera. Vaillant established a considerable number. Linnæus, profiting by the labours of his predecessors, rejecting some genera, and dividing others, increased their number, and adapted them to his sexual system, in nearly the same order in which they exist at the present day. Jussieu, by applying to the genera the principles of his natural method, reduced them to an arrangement much superior in point both of facility and of natural affinity to that of his northern rival. But however meritorious the labours of these great systematists may have been, much remained to be effected, even among their own plants, by those who followed them. The indefatigable Gærtner, who worked upon the only satisfactory or philosophical principle, that of strict analysis, soon discovered that the combinations of Linnæus and Jussieu were often too vague and ill defined to accord with his notions of accurate subdivision. Hence many other genera arose. But since his days, the extent of Syngenesia has, like all other parts of botanical science, increased exceedingly, and has arrived in our days at a state little short of absolute confusion. Injudicious or superficial botanists, impressed with the fear of innovation, and with a pious reverence even for the errors of those who went before them, have from time to time crowded the genera of Jussieu and Linnæus with the most incongruous species, and so have rendered many of those which were originally pure and simple, heterogeneous masses of species. Much has been done by our learned countryman, Mr. Robert Brown, to reduce to order this class of individuals, and, as far as his published observations have extended, with the happiest success. In France, an ingenious and accurate observer, Mr. Henry Cassini, has undertaken a revision of the whole class, upon principles peculiar to himself; and it must be allowed, that what he has executed has given ample room for regret that he has not published more. Unfortunately, his observations are scattered over the face of many books, and are in no case in such a state of arrangement as to be extensively useful. It is hoped that a period will soon arrive when he, or at least some of his countrymen, will place in one view the result of his labours, so as to enable the world to judge with more accuracy, both of their extent, and of their real importance in defining the limits of the genera and their orders. The style and stigma, which had been previously almost overlooked, have furnished M. Cassini with what appear to be beautiful distinguishing marks of his orders; and it is upon these organs that much of the peculiarity of his arrangement depends. In the mean while, till it can be ascertained what the ultimate division of Compositæ is likely to be, it has been considered more prudent in this work to indicate none of the divisions of either M Cassini, or of his fellow-labourers in France or elsewhere.

In a popular point of view, Syngenesia may be considered interesting in a high degree. It abounds in plants of ornament, all of which are, without exception, of easy cultivation It is not necessary to particularise the merits of the brilliant varieties of the Dahlia, or of the Chinese Chrysanthemum, which are the chiefest ornaments of every autumnal garden; nor to point out the beauty of the various tribes of Aster, Helianthus, Coreopsis, Xeranthemum, or Gnaphalium. These and an hundred others must be familiar to every lover of gardening. It is, however, worth remarking, that nearly all syngenesious plants are autumn flowers. In the tropics, many become trees of considerable dimensions; in temperate climates, they are mostly herbaceous or low bushes.

With regard to the qualities of syngenesious plants, considered economically or medicinally, it may be stated, that, whatever they may be, they consist in a bitter principle, and an oily secretion. But these vary in particular tribes. In some the bitter is combined with a resinous principle, by which its powers are increased in different degrees In those plants in which the resin is found in small quantities only, and mixed with a bitter or astringent mucilage, tonic, stomachic, and febrifugal properties seem to be acquired, as in the camomile, the golden rod, the feverfew, and the Eupatorium perfoliatum; and the stimulant powers of these plants appear to increase in proportion as the resin is abundant. Some kinds are anthelmintic, as the wormwood and tansy; others are emmenagogue, as the feverfew, the yarrow, and various kinds of wormwoods. Certain species possess sudorific qualities, as the Eupatorium, the yarrow, the wormwood, and the marigold; others, again, are powerful diuretics, as Liatris; while stimulating powers exist in considerable activity in others, as in the Sneezewort and Arnica. The Spilanthus, Anthemis, Pyrethrum, and some others, excite salivation. The Eupatorium Ayapana of Brazil, and the Guaco of Peru, which is another species of Eupatorium, are most powerful alexiterics. According to the analysis of M. Braconnot, the wormwood owes its bitterness to an extremely bitter animalized matter, which forms a little less than one fifth of its weight; the same chemist also states that plant to contain a volatile oil, and an acid, apparently new, which is found in combination with potash. Before the perfect developement of the leaves, the bitter principle is so much diluted with insipid mucilage, that the young shoots of some of the thistle tribe, the Cardoon for example, are used for culinary purposes; and it is probable, that it is owing to the small proportion which the bitter bears to the whole mass, that the receptacle of the artichoke, of the Onopordum, and of the cotton thistle, is found fit for food. The corollas of the Cardoon, and of many thistles, have the power of curdling milk. The juice of the lettuce and other cichoraceous plants is milky, bitter, astringent, and narcotic. In a wild state, the narcotic principle is so abundant, that the inspissated juice of Lactuca virosa has been used as a substitute for opium, and with much success But under the effect of cultivation, the mucilage is so much more abundant than any other substance, that the same species often form well-known articles of wholesome and agreeable food And, indeed, under any circumstances, wild or domesticated, the young shoots, when the narcotic principle is scarcely developed, are frequently eaten with safety; it is for the same reason, namely, the incomplete formation of the bitter principle, and the superabundance of mucilage, on account of the absence of light, that the blanched leaves of cardoons and Chiccory, and the white roots of the Scorzonera and the Salsafy, are capable of being eaten without inconvenience. The seeds of all syngenesious plants abound in oil, which is expressed from those of the Madia of Chili, the Verbesina sativa, and the common sunflower. Owing to the difficulty of procuring this oil in a pure state, its virtues are not ascertained with much accuracy They are generally believed to be slightly purgative and diaphoretic.

Order I. ÆQUALIS

Flowers of the disk and ray all hermaphrodite.

1620. *Geropogon.* Receptacle setose-paleaceous. Invol. many-leaved, simple, or with bracteolæ of disk with branched pappus, of the ray with five awns

1621. *Tragopogon* Involucre simple, of many leaves. Receptacle naked Pappus feathery, stipitate. Pericarps longitudinally striated

1622 *Troximon* Invol oblong, conical, simple, or imbricated with unequal scales. Recept. naked, dotted. Pappus sessile, hairy.

1623. *Arnopogon.* Recept. naked Pappus feathery, stipitate. Involucre 1 leaved, 8-parted, turbinate.

1624. *Podospermum.* Recept. warted. Pericarps cylindrical on a long stalk. Leaves finely cut. Otherwise as Scorzonera

1625. *Scorzonera.* Recept. naked. Pappus feathery, somewhat stalked. Invol. imbricated, with scales scarious at edge.

1626. *Picridium* Invol ventricose at base, imbricated with broadish scales, membranous at edge. Pappus sessile, villous, simple. Pericarps 4-cornered, warted across.

1627. *Sonchus* Involucre imbricated, swelling at the base. Receptacle naked. Pappus simple, sessile.

1628. *Lactuca* Involucre imbricated, cylindrical, its scales with a membranous margin. Receptacle naked Pappus simple, stipitate

1629 *Chondrilla* Receptacle naked. Invol. with bracteolæ. Pappus simple, stalked. Florets in many rows. Pericarps muricated.

1630. *Prenanthes.* Involucre with scales at the base. Receptacle naked. Pappus simple, sessile. Florets few.

1631. *Leontodon.* Involucre with scales that are frequently lax and flaccid. Receptacle naked. Pappus simple, stipitate.

1632. *Apargia.* Involucre imbricated with scales at the base. Receptacle naked, dotted. Pappus feathery, sessile, unequal.

1633. *Thrincia.* Recept. favose. Pappus of the ray membranous, multifid, of the disk stalked, feathery. Invol. with 8 angles and 8 leaves.

1634. *Picris.* Cal. double, the inner equal, the outer lax. Receptacle naked. Pappus feathery. Pericarps transversely striated

1635. *Hieracium.* Involucre ovate, imbricated. Receptacle nearly naked, dotted. Pappus simple, sessile.

1636. *Lagoseris* has the characters of Crepis, but the pappus is stalked.

1637. *Borkhausia.* Invol. oblong in two rows, the outer much shorter than the inner. Recept. alveolate. Pappus of the centre stalked, of the circumference sessile or subsessile

1638. *Crepis.* Involucre surrounded with deciduous scales, and at length swelling into protuberances. Receptacle roughish. Pappus sessile.

1639. *Helminthia.* Recept. naked. Invol double: outer 8-leaved, equal; inner 5-leaved, as long as outer. Pericarps striated across. Pappus stalked, feathery.

1640. *Myoseris.* Recept paleaceous. Paleæ capillary. Invol. calyculated. Pappus hairy, sessile.

1641. *Tolpis.* Recept. favose. Invol. with bracteolæ, which are subulate, and as long as invol. Pappus of the ray toothed, of the disk with 2 or 4 awns.

1642. *Andryala.* Recept. villous. Invol. many-parted, nearly equal, rounded. Pappus simple, sessile.

1643. *Rothia.* Recept. villous, chaffy at edge. Invol. many-leaved, equal. Pappus hairy, of the disk sessile, of the ray none.

1644 *Krigia.* Recept. naked. Pappus membranous, 5-leaved, with 5 bristles between. Invol. many-leaved, simple.

1645. *Hyoseris.* Recept. naked. Invol with bracteolæ Pappus double: exterior capillary; interior paleaceous, awned.

1646. *Hedypnois* Recept naked. Invol with bracteolæ. Pappus of disk double: outer obsolete, of many bristles; inner paleaceous, 5-leaved; of the ray a membranous toothletted margin

1647. *Robertia.* Invol many-leaved, equal Recept. scaly. Pappus feathery, the hairs being slightly membranous at base

1648. *Seriola.* Recept paleaceous. Invol simple. Pappus somewhat hairy.

1649 *Soldevilla* Invol imbricated, in fruit ventricose at base, with scales conniving at end. Recept. paleaceous; paleæ very short, setose. Pappus O.

1650. *Hypochæris.* Involucre oblong, imbricated. Receptacle chaffy. Pappus feathery, stipitate, or sessile.

1651. *Lapsana.* Involucre with scales at the base. Receptacle naked (its inner leaves equal, channelled, *Sm.*) Pericarps destitute of pappus (deciduous)

1652. *Zacintha* Recept. naked. Pericarps of the ray incurved, of the disk straight Pappus very short, somewhat feathery. Invol. with bracteolæ, which are membranous.

1653. *Rhagadiolus.* Recept. naked. Pericarps arcuate, spreading. Pappus O Invol. with bracteolæ.

1654 *Moscaria* Invol 6-leaved, equal. Recept flat, paleaceous. External pericarps with a short feathery pappus; central with none

1655. *Catananche.* Recept. paleaceous. Invol. imbricated, scarious. Pappus paleaceous, 5-leaved; paleæ awned.

1656. *Triptilion* Invol. imbricated, the exterior scales somewhat squarrose. Florets bilabiate: the upper lip 3-toothed; lower entire revolute. Recept. villous Pappus with 3 feathers.

1657 *Cichorium* Involucre surrounded with scales or smaller leaflets. Receptacle naked or slightly hairy. Pappus sessile, scaly, shorter than the pericarp.

1658. *Bacazia.* Invol. imbricated, scarious Florets, one in the middle large tubular; the others 4-toothed, with a revolute bristle inserted in the mouth of the tube. Recept pilose. Pappus feathery.

1659. *Scolymus* Receptacle paleaceous. Invol. imbricated, spiny. Pappus O.

1660 *Arctium.* Involucre globose, each of its scales with an incurved hook at the extremity Receptacle chaffy Pappus simple.

1661. *Serratula.* Involucre cylindrical, imbricated with scales that are not spinous Receptacle chaffy. Pappus roughish or feathery, rigid, persistent.

1662. *Saussurea* Involucre imbricated, not spiny, outer scales acute, inner obtuse, membranous. Pappus feathery, in two rows, the exterior being shortest, the inner somewhat united at base.

1663 *Carduus* Involucre swelling, imbricated with spinous scales Receptacle hairy Pappus deciduous, roughish.

1664. *Silybum.* Invol ventricose, imbricated: outer leaves with appendages at end; inner cochleate. Recept. chaffy. Pappus linear, chaffy, deciduous.

1665. *Cnicus* Involucre swelling, imbricated with spinous scales Receptacle hairy. Pappus deciduous, feathery

1666 *Onopordum* Involucre swelling, its scales spreading, and spinous. Receptacle cellular Pappus deciduous, rough

1667 *Berardia* Invol imbricated with linear unarmed scales Recept somewhat favose, naked Pappus hairy, generally twisted spirally, persistent

1668. *Cynara.* Recept setose Invol. dilated, imbricated, scales fleshy, emarginate, with a point Pappus sessile, feathery

1669 *Carlina.* Involucre swelling: the exterior scales with numerous spines; the inner ones colored, scariose

1670. *Atractylis.* Recept. paleaceous. Pappus feathery Invol. imbricated with bracteolæ. Florets of ray 5-toothed.

1671 *Acarna.* Recept. paleaceous. Pappus feathery Invol. imbricated with bracteolæ. Florets flosculous.

1672 *Stokesia* Recept naked Pappus with 4 bristles Invol leafy, somewhat imbricated. Heads radiated; florets of ray funnel-shaped, irregular.

1673. *Stobæa.* Invol. imbricated, with toothed spiny scales Florets flosculous. Recept hispid, favose. Pappus paleaceous.

1674. *Onobroma* Invol ventricose: outer scales large, herbaceous, spiny, acuminate; inner coriaceous, unarmed. Recept. paleaceous. Pappus setaceous, rigid, unequal

1675. *Carthamus.* Recept paleaceous, setose Invol ovate, imbricated, scales ovate, leafy at end Pappus paleaceous, hairy, or none

1676. *Cardopatum.* Invol 6-8-fl many-leaved, imbricated, the outer scales branched, spiny Recept. paleaceous, with long fascicled paleæ Pericarps villous

1677. *Stæhelina.* Recept. with very short paleæ Pappus feathery. Anthers awned at base. Invol. hemispherical, imbricated.

1678. *Palafoxia.* Invol oblong, somewhat imbricated, 8 or many-leaved, many-flowered. Cor. flosculous, longer than calyx, with a 5-fid limb Pappus chaffy Receptacle naked Fruit marginal, wrapped up in the involucre.

1679. *Pteronia.* Recept. paleaceous, paleæ many-parted. Pappus somewhat feathery Invol. imbricated with keeled scales

1680. *Vernonia.* Recept naked Invol. ovate, imbricated Pappus double: outer paleaceous; inner capillary.

1681. *Ammobium.* Invol. imbricated, colored, radiant. Anthers with 2 bristles at the base. Chaffs of receptacle distinct. Pappus a toothed edge

1682. *Liatris.* Recept. naked. Invol oblong, imbricated. Pappus feathery

1683. *Mikania.* Recept. naked. Invol. 4-6-leaved, equal, 4 or 6-flowered. Pappus hairy.

1684 *Sparganophorus.* Invol subglobose, imbricated with unequal scales, recurved, spreading at end. Recept. naked. Pericarps crowned with a somewhat cartilaginous cup

1685. *Eupatorium.* Involucre imbricated, oblong. Florets few. Receptacle naked. Pappus rough.

1686. *Dumerilia.* Invol. many-parted, equal. Receptacle paleaceous. Florets bilabiate. Anthers spurred at base. Pappus feathery, sessile.

1687. *Ageratum.* Recept. naked. Pappus with 5 somewhat-awned paleæ. Invol. oblong in a double row. Corollas 4-5-fid.

1688. *Cælestina.* Invol. cylind. many-leaved, imbricated. Recept. convex, naked. Florets all tubular. Stigmas very long, spreading. Pericarps truncate, 5-cornered. Pappus a membranous rim.

1689. *Stevia.* Recept. naked. Pappus paleaceous Invol. cylindrical in a single row.

1690. *Cephalophora.* Recept. naked, hemispherical. Pappus paleaceous, many-leaved. Invol many-leaved, reflexed.

1691. *Amphirapis.* Invol. hemispherical, imbricated. Recept. flat, naked. Florets all tubular. Pericarps cylindrical, naked. Pappus hairy, deciduous.

1692. *Hymenopappus.* Invol. many-leaved, spreading, scales ovate, colored. Recept. naked. Pappus many-leaved, paleaceous.

1693. *Melananthera* Recept. paleaceous, convex. Invol many-leaved, in a double row. Pappus of from 2 to 18 rough bristles. Pericarps turbinate, angular

1694. *Marshallia.* Recept. paleaceous. Pappus of 5 membranous acuminate paleæ. Invol. imbricated; scales somewhat lanceolate, incumbent.

1695. *Spilanthes.* Recept. paleaceous, conical. Pappus with 2 awns, one smaller than the other. Invol. nearly equal.

1696. *Salmea.* Recept. conical, paleaceous. Pappus with 2 awns. Pericarps depressed. Invol. imbricated.

1697. *Bidens.* Involucre of many leaves, with many foliaceous bracteas at the base. Receptacle plane, chaffy. Cor. sometimes radiant. Pericarps crowned with from 2-5 persistent awns, which are rough, with minute deflexed bristles.

1698. *Platypteris.* Invol. many-leaved, imbricated, squarrose. Recept. convex, paleaceous. Pericarps compressed, winged, with 2 awns at top.

1699. *Lagascea.* Invol. 1-leaved, tubular, 1-flowered, divided at end. Floret tubular, hermaphrodite. Pericarps linear, cuneate, compressed. Pappus a small fringed crown.

1700. *Lavenia.* Recept. naked. Pappus with 3 awns, glandular at end. Invol. ovate, somewhat imbricated.

1701. *Cacalia.* Recept. naked, Pappus pilose Invol. cylindrical, oblong, at the base only with bracteolæ.

1702. *Kleinia.* Recept. naked. Pappus hairy. Invol. simple, equal, 5-leaved.

1703. *Ethulia.* Recept. naked. Pappus a very narrow rim. Invol. equal, in a double row.

1704. *Piqueria.* Recept. naked. Invol. equal, 4-leaved, 4-flowered, Pappus none. Pericarps pentagonal.

1705. *Chrysocoma.* Recept. naked. Pappus simple. Invol. hemispherical, imbricated. Style scarcely longer than florets.

1706. *Tarchonanthus.* Recept. villous. Pericarps enveloped in hair. Invol. 1-leaved, half 7-fid, turbinate.

1707. *Calea.* Recept. paleaceous. Pappus hairy. Invol. imbricated.

1708. *Isocarpha.* Recept paleaceous conical, the outer paleæ forming the involucrum. Pappus O. Anthers not spurred at base. Stigmas with a long appendage.

1709. *Petrobium* Recept. paleaceous, flattish. Invol. many-leaved, in 2 rows: outer row shortest. Pericarps angular. Pappus awned.

1710. *Neurolæna.* Recept paleaceous, flattish. Pappus capillary, toothletted, persistent. Invol. imbricated, leafy. Anthers awnless at the base.

1711. *Humea.* Recept. minute, glandular. Pappus none. Invol. loosely imbricated, membranous. Florets about 3, tubular. Anthers awned.

1712. *Cæsulia.* Recept. paleaceous: paleæ enveloping the pericarps. Pappus O. Invol. 3-leaved.

1713. *Ixodia.* Recept paleaceous Pappus O. Invol imbricated: inner scales radiant colored.

1714 *Santolina.* Recept. paleaceous. Pappus O. Invol imbricated, hemispherical

1715 *Otanthus* Invol. hemispherical imbricated. Florets with 2 appendages at base. Recept. convex, paleaceous. Pappus O.

1716. *Calcacte.* The same as Calea, but it has a radius of ligular female florets.

1717. *Athanasia.* Recept. paleaceous. Pappus paleaceous, very short. Invol. imbricated.

1718 *Balsamita.* Recept. naked Pappus O Invol imbricated

1719 *Pentzia.* Recept naked. Pappus a membranous torn rim. Invol. imbricated, hemispherical

SUPERFLUA.

§ *Florets of the disk hermaphrodite: of the ray female.*

1720. *Tanacetum.* Invol. hemispherical, imbricated. Recept naked. Florets of the ray trifid, obsolete sometimes wanting. Pericarps crowned with a membranous margin or pappus

1721. *Artemisia.* Invol ovate or rounded, imbricated. Recept. naked (or downy, *Sm.*). Florets of the ray subulate. Pericarps crowned with a membranaceous pappus

1722 *Gnaphalium.* Recept naked Pappus hairy or feathery Invol imbricated: marginal scales round, scarious, colored.

1723. *Leontopodium.* Heads sessile in the leaves Invol. woolly. Florets 5-fid Pappus pencilled or hairy. Otherwise Gnaphalium.

1724. *Evax.* Heads surrounded by bracteæ. Invol ovate, imbricated, with appressed acuminate scales. Florets of disk 4-toothed: of the ray not toothed. Recept. subulate, paleaceous. Pericarps of the female flowers without pappus

1725. *Antennaria.* Recept scrobiculate Pappus capillary. Invol. imbricated, scarious, colored. Anthers spurred at base. Florets diœcious.

1726 *Metalasia.* Invol cylindrical, radiant colored. Pappus deciduous, capillary, clavate. Florets few, hermaphrodite. Otherwise as Gnaphalium.

1727. *Astelma.* Recept. naked. Pappus feathery, sessile: rays connate at base. Invol. imbricated: with scarious scales, the interior of which are connivent

1728. *Athrixia* Heads radiant. Invol obl. imbricated, awned, squarrose. Florets bilabiate. Pappus feathery. Recept. alveolate.

1729 *Xeranthemum.* Recept. paleaceous Pappus paleaceous-setaceous. Invol. imbricated, radiated: with a colored ray

1730. *Elichrysum.* Recept. naked. Pappus hairy or feathery. Invol. imbricated, radiated: ray colored.

1731. *Carpesium.* Recept. naked. Pappus O. Invol. imbricated, with the outer scales reflexed.

1732. *Baccharis* Recept. naked Pappus pilose. Invol imbricated, cylindrical. Female florets mixed with the hermaphrodite ones.

1733. *Molina.* Invol. campanulate, imbricated. Pappus feathery. Recept. convex, naked, dotted. Flowers diœcious.

1734. *Conyza.* Invol roundish imbricated. Recept. naked Florets of the ray 3 cleft Pappus rough.

1735. *Madia.* Recept. naked. Pappus O. Invol double: outer 8-10-leaved, equal, longer than the inner, which is many-leaved

1736. *Erigeron.* Invol imbricated Recept. naked. Florets of the ray numerous, very narrow, mostly of a different color from the disk. Pappus simple.

1737 *Tussilago.* Invol simple, equal, submembranaceous, swelling. Recept naked Pappus simple.

1738. *Senecio.* Invol. subcylindrical, equal, scaly below; the scales withered at the tip. Recept naked Pappus simple.

1739. *Aster.* Invol imbricated, its lowermost scales spreading (except in A. trifolium). Recept. naked. Florets of the ray more than 10. Pappus simple.

1740. *Solidago.* Invol. imbricated, its scales connivent. Recept. naked Florets of the ray (of the same colour as the disk) about 5. Pappus rough.

1741. *Cineraria.* Recept. naked. Pappus simple. Invol. simple, many-leaved, equal.

1742 *Calotis.* Recept. naked. Pericarps crowned with two opposite paleæ and 1-3 barbed awns. Invol. nearly equal, many-leaved, in a single or double row.

1743. *Kaulfussia.* Invol simple: leaflets keeled. Recept naked, convex Pappus of the ray a minute fringed rim; of the disk stiff and feathery.

1744. *Inula.* Invol. imbricated. Recept. naked. Florets of the ray very numerous, linear. Anthers with 2 bristles at the base. Pappus simply composed of hairs.

1745. *Pulicaria.* Invol. roundish, imbricated: scales linear, acuminate. Recept. naked. Pappus compound: outer a membranous cup; inner setaceous Pericarps uniform.

1746. *Grindelia.* Recept. naked. Pappus setaceous, deciduous Invol imbricated, hemispherical.

1747. ***Podolepis.*** Recept. naked. Pappus hairy. Invol. imbricated, scarious, hemispherical: scales unguiculate.

1748. ***Chætanthera.*** Invol. many-leaved, ciliated. Florets of ray linear, 3-toothed, with a fine bifid spiral segment at the divisions. Anthers spurred at base. Recept. naked, flat. Pappus hairy.

1749. ***Arnica*** Recept. naked. Pappus simple Invol. with equal leaves. Florets of ray generally with 5 filaments without anthers.

1750. ***Gerberia.*** Florets bilabiate, those of the ray ligulate. Invol. imbricated, coriaceous. Recept. flat, naked. Pappus with long bearded paleæ.

1751. ***Doronicum.*** Scales of the invol. in 2 equal rows, longer than the disk. Recept. naked. Pericarps of the disk crowned with a simple pappus, those of the ray without a pappus.

1752. ***Perdicium.*** Recept naked Pappus hairy. Florets 2-lipped.

1753. ***Tetragonotheca.*** Recept. paleaceous. Pappus O. Invol. 1-leaved, 4-cornered, 4-parted.

1754. ***Ximenesia.*** Recept paleaceous. Pappus O. Pericarps of ray naked, emarginate; of the disk winged. Invol. many-leaved, nearly equal.

1755. ***Helenium.*** Recept naked, of the ray paleaceous. Pappus 5-awned. Invol. 1-leaved, many-parted. Florets of ray half-trifid.

1756. ***Bellis.*** Invol. hemispherical, its scales equal. Recept. naked, conical.

1757 ***Bellium.*** Recept. naked. Pericarps conical, with a paleaceous 8-leaved crown and awned pappus. Leaves of invol. equal

1758 ***Dahlia.*** Recept. paleaceous. Pappus O. Invol. double: outer many-leaved; inner 1-leaved, 8-parted.

1759 ***Berbera.*** Invol double: outer many-leaved; inner 8-leaved. Recept. naked. Pappus hairy.

1760. ***Tagetes.*** Recept naked. Pappus with 5 erect awns. Invol. simple, 1-leaved, 5-toothed, tubular. Florets of ray 5, persistent.

1761. ***Heterospermum.*** Recept. naked. Outer grains compressed with a membranous edge; inner oblong with two awns Invol double: outer 4-parted, inner many-leaved.

1762. ***Schkuhria.*** Recept. naked. Pappus paleaceous. Invol 5-leaved Florets of ray solitary.

1763 ***Pectis.*** Recept naked. Pappus with 3 or 5 awns. Invol 5-leaved. Florets of ray 5.

1764 ***Longchampsia.*** Differs from Pectis and Leysera, in having a double pappus, the exterior of which is edged, the inner feathery.

1765. ***Leysera.*** Recept. somewhat paleaceous Pappus paleaceous: of the disk feathery. Invol scarious.

1766. ***Selloa.*** Invol imbricated, ovate. Recept. naked. Pappus O Female florets inconspicuous, mixed among the leaves of the involucrum.

1767. ***Relhania.*** Recept. paleaceous. Pappus membranous, cylindrical, short. Invol. imbricated, scarious. Rays numerous.

1768. ***Zinnia.*** Recept. paleaceous. Pappus with 2 erect awns. Invol. ovate, cylindrical, imbricated. Florets of ray 5, persistent, entire

1769. ***Chrysanthemum.*** Invol hemispherical, imbricated with scales whose borders are membranous. Recept. naked. Pappus none

1770. ***Pyrethrum.*** Recept. hemispherical, imbricated with scales whose borders are membranous. Recept. naked. Pericarps crowned with a membranous margin.

1771. ***Matricaria*** Invol. hemispherical or almost plane, imbricated with scales whose borders are membranous. Recept naked, almost cylindrical Pappus none

1772 ***Boltonia.*** Recept. favose, hemispherical Pappus toothed, awned, somewhat 2-horned. Rays numerous. Invol. imbricated.

1773 ***Rudbeckia*** Recept. naked Pappus O Pericarps angular, with the lowest joint of style persistent. Rays numerous Invol. many-parted.

1774. ***Cenia.*** Invol in fruit turbinate, multifid. Florets of ray very numerous, short. Recept. naked Pericarps compressed.

1775. ***Cotula.*** Recept. nearly naked. Pappus margined. Florets of disk 4-fid, of the ray scarcely any.

1776. ***Grangea*** Invol. imbricated, spreading. Marginal florets 3-toothed. Recept. hemispherical. Pericarps with a toothed edge at top.

1777 ***Anacyclus*** Recept paleaceous. Pappus emarginate. Pericarps with membranous edges.

1778. ***Anthemis.*** Invol. hemispherical, its scales nearly equal, their margins scarious. Recept. convex, chaffy. Pericarps crowned with a membranous border or pappus

1779. ***Centrospermum.*** Invol. hemispherical, of many imbricated, round, scarious scales. Recept. naked. Pappus spiny. Outer pericarps cymbiform, smooth.

1780. ***Sanvitalia*** Recept. paleaceous. Pericarps of ray with 3 awns: of the side naked, warted; of the disk winged. Invol imbricated, flat.

1781 ***Achillea*** Invol ovate, imbricated, unequal. Recept. plane, chaffy. Florets of the ray 5-10, roundish, obcordate. Pericarps naked.

1782. ***Tridax.*** Invol cylindrical, imbricated, with ovate oblong scales. Florets of ray 3-parted Recept. paleaceous. Pappus hairy, simple.

1783. ***Amellus.*** Recept. paleaceous. Pappus simple. Invol. imbricated. Florets of ray undivided.

1784. ***Starkea.*** Recept. hirsute Pappus sessile, hairy. Invol. imbricated.

1785. ***Columellia.*** Invol. cylindrical, imbricated. Florets of ray undivided. Recept. naked, favose. Pappus a toothed edge.

1786. ***Eclipta.*** Recept. paleaceous. Pappus O. Florets of disk 4-fid.

1787. ***Meyera.*** Invol. 4-leaved, the 2 inner smallest. Recept. small, paleaceous, 2 paleæ enveloping the pericarp, keeled. Pappus O.

1788. ***Chrysanthellum*** Invol. cylindrical, about as long as florets, scaly at base. Recept paleaceous. Florets numerous, linear, 2-toothed, short, of the centre few, and generally abortive. Pericarps naked, roundish, furrowed, with an entire edge.

1789. ***Siegesbeckia.*** Recept. paleaceous. Pappus O. Outer invol. 5-leaved, inner spreading. Ray halved.

1790. ***Verbesina.*** Recept. paleaceous. Pappus awned. Invol in one row. Florets of the ray about 5.

1791 ***Synedrella*** Invol. generally of 2 leaves. Florets flosculous. Recept obsolete, paleaceous: paleæ glumaceous; the outer ovate. Pericarps oval, flat, edged; the central dissimilar, linear, oblong, with 2 or 3 awns.

1792. ***Galinsogea.*** Recept. paleaceous. Pappus many-leaved, paleaceous. Invol. imbricated.

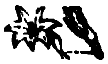
1793. ***Acmella.*** Invol. simple, with a few somewhat leafy divisions. Recept. oblong, paleaceous. Heads radiant. Pericarps 4-cornered, truncate at end, naked.

1794 ***Zaluzania.*** Invol. with distinct, somewhat ovate, equal segments. Head radiant. Recept. conical, paleaceous; paleæ membranous, trifid, involving the pericarps, which are 4-cornered and naked.

1795. ***Pascalia.*** Recept. paleaceous. Pericarps drupaceous. Pappus a toothed rim. Invol. imbricated.

1796. ***Heliopsis.*** Invol. imbricated, with ovate lined squamæ. Cor. of ray linear, large. Recept. paleaceous, conical, with lanceolate paleæ. Pericarps 4-cornered. Pappus O.

1797. ***Buphthalmum.*** Recept. paleaceous. Pappus an obsolete rim. Sides of pericarps, especially of the ray, edged.

Order 3.  FRUSTRANEA.

Florets of the disk fertile: of the ray sterile.

1798. ***Helianthus.*** Recept. paleaceous, flat. Pappus 2-leaved. Invol. imbricated, subsquarrose.

1799. ***Gymnolomia.*** Invol. hemispherical, loosely imbricated. Recept. convex, paleaceous. Central florets sterile; marginal radiant. Pappus O.

1800. *Rudbeckia.* Recept. paleaceous, conical. Pappus with a 4-toothed rim. Invol. with a double row of scales.

1801. *Galardia.* Recept. paleaceous, hemispherical. Pappus paleaceous, many-leaved. Invol. imbricated, many-leaved, flat. Rays 3-parted.

1802 *Tithonia.* Invol. many-leaved, cylindrical. Rays 3-toothed. Recept. paleaceous, convex. Pappus paleaceous, 5-leaved.

1803. *Cosmea.* Recept. paleaceous. Pericarps 4-cornered. Pappus with 2 or 3 awns. Invol. double, each 1-leaved, 8-parted.

1804. *Coreopsis.* Recept. paleaceous. Pericarps compressed, emarginate. Pappus with 2 horns. Invol. double, each many-leaved.

1805. *Simsia.* Invol. subcylindrical, nearly equal, with linear lanceolate incumbent scales. Recept. paleaceous. Pericarps flattish, somewhat edged, each edge awned.

1806. *Osmites* Recept. paleaceous. Pappus obsolete. Florets of ray ligulate. Invol. imbricated scarious.

1807. *Encelia.* Recept. paleaceous. Pappus O. Pericarps vertical, flat, with a ciliated edge. Invol. imbricated.

1808. *Sclerocarpus.* Recept. paleaceous. Pappus O. Invol. double, each 3-leaved.

1809. *Cullumia.* Recept. favose. Pericarps smooth. Pappus O. Invol. 1-leaved, covered with imbricated leaflets.

1810. *Berckheya.* Recept. favose. Pericarps villous. Pappus paleaceous (sometimes bristly-paleaceous, ciliated). Invol. 1-leaved, covered with imbricated leaflets.

1811. *Didelta.* Recept. favose, inclosing the pericarps. Pappus many-parted, setaceous, paleaceous, toothed. Invol. 1-leaved, covered with leaflets, the exterior very large.

1812. *Gorteria.* Recept. scrobiculate Pappus a ciliated edge. Invol. 1-leaved, covered with imbricated leaflets, of the fruit indurated, connivent, deciduous.

1813. *Gazania.* Recept. naked, or alveolate. Pericarps very villous. Pappus hairy-paleaceous. Invol. 1-leaved, the tube naked, or covered with imbricated leaflets.

1814. *Cryptostemma.* Recept. favose. Pappus paleaceous, covered by the entangled wool of the pericarp. Invol. imbricated.

1815. *Arctotheca.* Recept. favose. Pappus O. Invol. imbricated.

1816. *Sphenogyne.* Recept with distinct paleæ. Pappus paleaceous, simple Stigmas with a dilated truncated end. Invol. imbricated, the inner scales or all with a dilated scarious end.

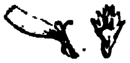
1817. *Zoegea.* Recept. setose. Pappus setaceous Rays ligulate. Invol. imbricated.

1818. *Leuzea.* Invol. imbricated, spherical, not spiny. Recept. bristly. Pappus feathery, in many rows. Florets all hermaphrodite.

1819. *Centaurea.* Invol. scaly. Recept. bristly. Corollas of the ray infundibuliform, irregular, longer than those of the disk. Pappus simple.

1820 *Galactites* Invol. imbricated, with somewhat squarrose spiny scales. Recept favose. Pappus feathery, deciduous.

1821 *Wedelia* Invol. 5-leaved, with broad leafy segments. Recept. paleaceous. Florets of the centre generally abortive, of the ray many, oval, 2-3-fid. Stigmas setaceous. Pappus stipitate, membranous, toothletted.



Order 4. NECESSARIA.

Florets of the ray female fertile: of the disk male.

1822. *Milleria.* Recept. naked. Pappus O. Invol. of 3 valves. Ray halved.

1823. *Baltimora.* Recept. paleaceous. Pappus O. Invol. cylindrical, many-leaved. Ray 5-flowered.

1824. *Silphium.* Recept. paleaceous. Pappus with a 2 horned edge. Invol squarrose.

1825. *Trixis.* Invol imbricated. Cor. of ray 3-fid. Recept. paleaceous Pappus O. Pericarps villous at end

1826. *Polymnia.* Recept. paleaceous. Pappus O. Invol. double: outer 4 or 5-leaved; inner 10-leaved, with common leaflets.

1827. *Chrysogonum.* Invol. 5-leaved. Recept paleaceous. Pappus 1-leaved, 3-toothed. Pericarps with a little 4-leaved calyx

1828. *Melampodium.* Recept. paleaceous, conical. Pappus 1-leaved, vulviform. Invol. 5-leaved.

1829. *Chaptalia.* Recept. naked Pappus capillary Florets of the ray in a double row, deformed; of the disk bilabiate.

1830. *Calendula.* Recept. naked. Pappus O. Invo. many-leaved, equal. Pericarps of the disk membranous

1831. *Arctotis.* Recept. setose-alveolate Pericarps half 2-celled, or 2-furrowed at the back. Pappus paleaceous. Invol imbricated, with scales scarious at end.

1832. *Osteospermum.* Recept naked. Pappus O Invol many-leaved. Pericarps globose, colored, bony.

1833. *Othonna.* Recept. naked. Pappus hairy Invol. 1-leaved, many-cut.

1834. *Hippia.* Recept naked. Pappus O. Pericarps with very broad edges, naked. Invol. hemispherical, somewhat imbricated. Florets of ray 10, obsoletely trifid.

1835. *Soliva.* Invol. 7-leaved, leaflets with imbricated edges, the 3 outer largest Ray none. Recept. very small, somewhat villous. Pericarps compressed, surrounded by a membrane, crowned by 2 prickles and the style.

1836. *Psiadia.* Recept. naked Pappus hairy, sessile. Invol. imbricated, ovate. Florets of ray short.

1837. *Eriocephalus.* Recept. paleaceous Pappus O. Invol double: inner 1-leaved; outer 5-leaved.

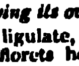
1828. *Filago.* Recept. paleaceous. Pappus O. Invol. imbricated. Female florets mixed among the scales of involucre

1839. *Micropus.* Recept. paleaceous. Pappus O. Invol. calyculate. Rays none. Female florets enwrapped in the scales of involucre.

1840. *Parthenium.* Recept. paleaceous, flat. Pericarps obovate, nearly naked. Invol. 5-leaved.

1841. *Iva.* Recept. pilose. Pericarps naked, blunt. Invol. 3-leaved. Florets of ray 5. Styles 2, long.

1842. *Acicarpha.* Invol. 5-parted Cor. all tubular. Recept. paleaceous, the palea being united with the pericarps after flowering. Pappus O. Stamens half-separate.



Order 5. SEGREGATA.

Each floret having its own peculiar involucre.

1843. *Elephantopus.* Invol. 4-flowered. Florets ligulate, hermaphrodite. Recept. naked. Pappus setaceous.

1844. *Œdera.* Invol. many-flowered. Tubular florets hermaphrodite, and one or more female and ligulate. Recept. paleaceous. Pappus with many paleæ.

1845. *Flaveria.* Partial invol. 2-5-leaved, 2-5-flowered. Common invol. imbricated with unequal scales. Florets tubular, 1 often ligulate. Pappus O. Recept. naked.

1846. *Stœbe.* Invol. 1-flowered. Floret tubular, hermaphrodite. Recept naked. Pappus feathery.

1847 *Nauenbergia.* Partial invol. 2-leaved, 1-flowered; common invol. leafy. Pappus O. Receptacle setose.

1848. *Cassinia* Invol. 2-flowered, 4-leaved. Florets hermaphrodite. Pappus paleaceous, pencilled. Recept. naked.

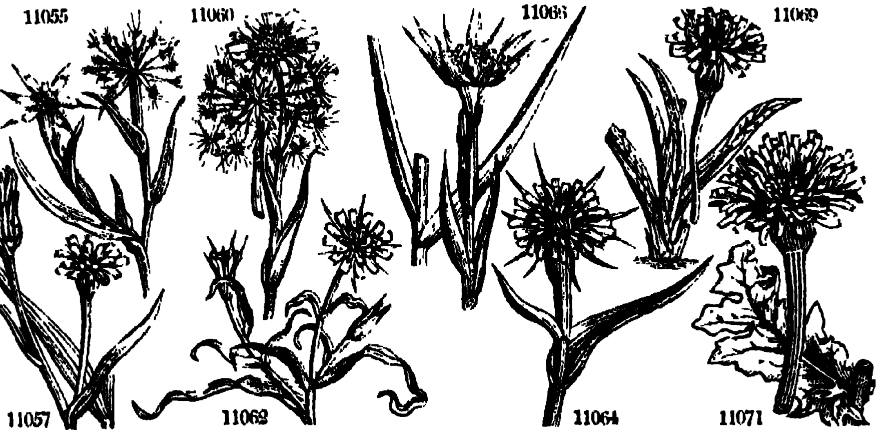
1849. *Sphæranthus.* Invol. 8-flowered. Florets tubular, hermaphrodite, and obsoletely female. Recept. scaly. Pappus O.

1850. *Echinops.* Invol. 1-flowered. Florets tubular, hermaphrodite. Recept. setose. Pappus obsolete.

1851. *Rolandra.* Florets fascicled in a head, with scales between. Invol 2-valved, 1-flowered. Florets hermaphrodite Pappus O.

ÆQUALIS.

1620. GEROPO'GON. *W.*	OLD MAN'S BEARD.					*Compositæ.*		*Sp.* 3—6.				
11055 glàber *W.*	smooth		○	or	1½	jl.au	Pk	Italy	1704.	S	co	Bot. mag. 479
11056 hirsùtus *W*	hirsute		○	or	1½	jl.au	R	Italy	1759.	S	co	Col. ecph.1. t.231
11057 calyculàtus *W.*	perennial	⅄	△	or	2	jl.au	Pk	Italy	1774.	S	co	Jac. vind.2. t.106
1621. TRAGOPO'GON. *W.*	GOAT'S BEARD					*Compositæ.*		*Sp.* 11—17.				
11058 cànus *W. & K.*	hoary	⅄	⊙	or	1	jl au	Pu	Hungary	1824.	S	co	
11059 angustifòlius *L*	narrow-leaved	⅄	⊙	or	½	jl.au	Pu	Italy	1823.	S	co	
11060 pratensis *W.*	yellow	⅄	⊙	or	2	my.jn	Y	Britain	past.	S	r.m	Eng. bot. 434
11061 mutàbilis *Jac*	changeable	⅄	⊙	or	3	my jn	Pa	Siberia	1816.	S	co	Jac. ic 1. t 157
11062 undulàtus *W.*	wave-leaved	⅄	⊙	or	2	my jn	W.Y	Crimea	1790.	S	co	Jac. ic. 1. t. 158
11063 orientàlis *W.*	oriental	⅄	⊙	or	3	jn jl	Y	Levant	1787.	S	co	
11064 màjor *W.*	great	⅄	⊙	or	6	my.jn	Y	Austria	1788.	S	co	Jac. aust. 1. t. 29
11065 floccòsus *W. & K.*	woolly	⅄	⊙	or	3	my.jn	Y	Hungary	1816.	S	co	Pl.rar hu.2 t.112
11066 porrifòlius *W.*	Salsafy	⅄	⊙	cul	4	my.jn	Pu	England	m.me.	S	r.m	Eng bot. 638
11067 crocifòlius *W.*	Crocus-leaved	⅄	⊙	or	1	jn jl	Pu	Italy	1759.	S	co	Col. ecph.1. t.230
11068 villòsus *W.*	hairy	⅄	⊙	or	4	my jn	P.Y	Spain	1794.	S	co	
1622. TROX'IMON *Gærtn.*	TROXIMON.					*Compositæ.*		*Sp.* 2—3.				
11069 glaùcum *Ph*	glaucous-leaved	⅄	△	or	1	my.jn	Y	Missouri	1811.	D	co	Bot. mag. 1667
11070 virgínicum *Ph*	Virginian	⅄	△	or	1	jl.au	Y	N Amer.	1799.	D	co	
1623. ARNOPO'GON. *W.*	SHEEP'S BEARD.					*Compositæ*		*Sp.* 3—6.				
11071 Dalechàmpii *W.*	great-flowered	⅄	△	pr	2	jn o	L.Y	S Europe	1739.	D	co	Bot mag 1623
11072 picroìdes *W.*	prickly-cupped		○	pr	1	jl au	Y	S Europe	1683.	S	co	Lam.ill. t.646 1
11073 àsper *W.*	rough		○	pr	1½	jl au	Y	. ntpel.	1774.	S	co	
1624. PODOSPER'MUM. *Dec*	PODOSPERMUM					*Compositæ.*		*S* · —6.				
11074 calcitrapifòlium *Dec.*	Centaury-lvd.	⅄	△	pr	1	jn jl	Y	Levant	1820.	D	co	Buxb cent 2.t.22
11075 laciniàtum *Dec.*	cut-leaved	⅄	⊙	pr	2	jn jl	Y	S Europe	1640.	S	s.l	Jac. aust.4. t 356
11076 octangulàre *Dec*	octagon	⅄	⊙	pr	1	jn jl	Y	S Europe	1818.	S	co	
1625. SCORZONE'RA *W*	VIPER'S GRASS					*Compositæ*		*Sp* 10—33.				
11077 tuberòsa *W.*	tuberous	✱	△	pr	½	jn	Y	Volga	1825.	D	co	Pal.it app.t Y f 3
11078 tomentòsa *W.*	white	⅄	△	pr	1	jn jl	Y	Armenia	1789.	D	co	
11079 hùmilis *Jac.*	dwarf	⅄	△	pr	1	au	Y	Europe	1597.	D	co	Jac. aust. 1 t. 36
11080 hispànica *W.*	garden	⅄	△	cul	3	jn.s	Y	Spain	1576.	D	co	Lam.ill. t.647.f.5
11081 glastifòlia *W.*	Woad-leaved	⅄	△	pr	2	jn s	Y	Germany	1816.	D	co	
11082 caricifòlia *W.*	Carex-leaved	⅄	△	pr	1½	jn s	Y	Siberia	1805.	D	co	P it.3.ap. t J i f.1
11083 purpùrea *W.*	purple-flowered	⅄	△	pr	2	my.jn	Pu	Austria	1759.	D	co	Jac. aust 1 t. 35
11084 ròsea *W.*	Rose-colored	⅄	△	pr	1½	jl	Pk	Hungary	1807.	D	co	Pl.rar.hu 2.t 121
11085 graminifòlia *W*	Grass-leaved	⅄	△	pr	2	jn au	L.Y	Portugal	1759.	D	co	Jac obs 4 t. 100
11086 angustifòlia *W.*	narrow-leaved	⅄	△	pr	½	jn au	Y	S Europe	1759.	D	co	Pl rar.hu 2 t.122
11087 eriospérma *W.*	woolly seeded	⅄	△	pr	1	jn.au	Y	Siberia	1805.	D	co	
11088 taraxacifòlia *W*	Dandelion-lvd.	⅄	△	pr	½	jn.au	Y	Bohemia	1801.	D	s.l	Jac. ic. 1. t. 160
11089 taurica *Bieb.*	Taurian	⅄	△	pr	1	jn.au	Y	Tauria	1820		co	
11090 parviflòra *Jacq.*	small-flowered	⅄	△	pr	2	jl au	Y	Austria	1819.	D	co	Jacq. aust. t. 305
11091 lanàta *Bieb*	woolly	✱	△	pr	1	jl au	Y	Iberia	1824.	D	co	Mor. sc.7.t 6 f 17
11092 ensifòlia *Bieb.*	sword-leaved	⅄	△	pr	1	my jn	Y	Caucasus	1825.	D	co	
11093 hirsùta *L.*	hairy	⅄	△	pr	½	my jn	Y	S. Europe	1818	D	co	All. ped. 31. 3



History, Use, Propagation, Culture,

1620. *Geropogon.* So named from γέρων, an old man, and πώγων, a beard; in allusion to the long silky beard of the seeds

1621. *Tragopogon.* From τράγος, a goat, and πώγων, a beard; a name applied in the same way as Geropogon T. porrifolius, or Salsafy, has a long tapering fleshy white root, which is used like carrots or parsneps, and cultivated in gardens for that purpose The flavor of the root is mild and sweetish; dressed like asparagus, there is some resemblance in taste. It is occasionally grown in British gardens, and a good deal in those of France and Germany. It is raised and treated in all respects similarly to the carrot. T. pratensis answers equally wel for culture as this species, and was formerly preferred to it.

1852. *Brotera.* Partial invol. 1-flowered, many-leaved, common 6-8-flowered, imbricated, many-leaved. Florets tubular, uniform. Recept. naked. Pericarp covered by the adhering involucre.

1853. *Gundelia* Invol. O. Hollows of the recept. 5-flowered. Florets tubular, male and hermaphrodite Recept. paleaceous. Pappus O.

1854. *Euxenia.* Invol. 1-leaved, 10-cleft, reflexed, two of the segments larger than the rest. Anthers distinct. Pappus none. Recept. chaffy

ÆQUALIS.

11055 Leaves smooth
11056 Leaves hairy
11057 Involucrum with scales at the base

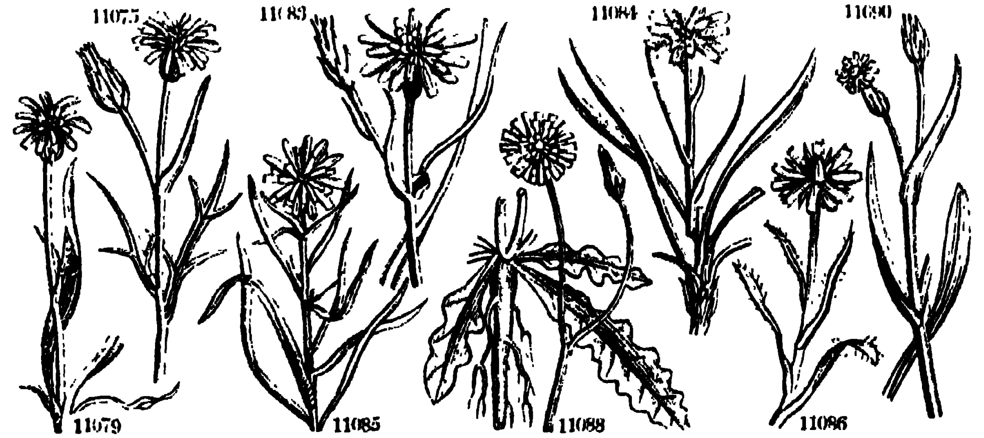
11058 Invol 8-leaved as long as ray, and peduncles downy, Leaves linear straight
11059 Involucre 8-leaved longer than rays of corolla, Leaves entire straight smooth
11060 Invol. about as long as the cor. Leaves undivided glabrous acuminated channelled, Peduncles cylindrical
11061 Invol. 8-leaved as long as rays of cor Leaves entire straight lanc. acuminate
11062 Invol. as long as rays of cor. Leaves entire sub-linear ; those of the stem very wavy
11063 Invol. shorter than ray of cor. Leaves entire somewhat wavy
11064 Invol. longer than ray of cor. Lvs. entire straight, Pedunc thickened upwards, Florets rounded at end
11065 Woolly with down, Invol. shorter than ray of cor. Lvs. linear channelled : cauline revolute
11066 Invol. much longer than the cor. Leaves undivided straight, Peduncle thickened upwards
11067 Invol. 5-leaved longer than ray of cor. Leaves entire, Radical and peduncles villous at base
11068 Invol. half as long again as ray of cor. Stem and leaves villous

11069 Scape 1-fl Leaves of invol. imbricated cuspidate, Leaves linear entire glaucous on each side
11070 Smooth glaucous, Stem erect 2-3-fid somewhat naked, Leaves smooth : radical sublyrate

11071 Invol downy unarmed, Leaves runcinate toothed
11072 Invol. hispid aculeate, Leaves runcinate toothletted : cauline dilated at base
11073 Invol. hispid aculeate, Leaves entire : cauline obl. attenuated at base

11074 Lower leaves lyrate with obl. mucronate segments : upper pinnatifid
11075 Lower leaves pinnatifid : upper linear, Invol. smooth : lower scales spreading mucronate
11076 Lower leaves decursively pinnatifid lanc. : upper linear-lanceolate, Invol before opening 8 angular

11077 Stem 1-flowered leafy, Leaves linear downy beneath, Root tuberous
11078 Leaves ovate nerved downy entire sessile
11079 Stem somewhat naked about 1-flowered, and scales of invol woolly, Leaves obl. lanc. nerved flat
11080 Stem branched, Leaves amplexicaul lanc. entire subserrulate at base
11081 Stem about 1-fl leafy, Leaves lin. lanc. acuminate smooth nerved flat
11082 Stem about 1-fl leafy ascending, Leaves lanc. ensif. smooth nerved flat, Ray longer than invol
11083 Leaves lin. subul. channelled triquetrous, Stem branched
11084 Leaves lanc lin flat : cauline keeled linear, Stem 1-flowered
11085 Leaves lin. ensif. acum. rigid nerved keeled, Invol villous leafy at base, Stem somewhat branched
11086 Leaves subulate entire, Pedunc. thickened, Stem villous at base
11087 Leaves lin. acum keeled woolly at base, Stem branched, Invol. woolly, Fruit downy
11088 Leaves runcinate blunt smooth, Scape leafless branched, Peduncles thickened
11089 Stem leafy many-fl., and invol. downy, Lower leaves lanc acuminate entire downy : upper lin. subulate
11090 Stem branched leafy at base, Leaves lanc. ensif smooth nerved flat, Ray shorter than cal.
11091 Stem 1-fl leafy at base, Leaves lin. lanc. wavy silky with down all over
11092 Stem leafy many-flowered erect, Leaves nerved filiform acuminate, Invol. and seeds woolly
11093 Leaves linear and 1-flowered, Stem hairy



and Miscellaneous Particulars

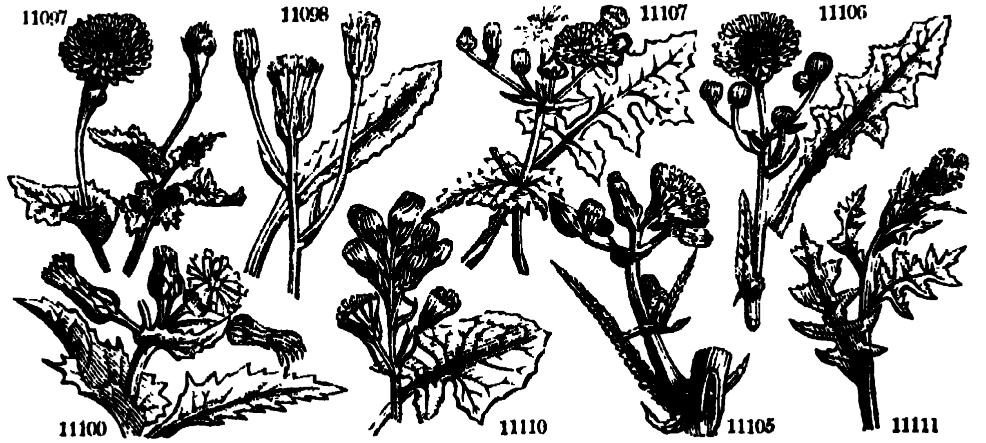
1622. *Troximon.* So named by Gærtner, from τρωξιμος, eatable : but, as Sir James Smith observes, without much propriety.

1623. *Arnopogon.* So named from αρς αρνος, a lamb, and πωγων, a beard : see Geropogon. This is the same genus as has been called by Scopoli and Willdenow, Urospermum.

1624. *Podospermum.* From πους ποδος, a foot, and σπερμα, seed, on account of the long stalk of the fruit. Small herbaceous plants with the flowers of Scorzonera

1625. *Scorzonera.* From scurzon, the Catalonian name of the viper. The plants are esteemed in Spain as a certain remedy for the bite of a viper ; but it is believed that the slender tortuous form of the roots has

11094 muricáta *Dec.*	muricated	♃	△	pr		jn.au	Y	S. Europe	1820.	D	co	
11095 aspérrima *W.*	roughest	♃	△	pr	1	jn.au	Y	Galatia	1821.	D	co	
1626. PICRI'DIUM. *P. S.*	Picridium.					*Compositæ.*		*Sp.* 3.				
11096 vulgáre *P. S.* *Sónchus picroídes* W.	various-leaved		○	cul	1½	jn.au	Y	France	1773.	S	co	All.ped.1.t.16.f.1
11097 tingitánum *P. S.*	Tangier		○	or	1½	jn s	Y	Barbary	1713.	S	co	Bot. mag. 142
11098 álbidum *P. S.* *Crèpis álbida* W.	pale-flowered	♃	△	or	1	jl.o	W.s	France	1781.	D	co	Jac. ic. 1. t. 164
1627. SON'CHUS. *W.*	Sow Thistle.					*Compositæ.*		*Sp* 25—40.				
11099 marítimus *W.*	sea	♃	△	pr	2	jl.s	Y	S. Europe	1748.	D	co	All.ped.1.t.16.f.2
11100 fruticósus *W.*	shrubby	■	⊔	or	3	ap.jl	Y	Madeira	1777.	S	p.l	Jac. ic. 1. t. 161
11101 pinnátus *W.*	wing-leaved	■	⊔	or	3	...	Y	Madeira	1777.	C	co	
11102 lævigátus *W. en.*	smooth	■	⊔	or	3	...	Y	Madeira	1816.	C	co	
11103 lyrátus *W. en.*	lyre-leaved	■	⊔	or	3	...	Y	Madeira	1816.	C	co	
11104 radicátus *W.*	long-rooted	■	⊔	or	3	jl	Y	Canaries	1780.	C	co	
11105 palústris *W.*	tall marsh	♃	△	pr	6	jl.au	Y	England	riv.ba.	D	co	Eng. bot. 935
11106 arvénsis *W.*	corn	♃	△	w	1½	jl.au	Y	Britain	corn fi.	D	co	Eng. bot. 674
11107 oleráceus *W.*	common		○	w	2	jn.au	Y	Britain	fields.	S	co	Eng. bot. 843
11108 tenerrimus *W.*	clammy		○	un	2	jl au	Y	S. Europe	1691.	S	co	Plu.alm. t.93. f.3
11109 Plumiéri *W.*	Plumier's	♃	△	or	6	jl.au	B	Pyrenees	1794	D	co	
11110 alpínus *W.*	blue-flowered	♃	△	or	4	jl au	B	Scotland	al.pas.	D	co	Eng. bot. 2425
11111 lappónicus *W.*	Lapland	♃	△	or	6	jl.au	B	Lapland	1804.	S	co	Smit.ic.ined.t.21
11112 floridánus *W.*	small-flowered	♃	⊙	or	6	jl	B	N. Amer.	1713.	S	co	
11113 caucásicus *Fischer*	Caucasian	♃	△	or	3	au.s	Y	Caucasus	1818.	D	co	
11114 acuminátus *W.*	acuminate	♃	⊙	or	2	au s	Y	N. Amer.	1812.	D	co	
11115 pállidus *W.*	Canadian	♃	△	or	2	jl.s	Y	Canada	1704.	D	co	Rob. ic. 148. 151
11116 sibíricus *W.*	Siberian	♃	△	or	2	jl.s	L.B	Siberia	1759.	D	co	Gmel. sib. 2 t. 3
11117 tatáricus *W.*	Tartarian	♃	△	or	4	jn.jl	B	Siberia	1784.	D	co	
11118 divaricátus *Horn*	divaricating	♃	△	or	3	jl au	Y	......	1823.	D	co	
11119 uliginósus *Bieb.*	swamp		○	or	4	jn jl	Y	Caucasus	1821	S	co	Schku. bot.t.256
11120 lácerus *W.*	torn		○	or	1½	jn jl	Y	......	1820.	S	co	
11121 chondrilloídes *Desf.*	spreading	♃	⊙	or	1½	jn jl	Y	Spain	1729.	S	s.l	Boc.sic.13. t.7.f.4
11122 macrophýllus *L.*	large-leaved	♃	△	or	6	jl.au	B	N Amer	1823.	D	co	
11123 leucophæ'us *W*	shining	♃	⊙	or	6	jl.au	Pu	N. Amer.	1821.	S	co	
1628. LACTU'CA. *W.*	Lettuce.					*Compositæ.*		*Sp.* 19—26.				
11124 sativa *W.*	garden		○	cul	4	jn jl	Y.w	......	1562.	S	co	
11125 críspa *W.*	curled		○	cul	3	jn jl	Y	......	1570.	S	co	
11126 palmáta *W*	palmate		○	cul	3	jn.jl	Y	......	1683.	S	co	
11127 intybácea *W*	Endive-leaved		○	cul	3	jn au	Y	Amer	1781.	S	co	Jac. ic. 1. t. 162
11128 quercína *W.*	Oak-leaved		○	cul	3	my.jl	Y	Sweden	1686.	S	co	
11129 strícta *W.*	upright	♃	⊙	un	3	jn jl	Y	Hungary	1805.	S	co	Pl. rar.hu 1. t.48
11130 elongáta *W.*	elongated	♃	⊙	un	3	jn jl	Y	Pensylva.	1805.	S	co	
11131 Scariola *W.*	prickly	♃	⊙	un	3	jl au	Y	England	rubble.	S	co	Eng. bot. 268
11132 virósa *W.*	strong-scented	♃	⊙	m	3	jl.s	Y	Britain	ch.ba.	S	co	Eng. bot. 1957
11133 angustána *W.*	entire-leaved		○	un	2	jl au	Y	Italy	1791.	S	co	All ped.1.t 52 f.1
11134 sagittata *W.*	arrow-leaved	♃	⊙	un	2	jl.au	Y	Hungary	1805.	S	co	Pl.rar hung.1.t.1
11135 salígna *W.*	least	♃	⊙	un	¼	jl au	Y	England	ch ba.	S	co	Eng. bot. 707
11136 índica *W.*	Indian		[⊙]	un	1½	jl au	Y	E. Indies	1784.	S	co	
11137 altíssima *Bieb.*	tallest	♃	⊙	un	6	jl.au	Y	Caucasus	1823.	S	co	



History, Use, Propagation, Culture,

given rise to this belief, rather than any quality inherent in the plant: for it is a rule to which there are few exceptions, that all plants used as food by man, possess very inactive qualities. If their action was powerful, they would be unfit for food.

Scorzonera hispanica is esteemed diuretic, stimulant, and sudorific. A drink is made from it for variola; and a distilled water is also prepared from it It is also an esculent of occasional culture. The root is carrot-shaped, about the thickness of one's finger, tapering gradually to a fine point, and thus bearing some resemblance to the body of a viper. The outer rind being scraped off, the root is steeped in water, in order to abstract a part of its bitter flavor. It is then boiled or stewed in the manner of carrots or parsneps. The roots are fit for use in August, and continue good till the following spring. Its culture is the same as that of carrot or salsafy.

1626. *Picridium.* A diminutive of *Picris*, which see. Picridium sativum, *Picridium cultivé*, Fr., is sown in the spring as a small salad, and, if not allowed to become too old before it is cut, is an excellent vegetable, with a pleasant delicate flavor, wholly devoid of the bitterness of endive, and of the insipidity of very young lettuces. P. tingitanum is a favorite border annual.

1627. *Sonchus.* Σογχος, in Greek, said to be altered from *σομφος*, hollow, or soft, in allusion to the soft feeble stem of the plants. Sonchus oleraceus, *Sow-thistle*, Eng., *Hasenkohl*, Ger., seems to have nearly the same properties as the Dandelion and Succory, but it is little regarded as a medicine. It is a favorite food with hares and rabbits; and is said to be eaten by goats, sheep and swine, but not to be relished by horses. The young tender leaves are in some countries boiled and eaten as greens: and it is even affirmed, that the tender

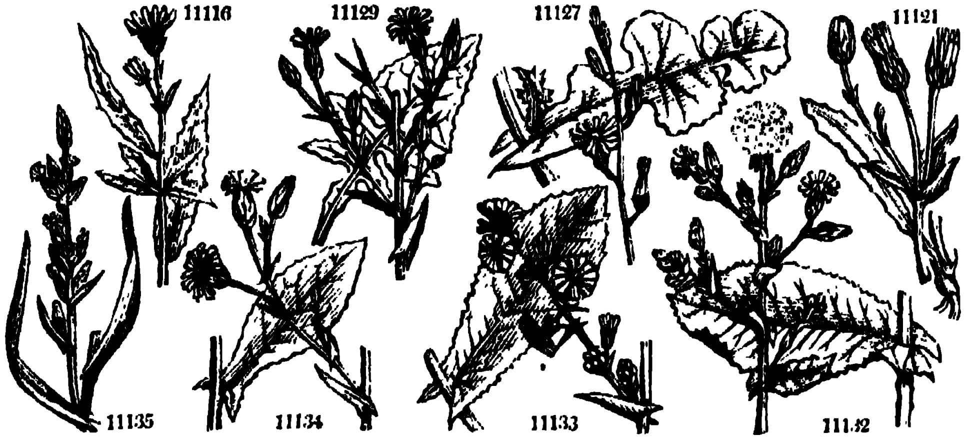
11094 Lower leaves linear : upper pinnatifid, Lobes remote linear
11095 Leaves runcinate hispid, Stem about 2-fl. somewhat leafy hispid

11096 Cauline leaves amplexicaul. obl. nearly entire : radical sublyrate runcinate, Scales of invol. appressed

11097 Leaves amplexicaul. obl. pinnatifid toothed, Invol. squarrose
11098 Leaves scabrous, Scales of invol. membranous at edge ciliated

11099 Pedunc. subsol. term. naked, Leaves lanc. amplexicaul. undivided finely toothed backwards
11100 Pedunc. branched somewhat scaly, Leaves lanc. runcinate, Stem shrubby
11101 Pedunc. naked, Invol. smooth, Leaves pinn. Pinnæ lin.-lanc. somewhat toothed
11102 Pedunc. naked, Invol. turbin smooth : lower scales reflexed at end, Leaves pinnatifid
11103 Pedunc. naked, Inv. turbin. smooth : low. scales reflexed at end, Lvs. lyrate pinnatif. Corymb divaricating
11104 Pedunc. naked and invol. smooth, Stem nearly naked, Radic. lvs. lyrate smooth on each side, Lobes triang.
11105 Pedunc. and invol. hispid somewhat umbelled, Leaves runcinate sagittate at base [ovate
11106 Peduncles and invol. hispid sub-umbellate, Leaves runcinate dentato-ciliate cord. at the base
11107 Peduncles sub-tomentose umbellate, Involucre glabrous, Lvs. runcinate dentato-ciliate amplexic. at base
11108 Pedunc. downy umbell. Invol. hairy, Leaves bipinnatifid cordate sagittate at base
11109 Pedunc. naked, Flowers panicled, Leaves runcinate
11110 Peduncles and involucre hispid racemose, Leaves sublyrate, Terminal lobe deltoid very large
11111 Pedunc. squarrose, Fl. racemose, Leaves runcinate acuminate smooth glaucous beneath
11112 Pedunc. sub-squarrose, Fl. panicled, Leaves lyrate-runcinate toothletted stalked
11113 Leaves sessile : lower cordate toothed ; upper hispid entire, Peduncles scaly
11114 Pedunc. sub-squarrose, Fl. panicled, Radic leaves sub-runcinate : cauline ovate acuminate stalked
11115 Raceme comp. terminal, Leaves lanc ensiform amplexicaul toothed
11116 Pedunc. squarrose, Fl. corymb. Leaves lanc. sessile : lower runcinate toothed ; upper entire
11117 Pedunc. naked, Fl. in corymbose panicles, Leaves lanc. runcinate narrowed at base
11118 Leaves pinnatifid with little white spiny teeth, Calyx slender
11119 Pedunc. and invol smooth a little downy, Leaves sub-runcinate spiny-toothed amplexicaul.
11120 Pedunc. somewhat downy umbellate, Invol. smooth, Leaves pinnatif. toothed auricled cordate at base
11121 Radic. leaves unequally pinnatifid : cauline linear lanc. toothed, Pedunc. long 1-flowered
11122 Peduncles hirsute naked, Fl. panicled, Leaves lyrate cordate at base hairy beneath
11123 Pedunc. scaly, Fl. racemose, Leaves runcinate acuminate, Stem panicled virgate

11124 Leaves rounded : cauline cordate, Stem corymbose
11125 Leaves sinuate-crenate toothed wavy curled : radical with a hairy keel, Florets 5-parted
11126 Lower leaves tripartite pinnatifid with obl. blunt segm. : upper cordate
11127 Leaves runcinate tooth-ciliated blunt amplexicaul. sagittate : radical obovate, Stem panicled
11128 Leaves smooth beneath : lower runcinate toothletted at base dilated and sagittate ; upper lanc. sagittate
11129 Leaves smooth beneath : radical runcinate lyrate toothed ; upper runcinate pinnatifid
11130 Leaves smooth beneath : lower runcinate entire amplexicaul. : upper lanceolate sessile
11131 Leaves vertical prickly at keel acute at end sagittate at base runcinate pinnatifid
11132 Leaves oblong toothed horizontal, their keel prickly, their apex obtuse
11133 Leaves smooth beneath obl. lanc. ciliate-toothed sagittate at base
11134 Leaves smooth beneath : lower oblong narrowed at base toothletted ; upper lanceolate entire
11135 Leaves with a prickly keel : radical lanc. pinnatifid ; cauline linear entire sagittate
11136 Leaves laciniate ensiform sessile unequally toothed
11137 Leaves toothletted smooth : lower sinuated ; upper lanceolate sagittate acuminate, Pan. much branched



shoots of the smooth variety, boiled in the manner of spinach, are superior to any greens not in common use.

Nearly the same thing may be affirmed of S. arvensis, palustris, and other species.

Sonchus floridanus is used as a cure for the bite of the rattle-snake, in the same way as Prenanthes serpentaria. It is called by the American settlers *Gall of the Earth.*

S tenerrimus is eaten by the common people in Italy as a salad

1628. *Lactuca.* From *lac*, milk, on account of the milky sap, which flows copiously when the plants are cut. Besides Lactuca sativa, the French cultivate as small salad both L. quercina, palmata, and intybacea, which are all excellently adapted for such a purpose. L. sativa is well known as furnishing among its numerous varieties the best vegetable of the salad kind grown in the open garden. Whoever has the command of lettuce, onions, and cucumbers, may well dispense with most other acetarious plants. It is questioned by some, whether the greater number of what are set down as species in this genus, are any thing more than variations of one type ; and, at all events, it is thought L. virosa, a poisonous plant, is the parent of our cultivated sorts ; which would not be more remarkable than the fact that the indigenous celery is one of our strongest poisons.

All the species of Lactuca abound in a milky juice, which is found to partake, in a considerable degree, of the qualities of opium. The production of this juice is lessened by culture, and especially by blanching. It is most abundant in plants in a wild state, and in both wild and cultivated lettuce during inflorescence. Of late years, this juice has been collected by incisions and scraping off the thickened juice, as in the collecting the opium of the poppy (See p. 461.), and an opium has been produced little inferior to that of the East. It is called

11138	vimínea *Link.*	rushy-twigged	♃	♂	un	1	jl.au	Y	Austria	1789.	S	co	Jac. aust. 1. t. 9
11139	segusiána *Balbis.*	Italian		○	pr	½	jl.au	Pu	Piedmont	1822.	S	co	
11140	sonchifólia *W.*	Sow-thistle-lvd.	♃	△	un	2	jl.au	Pa.B	Candia	1822.	D	co	
11141	tenérrima *W.*	purple-flowered	♃	△	un	¾	jl.au	Pu	S. Europe	1815.	D	co	
11142	perénnis *W.*	perennial	♃	△	un	2	jn.au	L.B	Germany	1596.	D	co	Bot. mag. 2130

1629. CHONDRIL'LA. *W.* Gum-Succory. *Compositæ.* *Sp.* 2—5.

11143	júncea *W.*	common	♃	△	un	1½	s.o	Y	France	1633.	D	co	Jac. aust. 5. t.427
11144	graminea *Bieb.*	grass-leaved	♃	△	un	1½	s.o	Y	Volga	1824.	D	co	

1630. PRENAN'THES. *W.* Prenanthes *Compositæ.* *Sp.* 9—13.

11145	purpúrea *W.*	purple-flowered	♃	△	or	4	jl.s	Pu	Germany	1658.	D	co	Jac. aust. 4. t.317
11146	álba *W.*	white-flowered	♃	△	or	2	jl.au	W	N. Amer.	1762.	D	p.l	Bot. mag. 1079
11147	altíssima *W.*	tall	♃	△	or	6	jl.au	L.Y	N. Amer.	1696.	D	p.l	Plu.alm.t.317.f.2
11148	cordáta *Ph*	heart-leaved	♃	△	or	4	jl.au	Pa.Y	N. Amer.	1816.	D	co	
11149	spinósa *W.*	prickly	ħ.	⊔	un	3	mr.my	Y	Barbary	1640.	C	co	Park.the.804. f.7
11150	murális *W.*	wall	♃	△	w	2	jl	Y	Britain	woods.	D	co	Eng. bot. 457
11151	pinnáta *L.*	pinnate	ħ.	⊔	un	3	jn jl	Y	Teneriffe	1820.	S	co	
11152	arbórea *Brouss.*	arborescent	ħ.	⊔	un	3	jn jl	Y	Teneriffe	1824.	S	co	
11153	hieraciifólia *W.*	small-flowered		○	un	1½	jn.s	Y	Scotland	sc.roc.	S	co	Eng. bot. 2325
	Crepis púlchra L.												

1631. LEON'TODON. *W.* Dandelion. *Compositæ* *Sp.* 6—9.

11154	Taráxacum *W.*	common	♃	△	w	1	ap.jl	Y	Britain	me.pa.	D	co	Eng. bot. 510
11155	serótinus *W.*	late-flowering	♃	△	un	1½	jl s	Y	Hungary	1816.	D	co	Pl.rar.hu 2 t 114
11156	palústris *E. B.*	marsh	♃	△	w	1½	jn.jl	Y	Britain	mo. p.	D	co	Eng. bot. 553
	lividus W.												
11157	obovátus *W.*	obovate-leaved	♃	△	un	1	jl	Y	Spain	1805.	D	co	
11158	glaucéscens *Bieb.*	glaucous	♃	△	un	1	jl	Y	Volga	1823.	D	co	
11159	bessarábicus *Fisch.*	Bessarabian	♃	△	un	1	jl	Y	Bessarabia	1821	D	co	

1632 APAR'GIA *W.* Apargia. *Compositæ.* *Sp.* 14.

11160	aurantíaca *W*	Orange-colored	♃	△	pr	½	my jn	Or	Hungary	1816.	D	co	
11161	alpína *W*	Alpine	♃	△	un	1	my jn	Y	Austria	1816.	D	co	Bot. cab 539
11162	hastílis *W.*	shining-leaved	♃	△	un	1	jl au	Y	S. Europe	1798.	D	co	Jac. aust. 2. t 164
11163	dúbia *W.*	tooth-leaved	♃	△	un	1	au	Y	Germany	...	D	co	
11164	tuberósa *W.*	knotty-rooted	♃	△	un	1	my jl	Y	France	1683	D	co	Lob. ic. 232. f. 1
11165	incána *W*	hoary	♃	△	un	1	my jn	Y	S. Europe	1784.	D	co	Jac. aust 3. t.287
11166	Taráxaci *W*	Dandelion-lvd	♃	△	w	1	au	Y	Britain	sc.alps.	D	co	Eng. bot. 1109
11167	autumnális *W.*	autumnal	♃	△	w	1	au	Y	Britain	me. pa	D	co	Eng bot. 830
11168	críspa *W.*	curled	♃	△	un	½	jl au	Y	France	1803.	D	co	Vil.dauph.3. t 25
11169	híspida *W.*	rough	♃	△	w	½	jl.s	Y	Britain	ch.pas.	D	co	Eng bot. 554
11170	áspera *W.*	hairy	♃	△	un	1	jn jl	Y	Hungary	1805.	D	co	Pl.rar hu.2.t.110
11171	cróceа *W*	deep-yellow	♃	△	un	1	jn jl	Or	Hungary	1823.	D	co	
11172	caucásica *Bieb.*	Caucasian	♃	△	un	1	jn jl	Y	Caucasus	1820	D	co	
11173	Villársii *W.*	Dauphiny	♃	△	un	1	jn jl	Y	Dauphiny	1821.	D	co	Vill.delph.3. t 25

History, Use, Propagation, Culture,

Lactucarium, and was first brought into notice by Dr. Duncan, of Edinburgh, who finds it can be administered with effect in cases were poppy opium is inadmissible. Details of the process of collecting and preparing the article, will be found in the Caledonian Horticultural Memoirs. (Vol. i. 160-259. ii. 314. and iv. 153.)

The culture of lettuce as a salad plant is familiar to every one who has a garden. It is sown monthly, or oftener, throughout the year, in order to have a successional supply, and thinned out or transplanted to increase the size and succulency. The latter quality is greatly increased by watering in summer; and blanching, another desirable property, is promoted by tying up the leaves when the plant has attained about two-thirds of its usual size. Snails and slugs are very fond of this plant, and should either be watched and hand-picked, or the ground well watered with lime water, which effectually destroys them. The lettuce, unlike the cabbage and spinage, is a vegetable which can be grown to as great perfection in a warm as in a temperate climate, provided it be grown on rich soil, and abundantly supplied with water. Hence the lettuces of Paris, Rome, and Calcutta, are as large and tender as those of London and Amsterdam.

This genus is the type of the tribe *Lactuceæ* of M. Cassini. It differs essentially from all other tribes of Compositæ, in having a divided or ligulate corolla only, and from nearly all other tribes in its style, which can be compared to that of Vernonieæ only. The radiant head of flowers is a character common both to Lactuceæ and Nassauvieæ. The greater part of Lactuceæ are found in Europe, a smaller number in Asia and Africa, very few in America, and in the southern hemisphere none at all.

1629. *Chondrilla.* Derived from χονδρος, a lump. Dioscorides says, it bears on its stems little lumps of gummy matter. But Theophrastus speaks of the grumous or tubercled roots of his Chondrilla. The plant now so called is an inconspicuous perennial plant, of no recorded use.

1630. *Prenanthes.* From πρηνης, drooping, and ανθος, a flower. The heads of flowers of all the species are

11138 Leaves decurrent: lower pinnatifid toothed outwards; upper linear, Stem branched
11139 Lower leaves lanc. runcinate toothed narrowed at base and sessile: upper linear sagittate
11140 Leaves runcinate pinnatifid unequally toothed: floral lanceolate, Flowers racemose
11141 Radic. leaves pinnatif. toothed: cauline linear entire sagittate, Branches 1-flowered
11142 Leaves all pinnatifid: segments linear toothed upwards, Fl. in corymbose panicles

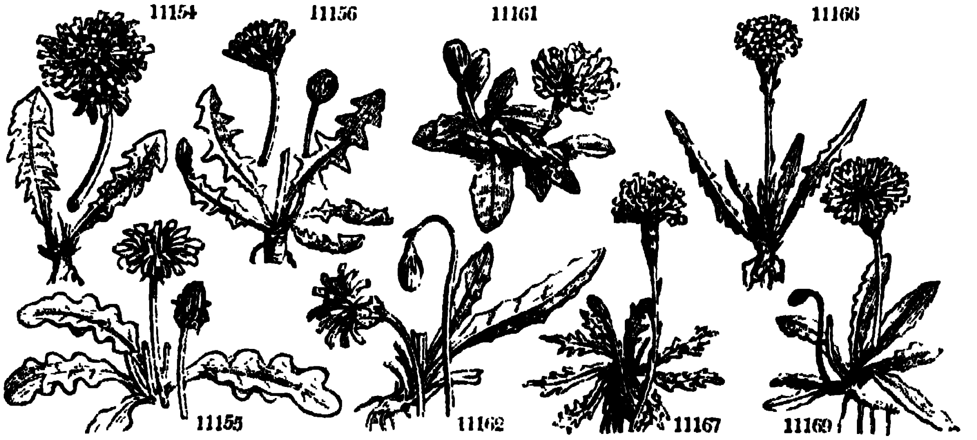
11143 Radic. leaves runcinate: cauline linear entire
11144 Radic. leaves runcinate: cauline undivided filiform, Stem and invol. smooth

11145 Invol. 5-fl. Leaves obl. lanc. amplexicaul. cordate denticulate glaucous beneath
11146 Invol. many-fl. Leaves angular hastate toothed, Flowers nodding racemose panicled
11147 Invol. 5-fl. Leaves 3-lobed stalked angular toothletted rough at edge, Racemes axillary, Fl. nodding
11148 Stem panicled upwards, Leaves stalked cordate toothed ciliated, Panicle lax racemose
11149 Leaves linear tooth-sinuated sessile, Stem shrubby much branched, Branches spiny
11150 Florets 5, Leaves lyrate-pinnatifid and toothed, the terminal lobe with about 5 angles
11151 Leaves pinnated, Leafl. linear filiform, Panicle corymbose stalked, Stem shrubby
11152 Leaves pinnatifid pinnate with linear segments
11153 Leaves pubesc. toothed, those on the stem subsaggitate, Stem panicled corymb. Invol. pyramidal glabrous

11154 Outer scales of the involucre reflexed, Leaves runcinate glabrous toothed
11155 Outer invol. spreading, Leaves runcinate scabrous, Segments round toothletted
11156 Outer scales of the involucre erect appressed, Leaves sinuato-dentate nearly glabrous

11157 Outer invol. spreading, Scales ovate, Scape 1-fl. Leaves obov. bluntish toothed
11158 Outer invol. spreading, Scales ovate-lanceol. Lvs. runcinate pinnatifid glabrous with lin. falc. distant lobes
11159 Leaves pinnatifid to the nerve smooth, Leaves of invol. smooth reflexed

11160 Scape 1-fl. naked thickened and hairy upwards, Invol. hispid, Leaves lanc. obl. somewhat toothed
11161 Scape 1-fl. squarrose thickened and somewhat hairy upwards, Invol. hispid, Leaves lanc. obl. smoothish
11162 Scape 1-fl. naked and invol. smooth, Leaves lanc. runcinate-toothed smooth
11163 Scape 1-fl. nearly naked upward and invol. hairy, Leaves lanc. toothed at base with a few forked hairs
11164 Scape 1-fl. naked smooth. Scales of invol. acute hairy, Lvs. obov. runcin. hairy scabrous, Root tuberous
11165 Scape 1-fl. nearly naked and calyx pubesc. Lvs. lanceol acute somewhat toothed hoary Hairs multifid
11166 Scape single-flow. thickened upwards, Leaves glab runcinato-dentate, Involucre very hairy
11167 Scape branched scaly upwards, Lvs. lanc. toothed or pinnatif sub-glab. Pedunc swelling beneath invol
11168 Scape naked 1-fl and invol. hairy, Lvs. runcinate pinnatifid hairy, Segm. recurved tooth. Hairs 3-forked
11169 Scape single-flowered, Leaves dentate scabrous, Florets hairy at their orifice glandular at the tip
11170 Stem leafy somewhat branched hairy, Invol smooth, Leaves lanc. runcinate hairy, Hairs forked
11171 Scape 1-fl. scaly thickened upwards and hairy, Invol. hispid, Leaves runcinate smooth
11172 Scape naked 1-fl. glabrous, Invol. hairy, Leaves runcinate toothed scab. somewhat hairy, Hairs prostrate
11173 Scape naked 1-fl. and invol. smoothish, Leaves pinnatifid-toothed hispid, Hairs simple subulate



and Miscellaneous Particulars.

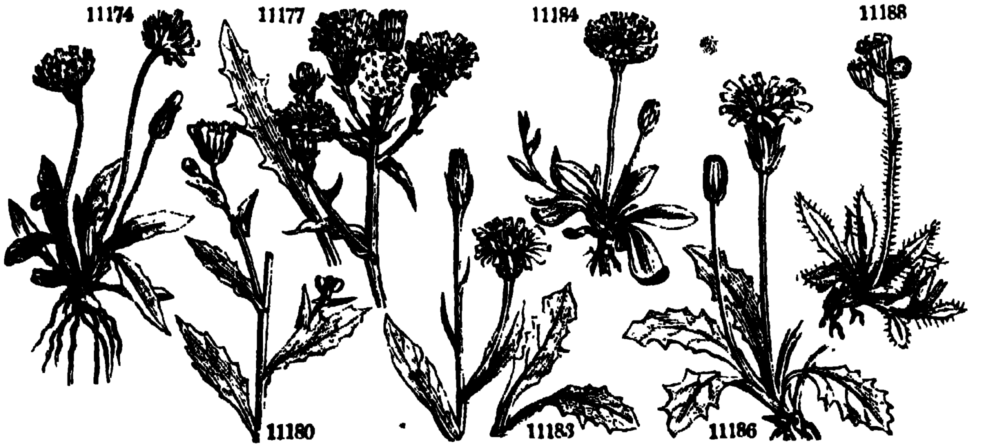
nodding. Prenanthes serpentaria grows to the height of two feet, bearing pale purple flowers. It is known by the inhabitants of Virginia and Carolina under the name of the Lion's Foot, and is in high esteem as a cure for the bite of the rattle-snake. The juice of the plant boiled in milk is taken inwardly, and steeped leaves, frequently changed, are applied to the wound. It must not be confounded with Prenanthes rubicunda, called False Lion's Foot, which is a less powerful plant.

Prenanthes virgata has a very fine effect in large plantations.

1631. *Leontodon.* So named from λεων, a lion, and οδους, a tooth; in reference to the deep tooth-like divisions of the leaves. The English name *Dandelion*, is a corruption of the French translation of this word, *Dent de lion;* in German *Pfaffenröhrlein* and *Dotterbluhme.* It has been recommended as a winter salad, blanched like Endive; but it possesses too much bitter principle to render it fit for table under any management. *Dent de lion*, Fr., from its cut leaves, and *Piss-en-lit*, in French, and most other European languages, from its diuretic qualities. The tender leaves in spring, used in compound salads, are equal to those of Endive or Succory. The roots, which are fusiform, and abound in a milky juice, are eaten raw as a salad by the French, and boiled by the Germans, like Salsafy and Scorzonera. Dried and ground into powder, they afford a substitute for coffee, in all respects equal to that of Chicory roots. It is a difficult weed to extirpate, because every inch of root will form buds and fibres, and thus constitute a new plant. Swine are fond of it, and goats will eat it, but sheep and cows dislike it, and by horses it is refused.

1632. *Apargia.* Ἀπαργια is the Greek name of a plant now unknown. It has been employed by Dalechamp and Scopoli for a species of Hieracium. At the present day it is given to a genus of weedy plants, with the appearance of Leontodon.

1633. **THRIN'CIA.** *W.*	Thrincia.					*Compositæ.*		*Sp.* 3—6.				
11174 **hírta** *W.*	simple-haired	⚘	△	un	1½	jl.au	Y	Britain	gra.pa.	D	co	Eng. bot. 555
11175 **híspida** *W.*	hispid		○	un	1	jn au	Y	S. Europe	1815.	S	co	
11176 **maroccána** *P. S.*	Morocco		○	un	1	jn.au	Y	Morocco	1799.	S	co	
Hyóseris híspida W.												
1634. **PI'CRIS.** *W.*	Ox-Tongue.					*Compositæ.*		*Sp.* 4—7.				
11177 **hieracioídes** *W.*	Hawkweed-like		○	un	1½	jl.au	Y	England	bor.fi.	S	co	Eng bot. 196
11178 **asplenioídes** *W.*	Spleenwort-lvd.	⚘	△	un	1½	jl.au	Y	Barbary	1805.	D	co	L'Her stirp. t.82
11179 **híspida** *H. K.*	hispid	⚘	△	un	1	jl.au	Y	Levant	1789.	D	co	
11180 **sprengeriána** *P. S.*	branched		○	pr	1	jn.jl	Y	Portugal	1783.	S	co	Moris.s.7.t.5.f.15
1635. **HIERA'CIUM.** *W.*	Hawkweed.					*Compositæ.*		*Sp.* 75—117.				
11181 **rupéstre** *All.*	rock	⚘	△	pr	¼	jn.jl	Y	Switzerl.	1820.	D	co	All.auct.1.t.1.f.1
11182 **alpínum** *L.*	Alpine	⚘	△	pr	½	jl.au	Y	Britain	al. roc.	D	co	Eng. bot. 1110
11183 **alpéstre** *Jacq.*	mountain	⚘	△	pr	½	jl.au	Y	Switzerl.	1822.	D	co	Jacq.austr.t.191
11184 **Pilosélla** *L.*	Mouse-ear	⚘	△	pr	½	my.jl	Y	Britain	dry pa.	D	co	Eng. bot. 1093
11185 **bulbósum** *W.*	bulbous	⚘	△	pr	¾	my.jl	Y	Barbary	...	D	co	
11186 **aúreum** *W.*	golden	⚘	△	or	½	my.jl	D.Y	Italy	1769.	D	p.l	Jac. aust.3 t.297
11187 **dúbium** *L.*	branching	⚘	△	pr	¼	jl.au	Y	Britain	hills	D	co	Eng. bot. 2332
11188 **aurícula** *L.*	umbelled Mouse-ear	⚘	△	pr	1½	jl au	Y	England	moun.	D	co	Eng. bot. 2368
11189 **fállax** *W. en.*	hairy spear-lvd.	⚘	△	pr	1	jl.au	Y	......	1816.	D	co	
11190 **florentínum** *All.*	Florentine	⚘	△	pr	2	jl.au	Y	Germany	1796.	D	co	Bauh. pin. t. 67
11191 **cymósum** *L.*	small-flowered	⚘	△	pr	1	my jn	Y	Europe	1739.	D	co	Col.ecph.1. t.249
11192 **angustifólium** *Hoppe.*	narrow-leaved	⚘	△	pr	¼	my.jn	Y	Switzerl.	1823.	D	co	
11193 **staticifólium** *All.*	Thrift-leaved	⚘	△	pr	1½	jn.jl	Y	Europe	1804.	D	co	Vil.dauph.3.t.27
11194 **flagelláre** *W. en.*	creeping	⚘	△	pr	1	my jl	Y	......	1816.	D	co	
11195 **bifur'cum** *Bieb.*	forked	⚘	△	pr	1½	jn	Y	Tauria	1820.	D	co	
11196 **bífidum** *W.*	bifid	⚘	△	pr	1½	jn	Y	Hungary	...	D	co	
11197 **Gmelíni** *W.*	Gmelin's	⚘	△	pr	1½	jn jl	Y	Siberia	1798.	D	co	Gme sib.2.t.8.f.2
11198 **præmorsum** *L.*	bitten	⚘	△	pr	1	jn jl	Pa.Y	Switzerl.	1818.	D	co	Gm.sib.2.t 13 f.2
11199 **incarnátum** *Jacq.*	flesh-colored	⚘	△	pr	1½	jn jl	Pk	Carniola	1815.	D	co	Jac. ic. t. 578
11200 **aurantíacum** *L.*	orange	⚘	△	or	1½	jn jl	O	Scotland	sc wo.	D	p.l	Eng. bot. 1469
11201 **Lawsóni** *Vill.*	Lawson's	⚘	△	pr	¼	jn jl	Y	Britain	n.of e.	D	co	Eng. bot. 2083
11202 **venósum** *W.*	veined	⚘	△	pr	½	jn.jl	Y	N. Amer.	1790.	D	co	
11203 **Gronóvii** *W.*	Gronovius's	⚘	△	pr	1	jn.jl	Y	N. Amer.	1798.	D	co	Pluk.alm.420.2
11204 **paniculátum** *W.*	panicled	⚘	△	pr	1½	jn jl	Y	Canada	1800.	D	co	
11205 **glaúcum** *All.*	glaucous	⚘	△	pr	1½	jn.jl	Y	S. Europe	1807.	D	co	All. ped. 28. 3
11206 **saxátile** *Jacq.*	rock	⚘	△	pr	1	jl.au	Y	Austria	1801.	D	co	Jac. ic. 1. t. 165
11207 **prenanthoídes** *Vill.*	large-leaved	⚘	△	pr	2	jl au	Y	Switzerl.	1820.	D	co	
11208 **chondrilloídes** *W.*	Gum-succory	⚘	△	pr	½	jn jl	Y	Austria	1640.	D	co	Jac. aust.5. t.429
11209 **cydoniæfólium** *Vill.*	Quince-leaved	⚘	△	pr	2	jl.au	Y	France	1816	D	co	
11210 **mólle** *Jacq.*	soft-leaved	⚘	△	pr	1	jl.au	Y	Scotland	sc wo.	D	co	Eng. bot. 2210
11211 **cerinthoídes** *L.*	Honeywort-lv	⚘	△	pr	1½	jl.s	Y	Scotland	sc roc.	D	co	Eng bot. 2378
11212 **amplexicaúle** *L.*	heart-leaved	⚘	△	pr	1½	jl au	Y	Pyrenees	1739	D	co	All. ped. t.15. f.1
11213 **pyrenáicum** *L.*	Pyrenean	⚘	△	pr	1	jl au	Y	Pyrenees	1723.	D	co	
β pilósum W.	*pilose*	⚘	△	pr	1	jl au	Y	Pyrenees	1723.	D	co	Her.parad. t 184
γ austríacum Jacq.	*Austrian*	⚘	△	pr	1	jl.au	Y	Pyrenees	1723	D	co	Jac. aust.5. t.441
11214 **sibíricum** *W.*	Siberian	⚘	△	pr	2	jl au	Y	Siberia	1755.	D	co	Gmel. sib. 2 t.10
11215 **grandiflórum** *All.*	great-flowered	⚘	△	pr	2	jl.au	Y	Switzerl.	1791.	D	co	Pl rar. hu.1.t 99
11216 **intybáceum** *Jacq.*	Endive-leaved	⚘	△	pr	2	jl.au	Pa.Y	Europe	1794.	D	co	Jac.aus 5.t ap.43
11217 **Halléri** *Vill.*	Haller's	⚘	△	pr	½	jl.au	Y	Europe	1802.	D	co	Vil dauph 3 t 26
11218 **maculátum** *E. B.*	stained-leaved	⚘	△	pr	1½	jl.au	Y	Britain	al.roc.	D	co	Eng. bot. 2121
11219 **pulmonárium** *E. B.*	Lungwort	⚘	△	pr	1½	jl.au	Y	Scotland	sc.roc.	D	co	Eng. bot. 2307
11220 **porrifólium** *W.*	Leek-leaved	⚘	△	pr	1	jl.au	Y	Austria	1640.	D	co	Jac. aust.3. t.286
11221 **montánum** *W.*	mountain	⚘	△	pr	1	jn.jl	Y	S. Europe	1775.	D	co	Jac. aust.2. t.190
11222 **eriophýllum** *Link.*	villous	⚘	△	pr	1½	jn au	Y	......	...	D	co	
11223 **sylváticum** *W.*	wood	⚘	△	pr	1½	au	Y	Britain	rocks.	D	co	Eng. bot. 2031
11224 **villósum** *L.*	shaggy Alpine	⚘	△	pr	1	jl.au	Y	Scotland	al.roc.	D	co	Eng. bot 2379
11225 **pilocéphalum** *Link.*	hairy-headed	⚘	△	pr	1	jl.au	Y	Europe	1820.	D	co	
11226 **trichocéphalum** *W.en.*	shaggy	⚘	△	pr	1	jl.au	Y	......	1823.	D	co	
11227 **flexuósum** *W.*	bending-stalk'd	⚘	△	pr	1½	jl.au	Y	Hungary	1804.	D	co	



History, Use, Propagation, Culture,

1633. *Thrincia.* From θριναξ, a feather; in allusion to the feathery pappus of the seeds. Small uninteresting weeds of no value or beauty.

1634. *Picris.* From πικρος, bitter; a name given by the Greeks to some plant resembling Lettuce, on account of its bitterness. None of the species are remarkable for their qualities.

11174 Scape single-fl. Leaves dentate scab. Involucre nearly glab. Outer pericarps with a scaly pappus
11175 Scape 1-fl. pilose, Invol. hoary naked, Leaves lanc. blunt toothed, Hairs forked
11176 Scape 1-fl. hispid, Leaves obl. runcinate toothed hispid, Hairs forked

11177 Stem erect scabrous, Leaves amplexicaul. lanc. toothed, Fl. corymbose, Outer invol. lax
11178 Stem ascending scabrous, Leaves obl. lanc. blunt sinuate pinnatifid, Pedunc. thickened
11179 Leaves obl. lanc. nearly entire sessile, and invol. hispid, Hairs glochidate
11180 Stem branched spreading leafy, Leaves amplexicaul. obl. repand hispid

§ 1. *Scape one-flowered, naked.*

11181 Scape 1-leaved, Invol. hairy, Leaves lanc. runcinate toothed subpubescent, Teeth recurved
11182 Scape somewhat naked villous, Invol. very villous, Leaves lanc. entire acute villous
11183 Scape 1-leaved downy upwards, Invol. cylindr. downy, Leaves lanc. toothletted
11184 Leaves entire ovate downy beneath, Stolones creeping
11185 Scape naked thickened upwards hairy, Invol. smooth, Leaves lanc. obl. somewhat toothed smooth
11186 Scape nearly naked, Invol. hispid, Leaves lanc. spatulate runcinate-toothed smoothish

§ 2 *Scape many-flowered, naked.*

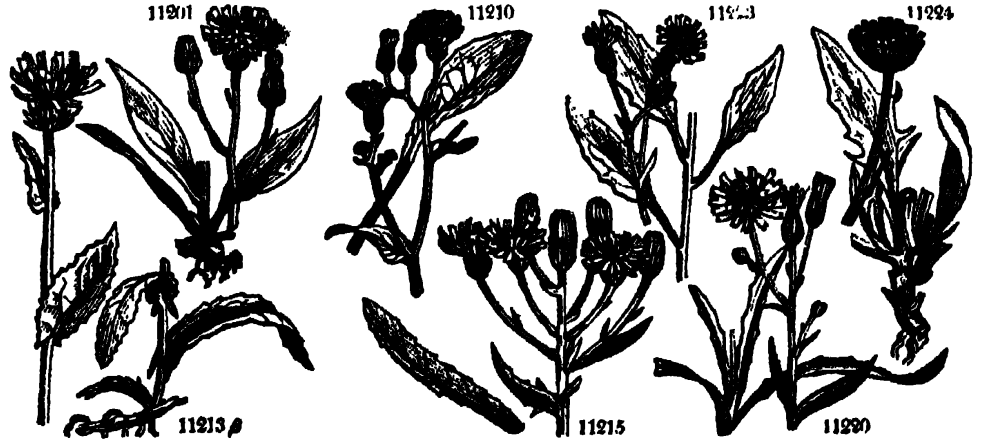
11187 Scape about 4-fl. naked, Leaves obl. blunt entire, Stolones creeping
11188 Scape 1-leaved with about 6 fl Fl. umb. Leaves lanc. acute entire, Stolones creeping
11189 Scape leafy pilose at base, Fl. corymbose, Peduncles downy, Leaves lanc. acute nearly entire pilose
11190 Scape leafy smoothish, Fl. in corymbose panicles, Pedunc. spreading, Invol. hairy
11191 Scape leafy hispid, Fl. in corymbose panicles, Pedunc. clustered, Invol. hispid
11192 Scape about 3-fl. 1-leaved hairy, Leaves lin. lanc. acute pilose
11193 Scape somewhat naked branched about 3-fl. Pedunc. squarrose, Leaves lin. lanc. toothletted smooth
11194 Scape about 2-fl. Peduncles long, Leaves spatulate lanc. entire pilose, Stolones creeping
11195 Scape forked about 2-fl. and leafy at base, Leaves lanc. acute entire, Stolones O
11196 Resembles H. murorum, but the stem is naked
11197 Scape naked corymbose, Leaves lyrate runcinate hairy
11198 Leaves ovate somewhat toothed, Scape naked racemose, Upper flowers opening first
11199 Scape naked scabrous at base, Fl. in racemose corymbs, Leaves oblong blunt toothletted hairy
11200 Scape leafy hispid, Fl. corymbose, Pedunc. clustered, Leaves obl. acutish pilose-hispid
11201 Scape somewhat naked branched, Invol. with glandular hairs, Leaves oblong acute entire woolly
11202 Scape naked branched, Invol. smooth, Leaves obovate acute entire ciliated, Veins colored
11203 Scape leafy in corymbose panicles, Invol. pubescent, Radic. leaves entire obovate blunt ciliated

§ 3. *Stem leafy.*

A. *Leaves entire.*

11204 Stem erect, Leaves alternate lanc. naked toothed, Panicle capillary
11205 Stem erect branched, Leaves lanc. sessile somewhat toothed ; laucous narrowed at each end
11206 Stem erect branched, Leaves lin. lanc. nearly entire narrowed at each end ciliated at base
11207 Stem erect simple, Leaves lanc. cordate amplexicaul. toothletted downy, Fl racemose corymbose
11208 Stem erect few-fl. Cauline leaves lanc. acum. runcinate : radical obl. lanc undivided
11209 Stem erect pilose panicled, Leaves ovate oblong subcordate sessile remotely toothed entire at end
11210 Stem erect hairy, Fl. subcorymbose, Cauline leaves oblong lanceolate stem-clasping : radical toothed
11211 Stem erect villous, Lvs. pilose somewhat toothed : radic. obov., caul. obl. half-amplexicaul, Inv. hirsute
11212 Stem erect branched, Lvs. ovate cord amplexicaul. toothed towards the base, Pedunc. and invol. hirsute
11213 Stem erect simple furrowed smoothish, Rad. lvs. obl. deeply toothed at base ; caul. hastate sagit. Inv. lax

11214 Stem erect panicled furrowed downy, Leaves rugose : upper lanceol. Invol. lax hispid
11215 Stem ascending simple furrowed viscid, Leaves lanc. with recurved teeth, Involucre hispid
11216 Stem erect branched hispid, Leaves lanc. toothed sessile narrowed at each end, Invol. lax hispid
11217 Stem erect about 2-fl. Leaves pilose toothed : radical oblong ; cauline lanc. sessile, Invol. villous
11218 Stem cymose fistulous many-leaved, Leaves ovate-lanceolate toothed forwards
11219 Stem cymose solid few-leaved, Leaves lanceolate broadly toothed forwards
11220 Stem erect branched leafy, Leaves linear entire
11221 Stem erect simple leafy 1-fl. Leaves ovate-lanc. toothletted sessile
11222 Radic. leaves oblong and lanceolate bluntish narrowed at base toothletted woolly, Invol. hoary
11223 Stem leafy erect simple, Leaves oblong villous somewhat toothed, Fl. panicled
11224 Stem erect somewhat branched and lvs. villous : radic obl. lanc toothed ; caul. ovate cord. amplexicaul.
11225 Differs from H. villosum in having the involucrum covered with dense short brown hairs
11226 Radical lvs. lanc. narrowed into stalk : caul sub-amplexic. toothed backwards acute smooth, Inv. villous
11227 Stem erect smooth below, Leaves sub-villous lanc acute : radical toothletted, Invol. villous



and Miscellaneous Particulars.

1635. *Hieracium.* It was believed formerly, that birds of prey made use of the juice of this kind of plant to strengthen their vision ; whence it was called *Hieracium*, from ἱέραξ, a hawk ; the French word *Epervière*, the English *Hawk-weed*, and the German *Habichtskraut*, all bear witness to the universal belief in this very strange opinion. An extensive genus of plants, many of which, especially H. aurantiacum, are objects

11228	prostrátum *W. en. s.*	prostrate	♃	△	pr	½	au	Y	S. Europe	1822.	D	co	
11229	Kálmii *W.*	Kalm's	♃	△	pr	1½	au	Y	Pensylva.	1794.	D	co	
11230	speciosissimum *W.*	shewy	♃	△	pr	1½	au	Y	S. Europe	1821.	D	co	
11231	denticulátum *E. B.*	small-toothed	♃	△	pr	1	jl.au	Y	Scotland	sc.wo.	D	co	Eng. bot. 2122
11232	Milléri *Link.*	Miller's	♃	△	pr	1	jl.au	Y	......	1820.	D	co	
11233	echioídes *W.*	Viper's-bugloss	♃	△	pr	½	jl.au	Y	Hungary	1802.	D	co	Pl.rar.hu.2.t.145
11234	verruculátum *Link.*	warted	♃	△	pr	1	jl.au	Y	......	1821.	D	co	
11235	undulátum *H. K.*	wave-leaved	♃	△	pr	1½	jl.au	Y	Spain	1778.	D	co	
11236	dentátum *Link.* *prenanthoides* Sm.	rough-bordered	♃	△	pr	3	jn.s	Y	Scotland	sc.wo.	D	co	Eng. bot. 2235
11237	latifólium *Link.*	broad-leaved	♃	△	pr	2	jl.au	Y	Croatia	1820.	D	co	
11238	foliósum *W. & K.*	leafy	♃	△	el	2	jl.au	Y	Hungary	1805.	D	co	Pl.rar.hu.2.t.145
11239	sabaúdum *W.*	Savoy	♃	△	el	3	jl.au	Y	Britain	groves.	D	co	Eng. bot. 349
11240	lævigátum *W.*	smooth	♃	△	el	2	au.s	Y	......	1804.	D	co	W.hort.ber. t.16
11241	canéscens *Link.*	hoary	♃	△	el	2	au.s	Y	......	1822.	D	co	
11242	umbellátum *L.*	narrow-leaved	♃	△	el	3	jl.s	Y	Britain	woods.	D	co	Eng. bot. 1771
11243	bracteolátum *Link.*	bracteolate	♃	△	el	1½	jl.s	Y	Europe	1823.	D	co	
11244	longifólium *Hornem.*	long-leaved	♃	△	el	1½	jl.s	Y	......	1821.	D	co	
11245	fruticósum *W.*	shrubby	♄	⌴	el	2	jn.jl	Y	Madeira	1785.	C	co	
11246	húmile *W.*	small	♃	△	pr	¼	jl.au	Y	Germany	1804.	D	co	Vill.delph.3.t.28
11247	nigréscens *W.*	dark-colored	♃	△	pr	¼	jl.au	Y	......	1801.	D	co	W. hort. ber. 10
11248	prunellifólium *Gouan.*	Self-heal-leav.	♃	△	pr	½	jl.au	Y	Switzerl.	1820.	D	co	Goua.ill. t.22.f.3
11249	murórum *L.*	wall	♃	△	w	1½	jl	Y	Britain	rocks.	D	co	Eng. bot. 2082
11250	paludósum *L.*	Succory-leaved	♃	△	pr	1½	jl.au	Y	Britain	moun.	D	co	Eng. bot. 1094
11251	lapsanoídes *W.*	Lapsana-like	♃	△	pr	1½	jl.au	Y	Pyrenees	1812.	D	co	Goua.ill. t.21.f.3
11252	ramósum *W. & K.*	branching	♃	△	pr	2	au	Y	Hungary	1805.	D	co	
11253	lyrátum *W.*	Lyre-leaved	♃	△	pr	2	jl.au	Y	Siberia	1777.	D	co	Gmel. sib. 2. t. 9
11254	glutinósum *W.*	clammy		○	pr	1½	jl.au	Y	S. Europe	1796.	S	co	
11255	fasciculátum *Psh.*	bundled	♃	△	pr	5	jl.au	Y	Canada	...	D	co	

1636. LAGO'SERIS *Link.* Lagoseris. *Compositæ.* *Sp.* 6—10.

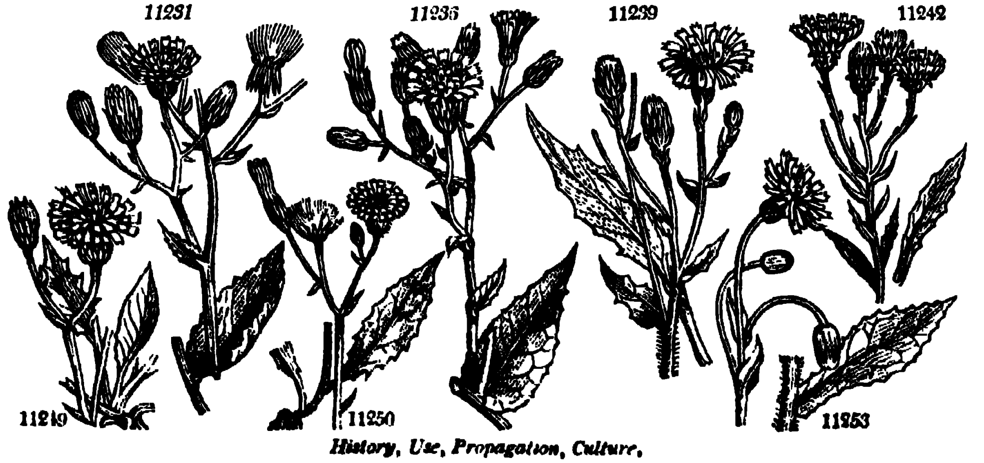
11256	bursifólia *Link.* *Crepis bursifolia* L.	Shepherd's-purse-lv.	♃	△	un	2	jl.au	Y	Sicily	1823.	S	co	Bocc. mus. t.106
11257	versicolor *Fischer*	changeable	♃	△	un	2	jl.au	Y	Dauria	1820.	D	co	
11258	leontodóntoides *Link.*	Dandelion-like	♃	⊙	un	1	jl.au	Y	Italy	1804	S	co	
11259	raphanifólia *Link.*	Radish-leaved	♃	△	un	2	jn.jl	Y	......	1816.	D	co	
11260	taurinénsis *Link.*	Turin		○	un	2	jn.jl	Y	Italy	1822.	S	co	
11261	intybácea *Link.*	Endive-leaved	♃	⊙	un	2	jn.jl	Y	Portugal	1816.	S	co	

1637. BORKHAU'SIA. *Dec.* Borkhausia. *Compositæ.* *Sp.* [illegible]—9.

11262	nicæénsis *Link.*	Nice		○	pr	1½	jn.jl	Y	Nice	1823.	S	co	
11263	alpina *Link.*	Alpine		○	pr	1	jl	Y	Italy	1739.	S	co	Gmel. sib. 2 t. 5
11264	rúbra *Link.*	purple		○	pr	1½	jn.jl	Pu	Italy	1032.	S	co	
11265	fœ'tida *Link.*	fetid		○	un	1½	jn.jl	Y	S. Europe	1824.	S	co	M. his. s.7.t.4.f.4
11266	gravéolens *Link.*	stinking		○	un	1½	jn.jl	Y	......	1825.	S	co	
11267	áspera *Link.*	rough		○	un	1½	jl.au	Pa.Y	Sicily	1797.	S	co	
11268	hispida *Link.*	hispid		○	un	2	jl.au	Y	S. Europe	1798.	S	co	Pl. rar. hu.1 t.43

1638. CRE'PIS. *W.* Crepis. *Compositæ.* *Sp.* 13—23.

11269	nemausénsis	Palestine		○	un		jn.jl	Y	S. Europe	1794.	S	co	All.ped.1.t.75.f.1
11270	Sprengeriána *W.*	Sprenger's		○	un	1½	jn.jl	Y	Italy	1823.	S	co	M.his.s.7.t.5.f.17
11271	rígida *W.*	rigid	♃	△	un	4	my.jl	Y	Hugnary	1805.	D	co	Pl. rar.hu.1. t.19
11272	rígens *W.*	stiff-leaved	£	⌴△	un	1	jl.au	Y	Azores	1778.	D	co	
11273	hieracioídes *W.*	Hawkweed like	♃	△	un	1½	jl.au	Y	Hungary	1816	D	co	Pl. rar. hu.1.t.70
11274	tectórum *P. S.*	smooth		○	un	1½	jn.s	Y	Britain	past.	S	co	Eng. bot. 1111
11275	cinérea *P. S.*	red-stalked	♃	⊙	un	2	jn.s	Y.R	Europe	...	S	co	
11276	agréstis *W.*	field		○	un	1½	jl.au	Y	Hungary	1801.	S	co	
11277	biénnis *W.*	biennial	♃	⊙	un	4	jn.au	Y	England	ch.pa.	S	co	Eng. bot. 149
11278	*vírens W.*	*green*		○	un	½	jn.jl	Y	Switzerl.	1796.	S	co	
11279	*Dioscóridis W.*	*Dioscorides's*		○	un	1	jn.jl	Y	France	1772.	S	co	Sch. han. 3. t.222
11280	*coronopifólia W.*	*fleshy-leaved*		○	un	1	au.s	Y	Madeira	1777.	S	co	Des. ac. pa.38.t.9
11281	*filifórmis W.*	*fine-leaved*	£	⌴⊙	*un*	1½	*jn.jl*	Y	Madeira	1777.	S	co	



History, Use, Propagation, Culture,

deserving cultivation; others are of little interest; but all most difficult to distinguish or characterize. The species appear to intermix with the same facility as roses and willows.

Hieracium venosum, a very pretty plant, is called in America, *Poor Robin's Plantain*, and is believed to possess considerable medical powers.

1636. *Lagoseris.* From λαγως, a hare, and σερις, a lettuce. Obscure weed-like plants.

11228 Near H. villosum, but the leaves are broader
11229 Stem erect many-fl. Leaves lanc. toothed, Peduncles downy
11230 Stem at base and lvs. here and there covered with hairs, Fls. smaller and inv. less vill. than in H. villosum
11231 Stem erect many-fl. Leaves sessile ellipt. lanc. toothletted smoothish glaucous beneath
11232 Radic. lvs. obl. narrowed at base acute : caul. sub-amplexic. lanc. Pedunc. glandular, Inv. glandul. hairy
11233 Stem erect strigose hispid, Leaves lanceolate nearly entire strigose hispid, Flowers corymbose
11234 Stem pilose warted glandular upwards, Leaves sub-amplexicaul. oblong acute with long hairs beneath
11235 Stem erect branched hoary, Leaves obov. obl. hoary toothed towards the base, Hairs feathery
11236 Stem erect many-fl. Leaves amplexicaul. somewhat rough toothed at edge, Pedunc. downy

11237 Stem densely leafy, Leaves amplexicaul. 3 inches long 1½ inch wide toothed hairy
11238 Stem erect simple, Leaves ovate cordate amplexicaul. toothletted ciliated, Fl. panicled, Invol. smooth
11239 Stem erect simple, Lvs. ovate-obl. smoothish acute sess. sub-amplexic. toothed towards base, Fls. corymbose
11240 Stem erect branched, Leaves obl. lanc. smooth stalked deeply toothed in the middle, Fl. panicled
11241 Leaves narrowed at base sessile with long points toothed, Invol. downy hoary
11242 Stem erect simple, Leaves linear somewhat toothed, Fl. in corymbose umbels
11243 Leaves broader than in the last and less toothed, Stem few-flowered
11244 Leaves mostly radical with long points toothletted hairy, Invol. hoary with long white and black hairs
11245 Stem branched shrubby, Leaves oblong toothed stalked, Peduncles sub-corymbose, Invol. downy

B. *Leaves sublyrate, lyrate, pinnatifid.*

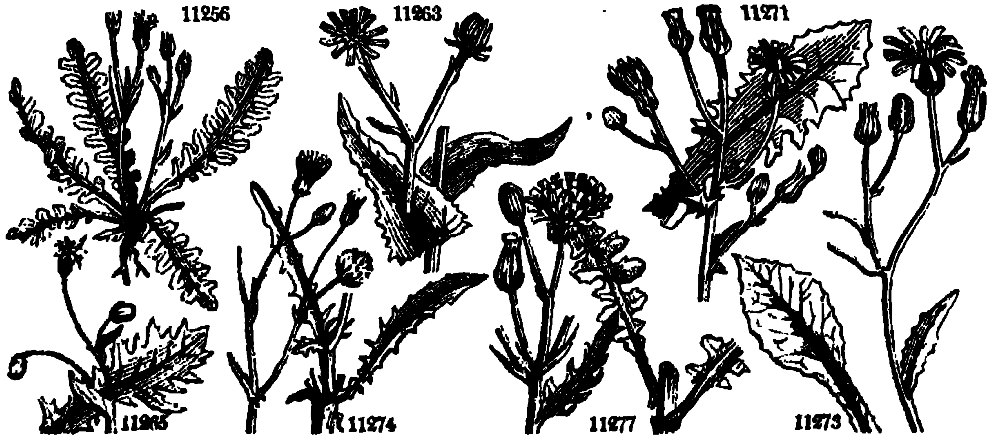
11246 Stem erect few-fl. Peduncles and invol. pilose, Leaves oblong sub-pinnatifid at base
11247 Stem naked few-fl. Pedunc. and invol. glandular downy blackish, Leaves oblong stalked toothed at base
11248 Stem procumb. branch. at base few-fl. Ped. and invol. downy, Lvs. ovate unequal at base toothletted stalked
11249 Stem erect leafy pilose simple, Fl. panicled, Leaves ovate deeply toothed at base
11250 Stem simple, Leaves smooth obl. narrowed at base runcinate toothed : caul. amplexicaul. Invol. hispid
11251 Stem simple, Cauline leaves lyrate runcinate amplexicaul. hairy, Fl. panicled, Invol. hispid
11252 Stem erect panicled, Leaves ovate stalked deeply toothed at base, Flowers panicled
11253 Stem simple, Leaves smooth : radical runcinate lyrate ; cauline lanceolate, Invol. and pedunc. hispid
11254 Leaves lanc. runcinate roughish, Flowers in umbels
11255 Stem erect leafy simple smooth, Leaves sessile obl. acute finely toothed, Pedicels of panic. in bundles

11256 Leaves pinnatifid crenate, Scape naked few-flowered

11257 Leaves long lanceolate acute repand smooth, Fl. cylindrical, Outer invol. very small
11258 Leaves runcin. toothed smooth, Scape naked many-fl. ascending, Invol. downy : outer scales appressed
11259 Radic. leaves and lower cauline pinnated lyrate, Flowers corymbose, Invol. and pedunc. glandular
11260 Leaves scabrous : radic. lyrate runcinate ; cauline lanc. amplexicaul. toothed at base, Invol. downy
11261 Lower lvs. runcin. pinnatifid : upper entire, Branches naked, Invol. downy with leaflets bristly at the back

11262 Leaves runcin. pinnatifid pilose scabrous, Stem panicled, Leaves of invol. keeled channelled downy
11263 Leaves ovate cordate-sagittate amplexic. toothed, Peduncles long 1-fl. Invol. hispid : outer membranous
11264 Radic. leaves runcinate-lyrate : cauline amplexicaul. lanceol. ; lower pinnatifid, Invol. hispid
11265 Leaves runcinate pinnatifid scabrous sessile : upper lanceol. deeply cut at base, Invol. ovate angular
11266 Leaves amplexicaul. pinnatifid hairy, Leaves of invol. downy hoary flat
11267 Leaves amplexicaul : lower obl toothed ; upper cut-toothed, Stem setose hispid, Inv. muricated in fruit
11268 Setose hispid, Leaves runcinate auricled at base : upper lanc. sagitt. hastate, Invol. very hispid

11269 Leaves runcin. lyrate bluntly toothed, Scape naked many-fl. hispid, Lvs. of invol. membranous at edge
11270 Hispid-scabrous, Leaves oblong amplexicaul. remotely toothed, Stem divaricating branched
11271 Leaves rigid scabrous toothed : radic. obovate ; caul. sagittate amplexicaul. Fl. in racemose panicles
11272 Leaves hispid ovate obl. finely and deeply biserrate, Scape naked corymbose
11273 Leaves smooth toothed : radical ovate-spatulate ; cauline oblong sessile, Corymb terminal
11274 Lvs. glab runcin. : the upper ones linear-sagitt. amplexic Stem glab. Panic subcorymb. Inv. pubescent
11275 Leaves lanc. : lower entire toothed smooth ; cauline lanceolate amplexic. Stem furrowed branched
11276 Radic. leaves lanc. runcinate : cauline lanc toothed at base sagittate, Panicles corymbose
11277 Leaves hispid runcinate pinnatifid . upper sessile lanc. toothed prickly upon the keel
11278 Leaves smooth : lower remotely toothed ; upper nearly entire subsagittate, Invol. downy
11279 Radic. leaves lyrate runcinate : cauline hastate lanceolate, Branches divaricating, Invol. downy
11280 Leaves pinnatifid : segments linear ; radical toothed ; cauline entire, Stem panicled, Invol. downy
11281 Leaves linear-filiform entire smooth, Pappus sessile

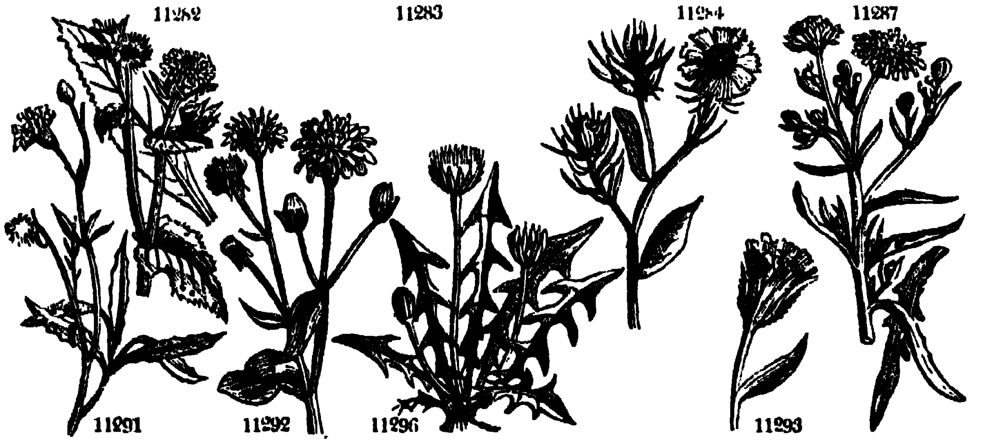


and Miscellaneous Particulars.

1637. *Borkhausia.* Named after Moritz Borkhausen, a German botanist, author of some useful works, especially upon the useful plants of Germany, published in one volume octavo, in 1790. Small annual plants, formerly referred to Crepis.

1638. *Crepis.* A name made use of by Pliny, to designate a plant of which he gives no description. The plants of this genus are common weeds of the hedges of Europe.

1639.	**HELMIN'THIA.** *J.*	HELMINTHIA.			*Compositæ.*		*Sp.* 1.				
11282	echioides *W.*	bristly	○ or	3	jn.jl	Y	Britain	bor.fi.	S	co	Eng. bot. 972
1640.	**MYO'SERIS.** *Link.*	MYOSERIS.			*Compositæ.*		*Sp.* 1.				
11283	purpúrea *Link.*	purple	ⵣ △ or	1½	my.jn	Pu	Tauria	1824.	D	co	
1641.	**TOL'PIS.** *W.*	TOLPIS.			*Compositæ.*		*Sp.* 3.				
11284	barbáta *W.*	purple-eyed	○ pr	2	jn.jl	Y.Pu	France	1620.	S	co	Bot. mag. 35
11285	umbelláta *Balbis.*	umbelled	○ pr	2	jn.jl	Y.Pu	Genoa	1820.	S	co	
11286	altíssima *Pers.*	tall	○ pr	4	jn.jl	Y	Piedmont	1823.	S	co	Balb. diss. 4. t. 1
1642.	**ANDRY'ALA.** *W.*	ANDRYALA.			*Compositæ.*		*Sp.* 6—10.				
11287	cheiránthifólia *W.*	various-leaved	£ ⌊△⌋ pr	½	my.o	Y	Madeira	1777.	D	co	L'Her.st.35.t.18
11288	pinnatífida *W.*	wing-leaved	£ ⌊○⌋ pr	¾	jl.au	Y	Madeira	1778.	S	co	
11289	crithmifólia *W.*	Samphire-leav.	£ ⌊○⌋ pr	¾	jn.au	Y	Madeira	1778.	S	co	
11290	nigricans *W.*	dark-flowered	○ pr	½	jn.au	Y	Barbary	1804.	S	co	
11291	ragusína *W.*	downy	£ ⌊△⌋ pr	½	jn.au	Y	Archipel.	1753.	D	co	Mil.ic.1.t.146.f.2
11292	lanáta *W.*	woolly	£ △ or	¼	my.jn	Y	S. Europe	1732.	D	s.p	Mil.ic.1.t.146.f.1
1643.	**RO'THIA.** *W.*	ROTHIA.			*Compositæ.*		*Sp.* 3—6.				
11293	andryaloides *W.*	Andryala-like	○ un	1	au	Y	Spain	1810.	S	co	Gær.sem.2.t.174
11294	cheiránthifólia *W.*	Stock-leaved	○ un	1½	jl.au	Y	S. Europe	1768.	S	co	
11295	runcináta *W.*	hoary	£ ○ un	1	jl.au	Y	S. Europe	1711.	S	co	
1644.	**KRI'GIA.** *W.*	KRIGIA.			*Compositæ.*		*Sp.* 1.				
11296	virgínica *W.*	Virginian	○ pr	¾	my.jl	Y	N. Amer.	1811.	S	co	Jour.his.n.1.t.12
1645.	**HYO'SERIS.** *W.*	SWINE'S-SUCCORY.			*Compositæ.*		*Sp.* 5—11.				
11297	radiáta *W.*	starry	ⵣ △ un	¼	jn.jl	Y	S. Europe	1610.	D	co	Plu. alm. t.37.f.2
11298	lúcida *W.*	shining	ⵣ △ un	¼	jn.au	Y	Levant	1770.	D	co	Schm. ic. t. 39.41
11299	scábra *W.*	rugged	○ un	½	jl.au	Y	Sicily	1789.	S	co	Boc.m.146. t.106
11300	arenária *W.*	sand	○ un	¼	jl.au	Y	Morocco	1800.	S	co	
11301	híspida *W.*	hispid	ⵣ △ un	½	jl.au	Y	Barbary	1821.	S	co	
1646.	**HEDYP'NOIS.** *W.*	HEDYPNOIS.			*Compositæ.*		*Sp.* 7—16.				
11302	monspeliénsis *W.*	branching	○ un	1	jn jl	Y	S. Europe	1683.	S	co	
11303	rhagadioloides *W.*	Nipplewort	○ un	1½	jl.au	Y	S. Europe	1773.	S	co	Cav. ic. 1. t. 43
11304	crética *W.*	Cretan	○ un	1	jn.jl	Y	Candia	1731.	S	co	
11305	coronopifólia *Tenore.*	Buckshorn-leav'd	○ un	¾	jn.jl	Y	Italy	1823.	S	co	
11306	tubæfórmis *Tenore.*	tube-stalked	○ un	¾	jn.jl	Y	Naples	1824.	S	co	
11307	mauritánica *W.*	Moorish	○ un	½	jn.jl	Y	Barbary	...	S	co	
11308	péndula *W.*	pendulous	○ un	1½	jn.jl	Y	......	...	S	co	
1647.	**ROBER'TIA.** *Rich.*	ROBERTIA.			*Compositæ.*		S,				
11309	taraxacoides *Dec.*	Dandelion-lvd.	ⵣ △ un	½	jn jl	Y	rsica	1824.	S	co	
1648.	**SERI'OLA.** *W.*	SERIOLA.			*Compositæ.*		*Sp.* 4—7.				
11310	lævigáta *W.*	smooth	○ un	½	jl au	Y	Candia	1772.	S	co	Desf atl. t. 216
11311	ætnénsis *W.*	rough	○ un	¾	jl.au	Y	Italy	1763.	S	co	Jac. obs. 4. t. 79
11312	úrens *W.*	stinging	○ un	½	jl.au	Y	S. Europe	1773.	S	co	Schmid. ic. t.32
11313	Alliátæ *Biv.*	Alliata's	ⵣ △ un	¾	jl.au	Y	Ætna	1825.	D	co	Bivon.cent.2. t.7
1649.	**SOLDEVIL'LA.** *Lag.*	SOLDEVILLA.			*Compositæ.*		*Sp.* 1.				
11314	setósa *Lag.*	bristly	ⵣ △ cu	¾	my.jn		Spain	1822.	D	co	
1650.	**HYPOCHÆ'RIS.** *W.*	CAT'S-EAR.			*Compositæ.*		*Sp.* 7—16.				
11315	helvética *W.*	one-flowered	ⵣ △ un	½	jn.jl	Y	Switzerl.	1779.	D	s.l	Jac. ic. 1. t. 165
11316	maculáta *W.*	spotted	ⵣ △ un	1	jn.jl	Y	England	ch.hil.	D	s.l	Eng. bot. 225



History, Use, Propagation, Culture.

1639. ***Helminthia.*** An abridgment of *Helminthotheca*, a name employed for this genus by Vaillant. It is derived from ἕλμινς, a worm, and θήκη, a case: in allusion to the corrugated seeds, which may be fancied to resemble bundles of little worms. The genus was united by Linnæus with Picris, but has been again separated by modern botanists.

1640. ***Myoseris.*** So named from μυς μυος, a mouse, and σερις, lettuce; a name invented for the purpose of maintaining a resemblance in nomenclature with Hyoseris, Lagoseris, and other similar plants.

1641. ***Tolpis.*** A name invented by Adanson, and supposed to have no meaning. Handsome annual flowers.

1642. ***Andryala.*** A name, the meaning of which has not been discovered. Rather pretty plants, natives of the south of Europe and north of Africa.

1643. ***Rothia.*** Named by Schreber, in honor of Dr. A. G. Roth, author of a Flora Germanica, in 1788, Catalecta Botanica, in 1797, and other works. It has been united with Andryala by Richard.

1644. ***Krigia.*** Named after Dr. Krieg, a German botanist, who accompanied Mr. Vernon to America in search of plants. See Vernonia. A pretty little North American plant, with grassy leaves and bright yellow neat flowers.

11282 Involucrum large prickly, Leaves repand

11283 Leaves runcinate pinnatifid : lobes oblong acute toothed spreading, Scape naked many-fl. smooth

11284 Leaves obl. toothed, Pedunc. 1-flowered
11285 Leaves lanc. oblong : lower sinuate-toothed, Pedunc. proliferous
11286 Leaves obl. linear scabrous toothed, Stem branched divaricating, Lower scales of invol. downy

11287 Leaves gland. downy : lower runcinate toothed ; upper ovate lanc. entire, Stem and pedunc. glandular
11288 Leaves downy pinnatifid, Invol. downy pilose, Hairs rigid
11289 Leaves pinnated linear downy
11290 Leaves pinnatifid lyrate, Flowers corymbose aggregate, Pedunc. and invol. hispid
11291 Leaves downy oblong : lower toothed, Stem branched, Branches 1-flowered
11292 Leaves ovate woolly : lower somewhat toothed, Corymb terminal, Pedunc. about 2-flowered

11293 Stem branched at base diffuse, Leaves downy ovate lanceolate amplexicaul. nearly entire
11294 Stem erect corymbose, Leaves somewhat downy linear sinuate-toothed sessile : upper entire
11295 Stem erect corymbose, Leaves downy sessile : lower obl. runcinate, Pedunc. gland. villous

11296 The only species

11297 Scapes 1-fl. naked, Leaves smooth lyrate runcinate toothed ; term. lobe trifid
11298 Scapes 1-fl. naked, Leaves smooth lyrate runcinate somewhat fleshy : segm. angular imbricated
11299 Scapes 1-fl. naked thickened at end, Leaves lyrate pinnatifid toothed ciliated roughish
11300 Stem branched leafy diffuse, Leaves amplexicaul. oblong toothed scabrous ciliated at edge
11301 Scapes 1-fl. hispid, Leaves obl. runcinate toothed hispid, Hairs forked

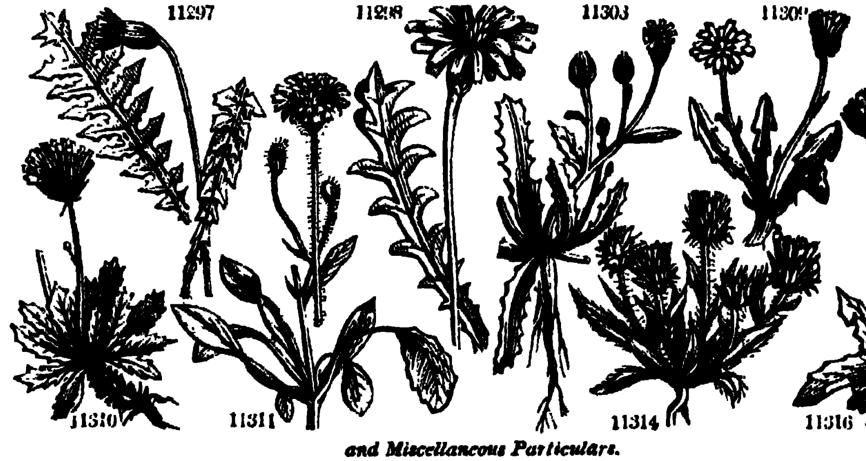
11302 Stem diffuse branched, Leaves obl. toothed narrowed at base sessile, Scales of invol. in fruit smooth
11303 Stem diffuse branched, Lvs. obl. toothed narr. at base sess. Scales of invol. in fruit hairy
11304 Stem diffuse branched, Lvs. obl. toothed subcordate amplexicaul. Scales of invol. in fruit smooth
11305 Related to the last, but the leaves are deeply toothed with 3-forked hairs
11306 Leaves somewhat toothed, Hairs simple, Pedunc. very thick
11307 Stem erect branched, Lvs. obl. somew. toothed subcordate amplex. Scales of invol. in fruit alternately setose
11308 Stem erect panicled, Lvs. obl. hispid deeply toothed, Scales of invol. in fruit smooth muricated at the end

11309 The only species

11310 Smooth, Leaves obovate toothed
11311 Hispid, Leaves obovate somewhat toothed
11312 Stinging, Stem branched, Leaves toothed
11313 Radical leaves spatulate toothed pilose, Stem ascending smooth, Pappus stalked

11314 Hairy with very short stellate hairs and bristles, Lvs. lanc. entire, Pedunc. term. thickened upwards 1-fl.

11315 Stem simple leafy 1-fl. Leaves lanc. toothed
11316 Stem almost leafless solitary, Leaves ovate-oblong undivided toothed (spotted above)



and Miscellaneous Particulars.

1645. *Hyoseris.* From ὗς ὑὸς, a hog, and σέρις, the Greek name of the Lettuce, or of a plant resembling it: hogs-lettuce, in allusion to the abominably fetid smell of the plant.

1646. *Hedypnois.* Under this name, a kind of wild endive, the medicinal qualities of which he much extols, is described by Pliny. Dalechamp, his commentator, derives the word from ἡδὺς, sweet, and πνέω, to breathe, on account of a pleasant flavor communicated to other vegetables in cookery. But the modern genus, which consists of uninteresting weeds, has not been discovered to possess this quality.

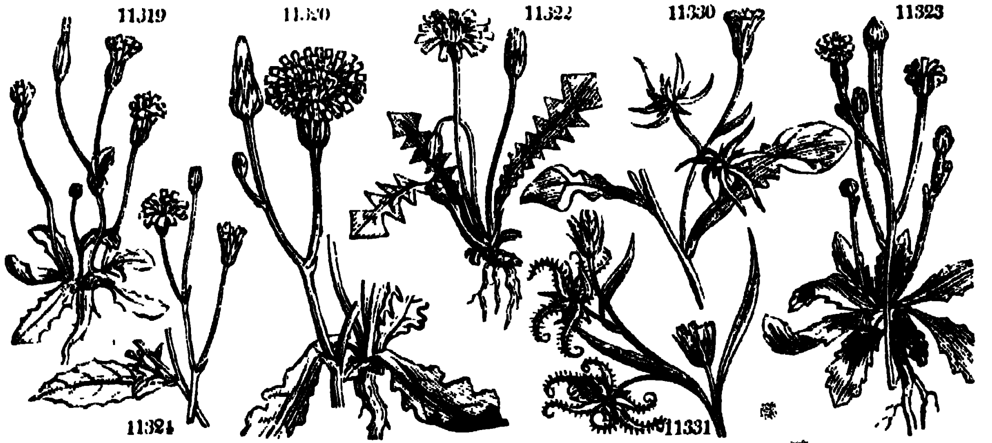
1647. *Robertia.* Named by the authors of the Flore Française, after M. Robert, a Corsican botanist. A small weedy plant resembling Dandelion.

1648. *Seriola.* A diminutive of σέρις, chicory. Small chicoraceous weeds of the south of Europe. S. Alliatæ is not, as its name would lead one to suspect, named from any smell of garlic which it possesses, but in honor of Prince Joseph Alliata, a Sicilian nobleman, and patron of Bivona Bernardi.

1649. *Soldevilla.* So named by Lagasca, apparently in honor of some botanist. A little Spanish weed with terminal solitary flowers.

1650. *Hypochæris.* From ὑπὸ, for, and χοῖρος, a pig; *Porcelle*, Fr., for the same reason, viz., that pigs eat the roots with avidity. All the species are uninteresting weeds.

11317	minima *W.*	least		○	un	¼	jl.au	Y	Barbary	1797.	S	co	
11318	híspida *W. en.*	bristly	♃	△	un	½	jl.au	Y	S. Europe	1804.	D	co	W.hor.be.1. t.16
11319	glábra *W.*	smooth		○	un	1	jl.au	Y	Britain	sa.hea.	S	co	Eng. bot. 575
11320	radicáta *W.*	long-rooted	♃	△	un	1½	jn.s	Y	Britain	me.pa.	D	s.l	Eng. bot. 831
11321	Balbísii *W.*	Balbis's	♃	△	un	1	jn.s	Y	Italy	1824.	D	co	
1651.	**LAPSA'NA.** *W.* NIPPLEWORT.						*Compositæ.*		*Sp.* 6—10.				
11322	fœ'tida *W.*	stinking	♃	△	un	½	jl.au	Y	Italy	1722.	D	co	Pl. rar.hu.1. t.49
	Hyóseris fœ'tida P. S.												
11323	pusílla *W*	least		○	w	½	my.jn	Y	Britain	gra.fi.	S	co	Eng. bot. 95
	Hyóseris minima E. B.												
11324	commúnis *W.*	common		○	w	1½	jn.jl	Y	Britain	clt. gr.	S	co	Eng. bot. 844
11325	críspa *W.*	curled		○	un	1½	jl au	Y	......	1799.	S	co	
11326	intermédia *Bieb.*	intermediate		○	un	1½	my jn	Y	Tauria	1823.	S	co	
11327	lyráta *W. en.*	lyrate	♃	△	un	1½	jl.au	Y	Caspi. Sea	1816.	D	co	
1652.	**ZACIN'THA.** *W.* ZACINTHA.						*Compositæ.*		*Sp.* 1.				
11328	verrucósa *W.*	warted		○	un	¾	jn.jl	Y.BR	S. Europe	1633.	S	co	Gæ.se.2.t.157.f.7
1653.	**RHAGADI'OLUS.** *W.* RHAGADIOLUS.						*Compositæ.*		*Sp.* 3—5.				
11329	stellátus *W.*	starry		○	un	1	jn jl	Y	S. Europe	1633.	S	co	
11330	édulis *W.*	heart-leaved		○	un	1	jn.jl	Y	Levant	1633.	S	co	Sch. han.3. t.225
11331	Kœlpínia *W.*	small		○	un	¾	jl	Y	Davuria	1788.	S	co	Pall.it.3. t.Ll. f.2
1654.	**MOSCA'RIA** *Fl. per.* MOSCARIA.						*Compositæ.*		*Sp.* 1.				
11332	pinnatífida *Fl. per.*	pinnatifid		○	pr	½	jl.au	...	Chili	1823.	S	co	
1655.	**CATANAN'CHE.** *W.* CATANANCHE.						*Compositæ.*		*Sp.* 2—3.				
11333	cærúlea *W.*	blue	♃	△	or	3	jl.o	B	S. Europe	1596.	D	co	Bot. mag. 293
11334	lútea *W.*	yellow		○	or	¾	jn jl	Y	Candia	1640.	S	co	Alp. exot. t. 286
1656.	**TRIPTI'LION.** *Fl. per.* TRIPTILION.						*Compositæ.*		*Sp.* 1—4.				
11335	cordifólium *Lag.*	cordate		○	pr	½	my.au	W	Chili	1824.	S	co	Bot. reg. 853
1657.	**CICHO'RIUM.** *W.* SUCCORY.						*Compositæ.*		*Sp.* 5—7.				
11336	I'ntybus *W.*	wild	£	△	ag	2	jn.au	B	Britain	gra.so.	D	co	Eng. bot. 539
11337	púmilum *W.*	dwarf		○	un	¾	jl.au	B	......	1799.	S	co	Jac. obs. 4. t. 80
11338	Endívia *W.*	Endive	£	○	cul	2	jl.au	B	E. Indies	1548.	S	r.m	
11339	divaricátum *W.*	branching		○	un	2	jl.au	B	Barbary	1798.	S	co	
11340	spinósum *W.*	prickly	£	⊡	un	2	jl.au	B	Candia	1633.	S	co	Bauh.prodr t.62
1658.	**BACA'ZIA.** *Fl. per.* BACAZIA.						*Compositæ.*		*Sp.*				
11341	spinósa *Fl. per.*	prickly	♄	⊔	or	4	my jl	...	[illegible]	1825.	C	p.l	
1659.	**SCO'LYMUS** *W.* GOLDEN THISTLE.						*Compositæ.*		*Sp.* 3—4.				
11342	grandiflórus *Desf.*	large-flowered	♃	△	or	3	my jn	Y	Barbary	1820.	S	co	Desf. atl. t. 218
11343	maculátus *W.*	annual		○	or	3	jl.au	Y	S. Europe	1633.	S	co	Lam. ill. t. 659
11344	hispánicus *W.*	perennial	♃	△	or	3	jl.s	Y	S. Europe	1658.	D	co	



History, Use, Propagation, Culture,

1651. *Lapsana.* From λαπαζω, to purge. The Lapsana, says Pliny, gently relaxes the body. L. communis is called *nipple-wort*, in English, and *herbe aux mamelles*, Fr., having been formerly applied to the breasts of women to allay the irritation occasioned by nursing.

1652. *Zacintha.* A plant growing in the island of *Zacintha* or Zante. It was formerly included in Lapsana, under the name of L. Zacintha

1653. *Rhagadiolus.* From ῥαγας, a slit; each division of the calyx being hollowed out in the middle so as to resemble a furrow, or little gutter.

1654. *Moscharia.* This plant gives out an agreeable smell of *musk.* An annual plant, with stem-clasping pinnatifid deeply cut leaves, found in sandy waste places in Chili, where it is commonly called *Almizclillo.*

1655. *Catananche.* Vaillant explains the meaning of this word, by deriving it from the two Greek words, κατα, and αναγκη, necessity: that is to say, a plant which compels admiration. What is certainly known of its origin is, that it was employed by Dioscorides to designate a plant used by the women of Thessaly, in philtres and love potions. The modern genus, which contains two or three species of ornamental border annuals, can have no reference to that of the ancients, one kind of which is believed to have been Ornithopus compressus, and another Astragalus pugniformis. John Bauhin calls Lathyrus Nissolia by the name of Catananche leguminosa.

1656. *Triptilion.* A genus instituted by the authors of the Flora Peruviana, and named from τρεις, three, and πτιλον, a feather, on account of the three divisions of the pappus. The species mentioned above is a very pretty little annual, or rather biennial plant, flowering during all the winter months in any place whence frost is excluded, but it requires not to be kept too dry. There is a fine species in Chili, with bright blue flowers, but it has not been yet introduced. The inhabitants of South America employ the flowers of the different species as everlasting flowers, for which their dryness renders them very well adapted.

1657. *Cichorium.* In Greek κιχωρη. De Theis's remarks are upon this subject excellent. Bodæus, he observes, Linnæus, and others, have derived this name from κιω, to come, and χωριον, the field; that is to say,

11317 Leaves toothed roughish, Invol. hispid, Pappus of disk stipitate plumose: of the ray sessile setose
11318 Hispid, Calyxes hairy, Stem branched, Lvs. lanc. toothed
11319 Nearly glab. Invol. obl. imbricated, Stem branched somewhat leafy, Radical leaves dentato-sinuate
11320 Stem branched leafless glab. Pedunc. with small scales, Lvs. runcinate obtuse scab.
11321 Different from the last in having a smooth involucrum

11322 Stemless, Scape 1-fl. Leaves runcinate pinnatifid, Terminal lobe rhomboid

11323 Scape branched very thick and fistulose upwards, Leaves obovate oblong toothed

11324 Invol. of the fruit angular, Stem panicled, Pedunc. slender, Lvs. ovate petiolate angulato-dentate
11325 Caulescent branched, Leaves ovate stalked doubly toothed
11326 Caulescent branched, Lvs. angular-toothed: lower lyrate-pinnatifid, Pedunc. and invol. smooth
11327 Caulescent panicled, Stem downy below, Radical leaves lyrate toothed: upper lanc. entire

11328 Rad. leaves lyrate acute, Cauline sagittate amplexicaul. toothed

11329 Fruit smooth spreading, Cauline leaves lanc. undivided
11330 Fruit smooth spreading, Leaves lyrate
11331 Fruit prickly spreading, Leaves linear lanc. entire

11332 Leaves amplexicaul. pinnatifid: segments deeply jagged

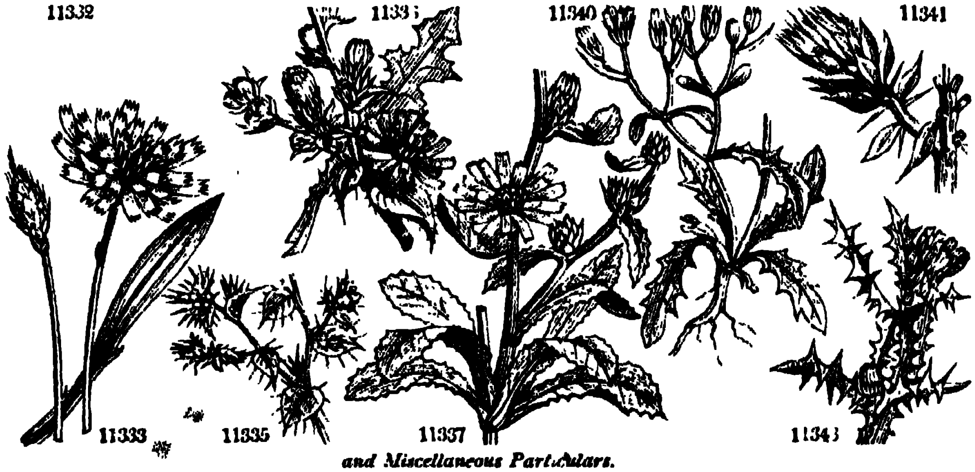
11333 Lower scales of invol. ovate mucronate, Leaves villous linear sub-bipinnatifid at base
11334 Lower scales of invol. lanc. Leaves lanc. toothed 3-nerved

11335 Leaves cordate spiny

11336 Flowers sess. axill. in pairs, Leaves runcinate
11337 Flowers axillary twin sessile, Leaves obovate toothed
11338 Pedunc. axill. twin: one long 1-fl.; the other very short about 4-fl. Flowers capitate
11339 Pedunc. axill. twin: one long 1-fl.; the other very short about 2-fl. Stem dichotomous, Rad. lvs. runcinate
11340 Flowers axill. solitary, Stem dichotomous, Branches naked spiny, Lvs. lanc. runcinate toothed

11341 Leaves obovate mucronate cartilaginous, Flowers solitary

11342 Fl. solitary lateral sessile, Lvs. decurrent, Stem subsimple villous erect
11343 Fl. solitary, Lvs. roughish smooth, Stem winged toothed
11344 Fl. subaggregate, Lvs. scabrous with the middle rib below hairy interruptedly decurrent



and Miscellaneous Particulars.

it is a plant found wild in fields, — which grows every where: but this etymology is overstrained. It is much more natural to suppose that the Egyptians, who used this plant in great quantities, would have communicated to the Greeks, along with the manner of using it, the name by which it was known in Egypt, which appears from Forskahl to be *chikoûrych.* Pliny remarked, that the Egyptians made their chicory of much consequence, and it is very well known that, at the present day, chicory or similar plants constitute half the food of the common people in Egypt. In like manner, there can be little doubt that the specific terms Endivia and Intybus, are both derived from the Arabic name *hendibeh.*

The leaves of Cichorium Intybus are employed by the French under the name of *Barbe du Capucine*, as a kind of winter salad; for which purpose the leaves are blanched like Endive. The most common method of cultivating the plant, is to sow the seed in drills in the end of July, and to keep the plants about six inches apart, and quite free from weeds. In the winter the roots are taken out of the ground and packed up in a warm cellar among earth, in layers, like bottles in a wine cellar, the crowns only of the roots being exposed. In a few days, young leaves are produced in great abundance, from the situation in which they are cultivated quite blanched, and, if not grown too rapidly, with an agreeable taste. There is also a variety of C. Intybus, called *Chichorée à café*, which is cultivated extensively in France for the sake of its roots, which are taken up in the winter season, cut into squares, dried artificially, and afterwards, being roasted, are ground along with their coffee, for which they serve as an adulteration. There are those, however, who assert, that it is to this admixture of Succory root that the superior flavor of the French to the English coffee is to be attributed.

1658 *Bacazia.* Named by the authors of Flora Peruviana, in honor of George Bacas, professor of botany at Carthagena.

1659. *Scolymus.* The Greek name of a spiny plant, which appears to have been the modern artichoke. The word itself is derived from *σκολος*, a spine. S. hispanicus has simple fusiform roots, soft and sweet like Scorzonera, and equally good to eat. The leaves and stalk also abound with a milky juice, and the people of Salamanca eat it in the same manner as Cardoons. The flowers are used for adulterating saffron.

1660. ARC'TIUM. *W.*		BURDOCK.						*Compositæ.*	*Sp.* 3—4.				
11345	Láppa *W.*	smooth-headed		⊙	w	3	jl.au	Pu	Britain	wa. gr.	S	co	Eng. bot. 1228
11346	Bardána *W.*	woolly-headed	♃	⊙	w	3	jl.au	Pu	Britain	wa. gr.	S	co	Eng. bot. 2478
11347	minus *Bieb.*	small	♃	⊙	w	2	jl.au	Pu	Europe	...	S	co	Schk. bot. 3. t. 227
1661. SERRA'TULA. *W.*		SAW-WORT.						*Compositæ.*	*Sp.* 16—40.				
11348	tinctória *W.*	common	♃	△	clt	3	jl.o	Pu	Britain	woods.	D	co	Eng. bot. 38
11349	coronáta *W.*	Siberian	♃	△	pr	5	jl.au	Pu	Siberia	1739.	D	co	Gmel. sib. 2. t. 20
11350	quinquefólia *W.*	five-leaved	♃	△	pr	2	jl.au	Pu	Persia	1804.	D	p.l	Bot. mag. 1871
11351	pygmæ'a *W.*	Pigmy	♃	△	pr	1	jl.au	Pu	Austria	1816.	D	co	Jac. aust. t. 440
11352	angustifólia *W.*	narrow-leaved	♃	△	pr	1½	jl.au	Pu	Siberia	1816.	D	co	Gmel. sib. 2. t. 33
11353	salicifólia *W.*	Willow-leaved	♃	△	pr	2	jl.au	R	Siberia	1796.	D	co	Gmel. sib. 2. t. 37
11354	centauroídes *W.*	Centaury-like	♃	△	pr	1	jl.au	Pu	Siberia	1804.	D	co	G. sib. 2. n. 38. t. 17
11355	simplex *B. M.*	simple	♃	△	pr	1	jl.au	Pu	Nepal	1821.	D	co	Bot. mag. 2482
11356	argúta *Fisch.*	fine-toothed	♃	△	pr	3	jl.o	Pu	Hungary	1824.	D	co	
11357	radiáta *Bieb.*	rayed	♃	⊙	pr	1½	jl	Pu	Hungary	1800.	S	co	Pl. rar. hu. 1. t. 11
11358	xeran'themoides *Bieb.*	smth.-headed	♃	△	pr	1½	jl	Pu	Caucasus	1825.	D	co	Gmel. sib. t. 47. f 1
11359	heterophýlla *Desf.*	various-leaved	♃	△	pr	2	jl.au	Pu	Dauphiny	1824.	D	co	Vill. delp. 3. t. 19
11360	stæchadifólia *Bieb.*	woolly-headed	♃	△	pr	1½	jl.au	Pu	Tauria	1820.	D	co	
11361	Picris *Bieb.*	scarious	♃	△	pr	1	jl.au	Pu	Caucasus	1822.	D	co	
11362	áspera *Link.*	rough		○	pr	1½	au.s	Pu	Nepal	1821.	S	co	
11363	aláta *W.*	winged	♃	△	pr	2	jl.au	Pu	......	...	D	co	
1662. SAUSSU'REA. *Dec.*		SAUSSUREA.						*Compositæ.*	*Sp.* 3—6.				
11364	elongáta *Dec.*	long	♃	△	pr	2	jl.au	Pu	Caucasus	1820.	D	co	
11365	alpina *Dec.*	Alpine	♃	△	pr	½	jl.au	Pu	Britain	al roc.	D	p.l	Eng. bot. 599
11366	discolor *Dec.*	discolored	♃	△	pr	1	jl.au	Pu	Switzerl.	1818.	D	co	Hall. helv. t. 6
1663. CAR'DUUS. *W.*		THISTLE.						*Compositæ.*	*Sp.* 26—100.				
11367	leucógraphus *W.*	white-spotted		○	or	2	jn.jl	Pu	Italy	1752.	S	co	Jac. vind. 3. t. 23
11368	crassifólius *W. en.*	thick-leaved	♃	△	or	2	jl	Pu	......	1805.	D	co	
11369	arábicus *W.*	Arabian		○	or	½	jl au	Pu	Arabia	1789.	S	co	Jac. ic. 1. t. 166
11370	nútans *W.*	musk		○	or	2	jl.au	Pu	Britain	gra fi.	S	co	Eng. bot 1112
11371	carlinoídes *W.*	Pyrenean	♃	⊙	or	1	jl.au	Pu	Pyrenees	1784.	S	co	Gouan ill. t. 23
11372	argentátus *W.*	silvery		○	or	1	jl.au	Pu	Egypt	1789.	S	co	Jac. ho. vin. t. 192
11373	onopordoídes *Bieb.*	Onopordum-like	♃	△	or	1½	jl au	Pu	Iberia	1818.	D	co	
11374	carlinæfólius *W.*	Carline-leaved	♃	⊙	or	2	jl.au	Pu	Pyrenees	1804	S	co	
11375	acanthoídes *W.*	welted		○	w	2	jn.au	Pu	Britain	wa. gr.	S	co	Eng. bot. 973
11376	tenuiflórus *W.*	slender-flowered		○	w	2	jn au	Pu	Britain	banks.	S	co	Eng. bot. 412
11377	críspus *W.*	curled	♃	⊙	or	2	jl.au	Pu	Europe	1804.	S	co	Flor. dan. t. 621
11378	hamulósus *W.*	spiny-hooked	♃	⊙	or	5	jn jl	Pu	Hungary	1802.	S	co	
11379	cándicans *W.*	hoary	♃	⊙	or	3	jl.au	Pu	Hungary	1805.	S	co	Pl. rar hu. 1 t. 83
11380	Personáta *W.*	cut-leaved	♃	⊙	or	4	jl.au	Pu	Austria	1776	S	co	Jac. aust 4. t. 348
11381	polyánthemus *W.*	many-flowered	♃	⊙	or	2	jn jl	Pk	Rome	1739.	D	co	Trium. obs. t. 103
11382	orientális *W. en.*	oriental	♃	△	or	2	jl	Pu	Iberia	1804.	D	co	
11383	paniculátus *W.*	panicled	♃	△	or	2	jn.jl	Pu	S. Europe	1781	D	co	
11384	pycnocéphalus *W.*	Italian	♃	△	or	1½	jl.s	Pu	S. Europe	1739.	S	co	Jac. vind. 1. t. 44
11385	cyanoídes *W.*	blue-bottle-lvd.	♃	△	or	2	jl.au	R	Siberia	1778.	D	co	Gmel. sib. 2. t. 15
11386	arctioídes *W.*	pinnated	♃	△	or	2	jl.au	Pu	Carniola	1804	D	co	Scop. carn. t. 53
11387	alpéstris *W.*	Alpine	♃	△	or	1½	jl au	Pu	Croatia	1805.	D	co	
11388	deflorátus *W.*	various-leaved	♃	△	or	6	jl.s	R	Austria	1570.	D	co	Jac. aust. 1. t. 89
11389	parviflórus *W.*	small-flowered	♃	△	or	2	jn jl	Pu	S. Europe	1781.	D	co	
11390	nítidus *W.*	glossy	♃	△	or	2	jl	Pu	Hungary	1805	D	co	Pl. rar. hu 1. t. 2
11391	cerinthoídes *W.*	Honeywort-lvd.	♃	△	or	2	jl.au	Pu	S. Europe	1739.	D	co	Cav. ic. 3. t. 226

History, Use, Propagation, Culture,

1660. *Arctium.* From *αρκτος*, a bear, (*arth*, Celtic); on account of the rough bristly fruit, which may be compared to the coarse hair of a bear. Lappa is derived from *llap*, a hand, in Celtic, because it lays hold of every thing near it. The burdock is too familiar to every schoolboy to need illustration. It is equally common in Europe and Japan, by road sides and on ditch banks. Few quadrupeds, except the ass, will eat the plant; but birds feed on the seeds, and snails and caterpillars on the leaves. The stems, stripped of their rind before the flowers appear, may be eaten, either boiled or raw, with oil and vinegar. Withering says, a decoction of the roots is esteemed by some equal to that of Sarsaparilla. Burnt green, between the time of flowering and seeding, three pounds of the ashes produced sixteen ounces of very white alkaline salt, as good as the best potash.

1661. *Serratula.* A diminutive of *serra*, a saw; the leaves being edged with cutting teeth. Plants with the habit and qualities of thistles. Serratula tinctoria dyes cloth of a yellow colour.

1662. *Saussurea.* Named in honor of the celebrated Swiss philosopher Horace Benedict de Saussure, who, among his other acquirements, possessed a considerable knowledge in botany. He died in 1799, in the fifty-ninth year of his age.

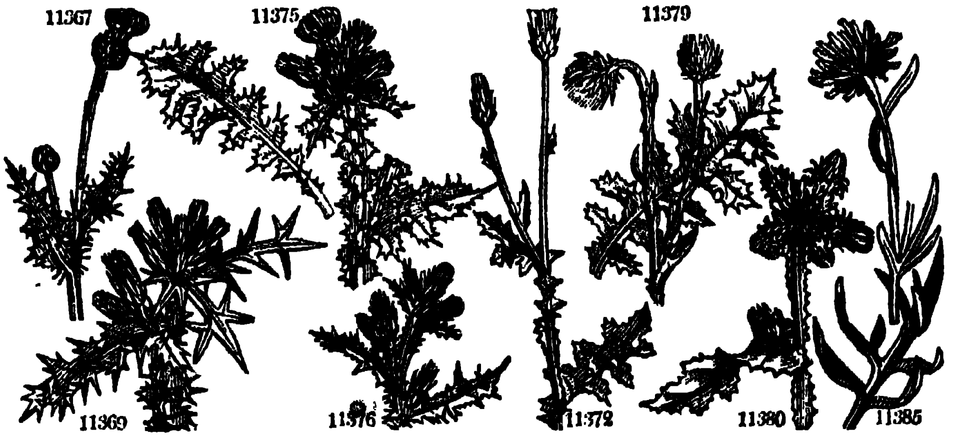
1663. *Carduus.* This word appears to be derived from *ard*, a point, in Celtic, in allusion to the numerous

11345 L[illegible] cordate petiolate
11346 [illegible]ine leaves cordate stalked entire, Invol. cobwebbed downy
11[illegible] [illegible]vol. woolly : inner scales subulate somew. colored scarcely longer than outer, Racemes axill. panicled

11348 Leaves sharply serrate glab. pinnatifid : the terminal lobe the largest, Flowers in a small clust. umbel
11349 Leaves serrated unequally pinnate of about 5-pairs, Pinnæ confluent, Pedunc. 1-fl. Fl. rayed
11350 Lvs. serrated unequally pinn. of about 2-pairs, Pinnæ confluent, Pedunc. 1-fl. Inner scales of invol. long
11351 Lvs. lin. lanc. hirsute revolute at edge, Stem 1-fl. vill. Scales of invol. ov.-lanc. appressed [colored
11352 Leaves lin. entire hirsute, Fl. terminal corymbose
11353 Leaves lin. entire downy beneath revolute at edge, Corymb fastigiate
11354 Leaves pinnatifid oblique acute smooth unarmed, Scales of invol. mucronate ; inner scarious
11355 Leaves pinnatifid : lobes distant, Stem nearly simple 1-flowered, Invol. globose squarrose
11356 Like S. tinctoria, but the lower leaves are oval and entire
11357 Leaves pectinate-pinnatifid naked : segm. lin. unarmed ; terminal ovate, Scales of invol. ov. mucronate
11358 Invol. unarmed somewhat awned radiate, Leaves pinnatifid
11359 Leaves ov. pinnatifid toothed unarmed hoary beneath : upper sess. Stem 1-fl. Scales of invol. ov. unarmed
11360 Leaves lin. entire downy beneath, Corymb nearly simple, Invol. obl. ovate downy
11361 Invol. ovate : scales roundish scarious at edge, Leaves lanc. lower somewhat toothed at base
11362 Stem somewhat downy, Lvs. obl. acute narrowed at base serrated, Fl. subsessile, Invol. unarmed
11363 Lvs. downy beneath somewhat toothed : radical cord. stalked, Cauline lanc. decurrent, Invol. squarrose

11364 Invol. corymb. somewhat downy, Leaves fleshy smooth : radical lyrate hastate, Cauline hastate
11365 Leaves villous beneath toothed : radic. ovate-lanc. Flowers terminal somewhat umbelled
11366 Lvs. downy beneath toothed : radic. ovate-subcordate ; cauline ovate-lanc. Fl. terminal somew. umbelled

11367 Leaves decurrent toothed spiny, Pedunc. naked very long 1-fl Invol. spiny inclining
11368 Lvs. half decurrent obl. spiny-toothed somewhat fleshy smooth glauc. beneath, Pedunc. very long 1-fl.
11369 Leaves obl. decurrent sinuate spiny with white veins villous beneath, Fl. sessile clustered, Invol. cylind.
11370 Leaves decurrent spinous, Fl. drooping, Scales of the invol. lanc. cottony : outer ones spreading
11371 Leaves decurrent pinnatifid downy : segments palmate spiny, Flowers clustered
11372 Leaves decurrent runcinate spiny, Pedunc. somewhat downy 1-fl. Invol. ovate mucronate unarmed
11373 Leaves decurrent sinuate spiny smooth, Pedunc. short subcorymbose downy
11374 Leaves decurrent spiny glabrous, Pedunc. erect 1-fl. unarmed
11375 Lvs. decur. sinuated spinous, Invol. globose nearly sess. : its scales lin. slightly recurved [lanc. erect
11376 Lvs. decurrent sinuated spinous somew. cottony beneath, Invol. nearly cylindr. clustered sess. their scales
11377 Lvs. decurrent obl. sinuated spiny at edge downy beneath, Fl. stalked clustered terminal
11378 Lvs. decurrent lanc. pinnatifid toothed spiny vill. beneath, Pedunc. 1-fl. downy, Scales of invol. sub. spiny
11379 Leaves half decurrent lanc. pinnatifid spiny downy beneath, Pedunc. scaly downy
11380 Caul. lvs. half decurrent obl undivided spiny toothed subvillous beneath : radic. pinnatifid at base
11381 Leaves decurrent sinuated ciliated naked beneath, Fl. stalked heaped
11382 Leaves half decurrent pinnatifid toothed spiny white with down beneath, Fl. subsessile term. clustered
11383 Leaves half decurrent toothed sinuate spiny smooth, Flowers panicled
11384 Leaves decurrent pinnatifid sinuated downy spiny, Pedunc. naked downy, Invol. deciduous
11385 Lvs. downy beneath : upper finely decurrent lin. Stem 1-fl Scales of invol. lanc. mucron. downy
11386 Lvs. decurrent deeply pinnatifid : segments toothed upwards spiny with setaceous ciliæ at end
11387 Leaves half decurrent pinnatifid acuminate : segm. 2-lobed ciliated spiny, Pedunc. downy
11388 Leaves half decurrent pinnatifid-serrate somew. spiny ciliated naked : radic. undivided, Pedunc. very long
11389 Leaves adnate at base lanc. naked eroded ciliate-spiny unarmed [woolly
11390 Leaves unarmed : radic. ovate toothed somewhat cut at base ; cauline sessile pinnatifid linear
11391 Leaves naked : radical obl. entire ; cauline lanc. somewhat toothed, Scales of invol. ovate mucronate



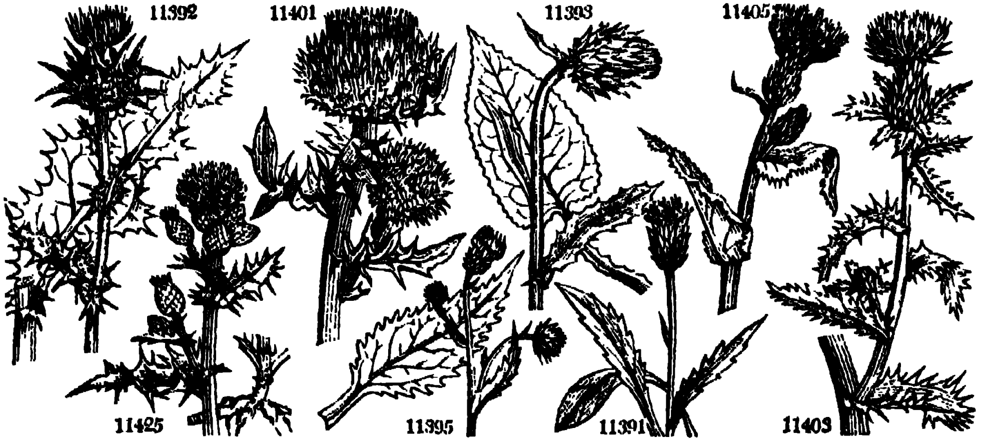
and Miscellaneous Particulars.

points with which it is beset. C. marianus, the milk-thistle, derived its name from the Virgin Mary, some of whose milk is said to have fallen upon the leaves of the plant, and changed them to white. An extensive genus of rather handsome weeds. C. Personata is said to have been so called, because its ample leaves were formerly used as a mask (*persona*). Some of the gigantic species make handsome ornaments for the shrubbery, but the greatest number are nuisances to the husbandman ; some on account of their deep vivacious roots, which cannot be eradicated without extreme difficulty ; but the greater number because of their bulky herbage, and the extensive dissemination of their seeds by the wind.

The footstalks of the leaves of most or all of the species of this and the allied genera might be eaten in the manner of Cardoons, if similarly blanched. The dried flowers of C. arabicus and nutans will curdle milk. The seeds of all the species of Serratula, Cnicus, Onopordum, and similar genera, are greedily eaten by small birds, especially the finches.

The Carduineæ of M. Cassini differ from Carlineæ of the same author, in the filaments being hairy or papillose, from Centaurieæ in the structure of ovarium and of pappus, and from Echinopseæ, to which they bear a general resemblance, by many very important characters. The species inhabit Europe, Asia, and Africa ; there are scarcely any in America, and none in the southern hemisphere.

1664.	SI'LYBUM. *Gærtn.*	Silybum.						*Compositæ.*	*Sp.* 2—5.				
11392	mariánum *Gærtn.*	milk	⚘	⊙	w	5	jl	Pu	Britain	banks.	S	co	Eng. bot. 976
11393	cérnuum *Gærtn.*	nodding	⚘	△	or	4	jn.jl	Y	Siberia	1755.	D	co	Gm[illegible] 2. t. 19
1665.	CNI'CUS. *W.*	Horse Thistle.						*Compositæ.*	*Sp.* 52—114.				
11394	palústris *W.*	marsh	⚘	⊙	w	3	jl.au	Pu	Britain	m.pas.	S	co	Eng. bot. 97
11395	cánus *W.*	hoary	⚘	△	or	4	jl.au	Pu	Austria	1639.	D	co	Jac. aust. 1. t. 42.
11396	Acárna *W.*	winged		○	or	2	jl.s	Pu	Spain	1683.	S	co	Cav. ic. 1. t. 53
11397	monspessulánus *W.*	Montpelier	⚘	△	or	2	jn.jl	Pu	Montpel.	1596.	D	co	
11398	lanceolátus *W.*	common	⚘	⊙	w	3	jn.s	Pu	Britain	banks.	S	co	Eng. bot. 107
11399	férox *W.*	prickly	⚘	⊙	or	3	jl.au	Pu	S. Europe	1683.	S	co	All. ped. 1. t. 50
11400	ciliátus *W.*	fringed	⚘	△	or	3	au	Pu	Siberia	1787.	D	co	Mur. co. got. 6. t. 5
11401	erióphorus *W.*	woolly-headed	⚘	⊙	or	2	jl.au	Pu	Britain	ch.pa.	S	co	Eng. bot. 386
11402	discolor *W.*	two-colored	⚘	⊙	or	2	jl.au	Pu	N. Amer.	1803.	S	co	
11403	altissimus *W.*	giant	⚘	△	or	6	au.s	Pu	N. Amer.	1726.	D	co	Dil. elt. t. 69. f. 80
11404	praténsis *W.*	meadow	⚘	△	w	3	jn	Pu	Britain	m.pas.	D	co	Eng. bot. 177
11405	heterophýllus *W.*	melancholy	⚘	△	or	2	jl.au	Pu	Britain	m.al p.	D	co	Eng. bot. 675
11406	helenioídes *W.*	Elecampane-lv.	⚘	△	or	6	jl.au	Pu	Siberia	1804.	D	co	All. ped. t. 13
11407	serratuloídes *W.*	Saw-wort-like	⚘	△	or	3	jn.o	Pu	Siberia	1752.	D	co	Jac. aust. 2. t. 127
11408	elátior *Link.*	tall	⚘	△	or	6	jn.o	Pu	......	1823.	D	co	
11409	uliginósus *Bieb.*	swamp	⚘	△	or	3	jn jl	Pu	Caucasus	1820.	D	co	
11410	pannónicus *W.*	Hungarian	⚘	△	or	3	jl.s	Pa.pu	Austria	1816.	D	co	
11411	strictus *Tenore.*	upright	⚘	△	or	2	jl.s	Pu	Naples	1819.	D	co	
11412	desertórum *Fisch.*	desert	⚘	△	or	3	jl.s	Pu	Siberia	1824	D	co	
11413	serrulátus *Bieb.*	serrulate	⚘	△	or	3	jl.au	Pu	Tauria	1820.	D	co	
11414	laniflórus *Bieb.*	woolly-flowered	⚘	△	or	2	jl.au	Pu	Tauria	1819.	D	co	
11415	arachnoídeus *Bieb.*	cobwebbed	⚘	△	or	2	jl.au	Pu	Tauria	1818.	D	co	
11416	strigósus *Bieb.*	strigose	⚘	⊙	or	2	au.s	Pu	Caucasus	1825.	D	co	
11417	hórridus *Bieb.*	horrid	⚘	⊙	or	1½	au.s	Pu	Iberia	1823.	S	co	
11418	scleránthus *Bieb.*	hard-headed	⚘	⊙	or	2	jl.au	Pu	Caucasus	1820.	S	co	
11419	echinátus *W.*	echinate	⚘	△	or	1	jl au	Pu	Barbary	1817.	D	co	
11420	inérmis *W.*	unarmed	⚘	△	or	3	jl.au	Pu	......	1824.	D	co	
11421	ambíguus *Pers.*	doubtful	⚘	△	or	2	jl.au	Pu	M. Cenis	1820.	D	co	
11422	orgyális *W.*	lofty	⚘	△	or	6	jl.au	Pu	......	1823.	D	co	
11423	setósus *Bieb.*	setose	⚘	⊙	or	1½	jn.jl	Pu	Silesia	1822.	S	co	
11424	carthamoídes *W.*	Carthamus-like	⚘	△	or	2	jl au	Pu	Siberia	1818.	D	co	
11425	arvénsis *Ph.*	corn or way	⚘	△	w	2	jl	Pu	Britain	ro.sid.	D	co	Eng. bot. 975
	Serrátula arvénsis W.												
	Cárduus arvénsis E. B.												
11426	rivuláris *W.*	river	⚘	△	or	3	jl au	Pu	Hungary	1804.	S	co	Jac. aust. 1. t. 91
11427	pauciflórus *W.*	few-flowered	⚘	⊙	or	2	jl.au	Pu	Hungary	1816.	D	co	Pl. rar. hu. 2. t. 161
11428	tatáricus *W.*	Tartarian	⚘	△	or	1½	jl.au	W	Siberia	1775.	D	co	Jac. aust. 1. t. 90
11429	rigens *W.*	upright Alpine	⚘	△	or	1½	jl.au	Pu	Switzerl.	1775.	D	co	Act. helv. 4. t. 16
11430	carniólicus *W.*	Carniolian	⚘	△	or	2	jl.au	Pa.Y	Carniola	1792.	D	co	Sc. ca. n. 1005. t. 52
11431	oleráceus *W.*	pale-flowered	⚘	△	or	3	jl.au	Pa.Y	Europe	1570.	D	co	Fl. dan. 860
11432	munitus *W. en.*	armed	⚘	△	or	3	jl.au	Pu	Caucasus	1816.	D	co	
11433	obvallátus *Bieb.*	bracteate	⚘	△	or	3	jl.au	Pu	Caucasus	1816.	D	co	
11434	Erisithales *W.*	clammy	⚘	△	or	3	jn.au	Pu	France	1752.	D	co	Jac. aust. 4. t. 310
11435	ochroleúcus *W.*	pale-yellow	⚘	△	or	2	jl	Pa.Y	Switzerl.	1801.	D	co	
11436	tuberósus *W.*	tuberous	⚘	△	or	3	au.o	Pu	England	woods.	D	co	Lob. ic. t. 10. f. 2
11437	acaúlis *W.*	dwarf	⚘	△	pr	1	jl.au	Pu	Britain	gra.pa.	D	co	Eng. bot. 161
11438	Casabónæ *W.*	Fish-bone	⚘	◫	or	2	jn.au	Pu	S. Europe	1714.	S	p.l	Schmd. ic. t. 51, 52
11439	áfer *W.*	Barbary	⚘	◫	or	2	jn.jl	Pu	Barbary	1800.	S	co	Bot. mag. 2287



History, Use, Propagation, Culture,

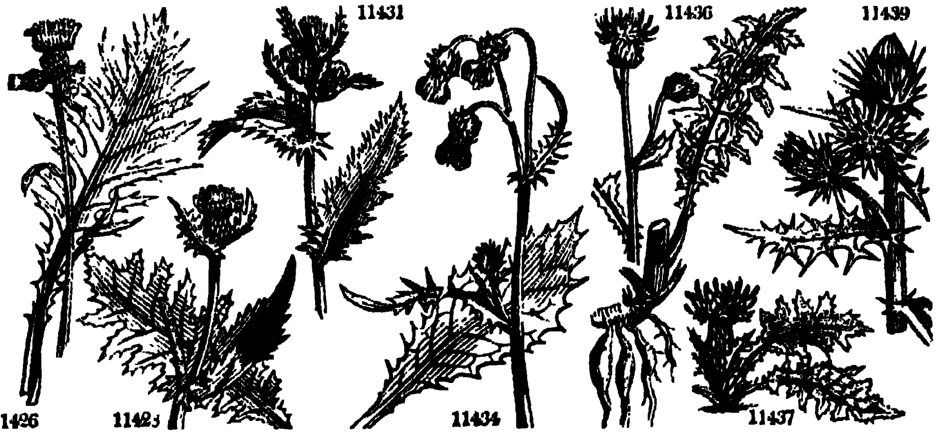
1664. *Silybum.* A name under which Greek writers describe a plant not well known at present. Sprengel refers it to S. marianum. This plant was formerly cultivated, and the young leaves used in spring as a salad, or boiled as pot greens; the young stalks, peeled and soaked in water, to extract a part of their bitterness, were also eaten, and were said to be excellent. In the spring of the second year, the root is prepared like salsafy or skirret; and the receptacle of the flower is pulpy, and eats like that of the artichoke. In Apulia the whole plant is much used as fodder for cattle.

1665. *Cnicus.* This is a name under which Dioscorides describes a prickly rough plant; derived from *κνίζω*, to prick. It is now referred to a tribe of plants having such characters in an eminent degree. Acarna and Erisithales are both names by which the ancients distinguished plants, either the very same as those now so called, or very similar to them. The tender stalks of C. palustris, as of most of the species, being peeled, are eatable either raw or boiled. C. arvensis is well known as one of the most troublesome weeds in arable land It is never found, however, in very sandy, gravelly, or peaty soils; but generally in such as are loamy and dry. An instance is given in the Farmer's Magazine, of the descending roots of this plant having been dug out of a quarry nineteen feet long; nor is it less remarkable for its horizontal roots. Mr. Curtis planted about two inches of a root in his garden in April, and by November following it had thrown out under ground stolones on every side, some of them eight feet long; some of these stolones had thrown up leaves five feet

11392 Lvs. amplexicaul. waved spinous : radic. ones pinnati. Scales of invol. subfoliac. recurved spinous at margin
11393 Leaves downy beneath ovate toothed : radical cord. Petioles winged toothed, Invol. subsolitary cernuous

11394 Lvs. decurrent scabr. pinnatif. spinous, Invol. ovate clustered their scales ovate-lanc. mucro. appressed
11395 Lvs. half decurrent somew. hoary lanc. ciliate spiny, Pedunc. naked downy solit. Scales of invol. appressed
11396 Leaves decurrent lanc. hoary toothed spiny, Fl. aggregate involucrate, Invol. with pinnated spines
11397 Lvs. decurrent lanc. smooth subrepand uneq. ciliated, Pedunc. naked downy alternate [lanc. spreading
11398 Lvs. decurr. hispid pinnatif their segm. generally 2-lobed spreading spinous, Invol. ov. toment. their scales
11399 Lvs. subdecurr. pinnatif. : segm. 2-lobed spreading spiny vill. beneath, Invol. hemispher. sessile
11400 Lvs. amplexicaul. hispid pinnatif. : segm. 2-lobed spreading spiny downy beneath, Invol. ovate
11401 Leaves sess. pinnatif. every other segm. pointing upwards spin. scabr. Involucres spherical woolly
11402 Leaves sess. pinnatif. hairy downy beneath; segm. 2-lobed spreading spiny, Invol. globose with cobweb down
11403 Leaves sess. obl. lanc. scabrous downy beneath toothed ciliated : radic. pinnatifid, Invol. bracteate ovate
11404 Leaves sess. lanc. waved at the edge and unequally spin. pubesc. cottony beneath, Flowers mostly solitary
11405 Lvs. amplexic. lanc. ciliate-dentate undivided or laciniated white and downy beneath, Fl. mostly solitary
11406 Lvs. subcordate amplexicaul. lanc. ciliated downy beneath : lower somewhat cut, Fl. clustered
11407 Lvs. lanc. sessile ciliated strigose beneath : radical sinuated, Scales of invol. recurved at end
11408 Lvs. pinnatifid with strong spines somewhat downy beneath, Fl. sess. aggregate, Lvs. of invol. spiny
11409 Lvs. half decurr. obl. sinuate toothed spiny hoary beneath, Heads close together with appressed scales
11410 Leaves half decurrent lanc. entire ciliated, Pedunc. very long 1-fl. woolly
11411 Very like C. arvensis, but the leaves are decurrent
11412 Stem somew. downy, Lower lvs. sinuate-toothed with strong spines rough above finely downy beneath
11413 Lvs. amplexic. hispid pinnatifid : segm 2-lobed spreading spiny downy beneath, Heads ov. glabrous spiny
11414 Lvs. amplexic. hispid pinnatif : segm. 2-lobed spread. spiny downy beneath, Heads ov. cobwebbed with down
11415 Lvs. amplexic. hispid pinnatif. : segm. 2-lobed spread. spiny beneath naked subvillous, Heads ov. cobwebbed
11416 Lvs. amplexic. hispid pinnatifid : segm. 2-lobed spreading spiny naked beneath, Heads ov. glabrous
11417 Lvs. amplexicaul. hispid pinnatifid prickly : segm angular lobed spiny, Heads nodding cobwebbed
11418 Stem branched many-fl Heads terminal solitary spiny at base, Lvs. amplexicaul. sinuate toothed spiny
11419 Leaves sess. pinnatifid hispid woolly beneath : segm 2-lobed spreading spiny, Invol. ovate woolly
11420 Leaves sess. lanc. cut-toothed : radical. pinnatifid, Scales of invol. ovate lanc. membranous at edge
11421 Leaves ciliate spiny downy beneath : lower stalked obl. acum. subsinuate ; upper pinnatifid auricled
11422 Like the last, but the leaves of involucrum are reflexed
11423 Leaves obl. smooth serrulate with bristly ciliæ blunt mucro. Stem corymbose
11424 Leaves unarmed sess. obl. toothed : radical undivided and pinnatifid, Invol. scarious villous
11425 Leaves sess. pinnati. spin. Stem panicled, Invol. ovate, Scales appressed mucronated

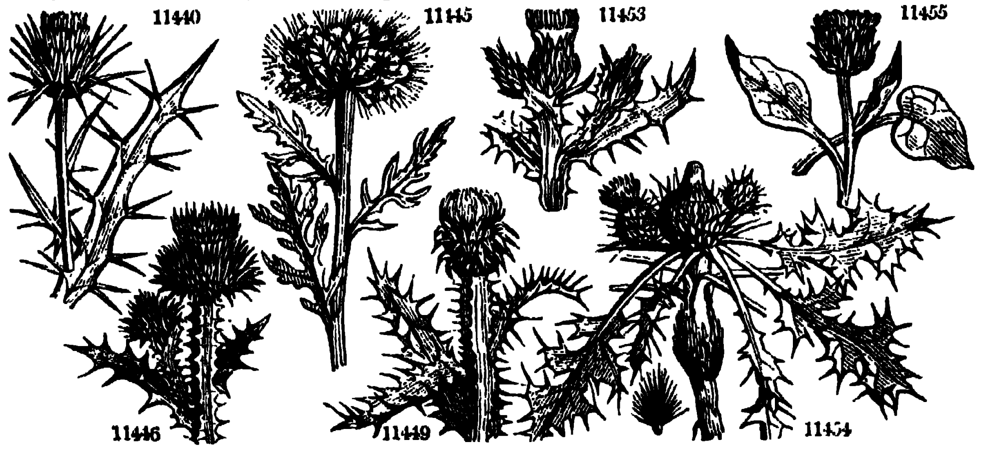
11426 Leaves toothed ciliated naked : cauline amplexicaul. : lower and radical pinnatifid, Fl. clustered capitate
11427 Leaves amplexicaul. ovate sublyrate ciliate serrate scabrous : radic lyrate, Fl. clustered
11428 Leaves amplexicaul. obl. lanc. toothed ciliate-spiny, Pedunc. 1-fl. Invol. bracteate
11429 Leaves sess. pinnatifid : segm. cut serrate spiny at edge, Invol. bracteate : scales ovate appressed
11430 Leaves cordate amplexicaul ovate obl. toothed ciliated : radical obl. blunt ciliated sinuate
11431 Leaves amplexicaul. cord. pinnatif. ciliate serr. Fl. terminal subracemose bracteate, Bractes colored ovate
11432 Leaves amplexicaul. obl. pinnatif toothed spiny hispid above downy beneath, Term. fl. sess. axill. stalked
11433 Leaves amplexicaul. pinnatif. toothed spiny glabrous, Fl. term. aggreg. sess. surrounded by colored bractes
11434 Leaves amplexicaul. pinnatifid ciliated, Pedunc. cernuous, Invol. glutinous : scales lanc. spreading
11435 Leaves amplexic. pinnati.-downwards ciliated : pinnæ lanc. 3-nerved ; upper confluent, Pedunc. cernuous
11436 Leaves amplexicaul. pinnatifid ciliate-spiny : segm. 2-lobed toothed upwards at the base
11437 Stemless, Invol. glabrous
11438 Leaves sess. lanc. entire downy beneath with triple spines at the edge, Fl. axill. sessile
11439 Leaves sess. lanc. downy beneath subrepand : lobes emarg. with 2 spines, Fl. stalked subcorymbose



and Miscellaneous Particulars.

from the original root. The whole together, when dug up and washed, weighed four pounds. In the spring following, it again made its appearance, on or about where the small piece was originally planted. There were between fifty and sixty young plants, which must have sprung from fragments of the roots that had eluded the gardener's search, though he was particularly careful in extracting them. From these facts it may readily be conceived how difficult it is to eradicate this weed from arable land; a naked fallow, with frequent and deep ploughing, will not accomplish it, unless the season is more than usually dry. Laying land down to grass, keeping it in that state seven or eight years, and during the whole time pulling up every shoot as soon as it appears, is found fully more effectual than a naked fallow. But the plant is so common by road sides, and seeds so abundantly, that it is hardly possible to effect its extermination. In common field lands, and others indifferently cultivated, it often forms the larger half of the produce, and formerly used to be pulled when beginning to come into flower, and given as food to horses and cows. Those who pull this weed require to be furnished with strong gloves, or thistle pincers. (*Ency. of Agr.* § 2394.) Some English botanists seem doubtful if horses and cows will eat it; but those who know any thing of the history of agriculture in Scotland will recollect, that before the introduction of naked fallows and turnips, it formed the *suppering* of housed cattle, during five or six weeks of every summer. The ashes of the plant yield a very pure vegetable alkali. C. canus has fleshy white roots like the skirret, and may be dressed and eaten

11440	**diacánthus** *Lab.*	two-spined	⚘	⊡	or	3	jn jl	Pu	Syria	1800.	S	co	Lab.ic.pl.sy.2.t.3
11441	**stellátus** *W.*	starry		○	or	2	jn.jl	Pu	Italy	1665.	S	co	Triumf.obs. t.96
11442	**syriacus** *W.*	Syrian		○	or	1½	jl.au	W	Levant	1771.	S	co	Camer.hort. t.10
11443	**spinosissimus** *W.*	feathery-head.	⚘	△	or	3	jn.au	Pa.Y	Switzerl.	1759.	D	co	Bot. mag. 1366
11444	**centauroides** *W.*	Artichoke-lvd.	⚘	△	or	3	jl.au	Pu	Pyrenees	1640.	D	co	Moris.s.7.t.25.f.2
11445	**uniflórus** *W.*	one-flowered	⚘	△	or	2	jl.au	Vi	Siberia	1796.	D	co	Gmel. sib.2. t.38
1666.	ONOPOR'DUM. *W.*	COTTON THISTLE.					*Compositæ.*		*Sp.* 9—14.				
11446	**Acánthium** *W.*	woolly	⚘	⊙	or	6	jl.au	Pu	Britain	gra.ba.	S	co	Eng. bot. 977
11447	**taúricum** *W.*	Taurian	⚘	⊙	or	12	jl.au	Pu	Tauria	1800.	S	co	
11448	**macracánthum** *W.*	long-spined		○	or	10	jl.au	Pu	Barbary	1798.	S	co	Schou.maroc.t.5
11449	**illýricum** *W.*	Illyrian	⚘	⊙	or	6	jl.au	Pu	S. Europe	1648.	S	co	Jac.vind.2. t.148
11450	**deltoideum** *W.*	Siberian	⚘	△	or	12	au	Pu	Siberia	1784.	D	co	
11451	**græ'cum** *W.*	Grecian		○	or	10	jn jl	Pu	Levant	1799.	D	co	Gouan. ill. t. 25
11452	**cynaroides** *Stev.*	artichoke	⚘	⊙	or	10	jn	W	Caucasus	1823.	S	co	
11453	**arábicum** *W.*	Arabian	⚘	⊙	or	8	jl	Pu	S. Europe	1686.	S	co	Jac. vind.2. t.149
11454	**acaúlon** *W.*	dwarf	⚘	⊙	or	½	jl.au	W	……	1739.	S	co	Jac. ic. 1. t. 167
1667.	BERAR'DIA. *Vill.*	BERARDIA.					*Compositæ.*		*Sp.* 1.				
11455	**subacaúlis** *P. S.*	round-leaved	⚘	△	pr	1½	jl.au	Pu	Italy	1791.	D	co	Vil.dauph.3.t.22
	A'rctium lanuginósum Dec.												
1668.	CY'NARA. *W.*	ARTICHOKE.					*Compositæ.*		*Sp.* 7—10.				
11456	Scólymus *W.*	garden	⚘	△	cul	8	au.s	Pu	S. Europe	1548.	D	co	Blackw. t. 548
11457	hórrida *W.*	Madeira	£	[△]	or	6	au.s	Pu	Madeira	1778.	D	co	
11458	Cardúnculus *W.*	Cardoon	⚘	△	cul	5	au.s	Pu	Candia	1658.	D	co	Tabern. ic. 1075
11459	húmilis *W.*	dwarf	⚘	△	un	1½	jl.au	B	Spain	1613.	D	co	Plu alm. t.81. f.2
11460	acaúlis *W.*	stemless	⚘	△	un	1	jl	Pu	Barbary	1799.	D	co	Desf. atl.2. t. 223
11461	glomeráta *Th.*	Cape	£	[△]	un	2	jl.au	Pu	C. G. H.	1816.	D	co	
11462	pygmæ'a *W.*	pigmy	⚘	△	un	1	jl.au	Pu	Spain	1820.	D	co	
1669.	CARLI'NA. *W.*	CARLINE THISTLE.					*Compositæ.*		*Sp.* 9—18.				
11463	acanthifólia *W.*	Acanthus-lvd.	⚘	△	or	2	jn	W	Carniola	1818.	D	co	All. ped. t. 51
11464	acaúlis *W.*	dwarf	⚘	△	or	¼	jn	W	Italy	1640.	D	co	Knor. the.2 t.c.1
11465	simplex *P. S.*	single-flowered	⚘	△	or	1½	jn.jl	W	Hungary	1816.	D	co	Pl rar.hu.2.t.152
11466	aggregáta *W.*	clustered	⚘	△	or	2	jn.s	W	Hungary	1804.	D	co	
11467	lanáta *W.*	woolly		○	or	3	jn.jl	Pu	S. Europe	1683.	S	co	Garid. aix. t. 21
11468	corymbósa *W.*	corymbed	⚘	△	or	3	jl.au	Y	S. Europe	1640.	D	co	Col ecp.1.t.27.f.1
11469	vulgáris *W.*	common	⚘	⊙	w	1½	jn.s	Pu	Britain	dry pa.	S	co	Eng. bot. 1144
11470	racemósa *W.*	racemed		○	or	3	jn.au	Y	Spain	1658.	S	co	Desf. atl. t. 224
11471	pyrenáica *W.*	Pyrenean	⚘	△	or	2	jn	Pu	Pyrenees	1788.	D	co	



History, Use, Propagation, Culture,

in the same manner. C. lanceolatus is one of the most common and noxious weeds of the genus, chiefly on account of its great bulk, its numerous downy seeds, and the facility with which they are distributed by the wind: its dried flowers curdle milk. C. helenioides, used to be called the melancholy thistle, and was used by quacks as a cure for madness. C. Casaubonæ is so named after Casaubona, herbarist to the Grand Duke of Tuscany, who sent the seed to John Bauhin. C. syriacus is spotted with white, as are a number of Egyptian plants. C. oleraceus, according to Schreber, is not eaten by cattle; but the Russians are said to boil the leaves in the spring, and eat them as coleworts. The tender stalks of C. cernuus are so used in Siberia.

1666. *Onopordum.* A name employed by Pliny for a plant which he describes too imperfectly to be recognized now. The virtues which he ascribes to it, and whence the name has been derived (*ονος* and *περδω*), certainly have no existence in the modern genus, which consists of noble thistle-like plants, that, if allowed plenty of room, form very magnificent specimens of annual vegetation. O. acanthium (from its leaves being like those of the Acanthus) was formerly used like the artichoke and Cardoon. The seeds of this plant, unlike those of other thistles, are strongly defended by the calyx, and are not subject to be blown about by winds. The whole plant is white, tomentose, and one of the most magnificent of the family.

1667. *Berardia.* So named by Villars, after M. Berard, a botanist of Grenoble.

1668. *Cynara.* Said to be derived from *κυων*, a dog, on account of the stiff hard spines of the involucrum, which resemble the teeth of a dog. The English word *Artichoke* is said to be derived from the Celtic *art*, a spine, and *chaulx*, a cabbage; but it must be confessed that the word is very like the Arabic name of the plant, *Carcioffo* or *Kharchiof*. C. scolymus is a well known garden esculent. In some parts of France and Italy it is eaten raw in its wild state by the common people. According to Gerarde, it was introduced into this country from Italy, but is become, "by reason of the great moisture which our country is subject unto," greater and better than those of Italy; a circumstance not to be doubted, and applicable to many other plants of culture; for it is a fact, that art can in many cases surpass nature; always, however, working upon nature's principles. The artichoke is one of those plants the most patient of drought, and in this unusually dry and hot season (1825) was almost the only vegetable procurable in the neighbourhood of Paris, during three or four weeks in July and August. Once in the seventeenth century, and again about 1739, most of the artichokes in England were destroyed by frost, but replaced from France. There are three varieties in cultivation, the conical, French, or oval; the globe, which has a large dusky purplish head; and the dwarf globe, a prolific variety, which is smaller. The parts used are the lower part of the leaves of the calyx; the fleshy receptacles of the flower, freed from the bristles and seed down, vulgarly called the choke; and some-

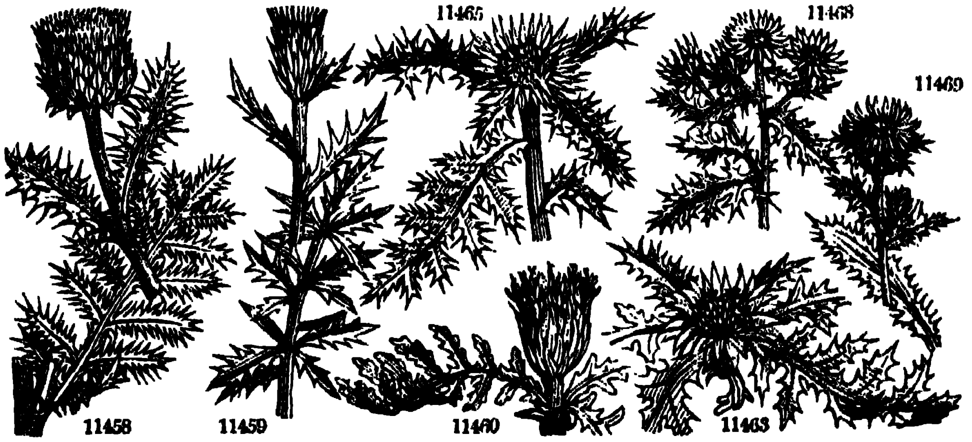
11440 Leaves narr. pinnatifid downy beneath with strong spines, Fl. large solitary, Lvs. of invol. spiny recurved
11441 Leaves sess. lanc. entire unarmed downy beneath, Spines axill. branched at base, Fl. axill. sessile
11442 Leaves amplexicaul. obl. toothed spiny with white veins, Fl. subsess. bracteate, Scales of invol. appressed
11443 Leaves amplexicaul. pinnatifid toothed spiny pubescent, Stem simple, Fl. terminal clustered
11444 Leaves pinnatifid, Invol. scarious: scales acuminate
11445 Leaves pinnatifid, Invol. scarious villous

11446 Scales of invol. spreading subulate, Lvs. ov.-obl. sinuated and spin. decurrent woolly on both sides
11447 Scales of invol. much spreading, Lvs. decurrent smooth on each side sinuated toothed spiny
11448 Scales of invol. much spreading as long as invol. Lvs. decurr. downy sinuated toothed spiny: radic. pinnate
11449 Lower scales reflexed: upper much spreading, Lvs decurrent downy sinuated toothed spiny
11450 Invol. squarrose with cobwebbed down, Leaves stalked ovate angular downy beneath
11451 Scales of invol. ovate-lanc. mucronate spreading, Lvs. decurrent downy subsinuate toothed spiny
11452 Stem and leaves tomentose: radical pinnatifid; cauline obl. adnate decurrent toothed spiny
11453 Scales of invol. ovate mucronate appressed, Lvs. decurrent somewhat downy sinuate toothed spiny
11454 Steml. Invol. glob. subsess. Scales of invol. lanc. spiny spreading, Lvs. stalked pinnatif. toothed spiny downy

11455 Stemless, Invol. obl. subsess. Scales of invol. obl. lanc. downy unarmed, Lvs. stalked roundish ovate

11456 Leaves somewhat spiny pinnate and undivided, Scales of invol. ovate
11457 Leaves pinnatifid downy beneath spiny, Spines of the base of leaves and pinnæ connate at base
11458 Leaves spiny: all pinnatifid, Scales of invol. ovate
11459 Leaves spiny pinnatifid downy beneath, Scales of invol. subulate
11460 Stemless, Leaves unarmed downy beneath pinnatifid: segm. cut-toothed, Scales of invol. lanc.
11461 Stemless, Leaves pinnatifid spiny
11462 Stemless, Leaves pinnated smoothish: segm. toothed spiny, Inner scales of invol. scarious at end

11463 Stemless, Leaves pinnatifid downy beneath: segm. toothed angular spiny
11464 Stem simple 1-fl. Lvs pinnatifid naked: segm. cut-toothed spiny
11465 Stem simple 1-fl. longer than flower, Leaves deeply pinnatifid squarrose
11466 Stem simple 1-fl. numerous aggregate, Leaves pinnatifid smooth: segm pinnatifid spreading spiny
11467 Stem subbifid, Middle flower sessile, Lvs. hoary lanc. toothed spiny
11468 Stem many-fl. corymbose smoothish, Lvs. lanc. pinnatifid toothed smooth
11469 Stem many-fl. corymb. pubesc. Leaves lanc. unequally spin. and sinuated downy beneath
11470 Stem somewhat divided, Fl. axill. sess. Leaves lanc. toothed downy spiny pubescent
11471 Stem many-fl. Leaves decurrent



and Miscellaneous Particulars.

times the tender central leafstalk in a blanched state like the Cardoon. Medicinally, the plant is reputed to be aperient, stomachic, and somewhat heating. It is said to dye a good yellow, and the flowers curdle milk.

The plant is propagated by suckers in March and April, and requires a light rich soil, well dunged, and pulverised to a good depth. The leaves being large, the plants are placed in rows at four feet distance, and two feet apart in the row. They will produce some heads the first season, a full crop the next, and, if well manured, will last for five or six years. The plants require to be covered a foot thick with litter during winter, which is removed, and the ground dressed in March and April. The heads will appear in the beginning of June.

When the artichoke is to be cultivated as Cardoon, the plants are to be cut over by the surface about midsummer; in September they will have produced leaves about two feet high; they are then bound close with a wreath of hay or straw, and earth drawn round them The blanching will be perfected in a month or six weeks.

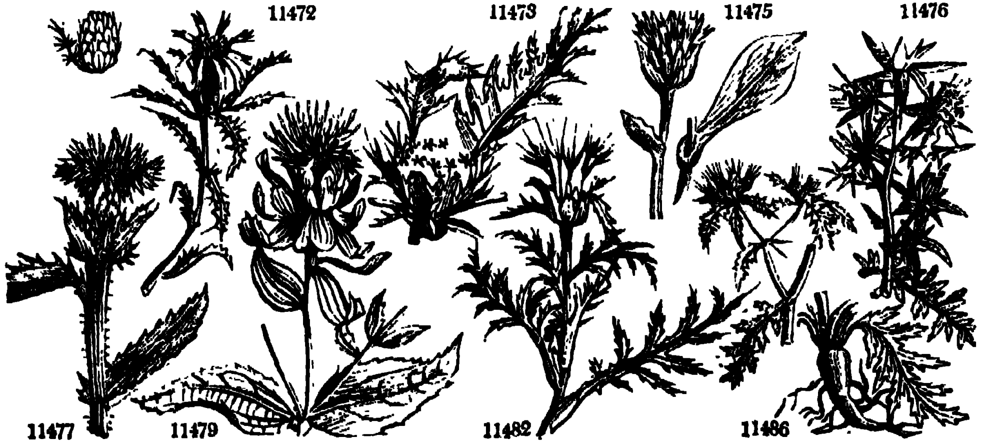
Bauhin thought the Cardoon a hybrid from the common artichoke, to which it bears a great resemblance. The tender stalks of the inner leaves, rendered white and crisp by earthing up, are used for stewing, and for soups and salads during winter, like celery. It requires the same soil as the artichoke, to be planted at three or four feet apart in May, or sown where it is to remain in March. In September the leaves may be tied together and earthed up, and in October and November they will be blanched from one to three feet in length.

With the florets of Cynara Carduncnlus, which the Portuguese call *Cardo do coalho*, milk was formerly coagulated by the people of Portugal, as it is by rennet in England.

1669. *Carlina*. Olivier de Serres says, this plant was named after the famous Charlemagne, whose army was cured of the plague by means of this plant. Linnæus ascribes the name to the Emperor Charles V., whose army was relieved from the plague in Barbary in the same way. C. acaulis has black woody roots an inch thick, the upper part of which, with the receptacle of the flower, when tender, may be eaten, but the root of the adult plant becomes acrimonious, and is recommended as an alexipharmic. It contains an acrid resinous principle, by which it stimulates the solids, dissolves the humours, and promotes perspiration. C. vulgaris is found all over Europe in dry barren soils. The flowers expand in dry, and close in moist weather, retaining this property a long time.

Upon this and a few other genera M. Cassini has founded a tribe, which he denominates Carlineæ, which although possessing no very precise characters of difference, is, he believes, distinct from both his Centaurieæ and Carduineæ, from which it may always be distinguished by the perfect smoothness of the filaments. The species of Carlineæ are found in every part of the world.

1670. ATRAC'TYLIS. *W.*	Atractylis.					*Compositæ.*		*Sp.* 1—4.				
11472 húmilis *W.*	dwarf	⚘	△	un	1	jn.jl	W	Spain	1759.	D	co	Cav. ic. 1. t. 54
1671. ACAR'NA. *W.*	Acarna.					*Compositæ.*		*Sp.* 2—6.				
11473 gummífera *W.*	gummy-rooted	⚘	△	un	¾	jn.au	Pu	S. Europe	1640.	D	co	Cav. ic. 3. t. 228
11474 cancelláta *W.*	netted		○	un	½	jn.jl	B	S Europe	1640.	S	co	Lam.ill. t.662.f 1
1672. STOKE'SIA. *W.*	Stokesia.					*Compositæ.*		*Sp.* 1.				
11475 cýanea *W.*	blue-flowered	£	[△]	pr	2	au	B	Carolina	1766.	D	co	L'He.ser.27.
1673. STOBÆ'A. *Th.*	Stobæa.					*Compositæ.*		*Sp.* 1—11.				
11476 pinnáta *Th.*	Carthamus-like	♣	⊔	or	2	ja.d	Y	C. G. H.	1812.	C	co	Bot. mag. 1788
1674. ONOBRO'MA. *Gærtn.*	Onobroma.					*Compositæ.*		*Sp.* 2.				
11477 cærúleum *Gærtn.*	blue-flowered	⚘	△	or	1	jn.jl	B	Spain	1640.	D	co	Bot. mag. 2293
Carthamus cæruleus W.												
11478 salicifólium *Link.*	Willow-leaved	♣	⊔	or	3	au	W	Madeira	1784.	C	s.p	
1675. CAR'THAMUS. *W.*	Carthamus.					*Compositæ.*		*Sp.* 7—20.				
11479 tinctórius *W.*	officinal		○	or	3	jn.jl	O	Egypt	1551.	S	s.l	Bot. reg. 170
11480 lanátus *W.*	woolly		○	or	3	jl.au	Y	S. Europe	1596.	S	co	Bot. mag. 2142
11481 créticus *W.*	Cretan		○	or	2	jn.jl	W	Candia	1731.	S	co	
11482 tingitánus *W.*	Tangier	⚘	△	or	2	jn.jl	B	Barbary	1759.	D	co	Cav. ic. 2. t. 128
11483 mitíssimus *W.*	small	⚘	△	or	¾	jn.jl	B	France	1776.	D	co	
11484 Carduncéllus *W.*	mountain	⚘	△	or	½	my.jn	B	France	1734.	D	co	
11485 arboréscens *W.*	tree	♣	⊔	or	6	jl.au	Y	Spain	1731.	C	s.p	Bot. mag. 3302
1676. CARDOPA'TUM. *Pers.*	Cardopatum.					*Compositæ.*		*Sp.* 1.				
11486 corymbósum *Pers.*	corymbose	£	△	un	3	jl.au	B	Levant	1821.	D	co	M.h. s.7.t.33.f.17
1677. STÆHELI'NA. *W.*	Stæhelina.					*Compositæ.*		*Sp.* 3—13.				
11487 dúbia *W.*	Rosemary-lvd.	♣		fr	3	jn.jl	Pu	S. Europe	1640.	C	p.l	Lam.ill. t.666.f 4
11488 arboréscens *W.*	Storax-leaved	♣	⊔	pr	6	jl.s		Candia	1739.	C	p.l	Schreb.dec.1. t.1
11489 chamæpéuce *W.*	Pine-leaved	♣	⊔	pr	2	jl.n		Candia	1640.	C	p.l	Plu. alm. t.94.f.3
1678. PALAFOX'IA. *Lag.*	Palafoxia.					*Compositæ.*		*Sp.* 1.				
11490 lineáris *Lag.*	linear-leaved	£	[○]	pr	2	jn jl	W	Mexico	1821.	S	co	Bot. mag. 2132
1679. PTERO'NIA. *W.*	Pteronia.					*Compositæ.*		*Sp.* 5—33.				
11491 camphoráta *W.*	aromatic	♣	⊔	or	3	jn.jl	Y	C. G. H.	1774.	C	p.l	Pl.man. t.345.f.2
11492 stricta *W.*	cluster-flower'd	♣	⊔	or	3	ap jn	Y	C. G. H.	1774.	C	p.l	
11493 flexicaúlis *W.*	bending-stalk'd	♣	⊔	or	3	jn.au	Y	C. G. H.	1812.	C	co	
11494 oppositifólia *W.*	opposite-leaved	♣	⊔	or	½	jl	Y	C. G. H.	1774.	C	p.l	Bre.prod.t.17.f 3
11495 scariósa *W.*	Window-calyx.	♣	⊔	or	2	jn.au	Y	C. G. H.	1815.	C	co	
1680. VERNO'NIA. *W.*	Vernonia.					*Compositæ.*		*Sp.* 9—18.				
11496 noveboracénsis *W.*	long-leaved	⚘	△	or	6	s.n	Pu	N. Amer.	1710.	D	co	Dil el.t.263.f.342
11497 præálta *W.*	tall	⚘	△	or	8	s.n	Pu	N. Amer.	1732.	D	co	Dil.el.t.264.f 343
11498 angustifólia *Ph.*	narrow-leaved	⚘	△	or	4	s.n	Pu	N. Amer.	1817.	D	co	
11499 glaúca *W.*	glaucous-leav'd	⚘	△	or	4	s.n	Pu	N. Amer.	1710	D	co	Dil.el.t.262.f 341
11500 serícea *Rich.*	silky	♣	☐	or	5	d	Pa pu	Brazils	1823.	C	co	Bot. reg. 522
11501 flexuósa *B. M.*	flexuose	£	[△]	or	1½	s	Pu	Brazil	1823.	S	co	Bot. mag. 2477



History, Use, Propagation, Culture,

1670. *Atractylis.* Vaillant (*Mem. Acad. Sc.* 1718.) derives this from *ατρακτος*, a distaff, because the light stems were very fit to make spindles.

1671. *Acarna.* A name under which Theophrastus describes a plant resembling a thistle. Willdenow applied it to the present genus, which consists of thistle-like plants.

1672. *Stokesia.* Named in honor of Jonathan Stokes, M. D., well known as the coadjutor of Dr. Withering in his botanical arrangement of British plants. A perennial plant, with large handsome blue flowers.

1673. *Stobæa.* Named after Dr. Stobæus, of Lund, one of Linnæus's earliest patrons, and said to have been a practical naturalist.

1674. *Onobroma.* From *ονος*, an ass, and *βρωμα*, food, in allusion to the worthlessness of its herbage. Thistle-like plants of little beauty.

1675. *Carthamus.* From its Arabic name *qortom*, a word which signifies to paint, on account of the fine color yielded by the flowers. Tournefort, with little reason, derives it from the Greek *καθαιρω*, to purge. The flowers of Carthamus tinctorius are used by the Chinese to give some of the fine rose, scarlet, purple, and violet colors to their silks. For this purpose, the flowers are thrown into an infusion of some alkali, and left to macerate; the colors are afterwards drawn out by the addition of lemon juice in various proportions, or of any other vegetable acid.

It is cultivated at present in many parts of Europe, and in the Levant, whence great quantities are annually imported into England for dyeing and painting. In Spain it is grown in gardens, as Marygolds are in England, to color soups, olives, and other dishes. The Jews in Poland are remarkably fond of it, and mix it with their bread, and most of their viands. According to Houghton, it was formerly cultivated in Gloucestershire, both for the flowers and seed. The common people took it for saffron, and used it in their puddings, cakes, and

11472 Stem and leaves smooth

11473 Stemless, Leaves pinnatifid, Outer leaves of invol. tricuspidate
11474 Stem branched, Leaves lanc. ciliate toothed downy, Outer leaves of invol. setaceous pinnatifid conniving [larger than flower

11475 The only species

11476 Leaves downy pinnatifid: pinnæ linear terminated by a spine

11477 Stem about 1-fl. Leaves ovate lanc. spiny-toothed

11478 Stem shrubby, Leaves sessile lanceolate downy beneath spiny-toothed, Branches 1-flowered

11479 Stem quite smooth, Leaves ovate entire spiny toothed, Fruit naked
11480 Stem woolly, Lower leaves pinnatifid toothed: upper amplexicaul pinnatifid toothed spiny
11481 Stem smoothish, Invol. somewhat woolly, Lower leaves lyrate: upper half-amplexicaul.
11482 Radic. leaves pinnated: cauline pinnatifid, Stem 1-flowered
11483 Leaves unarmed: radical toothed; cauline pinnate
11484 Cauline leaves linear pinnated as long as plant
11485 Leaves ensiform sinuate toothed

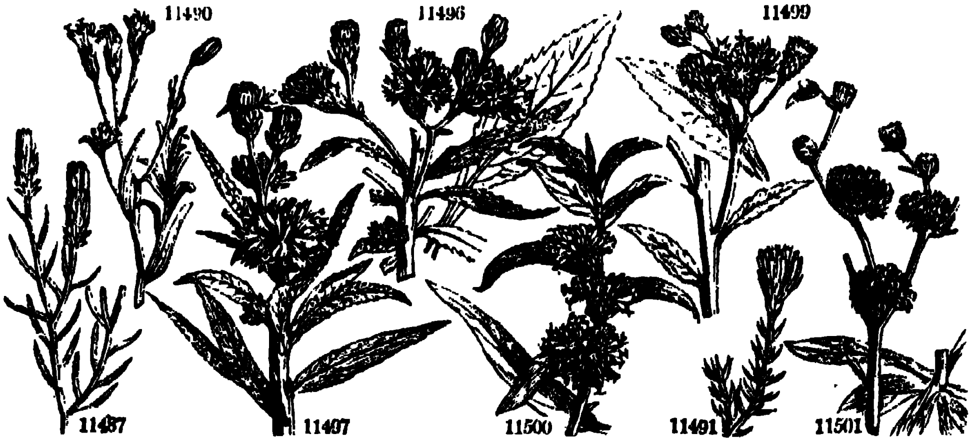
11486 Spiny much branched with small blue flowers

11487 Leaves sessile linear toothletted downy beneath, Inner scales of invol. lanc. long
11488 Leaves stalked ellipt. blunt entire silky with down beneath
11489 Leaves lin. clustered very long revolute at edge hoary beneath, Branches downy

11490 The only species

11491 Leaves scattered and fascicled filiform ciliated, Leaves of invol. ciliated, Hairs of recept. clustered
11492 Lvs. scattered and fascicled filiform subciliate at base, Lvs. of invol. entire, Holes of recept. multipartite
11493 Leaves connate linear filiform glabrous, Scales of invol. ovate, Stem wavy, Fl. terminal in threes stalked
11494 Leaves ovate powdery downy, Scales of invol. ovate entire
11495 Leaves ovate smooth, Scales of invol. ovate mucronate membranous

11496 Leaves lanc. scabr. serrulate, Corymb fastigiate, Scales of invol. filiform at end
11497 Leaves ovate-lanc. serrate downy beneath, Corymb fastigiate, Scales of invol. ovate acuminate
11498 Stem simple, Lvs. many long and narrow lin. nearly entire, Corymb somewhat umbell. Scales of inv. stiff
11499 Leaves oblong acuminate serrate, Corymb fastigiate, Scales of invol. ovate acute [mucronate
11500 Leaves linear-lanc. silky beneath downy on each side nearly entire, Flowers alternate 1-sided sessile
11501 Stem straight dichotomous upwards: branches flexuose, Heads in the forks of the branches sessile



and Miscellaneous Particulars.

bread; but by putting in too great a quantity they found it communicate a purgative quality, and gave up its use. It is still, however, used in this way by some pastrycooks. In Germany it is cultivated on light land well pulverised; it is sown in rows about eighteen inches distance, and afterwards thinned to three or four inches apart in the row: in September the plants begin to flower, and the field is then gone over once a week, for six or seven weeks, to gather the expanded florets, which are dried in a kiln in the same manner as true saffron. Turkeys and geese are said to feed greedily on the seed, and in a short time become very fat.

C. lanatus is used by the women of the south of France and Spain for distaffs, and hence it had the name of distaff thistle. The root of C. carduncellus is eaten in Africa.

1676. *Cardopatum.* A name of unknown meaning. A spiny branched plant with little blue flowers, formerly referred to Carthamus.

1677. *Stæhelina.* One Benoit Stæhelin, a Swiss botanist, published, in 1730, an academical dissertation upon the Filicula saxatilis corniculata and the Equisetum. These are pretty half-shrubby thread-leaved plants, mostly deserving cultivation.

1678. *Palafoxia.* Named by Lagasca, after the Spanish General Palafox, of whose merits as a botanist we are uninformed. A small perennial plant with the habit of Stevia.

1679. *Pteronia.* From *πτερον*, a wing; altered by Linnæus from the Pterophorus of Vaillant, a word which seems to allude to the feathery scales of the receptacle. A genus of humble rigid shrubs.

1680. *Vernonia.* Named after Mr. William Vernon, fellow of St. Peter's College, Cambridge, who travelled in North America in search of plants, and left behind him an Herbarium, which came into the hands of Sir Hans Sloane, and contributed to enrich the third volume of Ray's Historia Plantarum. Vernonieæ constitutes the twentieth of M. Cassini's subdivisions of Compositæ. They are distinguished from Lactuceæ by

11502 pandurāta *Jacq.*	fiddle-leaved	♃	△	or	4	s.n	Pu	......	1825.	D	co	
11503 arborèscens *Cass.*	tree	■	□	or	5	n.d	Pu	Jamaica	1738.	C	co	Pl.sp.10.t.130.f.2
11504 anthelmíntica *W.*	purple	£	▣	or	1½	au.s	Pu	E. Indies	1770.	S	co	Rhee.mal.2. t.24
1681. AMMO'BIUM. *R. Br.*	AMMOBIUM.					*Compositæ.*		*Sp.* 1.				
11505 alàtum *R. Br.*	winged	♃	△	pr	2	mr.s	W	N. Holl.	1822.	S	co	Bot. mag. 2459
1682. LIA'TRIS. *W.*	LIATRIS.					*Compositæ.*		*Sp.* 11—18.				
11506 squarròsa *W.*	rough-cupped	♃	△	el	3	jl au	Pu	N. Amer.	1732.	D	p.l	Sweet fl. gard 44
11507 scariòsa *W.*	scarious-cupped	♃	△	el	4	s.o	Pu	N. Amer.	1739.	D	p.l	Bot. mag. 1709
11508 sphæroìdea *Ph.*	globular-cupp'd	♃	△	el	3	au.o	Pu	N. Amer.	1817.	D	co	Sweet fl. gard.87
11509 élegans *W.*	hairy-cupped	♃	△	el	4	s.o	Pu	N. Amer.	1787.	D	p.l	Bot. reg. 267
11510 pilòsa *W.*	hairy-leaved	♃	△	el	1½	s.o	Pu	N. Amer.	1783.	D	p.l	Bot. reg. 595
11511 cylindràcea *Ph.*	cylindrical-cup.	♃	△	el	4	au.o	Pk	N. Amer.	1811.	D	co	
11512 heterophýlla *Ph.*	various-leaved	♃	△	el	3	jl.au	Pu	N. Amer.	1790.	D	p.l	
11513 pycnostàchya *Ph.*	pubescent-lvd.	♃	△	el	3	au.o	Pu	N. Amer.	1732.	D	co	Dill. elt.t.72.f.83
11514 spicàta *W.*	long-spiked	♃	△	el	6	au.o	Pu	N. Amer.	1732.	D	p.l	Bot. rep. 401
11515 odoratíssima *W.*	sweet-scented	£	(△)	el	3	au.o	Pu	Carolina	1786.	R	s.p	Bot. rep. 633
11516 pùmila *Hort.*	dwarf	♃	△	el	1	au.o	Pu	N. Amer.	...	R	s.p	Bot. cab. 147
1683. MIKA'NIA. *W.*	MIKANIA.					*Compositæ.*		*Sp* 3—21.				
11517 Houstòni *W.*	Houston's	$	□	or	8	jl.au	Pk	Jamaica	1733.	C	co	
11518 hastàta *W.*	halbert-leaved	$	□	or	8	...	Pk	Jamaica	...	C	co	Bro. jam. t.34.f.3
11519 scándens *W.*	climbing	$	(△)	or	10	au.s	Pa.B	N. Amer.	1714.	D	co	Jac. ic. 1. t. 169
1684. SPARGANO'PHORUS. *Gærtn.*	SPARGANOPHORUS.					*Compositæ.*		*Sp.* 2.				
11520 Vaillántii *Gærtn.*	Vaillant's		▣	un	1½	au	Y	India	1823.	S	co	Gærtn. t.165. f.4
11521 Strùchium *Swz.*	Swartz's		▣	un	2	au	Y	Jamaica	...	S	co	Bro.jam t.34.f.2
1685. EUPATO'RIUM. *W.*	EUPATORIUM.					*Compositæ.*		*Sp.* 30—107.				
11522 Dàlea *W.*	shrubby	■	□	or	6	au	Pk	Jamaica	1773.	C	co	Jac.schœ.2.t.146
11523 fœniculàceum *Ph.*	Fennel-leaved	♃	△	or	4	jn.s	Pa.Y	N. Amer.	1807.	D	co	
11524 hyssopifòlium *W.*	Hyssop-leaved	♃	△	or	1	au.s	W	N. Amer.	1699.	D	co	Dil.el.t.115.f.140
11525 sessilifòlium *W.*	sessile-leaved	♃	△	or	1	s.o	W	N. Amer.	1777.	D	co	
11526 teucrifòlium *W.*	Teucrium-lvd.	♃	△	or	2	au.n	W	N. Amer.	1816.	D	co	W. hort. ber. 32
11527 rotundifòlium *W.*	round-leaved	♃	△	or	1	jl.au	W	N. Amer.	1699.	D	co	Plu.alm. t.88.f.4
11528 altíssimum *W.*	tall	♃	△	or	5	s.o	W	N. Amer.	1699.	D	co	Jac.vind.2. t.164
11529 trifoliàtum *W.*	three-leaved	♃	△	or	6	au.o	Pu	N. Amer.	1768.	D	co	
11530 cannabìnum *W.*	Hemp Agrimony	♃	△	or	4	jl.o	Pk	Britain	wat.pl.	D	co	Eng. bot. 428
11531 syrìacum *W.*	Syrian	♃	△	or	4	jl s	Pu	Syria	1807.	D	co	Jac. ic. 1. t. 170
11532 purpùreum *W.*	purple-stalked	♃	△	or	5	s.o	Pk	N. Amer.	1640.	D	co	Corn. canad.t.72
11533 maculàtum *Ph.*	spotted-stalked	♃	△	or	3	au.s	Pu	N. Amer.	1656.	D	co	Herm.par. t.158
11534 punctàtum *Ph.*	dotted	♃	△	or	4	au.s	Pu	N. Amer.	1815.	D	co	
11535 verticillàtum *W.*	whorl-leaved	♃	△	or	5	au.s	Pu	N. Amer.	1811.	D	co	
11536 perfoliàtum *W.*	Feverwort	♃	△	or	2	au.o	W	N. Amer.	1699.	D	co	Plu. alm. t.87.f.6
11537 cœlestìnum *W.*	blue-flowered	♃	△	or	2	jl n	L.B	N. Amer.	1732	D	co	Dil.el.t.114.f.139
11538 urticæfòlium *W.*	Nettle-leaved	♃	(△)	or	1½	jl.au	Pk	S. Amer.	1803.	D	co	Smith. ined t.68
11539 aromàticum *W.*	aromatic	♃	△	or	4	jl.au	W	N. Amer.	1739.	D	co	Plu. alm. t.88.f.3
11540 ageratoìdes *W.*	Ageratum-like	♃	△	or	4	au.o	W	N. Amer.	1640.	D	p.l	Corn.canad. t.21
11541 odoràtum *W.*	sweet-scented	■	□	ft	3	au.o	Pk	Jamaica	1752.	C	co	Plu.alm.t.177.f.3
11542 ivæfòlium *W.*	Iva-leaved	£	[△]	or	3	jn jl	Pk	Jamaica	1794.	D	co	
11543 salviæfòlium *B. M.*	Sage-leaved	♃	△	or	4	au s	Pk	N. Amer.	1814.	D	co	Bot. mag. 2010
11544 lamiifòlium *Link.*	Nettle-leaved	£	[△]	or	3	au.s	Pk	......	1823.	D	co	
11545 ceanothifòlium *W.*	Ceanothus-lvd.	♃	△	or	4	au.s	W	......	1824.	D	co	
11546 ireænoìdes *Kth.*	snowy	$	□	or	2	au.o	W	N.Grenad.	1820.	C	co	Kun.nov.g.t.340
11547 paniculàtum *Mill.*	panicled	£	[△]	or	6	au.o	Pk	......	1818.	D	co	

Eriopáppus paniculàtus Hort.

History, Use, Propagation, Culture,

their corolla, which is not ligulate, and from every other tribe by their style, which is absolutely the same as that of Lactuceæ. The greater part of Vernonicæ are found in America; a few in Asia and Africa, but none in Europe.

1681. *Ammobium.* From *αμμος*, sand, and *βιω*, to live, in allusion to the places where it grows. A pretty half-hardy New Holland herbaceous plant, with dry white involucral scales, like a Gnaphalium.

1682. *Liatris.* A word of unknown meaning. A genus of charming North American herbaceous plants. They should be taken out of the borders in the autumn, and preserved in pots till the succeeding spring. Of Liatris odoratissima, the leaves when dry give out a very pleasant smell resembling Vanilla, and which lasts for years. It is called the Carolina Vanilla plant.

Liatris squarrosa is a very handsome species, with large heads of most beautiful flowers of a rich purple. It and L. scariosa are known in North America under the name of rattlesnake's master. In case of being bitten by this reptile, the bruised bulbs of the plants are applied to the wound, while, at the same time, a decoction in milk is taken inwardly.

11502 Leaves oval blunt serrate-crenate : lower with a winged amplexicaul. stalk, Fl. subcorymbose
11503 Leaves ovate entire acute downy beneath, Spikes recurved 1-sided, Bractes reflexed
11504 Leaves ovate-lanc. narrowed at each end serrated roughish pubescent beneath, Fl. term. about 3

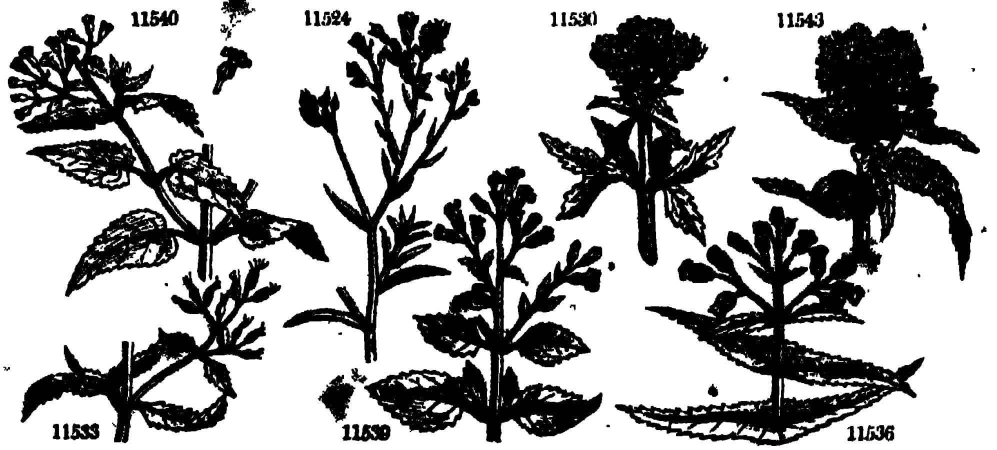
11505 Leaves oblong wavy decurrent

11506 Stem simple pubescent, Leaves very long linear nerved roughish at edge, Racemes few-fl. leafy
11507 Stem simple pubescent, Lvs. lanc. narrowed at each end smooth rough at edge, Inv. squarrose at bottom
11508 Stem simple pubescent, Leaves smooth : lower stalked broad-lanc. Invol. subglobose with scarious scales
11509 Stem simp. vill. Lvs. lin. subfalc. dott. rough, Spike somew. leafy, Pedic. short, Inner scales ligul. colored
11510 Stem simple pubesc. Lvs. lin. pilose ciliated, Invol. racemose lax, Scales lin. obl. bluntish [mucronate
11511 Slender all over hairy, Lvs. grassy, Spike few-fl. Inv. subsess. cylindr. few-fl. Scales round. at end abruptly
11512 Stem simple smooth, Leaves lanc. smooth : upper lin. lanc. very small, Invol. spiked subsquarrose
11513 Stem simple hirsute, Lvs. straight narrow-lin. downy, Spike long, Fl. closely cluster. Inv. appress. squarrose
11514 Stem simple tall, Lvs. lin. smooth ciliated at base nerved and dotted, Spike very long, Fl. sessile [at end
11515 Quite smooth, Stem simple, Rad. leaves obl. : cauline amplexicaul. Panicle corymbose lax spreading
11516 Dwarf, Leaves linear, Stem simple, Flowers spiked

11517 Stem climbing, Leaves ovate entire, Flowers spiked
11518 Stem climbing, Leaves subcordate hastate toothed, Flowers in spikes
11519 Stem climbing smooth, Lvs. cord. repand toothed acuminate with spreading unequal lobes, Fl. corymbose

11520 Flowers sessile lateral
11521 Flowers axillary sessile, Corollas all trifid

11522 Leaves lanc. veiny obsoletely serrate smooth, Invol. 4-fl. Stem shrubby
11523 Stem panicled, Leaves smooth : lower pinnated, upper fascicled, all filiform
11524 Leaves opp. subverticill. linear entire pubescent 3-nerved dotted : radical somewhat toothed
11525 Leaves sessile amplexicaul. distinct ovate-lanc. rounded at base serrated smooth, Stem smoothish
11526 Leaves sessile distinct ovate scabrous : upper coarsely serrated at base ; uppermost entire
11527 Leaves sessile distinct roundish cordate bluntly serrate veiny
11528 Leaves subsessile lanceolate 3-nerved narrowed at each end downy : lower serrated in middle
11529 Leaves stalked 3 or 4-nate ovate narrowed at each end serrated roughish
11530 Leaves opposite subpetiolate tri-quinque-partite : their segments lanceol. deeply serrate
11531 Leaves petiolate ternate and simple downy beneath unequally serrate, Stem smooth
11532 Leaves stalked 4 or 5-nate ovate lanceolate serrate rugose veiny roughish, Stem hollow
11533 Leaves stalked 4 or 5-nate ovate lanceolate unequally serrate downy beneath, Stem solid furrowed
11534 Leaves stalked 4 or 5-nate ovate acuminate serrated scabrous on each side, Stem solid round
11535 Leaves stalked 3 or 4-nate ovate-lanceol. cuneate at base unequally serrate smoothish, Stem solid smooth
11536 Leaves connate perfoliate downy
11537 Leaves stalked cordate ovate bluntish 3-nerved bluntly serrate, Fl. corymbose
11538 Hispid, Leaves stalked cordate cut serrate, Panic. terminal, Invol. many-fl. subulate pungent
11539 Leaves stalked ovate acute 3-nerved bluntly serrate glabrous, Stem panicled upwards, Fl. corymbose
11540 Leaves stalked ovate acuminate 3-nerved unequally coarsely serrated smooth, Corymb many-fl. spreading
11541 Leaves stalked triangular ovate serrated entire at end downy beneath, Corymbs spreading term. sessile
11542 Leaves narrow lanceol. 3-nerved subserrated, Invol. squarrose many-flowered
11543 Leaves amplexicaul. lanc. acuminate rugose serrated, Flowers panicled clustered
11544 Leaves stalked ovate acuminate unequally and bluntly crenated pubescent, Panicle contracted
11545 Leaves stalked ovate acuminate toothed 3-nerved glabrous
11546 Stem twining villous, Lvs. deltoid ovate acute 3-nerved soft beneath, Panicle term. trichotomous diffuse
11547 Like E. laminifolium, but the flowers smaller and panicled



and Miscellaneous Particulars.

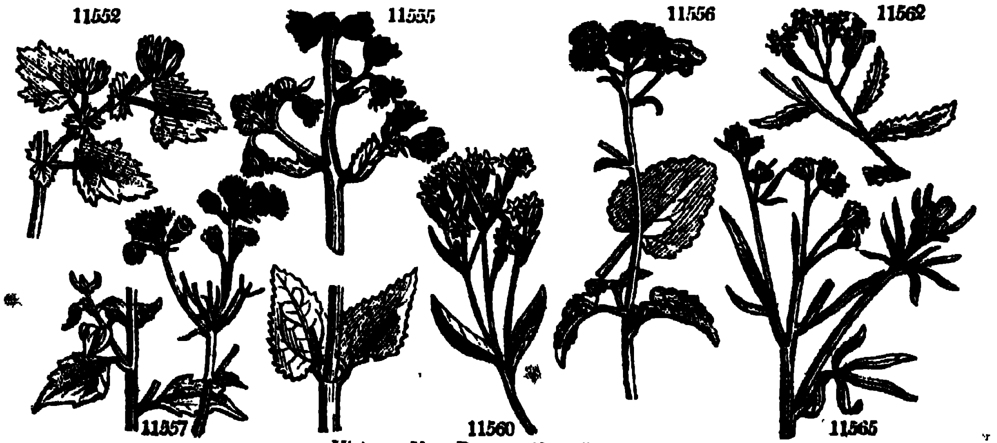
1683. *Mikania.* Named by Willdenow, after Professor Mikan, of *Prague.* Climbing tropical plants, one of which, M. Guaca, is employed in South American medicine as a powerful febrifuge.

1684. *Sparganophorus.* From σπαργανον, a fillet, and φερω, to bear, because the seed is crowned with a membranous band or border.

1685. *Eupatorium.* This plant, says Pliny, derives its name from Eupator King of Pontus, who first used it in medicine. *Aya-pana* is the vernacular name of the species so called among the natives of the banks of the river Amazon. The tribe of Eupatorieæ is distinguished from Vernonieæ by its style. They are chiefly found in America, very few inhabit Asia, scarcely any Africa, and not one has been found in Europe.

The Eupatorium perfoliatum has some reputation as a medicinal plant. A dissertation upon the subject of its merits was published a few years since by an American physician, from which it appears that the virtues of the plant reside chiefly in the leaves, and that the most efficient mode of exhibiting it is by means of a simple decoction. The medical powers of Eupatorium are, as its sensible properties would seem to indicate, those of a tonic stimulant. Given in moderate quantities, either in substance, or in cold infusion or decoction, it promotes digestion, strengthens the viscera, and restores tone to the system. Like other vegetable bitters,

11548 pubéscens *W.*	downy	♃ △ or	4	jl.au	W	N. Amer.	1810.	D	co	
11549 mólle *Swz.*	soft	£ ⊡ or	4	jl.au	W	Jamaica	1823.	D	co	
11550 deltoídeum *Jacq.*	deltoid	£ ⊡ or	3	jl.au	Pu	......	1822.	D	co	
11551 scándens *Link.*	climbing	⚲ ⊡ or	6	au.s	Y	......	1821.	D	co	
1686. DUMERI'LIA. *Lag.* Dumerilia.				*Compositæ.*		*Sp.* 1.				
11552 paniculáta *Lag.*	panicled	■ □ or	3	au	Pu	Colombia	1825.	C	co	Ann. mus. 18. t. 7
1687. AGE'RATUM. *W.* Ageratum.				*Compositæ.*		*Sp.* 4—8.				
11553 conyzoídes *W.*	hairy	○ or	1	jl.au	L.B	America	1714.	S	p.l	Ex. fl. 15
11554 latifólium *W.*	broad-leaved	○ or	1½	jl.au	W	Peru	1800.	S	co	Cav. ic. 6. t. 357
11555 strictum *B. M.*	upright	○ or	2	jn.jl	W	Nepal	1821.	S	co	Bot. mag. 2410
11556 mexicánum *B. M.*	Mexican	○ or	1½	jn.jl	B	Mexico	1822.	S	co	Bot. mag. 2524
1688. CÆLESTI'NA. *Cass.* Cælestina.				*Compositæ.*		*Sp.* 1—2.				
11557 ageratoídes *Cass.*	blue-flowered	♃ ⊔ or	1	jl.o	B	......	......	C	co	Bot. mag. 1730
1689. STE'VIA. *W.* Stevia.				*Compositæ.*		*Sp.* 10—14.				
11558 purpúrea *W. en.*	purple	♃ △ pr	1½	au.s	Pu	Mexico	1812.	D	co	Bot. reg. 93
11559 Eupatória *W.*	entire-leaved	♃ △ pr	2	jl.s	Pk	Mexico	1798.	S	p.l	Bot. mag. 1849
11560 hyssopifólia *B. M.*	Hyssop-leaved	♃ △ pr	1½	au.s	Pk	Mexico	...	D	co	Bot. mag. 1861
11561 salicifólia *W.*	Willow-leaved	♃ △ pr	1½	au.s	Pk	Mexico	1803.	S	p.l	Cav. ic. 4. t. 354
11562 serráta *W.*	saw-leaved	♃ △ pr	1½	jl.s	[illegible]	Mexico	1798.	D	s.p	Jac. schœ. 3. t. 300
11563 ivæfólia *W. en.*	Iva-leaved	♃ △ pr	2	jl.s	W	Mexico	1816.	D	s.p	
11564 ováta *W. en.*	oval-leaved	♃ △ pr	2	au.s	W	Mexico	1816.	D	s.p	
11565 pedáta *W.*	multifid	○ pr	1½	jl.s	W	Mexico	1803.	S	s.p	Bot. mag. 2040
11566 lanceoláta *Lag.*	lanceolate	♃ △ pr	1	jl.s	Pu	Mexico	1822.	D	co	
11567 pubéscens *Lag.*	pubescent	♃ △ pr	1½	jl.s	Pu	Mexico	1823.	D	co	
1690. CEPHALO'PHORA. *W.* Cephalophora.				*Compositæ.*		*Sp.* 1.				
11568 glaúca *W.*	glaucous	♃ △ un	2	jl.au	Y	Chili	1798.	D	co	Cav. ic. 6. t. 599
1691. AMPHE'REPHIS. *Kth.* Amphierephis.				*Compositæ.*		*Sp.* 1—3.				
11569 intermédia *Link.*	intermediate	○ pr	1½	jl.au	Pu	Brazil	1821.	S	co	Pla. sel. H. B. f. 29
1692. HYMENOPAP'PUS. *J.* Hymenopappus.				*Compositæ.*		*Sp.* 1—2.				
11570 tenuifólius *Ph.*	slender-leaved	£ ○ un	2	jn.au	W	Louisiana	1811.	S	co	
1693. MELANANTHE'RA. *Mi.* Melananthera.				*Compositæ.*		*Sp.* 2—5.				
11571 hastáta *Ph.* *Bidens nivea* W.	snowy	£ △ un	2	jn.jl	W	N. Amer.	1732.	D	co	Dill. elt. t. 47. f. 55
β panduráta	*fiddle-leaved*	£ △ un	2	jn.jl	W	N. Amer.	1732.	D	co	Dill. elt. t. 46. f. 54
11572 deltoídea *Mich.* *Calea aspera* W.	rough-leaved	£ ⊡ un	3	jl.au	Y	S. Amer.	1799.	S	co	Jac. ic. 3. t. 583
1694. MARSHAL'LIA. *Ph.* Marshallia.				*Compositæ.*		*Sp.* 2—3.				
11573 lanceoláta *Ph.*	spear-leaved	♃ △ pr	1½	jn.jl	Pu	Carolina	1812.	D	co	
11574 latifólia *Ph.*	broad-leaved	♃ △ pr	1½	jn.jl	Pa.pu	Carolina	1806.	D	co	Mich. amer. 2. t. 43
1695. SPILAN'THES. *W.* Spilanthes.				*Compositæ.*		*Sp.* 3—14.				
11575 Pseudo-Acméla *W.*	spear-leaved	⊡ un	1	jl	Y	Ceylon	1768.	S	s.l	Pluk. al. t. 159. f. 4
11576 álba *W.*	white-flowered	⊡ un	1½	jn.jl	W	Peru	1783.	S	co	L'He. stirp. 7. t. 4
11577 oleracea *W.*	esculent	○ cul	1	jl.s	Y	E. Indies	1770.	S	co	Jac. vind. 2. t. 135
1696. SAL'MEA. *Dec.* Salmea.				*Compositæ.*		*Sp.* 2—3.				
11578 scándens *Dec.*	scandent	⚲ □ pr	6	jn.jl	W	Vera Cruz	1820.	D	co	Bot. mag. 2062
11579 hirsúta *Dec.*	hirsute	♃ □ pr	6	au	W	Jamaica	1823.	S	co	



11552 11555 11556 11562

11557 11560 11565

History, Use, Propagation, Culture,

if given in large quantities, especially in warm infusion or decoction, it proves emetic, sudorific, and aperient. Even in cold infusion, it tends to bring on diaphoresis. The plant is also stated to be an excellent remedy for the cure of intermittent fevers. When employed as a tonic, this plant may be taken in doses of twenty or thirty grains, or a teacup full may be used of the infusion rendered moderately bitter. When intended to act as an emetic, a strong decoction may be made from an ounce of the plant in a quart of water boiled to a pint. (*Bigelow.*)

1686. *Dumerilia.* Named after M. A. M. Constant Duméril, author of an Elementary Treatise upon Natural History, published in one volume octavo, at Paris, in 1804. Small half-shrubby South American plants, with firm hairy leaves.

1687. *Ageratum.* A name employed by Dioscorides, and probably applied by him to some plants similar to what we call properly "everlastings;" it is derived from *a*, privative, and *γηρας*, old age, because it never grows old; that is to say, always preserves its color.

1688. *Cælestina.* From *cælestis*, blue, in allusion to the color of the flowers.

1689. *Stevia.* Dedicated by Cavanilles to the memory of Peter James Esteve, a Spanish physician of the sixteenth century. He left behind him a dictionary of the plants natives of the kingdom of Valentia.

1690. *Cephalophora.* From *κεφαλη*, a head, and *φερω*, to bear, its flowers being united in little heads.

1691. *Amphierephis.* From *ἀμφηρεφὴς*, which signifies well covered, on account of the double involucrum of the genus.

11548 Lvs. sessile distinct ovate scabrous veiny: lower doubly serrate, upper subserrate, Stem panicled downy
11549 Leaves stalked cordate acute subserrate villous beneath, Invol 8-15-fl Stem shrubby
11550 Leaves stalked hastate triangular 3-nerved unequally serrate downy beneath, Panic. corymbose
11551 Stem twining, Leaves reniform ovate acuminate serrate-toothed, Panicle axillary

11552 Leaves roundish 7-lobed lobes crenate, Panicle corymbose terminal

11553 Leaves ovate subcordate, Stem hairy, Paleæ of pappus awned toothletted
11554 Leaves ovate cuneate at base, Stem pilose, Paleæ of pappus lanceolate acute
11555 Stem erect simple scabrous, Leaves cordate rugose unequally serrated
11556 Hispid, Leaves cordate ovate crenate rugose, Corymb compound, Paleæ of pappus lanceolate awned

11557 Leaves stalked ovate acute rounded at base serrated pilose above hairy beneath

11558 Leaves lanc channelled narrowed into the footstalk 3-nerved, Corymb fastigiate
11559 Leaves lanc 3-nerved entire, Corymb fastigiate, Pappus paleaceous and awned
11560 Leaves oblong ovate entire, Corymbs spreading, Pappus awned as long as corolla
11561 Leaves lanc narrowed at each end serrated in the middle, Corymb spreading, Pappus with 2 awns
11562 Leaves lin lanc. serrated at end, Corymbs fastigiate, Pappus paleaceous and awned
11563 Leaves lanc narrowed into the footstalk 3-nerved finely serrated at end, Corymbs fastigiate
11564 Leaves ovate 3-nerved serrated cuneate and entire at the base, Pappus chaffy and awned
11565 Leaves stalked digitate pedate entire, Pappus paleaceous. (*Flaveria*, Cass)
11566 Leaves sessile narrowed at base rough with minute hairs, Pappus with 3 awns
11567 Leaves 10 lines long 4 lines broad finely downy beneath, Flowers purple

11568 The only species

11569 Leaves of invol. foliaceous inner ovate obl rounded, outer awned

11570 Hoary, Leaves sub-bipinnatifid, Flowers in compound corymbs

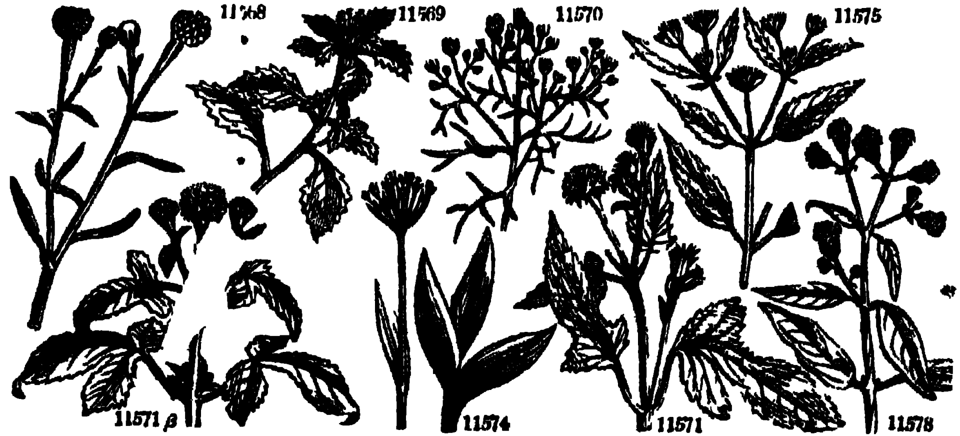
11571 Leaves 3 nerved ovate acuminate scabrous unequally toothed

11572 Flowers solitary stalked winged, Leaves oblong triple nerved unequally serrated scabrous.

11573 Leaves long lanc Leaves of invol blunt, Paleæ spatulate
11574 Leaves lanc oval acuminate 3-nerved, Paleæ narrow linear

11575 Leaves lanceolate serrate, Stem erect
11576 Leaves ovate repand lower alternate, Stem branched ascending, Invol many leaved
11577 Leaves ovate subcordate serrated, Stem branched diffuse

11578 Leaves opp ovate-acuminate serrate, Pedunc panicled, Heads ovate
11579 Leaves opp. ovate lanceolate entire downy, Pedunc opp diverging many flowered



and Miscellaneous Particulars

1692. *Hymenopappus* From υμην, a membrane, and παππος, pappus, in allusion to the membranous pappus of its seeds.

1693. *Melananthera* From μελας, black, and *anthera*. A plant with black anthers, a very unusual character in this tribe of plants, the anthers of which are usually either white or yellow, according to the color of the corolla.

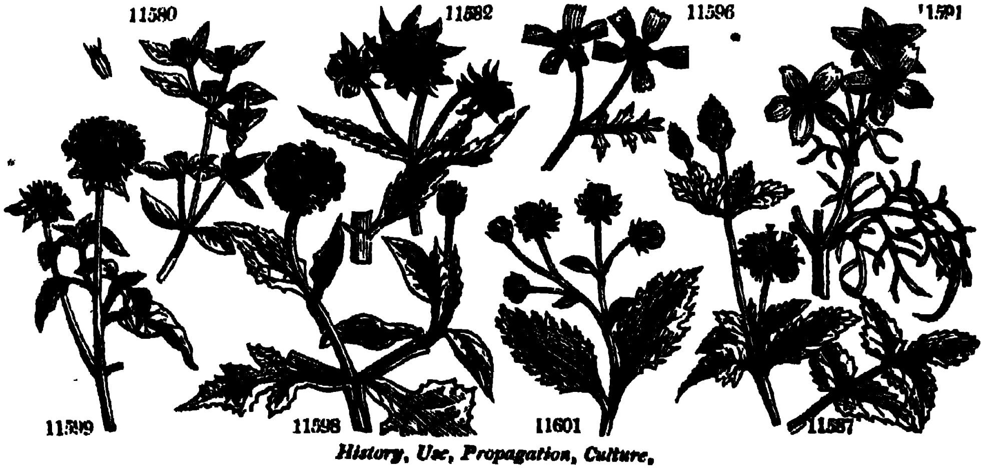
1694 *Marshallia* Named after Henry Marshall, an Englishman, author of a sort of history of the trees and shrubs of North America, published in 1778.

1695 *Spilanthes* From σπιλος, a spot, and ανθος, a flower, in allusion to the heads of flowers of the original species, which are yellow with a brown disk. Jacquin says he so called it, because the flowers are spotted with black points. S. salivaria is used by the natives of South America to relieve the tooth-ache by the salivation which it produces copiously The flower-heads of S. oleracea are an excellent ingredient in salads, on account of their agreeable and lasting piquancy.

The leaves of Spilanthes tinctoria of Loureiro, which is said to be very similar to the Abecdaria figured by Rumphius, vol ii. t. 65, give out when bruised a beautiful blue color, quite equal to indigo.

1696. *Salmea* This name was originally given by Cavanilles to a genus related to Aloe, and was named after Prince Charles of Salm-Salm, a great promoter of botanical science It was transferred to the genus which now bears the name by Professor Decandolle, in the appendix to his Hortus Monspeliensis.

1697.	BI'DENS. *W.*	BIDENS.					*Compositæ.*		*Sp.* 16—25.			
11580	nodiflóra *W.*	sessile-flowered		⊡	un	1	jl.au	Y	E. Indies	1732.	S	co	Dill.elt. t.44.f.52
11581	tripartita *W.*	trifid		○	un	2	jl.s	Y	Britain	wat.pl.	S	co	Eng. bot. 1113
11582	cérnua *W.*	nodding		○	un	2	jl.s	Y	Britain	dit.	S	co	Eng. bot. 1114
11583	heterophýlla *W.*	various-leaved	♄	⌊△⌋	un	2	au.s	Y	Mexico	1803.	D	s.l	Orteg.dec.8. t.12
11584	frondósa *W.*	smooth-stalked		○	un	1½	jl.au	Y	N. Amer.	1710.	S	co	Mor. s.6. t.5. f.21
11585	leucántha *W.*	white-flowered		○	un	1½	jl.au	W	S. Amer.	...	S	co	
11586	chinénsis *W.*	Chinese		○	un	2	jn.jl	W	China	1801.	S	co	Ru.am.6.t.15.f.2
11587	pilósa *W.*	hairy		○	un	1½	jl	Y	N. Amer.	1732.	S	co	Dill.elt. t.43.f.51
11588	sambucifólia *W.*	Elder-leaved	♃	△	un	3	jl.au	Sc	S. Amer.	1801.	D	co	Cav. ic. 3. t. 229
11589	bipinnáta *W.*	Hemlock-leav.		○	un	2	jl.au	Y	N. Amer.	1687.	S	co	Her.parad. t.123
11590	bulláta *W.*	rough-leaved		○	un	2	jl.au	Y	N. Amer.	1759.	S	co	Ard. spec. 2. t.18
11591	prócera *B. Reg.*	tall	♃	⦶	or	6	n	Y	Mexico	1822.	S	co	Bot. reg. 684
11592	luxúrians *W.*	luxuriant	♃	⌊△⌋	un	3	jl.au	Y	Mexico	...	D	co	
11593	foliósa *W.*	leafy		○	un	3	jn.jl	Y	......	1818.	S	co	
11594	connáta *W.*	connate		○	un	2	jn.jl	Y	N. Amer.	1817.	S	co	
11595	parviflóra *W.*	small-flowered		○	un	1	jn.jl	Y	Baical	1823.	S	co	
11596	odoráta *Cav.*	sweet-scented		○	ft	3	jn.jl	W	Mexico	1825.	S	co	Cav. ic. 1. t. 13
11597	refléxa *Link.*	reflexed	♃	△	un	2	jn.jl	Y	Mexico	1824.	D	co	
1698.	PLATYP'TERIS. *Kunth.*	PLATYPTERIS.					*Compositæ.*		*Sp.* 1.			
11598	crocáta *Kth.*	saffron-colored	♄	⍍	or	2	ja.mr	Or	S. Amer.	1812.	D	co	Bot. mag. 1627
	Spilanthus crocatus	B. M.											
1699.	LAGAS'CA. *Cav.*	LAGASCA.					*Compositæ.*		*Sp.* 2.			
11599	móllis *Cav.*	soft	♄	⊡	or	2	jn.s		S. Amer.	1815.	S	co	Bot. mag. 1804
11600	rúbra *Kth.*	red	♄	□	or	2	jl	R	Mexico	1823.	C	co	Hum.no.g. t.311
1700.	LAVE'NIA. *W.*	LAVENIA.					*Compositæ.*		*Sp.* 1—2.			
11601	erécta *W.*	upright		⊡	un	2	jl.s	Y	E. Indies	1739.	S	co	Burm. zeyl. t. 42
1701.	CACA'LIA. *W.*	CACALIA.					*Compositæ.*		*Sp.* 26—60.			
11602	papilláris *W.*	rough-stalked	♄	⊔	cu	2	...	Y	C. G. H.	1727.	C	s.p	Dill elt. t.55.f.63
11603	Anteuphórbium *W.*	oval-leaved	♄	⊔	cu	3	f.mr	Y	C. G. H.	1596.	C	s.p	Dill.elt.t.55.f.2,3
11604	Kleinia *W.*	Oleander-leav.	♄	⊔	cu	3	s.o	Y	Canaries	1732.	C	s.p	Plant. grass. 12
11605	Ficoídes *W.*	flat-leaved	♄	⊔	cu	6	jn.n	Y	C. G. H.	1710.	C	s.p	Plant. grass. 90
11606	carnósa *W.*	narrow-leaved	♄	⊔	cu	1½	jn	Y	C. G. H.	1757.	C	s.p	
11607	répens *W.*	glaucous-leaved	♄	⊔	cu	1	jn.o	Y	C. G. H.	1759.	C	s.p	Plant. grass. 42
11608	Hawórthii *Sweet*	woolly-leaved	♄	⊔	cu	2	...	Y	C. G. H.	1795.	C	co	
	tomentósa M. n. not	of Thunberg.											
11609	articuláta *W.*	jointed	♄	⊔	cu	1½	s.n	Y	C. G. H.	1775.	C	s.p	Plant. grass. 18
11610	tomentósa *Th.*	tomentose	♄	⊔	cu	2	...	Y	C. G. H.	1795.	C	s.p	
11611	appendiculáta *W.*	appendaged	♄	⊔	cu	2	...	Y	Teneriffe	1815.	C	co	
11612	bicolor *W.*	two-colored	♄	□	or	2	my.s	Pu	E. Indies	1804.	C	co	Bot. reg. 110
11613	ovális *B. reg.*	oval-leaved	♄	□	or	3	my.s	Y	E. Indies	...	C	s.p	Bot. reg. 101
11614	sonchifólia *W.*	Sow-thistle-lvd.		⊡	or	1½	jl	Pu	E. Indies	1768.	S	co	Rhe.mal. 10. t.63
11615	salicina *Lab.*	Willow-leaved	♄	⊔	or	6	jn.jl	Y	N. Holl.	1820.	C	co	Bot. reg. 923
11616	coccínea *H. K.*	scarlet-flowered		○	or	1½	jn.jl	O	......	1799.	S	co	Bot. mag. 564
11617	sarracénica *W.*	creeping-rooted	♃	△	or	4	au.o	Y	France	1772.	D	s.p	
11618	hastáta *W.*	spear-leaved	♃	△	or	1	au.o	W	Siberia	1780.	D	co	Gmel. sib. 2. t.66
11619	rhombifólia *W.*	rhomb-leaved	♃	△	or	3	au.o	Y	Siberia	1816.	D	co	
11620	suavéolens *W.*	sweet-scented	♃	△	or	6	au.o	W	N. Amer.	1752.	D	co	
11621	atriplicifólia *W.*	Orache-leaved	♃	△	or	4	au	L.Pu	N. Amer.	1669.	D	co	Pluk.al. t.101.f.2
11622	renifórmis *W.*	Kidney-leaved	♃	△	or	1½	jl.au	W	N. Amer.	1801.	D	co	
11623	alpina *W.*	Alpine	♃	△	or	2	jl.au	Pu	Austria	1739.	D	co	Jac. aust.3. t.234
11624	álbifrons *W.*	white-leaved	♃	△	or	2	jl.au	W	Austria	1739.	D	co	Jac. aust.3. t.235
11625	scándens *W.*	climbing	♄	⌊△⌋	or	6	ap	Pk	C. G. H.	1774.	D	co	
11626	pinnáta *W. en.*	wing-leaved	♃	△	or	2	jl.au	Pk	Iberia	1816.	D	co	
11627	sagittáta *W.*	sagittate		⊡	or	3	jl.au	O.Pu	Java	1823.	S	co	



History, Use, Propagation, Culture,

1697. *Bidens.* So called because its seeds are surmounted with two teeth. Very worthless inconspicuous weeds.

1698. *Platypteris.* So called from πλατυς, broad, and πτερον, a wing, in allusion to the margin of the seeds. A small stove herbaceous plant of little merit.

1699. *Lagasca.* Named in honor of Don Mariano La Gasca, professor of botany at Madrid, an amiable man and excellent botanist. He is, at the time of writing this, residing in England, whither he has fled from the dangers of persecution in his own country

1700. *Lavenia.* A name of unknown meaning, originating with Sherard. Small useless annuals, natives of the East and West Indies.

1701. *Cacalia.* A name applied by Dioscorides to a mountain plant with large whitish leaves. By some it is believed to have been what is now called Cacalia alpina. To Sprengel it appears to be the Bupleurum

11580 Flowers discoid stalked, Outer invol. 3 times as long as flower, Lvs. ovate with 1 or 2 teeth on each side
11581 Leaves tripartite, Leaflets lanceolate deeply serrated, Bristles of the pericarp 2-3
11582 Fls. droop. Bracteas lanc. ent. (longer than inv.) Lvs. lanc. serrat. undivid. Bristles of pericarp about 4 erect
11583 Flower radiant erect, Outer invol. longer than inner, Cauline leaves lanc. serrated : radical subternate
11584 Fls. discoid, Outer invol. 6 times as long as flower, Leaflets ciliated at base, Lower lvs. pinn. : upper ternate
11585 Fls. radiant, Outer inv. the length of inner, Lower leaves pinnate : upper ternate, Leaflets ovate serrated
11586 Fls. radiant, Outer inv. length of inner, Low. lvs. pinn. : upper tern. Leafl. ov. subcord. serr. uneq. at base
11587 Fls. discoid, Outer inv. length of inner, Low. lvs. pinn. : upper tern. Term. leafl. twice as large as the rest
11588 Flowers radiant, Outer invol. longer than inner, Leaves decussively pinnated serrated
11589 Flowers subradiant, Outer invol. length of inner, Leaves bipinnate : leaflets lanc. pinnatifid
11590 Fls. discoid, Outer inv. longer than flower, Lvs. scabr. toothed : low. roundish ov. : upp. tern. Stem hairy
11591 Leaves bi-tripinnate : pinnæ linear acute channelled entire, Outer leaves of invol. blunt downy
11592 Flowers radiant erect, Outer involucre longer than inner, Leaves lanc. stalked equally serrate
11593 Leaves lanc. acute serrated subciliated, Outer involucre leafy
11594 Flowers discoid, Outer invol. 3 times as long as flower, Cauline leaves ternate : lateral connate
11595 Flowers discoid, Outer invol. longer than inner, Leaves ternate : leaflets 3-parted cut-toothed
11596 Flowers radiant, Outer invol. length of inner, Leaves bipinnate, Leaflets cuneiform 3-toothed
11597 Leaves lyrate-pinnated : pinnæ ovate acute serrated pubescent, Flowers panicled

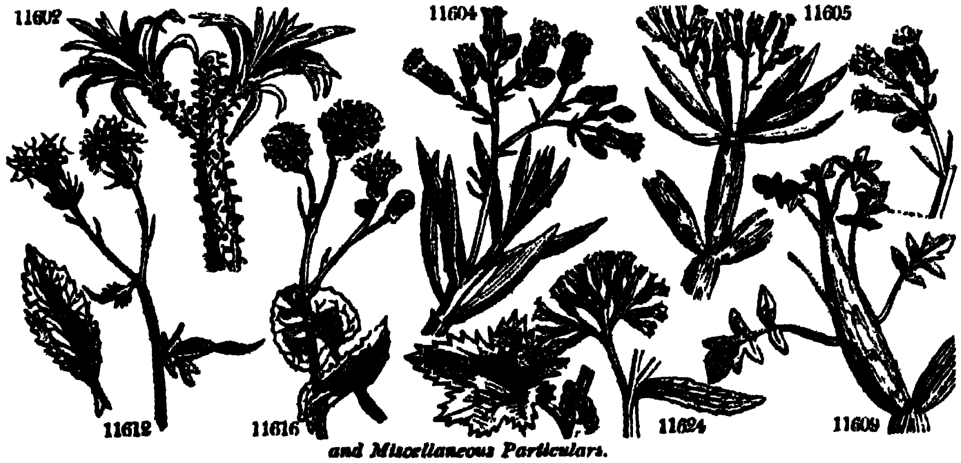
11598 Leaves hoary toothed, Stem with 4 wings

11599 Leaves stalked ovate acuminate subcrenate softly silky
11600 Leaves on short stalks elliptical blunt obsoletely toothed rigid

11601 Stem branched erect, Leaves elliptical finely serrated

11602 Stem shrubby with cylindr. truncate papillæ, Leaves lanc. flat
11603 Stem shrubby, Leaves ovate-oblong flat, Petioles with a triple line at base
11604 Stem shrubby, Leaves lanc. flat, Flowers corymbose
11605 Stem shrubby, Leaves compressed fleshy
11606 Stem shrubby, Leaves roundish fleshy incurved, Pedunc. terminal 1-fl. naked
11607 Stem shrubby, Leaves depressed fleshy
11608 Stem shrubby, Leaves depressed fleshy woolly

11609 Stem shrubby, Leaves fleshy flat ternate, Leaflets 3-lobed
11610 Stem suffruticose, Leaves ovate-lanc. toothed downy beneath
11611 Shrubby downy, Leaves cordate ovate acute angular downy beneath : stalks with leafy appendages
11612 Stem herbac. branched, Lvs. lanc. smooth toothed : of the stem amplexicaul. ; of the branches stalked
11613 Leaves thickish villous : lower oval repand-toothed stalked ; upper sublyrate amplexicaul.
11614 Stem herbaceous, Leaves amplexicaul. toothed : lower lyrate ; upper sagittate toothed
11615 Leaves obl. lanceolate connate downy beneath, Racemes axillary
11616 Radical leaves ovate spatulate : cauline entire amplexicaul. crenate edged
11617 Stem herbaceous, Leaves sessile obl. lanc. serrated : at the base cuneate entire decurrent
11618 Stem herbaceous, Leaves stalked 3-lobed hastate serrate, Flowers racemose nodding
11619 Stem herbaceous, Lvs. stalked rhomboid hastate unequally toothed, Flowers corymbose spreading erect
11620 Stem herbaceous, Leaves stalked hastate-sagittate serrated, Flowers corymbose erect
11621 Stem herbaceous, Leaves stalked : radical cordate toothed ; cauline rhomboid with 2 teeth on each side
11622 Stem herbaceous, Leaves stalked : radical cordate reniform repand toothed ; cauline oblong toothed
11623 Stem herbaceous, Leaves stalked cordate toothed, Petioles naked, Corymbs fastigiate, Invol. 5-flowered
11624 Stem herbac. Leaves stalked cordate toothed hoary beneath, Petioles auricled at base, Corymbs fastigiate
11625 Stem twining, Leaves triangular sinuate-toothed
11626 Stem herb. Rad. lvs. bipinnatifid : caul. pinn. Pinnæ toothed : upper confluent, Corymb comp. fastigiate
11627 Stem herbaceous, Leaves toothletted : lower stalked obovate ; upper obl. lanc. sagittate amplexicaul.



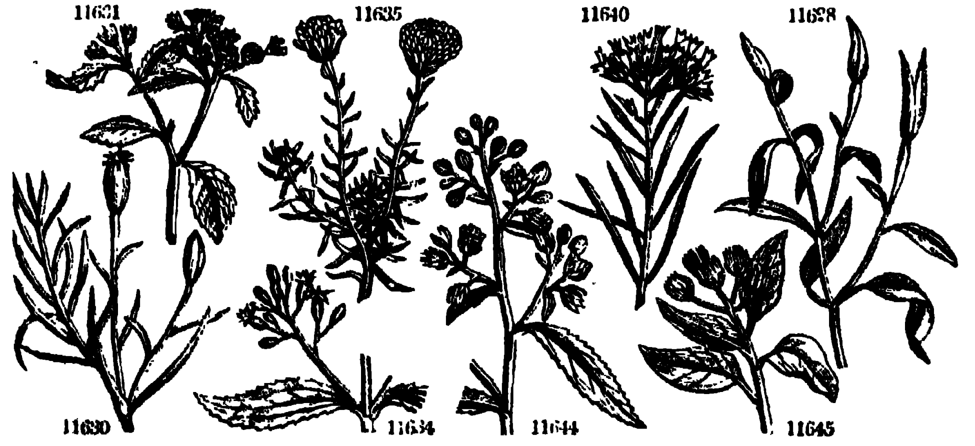
and Miscellaneous Particulars.

longifolium of the moderns. The species are nearly all objects of ornament. Some of them are remarkable for their fleshy awkward looking stems, others for their discolored leaves. The succulent kinds require to be grown in old rubbish, and to be treated as directed for Mesembryanthemums. The leaves of some species (C. procumbens and sonchifolia) are used as salad by the Chinese; and those of C. Ficoides are sometimes pickled by the French.

C. Kleinia is called cabbage tree, from the resemblance which the stalks have to those of the cabbage; and carnation tree, from the shape of the leaves and color of the flowers.

Upon Cacalia alpina, &c., M. Cassini has founded his genus Adenostyles and tribe of Adenostyleæ; distinguished from Senecioneæ, to which Cacalia belongs, by the roughness of all the back of the two lobes of the style. But we do not find the division adopted by other botanists. M. Cassini himself suspects that Adenostyleæ may be united with Tussilagineæ.

1702. **KLEI'NIA.** *W.*	Kleinia.			*Compositæ.*		Sp. 3—5.				
11628 ruderális *Jacq.*	dunghill	⊡ un	1	jl.au	W	Jamaica	...	S	co	Jacq. am. t. 127
11629 porophýllum *W.*	perforated	⊡ un	1½	jn.o	W	N. Amer.	1699.	S	co	Cav. ic. 3. t. 222
11630 suffruticósa *W.*	suffruticose	■ □ un	½	jn.o	Pu	Brasil	1820.	C	co	Cav. ic. 3. t. 257
1703. **ETHU'LIA.** *W.*	Ethulia.			*Compositæ.*		Sp. 3—7.				
11631 conyzoídes *W.*	panicled	⊡ un		jl.au	Pa.pu	India	1776.	S	co	Bot. reg. 695
11632 divaricáta *W.*	spreading	⊡ un	½	jl au	Pu	India	1815.	S	co	Lam. ill. t. 699
11633 brasiliénsis *Link.*	Brazil	£ □ un	2	jl.au	Pu	Brasil	1823.	D	co	
1704. **PIQUE'RIA.** *W.*	Piqueria.			*Compositæ.*		Sp. 1—3.				
11634 trinérvia *W.*	three-nerved	£ △ pr	2	jl.au	W	Mexico	1798.	D	co	Cav. ic. 3. t. 235
1705. **CHRYSO'COMA.** *W.*	Goldy-Locks.			*Compositæ.*		Sp. 9—18.				
11635 Comaúrea *W.*	great-shrubby	■ ⊔ or	6	jn.au	Y	C. G. H.	1731.	C	p.l	Bot. mag. 1972
11636 cérnua *W.*	small-shrubby	■ ⊔ or	4	my.s	W	C. G. H.	1712.	C	p.l	Com.hort.2.t.45
11637 ciliáris *W.*	Heath-leaved	■ ⊔ or	4	jl.o	W	C. G. H.	1759.	C	p.l	Com.hort.2. t.48
11638 scábra *W.*	rugged	■ ⊔ or	4	au.s	W.	C. G. H.	1732.	C	p.l	Dil.elt. t.88.f.103
11639 denticuláta *W.*	toothed	■ ⊔ or	4	au.s	Y	......	...	C	co	Jac.schœ.3.t.368
11640 Linosýris *W.*	German	♃ △ or	2	s.o	Y	Europe	1596.	D	co	Eng. bot. 2505
11641 dracúnculoídes *W.*	Siberian	♃ △ or	2	s.o	Y	Siberia	...	D	co	
11642 biflóra *W.*	two-flowered	♃ △ or	3	au.s	B	Siberia	1741.	D	co	Gm.sib.2.t.82.f.1
11643 villósa *W.*	hairy-leaved	♃ △ or	1½	au.s	Y	Hungary	1799.	D	co	Pl. rar.hu.1. t.53
1706. **TARCHONAN'THUS.** *W.*	African Fleabane.			*Compositæ.*		Sp. 1—7.				
11644 camphorátus *W.*	shrubby	■ ⊔ or	6	jn.o	Pu	C. G. H.	1690.	C	p.l	Lam. ill. t. 671
1707. **CA'LEA.** *W.*	Calea.			*Compositæ.*		Sp. 1—3.				
11645 jamaicénsis *W.*	purple-flowered	■ □ un	3	jn.jl	Pu	W. Indies	1739.	C	co	Slo. ja.1. t.151.f.3
1708. **ISOCAR'PHA.** *R. Br.*	Isocarpha.			*Compositæ.*		Sp. 1—3.				
11646 oppositifólia *R. Br.*	opposite-leaved	£ ⊡ un	3	jl.au		W. Indies	1739.	S	co	
1709. **PETRO'BIUM.** *R. Br.*	White Wood.			*Compositæ.*		Sp. 1.				
11647 arbóreum *R. Br.*	St. Helena	♀ ⊔ or	12	...	Y	St. Helena	1825.	C	co	
1710. **NEUROLÆ'NA.** *R. Br.*	Halberd-Weed.			*Compositæ.*		Sp. 1.				
11648 lobáta *R. Br.*	common	■ □ un	2	jn.jl	Y	W. Indies	1733.	R	s.p	Bot. mag. 1734
1711. **HU'MEA.** *Sm.*	Humea.			*Compositæ.*		Sp. 1.				
11649 élegans *Sm.*	rose-colored	£ ⊡ el	6	jn.o	R	N. S. W.	1800.	S	s.p	Exot. bot. 1. t. 1
1712. **CÆSU'LIA.** *W.*	Cæsulia.			*Compositæ.*		Sp. 1—3				
11650 axilláris *W.*	axillary-flower.	£ ⊠ un	½	jl.s	W	E. Indies	1804.	R	p.l	Bot. rep. 431
1713. **IXO'DIA.** *H. K.*	Ixodia.			*Compositæ.*		Sp. 1.				
11651 achillæoídes *H. K.*	Milfoil-like	■ ⊔ pr	2	mr.s	W	N. Holl.	1803.	C	s.p	Bot. mag. 1534
1714. **SANTOLI'NA.** *W.*	Lavender-Cotton.			*Compositæ.*		Sp. 7—16.				
11652 Chamæ-Cyparíssus *W.*	common	■ or	2	jl	Y	S. Europe	1573.	C	co	Lam.ill. t.671.f.3
11653 squarrósa *W.*	hoary	■ or	1½	jl.au	Y	S. Europe	1570.	C	co	Mor. s.6. t.3. f.17
11654 víridis *W.*	dark-green	■ or	2	jl	Y	S. Europe	1727.	C	co	
11655 rosmarinifólia *W.*	Rosemary-lvd.	■ or	2	jl.s	Y	S. Europe	1683.	C	co	Exot. bot. 2 t.62
11656 alpína *W.*	Alpine	♃ △ or	1	jl.s	Y	Italy	1798.	D	co	Barr. rar. t. 522
11657 anthemoídes *W.*	Chamomile-lv.	♃ △ or	½	jl.au	L.Y	Italy	1727.	D	co	
11658 crithmifólia *W.*	Samphire-leav	£ △ or	½	jl.au	Y	S. Europe	...	D	co	



History, Use, Propagation, Culture,

1702. *Kleinia.* Named after James Henry Klein, a German botanist, who published, in 1719, a dissertation upon the Juniper.

1703. *Ethulia.* A word formed by Linnæus without any explanation of its meaning. It is not easy to understand wherefore Vaillant's more ancient name of Sparganophorus should not have been adopted.

1704. *Piqueria.* So named by Cavanilles, in honor of Andreas Piquerio, a Spanish botanist, who published a translation of Hippocrates, in 1757.

1705. *Chrysocoma.* From χρυσος, gold, and κομη, hair, in allusion to the tufts of yellow flowers with which the stems are terminated. The specific name Comaurea is a mere translation of the generic appellation. Linosyris, the name of another species, is so called from *linum*, flax, and *osyris*, an ancient name for a plant with long flexible branches and flax-like leaves, which is the character of C. linosyris; which, when handled, sends forth a very fine aromatic smell.

1706. *Tarchonanthus.* *Tarchon* is a name given by the Arabian physicians to the Artemisia Dracunculus, and is the root of our English word *Tarragon.* Ανθος signifies flower, and the word thus compounded may be Englished Tarragon-flower.

1707. *Calea.* Derived from καλος, beautiful. The species are ornamental shrubs of South America, with undivided leaves, and corymbose, terminal, or axillary heads of yellowish purple flowers. Mr. Brown's history

11628 Leaves obl lanc. acute at each end nearly entire
11629 Leaves elliptical blunt mucronate repand with pellucid dots
11630 Leaves linear entire with pellucid dots, Stem suffruticose

11631 Flowers panicled
11632 Leaves linear toothed decurrent, Pedunc opposite the leaves 1-fl Stem divaricating
11633 Stem winged, Leaves lanc acute serrated downy decurrent, Flowers corymbose

11634 Leaves opp. ovate-lanc. serrated 3-nerved, Invol. with 4 flowers

11635 Leaves linear straight smooth decurrent at back
11636 Leaves linear recurved roughish, Flowers cernuous
11637 Leaves linear straight ciliated, Branches pubescent
11638 Leaves lanc ovate recurved toothletted serrated, Peduncles pubescent
11639 Leaves oblong tapered at base toothletted wavy
11640 Leaves linear glabrous, Involucres lax
11641 Leaves linear-lanceolate 3-nerved scabrous Flowers corymbose, Invol lax
11642 Panicled, Leaves lanc 3-nerved dotted naked
11643 Leaves lanc villous, Involucres contracted

11644 Leaves oblong entire downy beneath

11645 Flowers about 3 stalked, Leaves ovate oblong subserrate stalked

11646 Corymbs heaped, Peduncles very long, Leaves lanc Stem herbaceous

11647 Leaves opp undivided, Panicle terminal brachiate

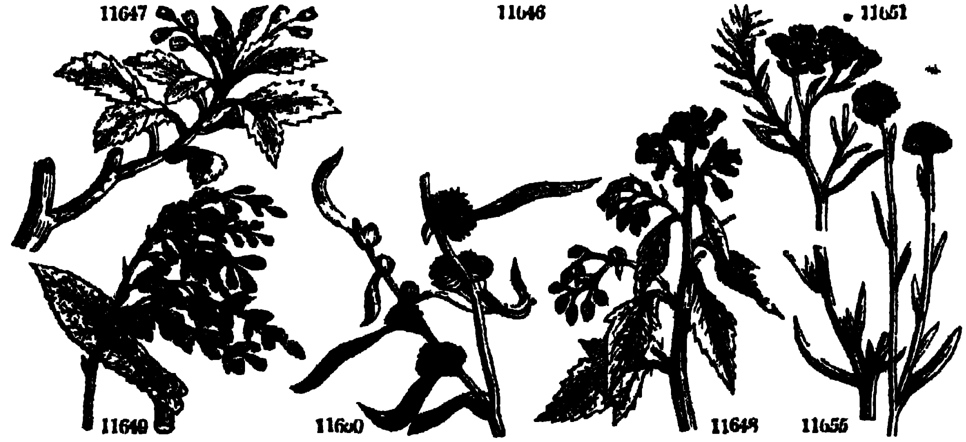
11648 Corymbs heaped, Leaves alternate upper ovate lanceolate, lower toothed hastate sinuate serrate

11649 Panicles very large erect diffuse capillary

11650 Leaves lanc. narrowed at base serrated alternate

11651 The only species

11652 Pedunc 1 fl Leaves hoary toothed in 4 rows, Teeth blunt Branches dowy, Invol pubescent
11653 Pedunc 1 fl Leaves hoary toothed in 4 rows, Teeth subulate much spreading, Branches downy
11654 Pedunc 1 fl Leaves smooth toothed in 4 rows, Teeth subulate straight, Branches and invol smooth
11655 Pedunc 1 fl Leaves linear warted at edge upper entire
11656 Pedunc 1 fl Leaves bipinnate, Stems simple
11657 Pedunc 1 fl Leaves bipinnate, Stems much branched villous
11658 Like Santolina alpina, but segments of leaves are shorter and thicker



and Miscellaneous Particulars

of this genus, in the twelfth volume of the Transactions of the Linnean Society, is a model of botanical erudition and acuteness, such as has been rarely seen in modern days

1708. *Isocarpha* From ισος, equal, and καρφος, chaff, in allusion to the equality of the chaff of the receptacle and the leaves of the involucrum. Herbs of South America, with opposite undivided leaves, and ovate terminal heads of whitish flowers

1709 *Petrobium.* From πετρος, a stone, with reference, it is presumed, to the texture of the grains. A small tree, native of St. Helena, where it is called *white wood*

1710 *Neurolæna.* From νευρον, a nerve, and λαινος, stony An erect shrub of South America, with alternate, undivided, and lobed leaves, and terminal compound corymbs of yellow flowers.

1711 *Humea.* Named in honor of Sir Abraham Hume, Bart of Wormleybury, in Hertfordshire, a gentleman whose whole life has been devoted to the protection and assistance of the arts and sciences, and especially of botany A beautiful plant with immense capillary panicles of brilliant crimson flowers.

1712. *Cæsulia* Meaning unknown Little creeping weed-like plants, rooting at the joints

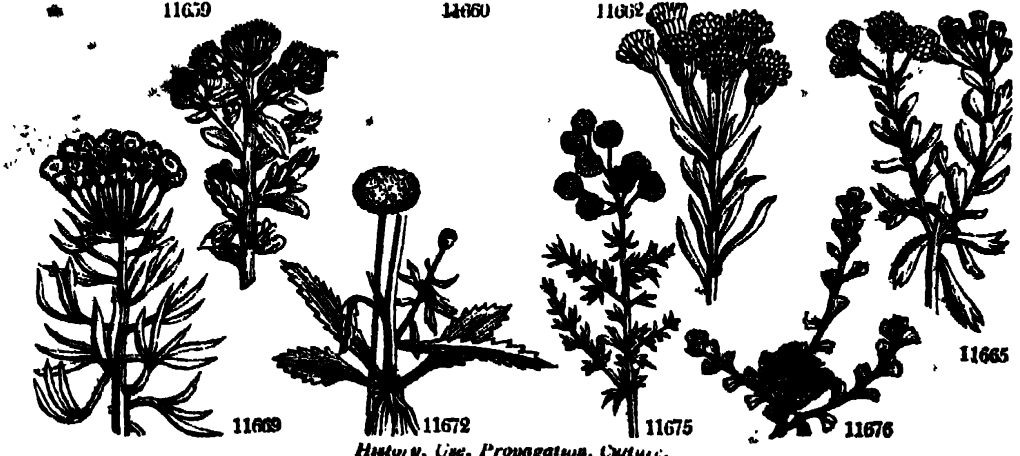
1713. *Ixodia* From ιξωδης, viscid. A greenhouse shrub, native of the south coast of New Holland; flowering most part of the year

1714. *Santolina.* Supposed to be a diminutive of *sancta*, a holy little herb, in allusion to some reputed virtues A genus of slightly shrubby somewhat aromatic plants, with yellow discoid flowers

1715. **OTAN'THUS.** *Link.* Otanthus.						*Compositæ.*		Sp. 1.				
11659 **maritimus** *Link.*	sea	■		pr	½	jl.s	Y	England	sea sh.	C	s.l	Eng. bot. 141
Santolina maritima L.												
1716. **CALEAC'TE.** *R. Br.* Caleacte.						*Compositæ.*		Sp. 1.				
11660 **urticifólia** *R. Br.*	nettle-leaved	■	▭	or		jl.au	Y	Vera Cruz	1740.	C	co	
Solidágo urticifólia Mill.												
1717. **ATHANA'SIA.** *W.* Athanasia.						*Compositæ.*		Sp. 11—22.				
11661 **capitáta** *W.*	hairy	■	⊔	or	1½	ja.mr	Y	C. G. H.	1774.	C	l.p	Mor. s.6. t.3. f.48
11662 **pubéscens** *W.*	villous-leaved	■	⊔	or	6	jn.au	Y	C. G. H.	1768.	C	co	Com. hort.2. t.47
11663 **ánnua** *W.*	annual		○	un	1	jl.au	Y	Barbary	1686.	S	co	Bot. mag. 2276
11664 **dentáta** *W.*	tooth-leaved	■	⊔	pr	1½	jl.au	Y	C. G. H.	1759.	C	l.p	Comm. rar. t. 41
11665 **trifurcáta** *W.*	trifid-leaved	■	⊔	pr	3	jl.au	Y	C. G. H.	1710.	C	l.p	Com. hort.2. t.49
11666 **virgáta** *W.*	twiggy	■	⊔	pr	1	jl.au	Y	C. G. H.	1815.	C	co	Jac.schœ.2.t.148
11667 **tomentósa** *W.*	Lavender-leav.	■	⊔	pr	2	my.jn	Y	C. G. H.	1774.	C	l.p	
11668 **filifórmis** *W.*	fine-leaved	■	⊔	pr	2	au	Y	C. G. H.	1787.	C	l.p	
*11669 **crithmifólia** *W.*	Samphire-leav.	■	⊔	pr	2	jl.au	Y	C. G. H.	1723.	C	l.p	Com. hort.2. t.50
11670 **parviflóra** *W.*	small-flowered	■	⊔	pr	2	ap	Y	C. G. H.	1731.	C	l.p	Jac.schœ.2.t.149
11671 **pectináta** *W.*	pectinated	■	⊔	pr	1½	my.jn	Y	C. G. H.	1774.	C	co	
1718. **BALSAMI'TA.** *W.* Costmary.						*Compositæ.*		Sp. 4—6.				
11672 **virgáta** *W.*	twiggy	⚘	△	un	3	jn.jl	Y.o	Italy	1791.	D	co	Jac. obs. 4. t. 81
11673 **ageratifólia** *W.*	Ageratum-lvd.	■	⊔	un	2	jn.o	Y.o	Candia	1605.	C	co	Alp. exot. t. 326
11674 **vulgária** *W.*	common	⚘	△	or	3	au.s	Y.o	Italy	1568.	D	co	Sch. han.3. t. 240
11675 **ánnua** *Link.*	annual		○	un	2	jl.au	Y.o	Spain	1629.	S	co	Mil. ic.2.t.227.f.1
1719. **PENT'ZIA.** *Th.* Pentzia.						*Compositæ.*		Sp. 1.				
11676 **flabellifórmis** *W.*	fan-leaved	■	⊔	or	3	my.au	Y	C. G. H.	1774.	C	p.l	Bot. mag. 212

SUPERFLUA.

1720. **TANACE'TUM.** *W.* Tansy.						*Compositæ.*		Sp. 5—21.				
11677 **linifólium** *W.*	Flax-leaved	■	⊔	un	1½	au	Y	C. G. H.	1774.	C	p.l	
11678 **suffruticósum** *W.*	shrubby	■	⊔	un	2	my.s	Y	C. G. H.	1751.	C	p.l	Com.hor.2. t.100
11679 **argénteum** *W.*	silvery	⚘	△	un	1	my.s	Y	Levant	1812.	D	co	
11680 **vulgáre** *W.*	common	⚘	△	cul	2	jl.au	Y	Britain	ro.sid.	D	co	Eng. bot. 1229
β crispum	*curled*	⚘	△	cul	2	jl.au	Y	......	...	D	co	
11681 **angulátum** *W.*	angular	⚘	△	un	2	jl.au	Y	Levant	1820.	D	co	Willd.ach.t.2.f.3
1721. **ARTEMI'SIA.** *W.* Wormwood.						*Compositæ.*		Sp. 3—87.				
11682 **judaica** *W.*	Judean	■	⊔	or	1½	au	Y	Levant	1683.	C	co	Plu.alm. t.73 f.2
11683 **valentina** *W.*	Spanish	■	⊔	or	1	jl.au	Y.o	Spain	1739.	C	co	Barr. ic. t. 485
11684 **subcanéscens** *W.*	hoary-leaved	■	⊔	or	2	jl.au	Y.o	S. Europe	...	C	co	
11685 **Abrótanum** *W.*	Southernwood	■		or	4	au.o	Y.o	S. Europe	1548.	C	co	Blackw. t. 555
11686 **húmilis** *W. en.*	dwarf	■		or	2	au.o	Y.o	Carniola	...	C	co	
11687 **tenuifólia** *W.*	slender-leaved	■	⊔	or	10	a.d	Y.o	China	1752.	C	co	Dill. elt. t.33. f.37
11688 **arboréscens** *W.*	tree	■		or	10	jn.au	Y.o	Levant	1640.	C	co	Lob. ic. 753
11689 **argéntea** *W.*	silvery	■	⊔	or	4	jn.jl	Y.o	Madeira	1777.	C	co	
11690 **glaciális** *W.*	silky	⚘	△	or	¼	jl.au	Y.o	Switzerl.	1739.	D	co	Jac.aus.5.t.ap.35
11691 **mutellina** *W.*	Alpine	⚘	△	or	¼	jl.au	Y.o	Al. of Eur.	1815.	D	co	Vil.dauph.3 t.35
11692 **prócera** *W.*	lofty	■		or	8	jl.au	Y.o	S. Europe	1820.	C	co	
11693 **caucásica** *W.*	Caucasian	⚘	△	or	¼	jn.jl	Y.o	Caucasus	1804.	D	co	
11694 **chinénsis** *Lour.*	Moxa	■	⊔	m	4	jn.jl	Y.o	China	1818.	C	co	
11695 **spicáta** *W.*	spiked	⚘	△	or	1	jn.jl	Br	Switzerl.	1790.	D	co	Jac.aus.5.t.ap.34
11696 **pectináta** *W.*	comb-leaved		○	ft	1	jn.jl	Br	Dauria	1806.	S	co	Pal.it.3. t.Hh.f.2
11697 **tanacetifólia** *W.*	Tansy-leaved	⚘	○	or	1	jl.au	Br	Siberia	1768.	S	co	Al. ped.1.t 10.f.3
11698 **Santónica** *W.*	Tartarian	■		or	1	s.n	W.o	Siberia	1596.	C	co	Gmel. sib. 2. t.51
11699 **scopária** *W.*	besom		○	or	2	jl.s	W.o	Hungary	1796.	S	co	Pl. rar. hu.1.t.65



History, Use, Propagation, Culture,

1715. ***Otanthus.*** From ους ωτος, an ear, and ανθος, a flower, in allusion to the appendages which are placed on each side of the base of the florets. An infusion of the leaves and stem is said to be employed successfully in the east in cases of stone and gravel.

1716. ***Caleacte.*** So called because it is the ornament of the sea coasts where it grows, and derived from καλος, beautiful, and ακτη, the sea-shore.

1717. ***Athanasia.*** From α, privative, and θανατος, death; that is to say, a plant which does not perish. But the application of the word, as far as the present genus is concerned, is far from obvious.

1718. ***Balsamita.*** Derived from βαλσαμον, balm, in allusion to its strong balsamic smell. *Ugly plants of no merit whatever.* B. vulgaris has the English name *Costmary*, from the Greek Κοστος, an aromatic shrub, and Mary; the Virgin Mary's costus: from its being put into ale, it has our old English name of *Ale-cost.* It is more aromatic and has a pleasanter smell than tansy, to which it is nearly allied.

1719. ***Pentzia.*** Named by Thunberg, after his pupil Charles John Pentz. A bushy branching hoary shrub, with little yellow flowers.

11659 Pedunc. corymbose, Leaves oblong blunt crenated densely woolly

11660 The only species

11661 Leaves ovate villous, Heads terminal subsessile
11662 Leaves obov. lanc. blunt villous, Umbels terminal, Branches villous
11663 Corymbs simple contracted, Leaves pinnatifid toothed
11664 Corymbs compound, Leaves recurved : lower linear toothed ; upper ovate serrate
11665 Leaves cuneiform cut-trifid, Flowers in umbels
11666 Leaves cuneiform : lower pinnatifid cut : upper 3 or 5-toothed, Flowers in umbels
11667 Leaves linear tomentose, Panicle compound
11668 Leaves linear filiform smooth, Flowers panicled
11669 Leaves trifid with linear smooth segments, Flowers somewhat in umbels
11670 Leaves pinnated : pinnæ linear smooth, Panicle decompound
11671 Leaves pinnated : pinnæ linear smooth, Panicle compound

11672 Stem herbaceous branched at base, Branches 1-fl. Leaves sessile lanc. serrated
11673 Leaves obovate serrated sessile clustered, Flowers subcorymbose
11674 Leaves ellipt. toothed : lower stalked ; upper sessile auricled at base, Flowers corymbose
11675 Radical leaves bipinnate : cauline many pinnated downy ; pinnæ linear acute mucronate

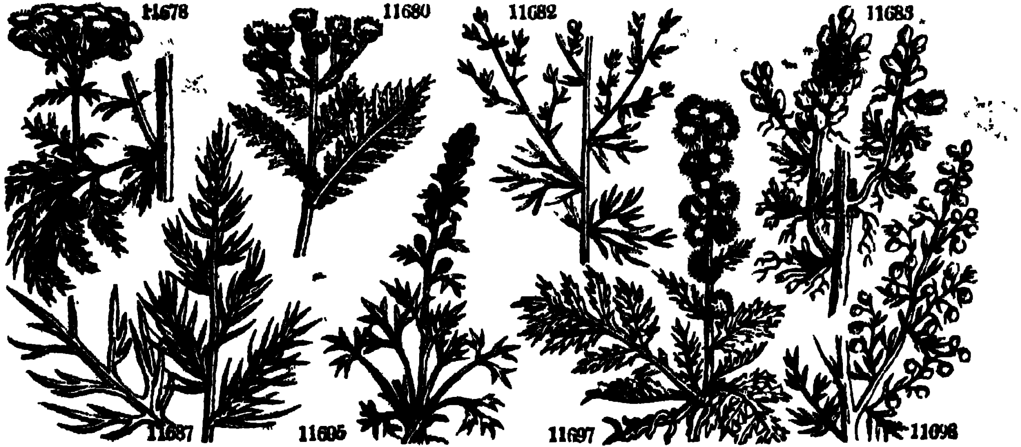
11676 Corymbs simple, Leaves deltoid serrated at end

SUPERFLUA.

11677 Leaves lanceolate channelled, Raceme terminal fastigiate
11678 Leaves pinnated : pinnæ linear toothed pubescent, Corymb fastigiate leafy at base
11679 Leaves pinnated silky with down, Pinnæ lanc. somewhat toothed at end, Corymb terminal
11680 Leaves bipinnatifid inciso-serrate

11681 Leaves pinnatifid : segm. lanceolate serrated, Corymb contracted, Invol. angular

11682 Leaves obovate blunt lobed small, Flowers panicled stalked
11683 Leaves hoary : lower pinnated with palmate pinnæ ; upper palmate sessile, Heads panicled simple
11684 Cauline leaves pinnated smoothish : floral undivided linear, Panicle virgate, Heads glob. stalked nodding
11685 Stem upright, Lower leaves bipinnate : upper pinnated capillary, Invol. downy hemispherical
11686 Caul. lvs. pinnat. very smooth ; floral undivided setaceous, Involucres downy, Heads glob. stalk. nodding
11687 Stem upright, Leaves bipinnate capillary : floral simple, Invol. oblong
11688 Leaves tripinnatifid silky cinereous, Leaflets linear, Heads globose, Flowers branched simple
11689 Leaves bipinnatifid silky white, Leaflets lanc. linear, Heads globose, Flowers branched virgate
11690 Stem quite simple, Leaves all palmate multifid white, Heads terminal clustered
11691 Stem quite simple, Leaves all palmate multifid white, Lower heads stalked : upper sessile
11692 Stem branched spreading, Leaves all bipinnate capillary, Invol. smooth hemispherical
11693 Stem quite simple, Leaves all palmate multifid silky acute
11694 Leaves hoary : lower cuneiform obtuse 3-lobed ; upper linear blunt, Flowers globose stalked cernuous
11695 Stem quite simple, Leaves hoary : radical palmate multifid ; caul. pinnatifid ; upper linear entire blunt
11696 Stem quite simple, Leaves pectinate pinnatifid glabrous, Pinnæ linear filiform, Pedunc. 1-fl. axillary
11697 Stem quite simple, Lvs. bipinnatifid subpub. beneath : segm. lin. lanc. acum. entire, Raceme naked term.
11698 Cauline leaves pinnated linear smooth, Branches undivided, Spikes 1-sided reflexed
11699 Cauline leaves pinnated setaceous smooth : radic. pinnated multifid silky, Stem erect, Branches divided



and Miscellaneous Particulars.

1790. *Tanacetum.* An alteration of Athanasia, which see. *Tanaisie*, Fr., *Tansy*, Eng., *Reinfahren*, Ger. The common Tansy has a strong aromatic smell, and an extremely bitter taste. It is stimulant and carminative; and its seeds are reckoned anthelmintic and sudorific. It is said to drive bugs away from a bed in which it is laid. A distilled water and a kind of stomachic bitter are prepared from it. The young leaves are shredded down and employed to give color and flavor to puddings; they are also used in omelets and cakes, and those of the curled variety for garnishing.

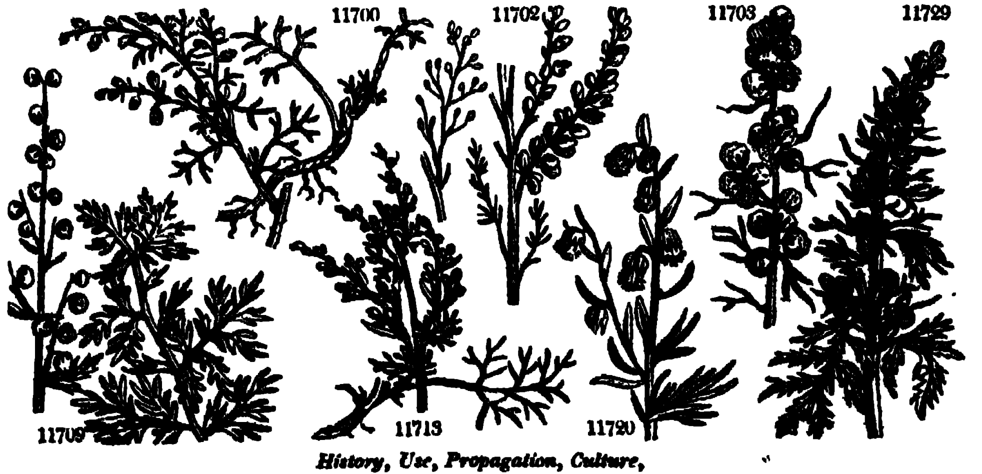
1791. *Artemisia.* Artemis was one of the names of Diana, the goddess of chastity. The plant is said to have been named after this goddess, on account of the purposes to which it was applied in bringing on precocious puberty. Pliny, however, informs us, that in his time, there was an opinion that the plant was named after Artemisia, the Queen of Mausolus, King of Caria.

A. Abrotanum, Santonica, maritima, and Absinthium, are included in the Materia Medica, but, according to Dr. Thomson, the latter species is the only one deserving to be retained. It is tonic, antispasmodic, and anthelmintic; and when externally applied, is discutient and antiseptic. It has been used with advantage in inter-

11700	campéstris *W.*	field	⚘	△	w	1	au	Br	England	san.fi.	D	co	Eng. bot. 338
11701	áfra *Jacq.*	African	♣	⊔	or	2½	au	W.a	C. G. H.	...	C	co	
11702	pauciflóra *W.*	few-flowered	⚘	△	or	½	au	Y	Siberia	1800	D	co	G.sib.2. t.52.f.1,2
11703	palústris *W.*	marsh		○	or	2	jl.au	Y	Siberia	1804.	S	co	Gmel. sib.2. t.55
11704	negléctа *W. en*	neglected	⚘	△	or	2	jl.au	G.y	Siberia	1815.	D	co	
11705	crithmifólia *W.*	Samphire-leav.	♣		or	1	au.o	Br	Portugal	1739.	C	co	
11706	saxátilis *W.*	rock	⚘	△	or	2	jn.au	W	Hungary	1816.	D	co	
11707	glaúca *W.*	glaucous	⚘	△	or	1½	jn.au	G	Siberia	1806.	D	co	
11708	monógyna *W.*	one-styled	⚘	△	or	2	jn.au	Y	Hungary	1816.	D	co	Pl.rar.hu.1.t.70
11709	laciniáta *W.*	torn	⚘	△	or	2	jl au	G	Siberia	...	D	co	Gmel.sib.2.t.57
11710	palmáta *W*	palmated	♣	⊔	or	1	jn.jl	G.y	S. Europe	1739.	C	co	
11711	nivea *W. en.*	snowy	⚘	△	or	2	jn jl	G.y	Siberia	1815.	D	co	
11712	marítima *W.*	drooping-flow.	⚘	△	or	1	au.s	Br	Britain	sea sh.	D	co	Eng. bot. 1706
11713	gállica *W.*	upright-flower.	⚘	△	or	2	au.s	Br	Britain	mud.s	D	co	Eng. bot. 1001
11714	frágrans *W.*	Lavender-leav.	⚘	△	or	1	jn.jl	L.Y	Armenia	1739.	D	co	
11715	álbida *W.*	whitened	⚘	△	or	3	jn jl	L.Y	......	...	D	co	
11716	austriaca *W*	Austrian	⚘	△	or	1½	au.o	Br	Austria	1597.	D	co	Jac.aust.1.t.100
11717	vallesiaca *W.*	downy	⚘	△	or	1	jl au	L.Y	Italy	1739.	D	co	
11718	salina *W*	salt	⚘	△	or	1½	jl.au	W.a	Hungary	1823.	D	co	
11719	rupéstris *W.*	nodding-flower.	⚘	△	or	1½	au	Br	Siberia	1748.	D	co	Flor dan. t. 801
11720	sericea *W.*	silky-leaved	⚘	△	or	1½	jn jl	W	Siberia	1796.	D	co	Gmel.sib.t.64.f.1
11721	répens *W*	creeping	⚘	△	or	1	jn jl	Br	Siberia	1805.	D	co	
11722	nútans *W.*	nodding	⚘	△	or	3	jn.jl	Br.a	Tartary	...	D	co	
11723	saxátilis *W.*	rock	⚘	△	or	3	jn.jl	Br a	Hungary	...	D	co	
11724	póntica *W*	Roman	⚘	△	or	3	s	Y	Austria	1570.	D	co	Jac. aust. 1. t. 99
11725	chamæ'melifólia *W.*	Chamomile-lv.	⚘	△]	or	1½	jl au	P Br	S. Europe	1739.	D	co	Vil.dauph.3.t.35
11726	ánnua *W*	annual		○	or	4	jl.au	W.a	Siberia	1741.	S	co	Am.ru.t.196.f.23
11727	camphoráta *W.*	Camphorated	♣		or	5	jl.au	W a	Italy	1825.	C	co	
11728	taúrica *W.*	Taurian	⚘	△	or	½	jl au	W.a	Tauria	1818.	D	co	
11729	biénnis *Ph.*	biennial	⚘	◎	or	2	jl au	Y.a	Missouri	1804	S	co	Bot. mag. 2472
11730	Absínthium *W.*	common	⚘	△	or	1½	jl.s	Y	Britain	rubble.	D	co	Eng. bot. 1230
11731	Sieversiána *W.*	Sievers's	⚘	◎	or	2	jl au	Br.a	Siberia	1800.	S	co	
11732	fasciculáta *Bieb*	fascicled	⚘	△	or	2	jl au	Y.Pu	Iberia	1823.	D	co	
11733	vulgáris *W.*	Mugwort	⚘	△	w	3	au s	Pu	Britain	rubble.	D	co	Eng. bot. 978
11734	índica *W.*	Indian	⚘	△]	or	3	s.o	Y.a	E. Indies	1796.	D	co	Rhe mal 10. t.45
11735	integrifólia *W.*	entire-leaved	⚘	△	or	2	jl au	Y.a	Siberia	1759.	D	co	G.sib.2.t.68.f 1.2
11736	japónica *W*	Japanese	⚘	△	or	3	o n	W	Japan	1804.	D	co	
11737	cæruléscens *W.*	bluish	♣		or	1½	au.o	Y	England	sea sh.	C	co	Eng. bot. 2426
11738	inodóra *W en.*	inodorous	⚘	△	or	2	jl.au	Y.a	Siberia	1548.	D	co	G.si.2.t.59.60.f 1.
11739	Dracúnculus *W.*	Tarragon	⚘	△	cul	2	jl au	W.a	S. Europe	1548.	D	co	

1722 GNAPHA'LIUM. *W.* Everlasting *Compositæ* *Sp* 38—106.

11740	críspum *W.*	curled	♠	⊔	el	6	...	Pk	C. G. H	1809	C	s.p	
11741	arbóreum *W.*	tree	♠	⊔	el	6	f au	W	C. G. H.	1770.	C	s.p	
11742	grandiflórum *W.*	great-flowered	♠	⊔	el	3	jn au	W	C. G. H.	1731.	C	s.p	Bot. rep. 489
11743	divaricátum *Thunb.*	spreading	♠	⊔	el	3	jn au	W	C. G H	1820.	C	s.p	Bre.prod.t.18.f.3
11744	tephródes *Lmk.*	brown	♠	⊔	el	3	jn au	Y.w	C. G H.	1823	C	s.p	
11745	acuminátum *Lmk.*	acuminate	♠	⊔	el	3	jn.au	W	C G. H.	1823	C	s.p	
11746	lasiocaúlon *Lmk.*	woolly-stemm	♠	⊔	el	3	jn.au	W	C G. H.	1823.	C	s.p	
11747	congéstum *W.*	close-headed	♠	⊔	pr	3	my jn	Pu	C. G. H.	1791.	C	s.p	Bot. reg. 243
11748	pátulum *W.*	spreading	♠	⊔	or	3	ja au	W	C G H.	1771.	C	s.p	
11749	discolórum *W.*	two-colored	♠	⊔	or	3	my au	Br	C. G. H.	1815.	C	co	Bur. afr t. 97 f. 4
11750	cephalótes *W.*	large-headed	♠	⊔	or	4	ja n	Pk	C. G. H.	1789.	C	co	Plu.phy t.410.f.2
11751	fastigiátum *W.*	close-flowered	♠	⊔	or	3	my.au	W	C. G. H.	1812.	C	co	Pet.gaz. 12.t.7.f.3
11752	milleflórum *W.*	many-flowered	♠	⊔	or	1	jn s	Pa pu	C. G H.	1802.	C	s.p	
11753	diosmæfólium *P. S.*	Diosma-leaved	♠	⊔	or	1½	mr.au	W	C. G. H.	1812.	C	co	Vent.malm. t.74
11754	ericoides *W.*	Heath-leaved	♠	⊔	or	1½	mr au	Pk	C. G. H	1774.	C	s.p	Bot. mag. 435
11755	teretifólium *W.*	round-leaved	♠	⊔	or	1	mr.au	Br	C G H.	1812.	C	co	Bur. afr t.77. f.3
11756	Stœ'chas *W.*	comm.-shrubby	♣		or	2	jn.o	Y	Europe	1629.	C	co	Barr. ic. 410



History, Use, Propagation, Culture,

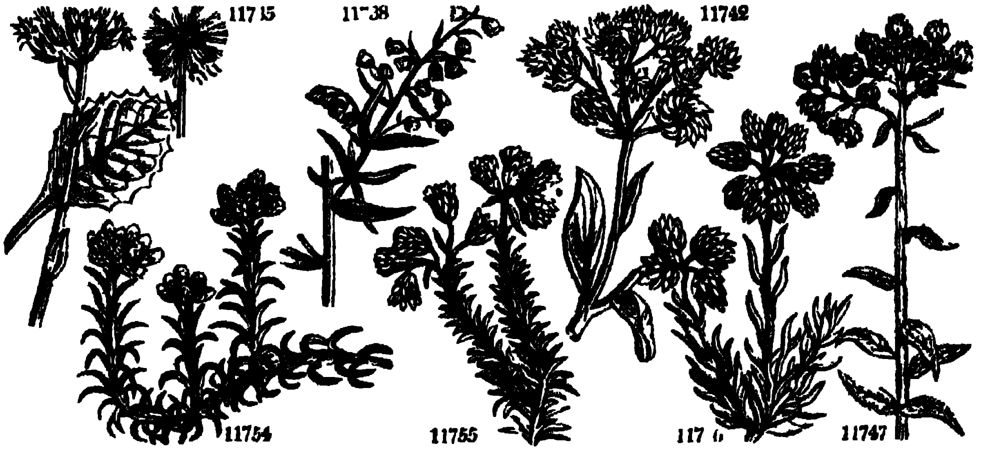
mittents, gout, scurvy, and dropsy; and although modern practitioners will scarcely rely on its efficacy in these complaints, yet it is undoubtedly of some value as a stomachic (*London Dispen.* p. 182.) The seed of wormwood is used by the rectifiers of British spirits, and the species is a good deal cultivated on dry soil near Mitcham, in Surrey, for that purpose. A. vulgaris is used in some parts of Sweden instead of hops, in order to increase the inebriating quality of malt liquor. The plant is readily eaten by cattle and sheep, and is found in our best natural pastures on dry soils. It is said to be stomachic and slightly stimulating.

The species called Abrotanum, *Garde-robe*, Fr., derives its name from *α*, privative, and *βροτος*, mortal; on account of the great virtues attributed to it as a preservative of life; Absinthium, from *α*, privative, and *ψινθος*, pleasure, i. e. unpleasant.

Dracunculus, *Tarragon*, Eng., *Estragon*, Fr., *Dragon*, Ger., and *Dragoncello*, Ital., is said to have been so called on account of its tortuous roots, which may be likened to the sinuous tail of a dragon; but it is much

11700 Caul. lvs pinnated setac smooth radic pinnated with 3-fid hoary segm Stem procumb branched virgate
11701 Leaves bipinnatifid downy beneath segm lanceolate blunt, Panic 1-sided, Heads nodding
11702 Cauline leaves pinnated or trifid filiform pubescent, Stem ascending somewhat divided
11703 Cauline leaves pinnated smooth pinnæ filiform remote very long, Heads globose erect sessile
11704 Cauline lvs. pinnated smooth lower and radic 3-partite multifid, Stem panic erect, Peduncles nodding
11705 Cauline lvs. pinnated smooth somewhat fleshy pinnæ simple or bifid lin. blunt, Heads obl stalked erect
11706 Cauline lvs hoary pinnated linear filiform floral undivided filiform, Heads roundish angular nodding
11707 Leaves glaucous downy lower pinnated, Pinnæ linear-lanceolate, Heads globose stalked nodding
11708 Leaves multipartite hoary, Racemes erect 1-sided, Heads erect about 5-fl Only one female floret or none
11709 Leaves pilose triply-pinnatifid, Stem simple with a leafless panicle, Heads globose nodding
11710 Leaves simply pinnate with some of the segments bifid subpalmate, Heads erect
11711 Leaves hoary silky lower pinnated, Stem nearly erect much branched, Heads sessile ovate
11712 Leaves downy pinnated the uppermost undivided, Racemes drooping, Recept naked, Flow obl sessile
11713 Leaves downy pinnate the uppermost undivided, Racemes drooping, Recept. naked, Flowers obl sessile
11714 Leaves hoary radical bipinnate, Pinnæ close linear blunt of the branches pinnated sessile
11715 Leaves pinnated white with down, Fascicles of flowers bracteate, Heads downy
11716 Leaves hoary lower pinnated, pinnæ linear 3-parted, Heads stalked roundish nodding
11717 Leaves snow white cauline bipinnate linear filiform, floral simple, Heads obl. sessile erect
11718 Leaves hoary radical pinnated, pinnæ 3-parted linear filiform, Heads obl stalked nodding
11719 Leaves subpubescent cauline pinnated, pinnæ linear acute, Heads globose stalked nodding
11720 Leaves silky cauline pinnate, pinnæ 3 parted linear runcinate, Heads globose nodding
11721 Leaves silky white, Pinnæ 3-parted linear acute, Heads roundish stalked cernuous
11722 Cauline leaves pinnated or trifid linear, Stem erect panicled, Branchlets nodding 1 sided
11723 Cauline lvs hoary pinnated linear filiform, Stem ascending branched panicled, Invol roundish angular
11724 Leaves downy beneath cauline bipinnate, Leaflets linear, Heads roundish stalked nodding
11725 Leaves smooth lower tripinnate, upper bipinnate, Leaflets linear acute, Heads globose stalked nodding
11726 Leaves smooth triply pinnatifid, Stem straight, Heads roundish subsessile erect
11727 Cauline leaves pinnated hoary white pinnæ trifid linear, Stem erect, Invol hoary, Heads globose
11728 Leaves hoary lower bipinnate, Pinnæ linear filiform, Heads oblong sessile
11729 Leaves smooth radic triply pinnate, upper undivided linear, Heads roundish subsessile erect
11730 Lvs bi tripinnatif clothed with short silky down, Segments lanc Heads hemispheric droop Recept hairy
11731 Lvs somewhat hoary caul bipinnatifid, floral trifid or lanc Heads globose stalked nodding, Inv scarious
11732 Lvs downy lower decompound, upper simple, Panicle corymbose Heads fascicled ovate hoary
11733 Leaves pinnatifid their segm cut downy beneath, Heads somewhat racemed ovate, Recept naked
11734 Leaves downy beneath caul pinnatifid floral undivided linear, Heads sessile obl erect, Invol smooth
11735 Leaves lanc acuminate downy beneath somewhat toothed, Heads ovate subsessile erect
11736 Leaves smooth lanc acute cauline trifid at end, Heads roundish stalked nodding
11737 Leaves hoary lanceolate entire radical cut, floral oblong stalked nodding
11738 Lvs smooth lanc narrowed at each end, Heads roundish stalked erect, Scales of invol membr at edge
11739 Leaves smooth lanceolate narrowed at each end, Heads roundish stalked erect

11740 Leaves downy beneath scabrous above radical stalked oblong, cauline amplexicaul wavy
11741 Leaves sessile linear smooth above revolute at edge, Heads capitate, Pedunc long
11742 Leaves amplexicaul ovate oblong 3-nerved woolly above, Corymb stalked, Invol cylindrical
11743 Leaves amplexicaul panduriform spatulate blunt downy, Corymb and branches divaricating
11744 Branches downy, Lvs linear revolute at edge smooth above downy beneath, Leaves of invol lanc acute
11745 Branches pubesc Lvs lanc lin acumin smooth above finely downy beneath, Heads corymb cylindrical
11746 Tomentose, Leaves linear acute curved, Heads in capitate stalked corymbs
11747 Leaves lanc sessile 3 nerved naked above woolly beneath, Corymb contracted capitate
11748 Leaves amplexicaul spatulate downy acute, Corymb term Branches spreading
11749 Leaves sessile lanc Involucres white lower scales brown
11750 Leaves lin lanc mucronate revolute at edge downy beneath, Heads sessile capitate terminal
11751 Leaves lanc mucronate revolute at edge downy beneath, Heads corymbose
11752 Leaves obl blunt downy, Corymbs fastigiate Heads cylindrical
11753 Leaves lin spreading recurved scabrous above, Corymb dense, Invol cinereous at base
11754 Leaves sessile linear, Outer involucre rough inner flesh colored
11755 Leaves clustered roundish, Corymbs branched, Involucres downy outside
11756 Leaves linear, Corymb compound, Branches virgate



and Miscellaneous Particulars

more probable that the word is a corruption of *Tarchon*, the Arabic name of the plant See Tarchonanthus The leaves and points of the shoots are used as an ingredient in pickles A simple infusion of the plant in vinegar makes a pleasant fish sauce, it is eaten along with beef steaks, as horse-radish is with roast beef, and is employed, both in Europe and Persia, to correct the coldness of salad herbs, and season soups and other compositions. The plant is of the easiest culture, but, like other species of the genus, dislikes a wet soil

From the acrid leaves of A chinensis the drug called Moxa is obtained, a substance much in use among the Chinese as an actual cautery For this purpose, the Moxa is laid upon the part affected and set on fire The Cochin Chinese, and also the Japanese, according to Kæmpfer, use Artemisia vulgaris for the same purpose, and it is said with great success, in removing tumours and rheumatic pains, or slight convulsions.

1722. *Gnaphalium* A word under which Dioscorides describes a plant with soft white leaves, which served the purpose of cotton It agrees pretty well with the modern genus, which consists of very pretty, sometimes

11757 **ignéscens** *W.*	red-flowered	♄	⊔	or	2	jn.o	R	C. G. H.	1731.	C	s.p	
11758 **crassifólium** *W.*	thick-leaved	♄	⊔	or	1	jl.s	Y	C. G. H.	1774.	C	s.p	
11759 **marítimum** *W.*	sea	♄	⊔	or	4	jn.au	W.y	C. G. H.	1772.	C	co	Bur. afr. t. 77. f.2
11760 **dasyánthum** *W. en.*	hairy-flowered	♄	⊔	or	4	jn.au	Y	C. G. H.	1812.	C	co	
11761 **orientále** *W.*	eastern	£	⊔	or	1½	ap.au	Y	Africa	1629.	C	s.p	Com. hort. 2.t.55
11762 **cymósum** *W.*	branching	£	⊔	or	1½	ap.au	Y	Africa	1731.	C	co	Dil. el.t.107.f.128
11763 **rútilans** *W.*	shining-flower.	£	⌊△⌋	or	1	jn.jl	R.y	C. G. H.	1731.	C	s.p	Dil. el.t.107.f.127
11764 **arenárium** *W.*	sand	♃	△	or	1	jl.s	Y	Europe	1739.	D	co	Bot. mag. 2159
11765 **angustifólium** *Pers.*	narrow-leaved	♄	⊔	or	2	jl.s	Y	Naples	...	D	co	Barr. ic. 1125
11766 **lúteo-álbum** *W.*	Jersey		○	or	2	jl.au	Y.w	England	san.pl.	R	s.l	Eng. bot. 1002
11767 **albéscens** *W.*	white Jamaica	♄	□	or	2	...	W.y	Jamaica	1793.	C	co	
11768 **apiculátum** *Lab.*	New Holland	£	⌊△⌋	or	1½	ja.d	Y	V. Di. Isl.	1804.	D	co	Bot. reg. 240
11769 **odoratíssimum** *W.*	sweet-scented	♄	⊔	ft	2	ap.au	Y	C. G. H.	1691.	C	s.p	Mil.ic.1. t.131.f.2
11770 **sanguíneum** *W.*	bloody	♃	△	or	1½	my.jl	Cr	Egypt	1768.	D	co	Rauw.it.285.t.37
11771 **candidíssimum** *W.*	hoary	♃	△	or	2	my.jl	Pa.Y	Caspian	1823.	D	co	
11772 **fœ'tidum** *W.*	strong-scented	£	⌊○⌋	or	2	jn.s	L.Y	C. G. H.	1692.	S	s.l	Bot. mag. 1987
11773 **helianthemifólium** *W.*	Sun-rose-lvd.	♄	⊔	or	1	jl.o	W	C. G. H.	1774.	C	co	Volck.nori.t. 194
11774 **squarrósum** *W.*	squarrose	♄	⊔	or	½	jl.o	Pu	C. G. H.	1816.	C	co	Jac. frag. t. 3. f.4
11775 **purpúreum** *W.*	purple-flower'd	£	⌊○⌋	or	1½	jn.s	Pu	N. Amer.	1732.	S	co	Dil.el.t.109. f.133
11776 **declinátum** *W.*	creeping	£	⌊△⌋	or	½	jl.s	Br	C. G. H.	1787.	S	co	
11777 **glomerátum** *W.*	cluster-flower.	£	⌊△⌋	or	½	mr.s	Pa.Y	C. G. H.	1774.	D	co	
1723. **LEONTOPO'DIUM** *R. Br.*	LION'S-FOOT.					*Compositæ.*		*Sp.* 1—2.				
11778 **vulgáre** *R. Br.*	common	♃	△	cu	½	jn.jl	Y	Austria	1776.	S	p.l	Bot. mag. 1958
1724. **E'VAX.** *Lam.*	EVAX.					*Compositæ.*		*Sp.* 1—3.				
11779 **pygmæ'a** *Lam.*	pygmy		○	un	½	jl.au	Br	S. Europe	1629.	C	co	Cav. ic. 1. t. 36
1725. **ANTENNA'RIA.** *R. Br.*	ANTENNARIA.					*Compositæ.*		*Sp.* 8—11 ?				
11780 **contórta** *B. R.*	twisted-leaved	£	⌊△⌋	pr	2	jl	W	Nepal	1821.	D	co	Bot. reg. 605
11781 **triplinérvis** *B. M.*	three-nerved	£	⌊△⌋	pr	½	au	W	Nepal	1823.	D	co	Bot. mag. 2468
11782 **dioica** *R. Br.*	diœcious	♃	△	pr	½	my.jl	Pk	Britain	...	D	p.l	Eng. bot. 267
11783 **alpina** *R. Br.*	Alpine	♃	△	pr	½	jn.jl	Pk	Al. of Eur.	1775.	D	p.l	Flor. dan. t. 332
11784 **plantaginea** *R. Br.*	Plantain-leav'd	♃	△	pr	1	jn jl	W	Virginia	1759.	D	p.l	Plu.alm.t.348.f.9
11785 **margaritacea** *R. Br.*	pearly	♃	△	pr	1½	jl.s	Y	England	mea.	D	p.l	Eng. bot. 2018
11786 **unduláta** *R. Br.*	wave-leaved		○	pr	1	jn.s	W	Africa	1732.	S	s.l	Dil.el.t.108.f.130
11787 **obtusifólia** *R. Br.*	blunt-leaved		○	pr	1	jl.s	W	N. Amer.	1699.	S	co	Dil.el.t.108.f.131
1726. **METALA'SIA.** *R. Br.*	METALASIA.					*Compositæ.*		*Sp.* 1				
11788 **seriphioides** *R. Br.*	Seriphium-like	♄	⊔	pr	3	...	Y	C. G. H.	1825.	D	p.l	
1727. **ASTEL'MA.** *R. Br.*	ASTELMA.					*Compositæ.*		*Sp.* 2—7. ?				
11789 **eximium** *R. Br.*	giant	♄	⊔	spl	3	jl.au	Cr	C. G. H.	1793.	S	s.p	Bot. reg. 532
11790 **frúticans** *R. Br.*	shrubby	♄	⊔	or	3	jn.au	Y	C. G. H.	1779.	C	co	Bot. reg. 726
1728. **ATHRIX'IA.** *Ker.*	ATHRIXIA.					*Compositæ.*		*Sp.* 1.				
11791 **capénsis** *Ker.*	Cape	♄	⊔	or	3	ap	R	C. G. H.	1821.	C	p.l	Bot. reg. 681
1729. **XERAN'THEMUM.** *W.*	XERANTHEMUM.					*Compositæ.*		*Sp.* 3.				
11792 **ánnuum** *W.*	annual		○	or	3	jl.au	Pu	S. Europe	1570.	S	s.l	Jac. aust. 4. t.388
11793 **inapértum** *W.*	small-flowered		○	or	2	jl.au	Pu	S. Europe	1620.	S	co	Moris.s.6.t.12.f.1
11794 **orientále** *W.*	oriental		○	or	2	jl.au	W	Levant	1713.	S	co	
1730. **ELICHRY'SUM.** *W.*	ELICHRYSUM.					*Compositæ.*		*Sp.* 22—49.				
11795 **vestítum** *W.*	upright	♄	⊔	or	2	jl.s	W	C. G. H.	1774.	S	s.p	Bur. afr. t. 66 f.1
11796 **spirále** *W.*	spiral-leaved	♄	⊔	or	2	jl.o	W	C. G. H.	1801.	S	s.p	Bot. rep. 262
11797 **imbricátum** *W.*	imbricated	♄	⊔	or	2	jl.o	W	C. G. H.	1820.	S	s.p	Pet. gaz. t. 5.f.10
11798 **spectábile** *Lodd.*	showy	♄	⊔	or	3	my.jn	Pk	C. G. H.	1810.	S	s.p	Bot. cab. 59
11799 **speciosíssimum** *W.*	showy	♄	⊔	el	8	jl.s	W	C. G. H.	1691.	S	s.p	Bot. rep. 51
11800 **dealbátum** *P. S.*	herbaceous	£	⌊△⌋	or	1½	ja.d	W	V. Di. Isl.	1812.	D	co	La no.ho.2.t.190
11801 **fúlgidum** *W.*	great-yellow	♄	⊔	el	2	f.o	Y	C. G. H.	1774.	S	s.p	Bot. mag. 414

History, Use, Propagation, Culture,

beautiful woolly leaved shrubs or herbs, all of the description called Everlasting, on account of the permanence of the colors and form of their dry flowers.

1723. *Leontopodium.* From λεων, a lion, and πους, a foot. The soft tufted silky heads have been compared to the foot of such an animal as a lion.

1724. *Evax.* A name, the meaning of which has not been explained. A little white annual weed.

1725. *Antennaria.* In allusion to the awns of the pappus, which resemble the *antennæ* of some insect. A genus founded upon the Gnaphalium margaritaceum of Linnæus. It consists of herbaceous plants, natives of Europe and North America, having the male and female flowers in distinct involucra, and on different individuals.

1726. *Metalasia.* Apparently so called from μετα λαττω, to change or alter: but the application of the name is not evident.

11757 Leaves sublanc. downy sessile, Corymbs altern. round, Heads globose
11758 Leaves broad-lanc. somewhat stalked coriaceous downy, Corymb. compound, Stem proliferous
11759 Much branched, Leaves lanc. acutish sessile, Inner scales of invol. yellow
11760 Leaves lanc acute 3-nerved at base wavy pilose · beneath tomentose, Corymb contracted bracteate
11761 Leaves lin lanc. hoary radical blunt ; cauline acute, Corymb compound, Pedunc. long
11762 Leaves lanc. 3-nerved smooth above, Raceme terminal, Stem branched below
11763 Leaves lanc. Corymb decompound, Stem branched below
11764 Leaves hoary downy blunt radical spatulate lanc , cauline lin -lanc. Corymb compound
11765 Leaves linear long narrow downy replicate at edge, Corymb compound umbellate
11766 Leaves half amplexicaul linear-lanc subrepand downy on each side lower blunt, Corymb clustered
11767 White with down, Lvs. lin -lanc undivided below, Heads clustered conical
11768 Leaves subspatulate downy naked at end membranous or subulate, Flowers panicled
11769 Leaves decurrent blunt mucronate downy on each side flat
11770 Leaves decurrent lanc. downy flat with a naked point
11771 Leaves white silky-downy linear lanc acute, Corymb compound
11772 Leaves amplexicaul entire acute downy beneath, Stem branched
11773 Leaves subamplexicaul lanc. Corymbs compound, Scales of invol plaited
11774 Leaves sessile lingulate very downy, Inner scales of invol subulate recurved
11775 Leaves lin spatulate downy beneath, Stem erect simple, Heads sessile terminal and axillary
11776 Leaves lin lanc. Invol with white lanceolate rays
11777 Stem herbaceous diffuse, Lower scales of invol. subulate naked, Leaves subamplexicaul

11778 Head terminal enveloped in woolly bractes

11779 Stem branched at base, Bractes obovate

11780 Leaves lin mucronulate reflexed, Corymbs few flowered simple or proliferous, Scales of invol. blunt
11781 Stem erect simple, Lvs ellipt mucronate amplexicaul 3-nerved [elongated obtuse colored
11782 Shoots procumb Stems simp Corymbs crowded, Rad lvs spatulate, Fl dioecious, Inner scales of invol
11783 Stem simple, Rad leaves lanc floral terminal aggregate sessile, Inner scales of invol long
11784 Runners procumb Rad lvs ov nerved, Corymb contracted, Fl dioecious, Inner scales of invol long blunt
11785 Leaves lin lanc acuminate alternate, Stem branched upwards, Corymb fastigiate
11786 Leaves decurrent lanc acute wavy downy beneath, Stem branched
11787 Leaves lin lanc acutish smooth above, pubescent beneath, Corymbs terminal contracted

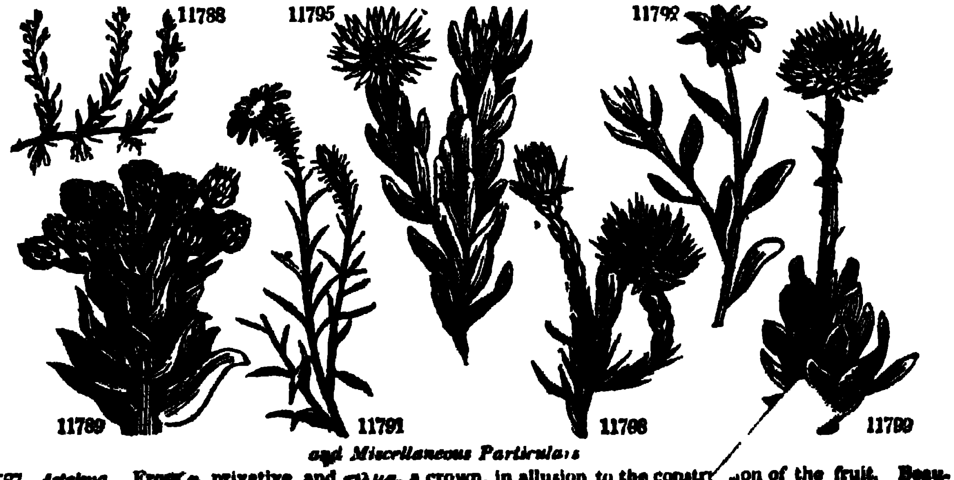
11788 Leaves small fascicled lin subulate downy above, Flowers lateral

11789 Leaves sessile ovate close erect downy, Corymb sessile
11790 Leaves amplexicaul ovate-oblong 3-nerved acute woolly beneath on each side

11791 The only species

11792 Scales of invol blunt scariose the inner ones of the ray lanc blunt spreading
11793 Scales of invol acute membranous at edge the inner ones of the ray lanc acute conniving
11794 Scales of invol roundish scarious the inner ones of the ray ovate acuminate erect

11795 Leaves sess lanc. linear woolly acute floral with a membrane at end, Branches 1 flowered
11796 Leaves sess lanc downy keeled spirally imbricated, Branches 1 flowered
11797 Leaves obl lanc silky imbricated, Branches 1 flowered, Peduncles squarrose
11798 Leaves linear subulate erect imbricated, Peduncle scaly 1 flowered
11799 Leaves sessile lanc obovate acute 3-nerved woolly, Branches 1 flowered
11800 Leaves lanc white beneath silky recurved spreading, Branches 1 fl Peduncles nearly naked
11801 Leaves amplexicaul ovate lanc downy beneath tomentose at edge, Branches 1 flowered



and Miscellaneous Particulars

1727 *Asteima* From *a*, privative, and *στεμμα*, a crown, in allusion to the construction of the fruit. Beautiful Cape shrubs with everlasting flowers

1728. *Athrixia* So called by Mr Ker, we presume from *a*, without, and *θριξ*, hair, in allusion to the absence of hairs upon the receptacle and the stigmas of the ray A pretty greenhouse shrub, with narrow lanceolate leaves, and bright crimson solitary heads of flowers.

1729 *Xeranthemum* From *ξηρος*, dry, and *ανθος*, a flower, on account of the dry nature of the leaves of the calyx, which retain their color and form for years The species are popular annual flowers, of easy culture in light rich soil. They are valued for their properties of retaining their texture and color, when gathered and dried, in the manner of Gnaphalium, Elichrysum, and other genera of what are vulgarly called everlastings.

1730 *Elichrysum* From *ἥλιος*, the sun, and *χρυσος*, gold, in allusion to the brilliant yellow color of the flowers. The species are much admired for the brilliancy of their flowers even in a dried state E. bracteatum is the handsomest annual species, and should be raised on a hotbed, and afterwards transplanted into a warm situation.

11802 variegátum W.	large globul.-fl	♄	⊔	or	2	my jn	Br w	C G H.	1801.	S	s.p	Bot. rep. 384
11803 proliferum W	proliferous	♄	⊔	or	2	my n	Cr	C G H.	1789	C	s.p	Bot. reg 21
11804 canéscens W	elegant	♄	⊔	or	1½	ap au	Pu	C G H	1794.	C	s.p	Bot. mag. 420
11805 argénteum W.	silvery	♄	⊔	or	2	ap jl	W	C G H.	1800	C	co	Bot reg. 552
11806 retórtum W	trailing	♄	⊔	or	1	jl au	W	C G H	1792.	C	s.p	Dil el.t 322 f.415
11807 sesamoides W	superb	♄	⊔	or	2	ap jn	Pu.w	C. G H.	1739	C	s.p	Bot mag 425
11808 fasciculátum W.	bundle-leaved	♄	⊔	or	2	mr s	W	C G H.	1799	S	s.p	Bot. rep 242
β álbum	white-flowered	♄	⊔	or	2	mr s	W	C G H	1799	S	s p	Bot rep. 279
γ rúbrum	red-flowered	♄	⊔	or	2	mr s	Pu	C G H.	1799	S	s.p	Bot. rep. 650
11809 rigidum H K.	rigid-leaved	♄	⊔	or	1½	my jn	W	C G H	1801.	C	co	Bot. rep 387
11810 ericoides P S	filiform	♄	⊔	or	½	ap jn	W	C G H	1796.	C	co	Lam ill. t 693. f 2
11811 Stæhelina W	Stæhelina-like	♄	⊔	or	1½	ja d	W	C G H	1801	C	co	Bot rep 428
11812 fragrans B R	fragrant	♄	⊔	ft	1½	jl	Pk	C G H	1803	C	co	Bot. rep 561
11813 herbáceum B R splendens B M 1773.	shining flower	♃	[△]	el	1½	jl s	Y	C G H.	1802.	D	co	Bot. rep 487
11814 paniculátum W.	corymb-flower	♄	⊔	or	2	jn s	W	C G H	1800	S	co	Bur afr t. 67 f 1
11815 bracteátum W	wave leaved	♄	○	or	4	jl o	Y	N Holl	1799	C	co	Bot. rep 375
1731 CARPE'SIUM W	CARPESIUM					*Compositæ*		*Sp* 2.				
11816 cérnuum W	drooping	♂	△	un	2	jl au	Y	Austria	1739.	D	co	Jac aust. 3 t 204
11817 abrotanoides W	Southernw.-like	♂	△	un	2	jl au	Y	China	1768	D	co	Osb it. t. 10
1732 BAC'CHARIS W	PLOWMAN'S SPIKENARD					*Compositæ*		*Sp* 6—43				
11818 angustifólia Ph	narrow-leaved	♣	⊔	pr	2	jl s	W	N Amer	1812	C	co	
11819 ivæfólia W	Peruvian	♣	⊔	pr	3	jl au	W	America	1696.	C	l p	Sch hand 3. t 244
11820 neriifólia W	Oleander-leav	♣	⊔	pr	2	au.n	W	C G H.	1752	C	l p	
11821 halimifólia W	Groundsel Tree	♣		or	4	o n	W	N Amer	1683	C	co	Schmidt. arb t 82
11822 adnáta W en	adnate	♣	□	un	6	au n	Pu	S Amer	1823	C	co	
11823 Dioscóridis W	Dioscorides's	♣	⊔	or	4	au n	W	Levant	...	C	co	Rauwf it t 54
1733 MOLI'NA Fl per	MOLINA					*Compositæ*		*Sp* 1—37				
11824 parviflóra Fl per	small-flowered	♣	⊔	un	6	...		S. Amer	1824	C	co	
1734 CONY'ZA W	FLEA BANE					*Compositæ*		*Sp* 34—62				
11825 squarrósa W	great	♂	○	w	2	jl au	Y	Britain	ch pa	S	co	Eng bot. 1195
11826 marylándica Ph	Maryland		○	un	1	au o	Pu	N Amer	..	S	co	Dill elt. t 88 f 104
11827 axilláris W	axillary		[○]	un	1½	au o	Y	......	1823	S	co	
11828 camphoráta Ph	Camphor scent	♃	[△]	un	[illegible]	au o	Pu	N Amer	1704.	D	co	Dill.elt t 89 f 105
11829 pátula W	spreading		○	un	1½	jl s	Y Pu	China	1758	S	co	Mill ic 2 t 247
11830 balsamífera W	balsam-bearing	♃	[△]	un	2	jl s	Br	E. Indies	1822	S	co	Rump 6 t 24 f 1
11831 bífrons W	oval leaved	♂	△	un	1	au s	Y	N Amer	1739	D	p l	Plu alm. t. 87 f 4
11832 fastigiáta W	fastigiate		[○]	un	2	jn jl	Pu	Senegal	1820	S	co	
11833 cándida W	woolly	♣	⊔	un	1	jn jl	Y	Candia	1714	C	co	Bar ic t 217
11834 chinénsis W	Chinese	♣	□	un	2	jl au	Y Pu	China	1796.	S	co	Ru amb 6 t 14 f 2
11835 verbascifólia W	Mullein leaved	♣	⊔	un	1	. .	Y	Sicily	1808	C	co	Bocc sic t 31 f 2
11836 chilénsis Spreng	Chili		○	un	3	au o	Y	Chili	1816	D	co	
11837 auríta W	auricled		[○]	un	1	au o	W	E. Indies	1818	S	co	
11838 hirsúta W	shaggy	♃	[○]	un	2	au s	Y Pu	China	1767	S	co	
11839 ægyptíaca W.	Egyptian		[○]	un	1½	jl	Y	Egypt	1778	S	co	Jac vind 3 t 19
11840 Gouáni W	Gouan's	♃	[○]	un	1	jl au	Y	Canaries	1772.	S	co	Jac. vind. 3 t 79
11841 amœ́na Link	agreeable		[○]	un	3	jl au	Pu	Congo	1824	S	co	
11842 sícula W	red-stalked		○	un	1	au s	Y	Sicily	1779	S	co	Bocc sic t 31 f 4
11843 fœ́tida W	stinking	♃	[△]	un	2	au s	Y	Africa	1724	D	co	Mill ic 2. t. 233
11844 sórdida W	small-flowered	♣	⊔	un	1	jl s	Br	S Europe	1570	C	co	Barr. ic t 368
11845 saxátilis W	stone	♣	⊔	un	1	jl au	Br	S. Europe	1640	C	co	Schk han 3 t.241
11846 rupéstris W	rock	♣	⊔	un	1	...	Y	Arabia	1790	C	co	Schmid. ic t. 36
11847 serícea W	snowy	♣	⊔	un	1½	...	Y	Canaries	1779	S	p l	
11848 inuloides W	cluster flower	♣	⊔	un	1	jl au	Pu	Teneriffe	1780	C	co	Jac ic 1 t 171
11849 odoráta W	sweet scented	♣	□	ft	2	jn au	Pu	India	1759	C	p l	Plum ic t. 97
11850 glomeráta Link	glomerate		[○]	un	1½	jn au	Pu	......	1825.	S	co	
11851 spatuláta Link.	spatulate	♃	[△]	un	3	jn au	B	......	1825	D	p l	
11852 arboréscens W	tree	♣	□	un	6	n d	B	Jamaica	1733	C	p.l	
11853 incísa W	ear leaved	♣	⊔	un	3	jn au	Pu	C G H	1774	S	p l	
11854 thapsoides W	Thapsus-leav'd	♣		un	2	jl s	Pu	Casp Sea	1806.	C	co	
11855 virgáta W	wing-stalked	♃	[△]	un	2	au s	Pu	America	1788	D	co	Slo hi 1 t.152 f 5
11856 geminiflóra Tenore	twin-flowered	♣	⊔	un	1½	au s	Br	......	1823	C	co	

History, Use, Propagation, Culture,

The woody species require a sandy peat soil, and to be struck in sand on a hotbed, but not covered with a bell-glass, as they are very apt to damp.

1731 *Carpesium.* Named from *καρφος*, a bit of straw; the long dry leaves of the involucrum resemble straws

1732 *Baccharis* A name given by the Greeks to an aromatic plant dedicated to Bacchus. The species now

11802 Leaves oblong downy imbricated, Branches 1-headed, Heads nodding
11803 Diffuse proliferous, Leaves roundish ovate smooth convex closely imbricated, Heads sessile
11804 Leaves obl blunt imbricated, Branches 1-fl. Scales of invol ovate
11805 Leaves obl silky recurved
11806 Decumbent, Leaves lanc silky somewhat recurved, Branchlets 1-flowered, Peduncles squarrose
11807 Leaves acerose lin keeled smooth appressed, Branches 1-fl Flowers sessile
11808 Lvs. acerose lin roundish downy above lower spreading; upper appressed, Branches 1-fl Pedunc. scaly

11809 Leaves linear lanc channelled amplexicaul adult smooth, Branches woolly
11810 Branches numerous very fine filiform, Leaves very small 3-cornered imbricated appressed
11811 Leaves obl lanc narrowed at base silky, Peduncles naked 1-flowered terminal
11812 Leaves wavy woolly reflexed at end, Heads small terminal few
11813 Leaves amplexicaul oblong revolute at edge woolly, Flowers terminal solitary shining

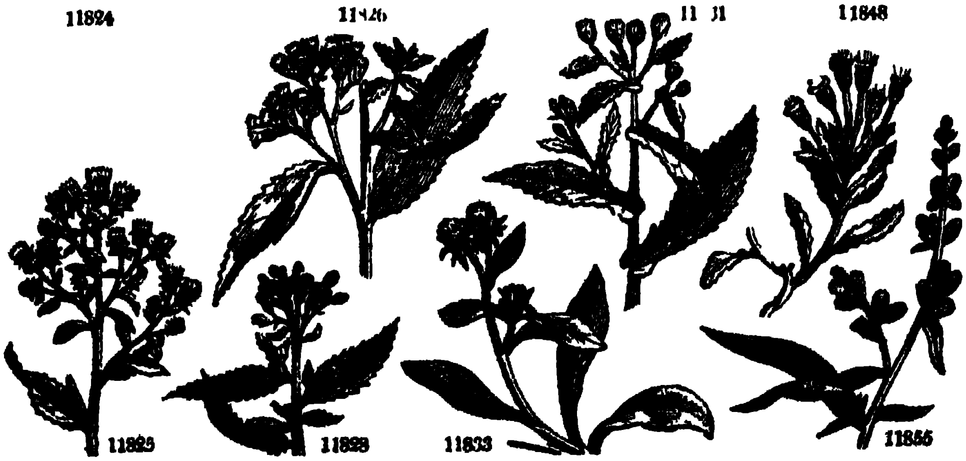
11814 Leaves linear lanc silky, Corymb simple terminal
11815 Leaves lanc acute at each end roughish, Peduncles 1 flowered long, Invol. bracteate

11816 Heads terminal solitary cernuous
11817 Heads axill subsolitary

11818 Leaves narr linear entire, Panicle compound many flowered, Invol small
11819 Leaves lanc longitudinally toothed serrate
11820 Leaves lanc serrated with one or two teeth forwards
11821 Leaves obovate emarginate crenate forwards
11822 Leaves lanc serrate at end subdecurrent downy beneath
11823 Leaves obl sessile toothed teeth of the base deeper and stipule like

11824 Leaves lanc 3-nerved tooth serrated, Corymbs terminal leafy

11825 Lvs pubesc ov lanc serr the upper ones ent Stem herbaceous corymb Scales of the invol recurved leafy
11826 Leaves sessile broad lanc acute serrated, Corymbs terminal fastigiate
11827 Leaves ovate acute at each end toothed stalked pilose Stem erect branched, Pedunc many headed
11828 Leaves stalked ovate lanc very acute toothletted, Corymbs term and axillary shorter than leaf
11829 Leaves ellipt. serrated villous beneath, Invol subglobose, Leaves line subulate, Branches spreading
11830 Leaves oblong lanc doubly toothed acute downy beneath rugose veined, Petioles toothed
11831 Leaves spatulate oblong amplexicaul serrated rugose
11832 Leaves sess lanc obl lower obovate obl subserrated at end, Branches corymbose fastigiate
11833 Leaves ovate stalked entire obtuse downy, Pedunc. 1 fl solitary term axillary thickened
11834 Leaves lanc ovate reflexed serrated downy beneath, Flowers terminal heaped
11835 Leaves ov stalked crenate blunt downy rugose veiny, Pedunc 1-fl solitary terminal and axillary
11836 Leaves sublyrate cauline entire, Stem downy panicled, Invol campanulate
11837 Leaves toothed radical smoothish obovate cauline obl downy, Scales of invol. subulate
11838 Leaves oval entire hirsute beneath
11839 Leaves obl spatulate tooth pilose, Heads panicled globose, Leaves of invol subulate soft
11840 Lvs. lanc serrated at end scabrous at edge lower obov Heads heaped, Lvs of invol membranous at edge
11841 Stem hairy, Leaves sessile oval blunt denticulate hairy, Panicle terminal contracted
11842 Leaves lin lanc scabrous nearly entire revolute at edge, Stem panicled, Scales of invol lax
11843 Leaves lin attenuate at base mucronate, Corymbs stalked contracted terminal
11844 Leaves lin nearly entire, Peduncles long 3-headed
11845 Leaves lin somewhat toothed, Peduncles very long 1 headed
11846 Leaves spatulate somewhat toothed and stem downy, Pedunc long 1 fl
11847 Leaves linear filiform and stems silky with down, Flowers panicled
11848 Leaves cuneiform lin blunt crenate toothletted smooth, Stem shrubby, Anthers with two setæ
11849 Leaves ovate stalked hoary beneath serrated, Corymb terminal compound
11850 Leaves broad lanc blunt serrulate downy scabrous, Heads clustered surrounded by bractes
11851 Stem branched with spreading hairs, Leaves subamplexicaul blunt coarsely serrated hairy
11852 Leaves ovate entire acute downy beneath, Spikes recurved 1 sided, Bractes reflexed
11853 Leaves ovate subcordate pilose viscid toothed auricled at base, Recept favose
11854 Leaves decurrent ovate mucronate downy lower serrated, Flowers corymbose
11855 Leaves decurrent lin lanc. serrulate downy beneath, Spike long terminal interrupted
11856 Stem white with down, Leaves lanc serrulate downy beneath, Heads terminal



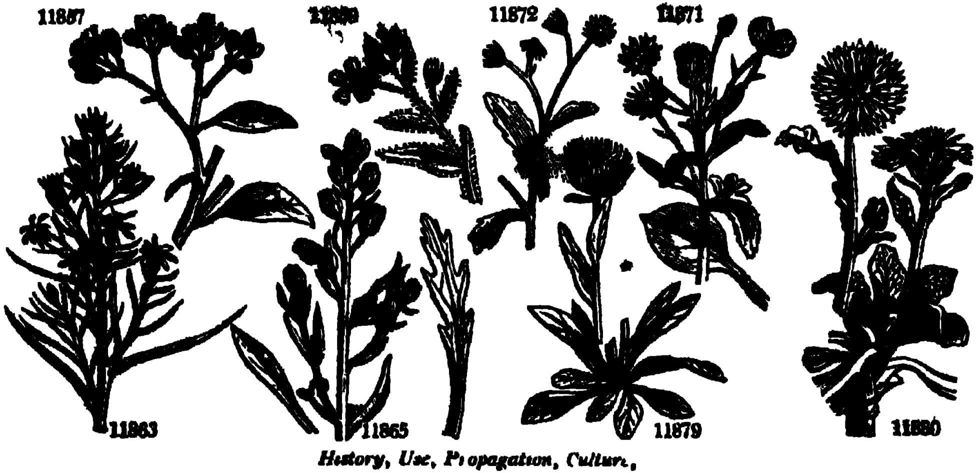
and Miscellaneous Particulars

called B. Dioscorides is supposed to have been the Baccharis of the Greeks An extensive genus of shrubby plants, few of which are deserving of cultivation

1733. *Molina.* Named after John Ignatius Molina, a Spaniard, who published, in 1782, a Natural History of Chili.

1734. *Conyza.* This plant was believed to have the property, when suspended in a room, of driving away

11857 carolinénsis *W*	Carolina	■	□	un	5	jl.o	Pu	Carolina	1821.	C	co	Jacq. ic. t. 585
11858 rugósa *W*	St. Helena	■	□	un	6	n		Brasil	1772.	S	p.l	
1735 MA'DIA *W*	Madia					*Compositæ*		Sp 2—3.				
11859 viscósa *W*	clammy		○	un	1½	jl au	Y	Chili	1794.	S	co	Jac. schœ. 4. t. 302
11860 mellósa *W*	honeyed		○	un	1½	jl au	Y	Chili	1825.	S	co	
1736. ERI'GERON *W*	Erigeron					*Compositæ*		Sp 21—53.				
11861 gravéolens *W*	strong-smelling		○	pr	1½	jl au	Y	S Europe	1633.	S	co	Ger ems. 481. f. 2
11862 compósitum *Ph*	Daisy-flowered	♃	△	pr	¼	jl.au	W n	N Amer	1811	D	co	
11863 caroliniánum *W*	Hyssop-leaved	♃	△	pr	1	jl au	Pu	N Amer	1727	D	s.p	Dil. el. t. 306 f. 394
11864 canadénse *W*	Canada		○	pr	1	au s	W	England rubble.		S	co	Eng bot. 2019
11865 bonariénse *W*	Buck's-horn		○	pr	1½	jl au	Pu	S Amer	1732.	S	co	Dil. el. t. 257 f. 334
11866 linifólium *W*	Flax leaved		○	pr	1	jl au	Pu	S. Amer	.	S	p.l	
11867 philadélphicum *W*	spreading	♃	△	pr	1	jl au	Pu	N Amer	1778.	D	co	
11868 nudicaúle *Ph*	naked-stalked	♃	△	pr	1	jl	B	N Amer	1812.	D	co	
11869 purpúreum *W*	purple	♃	△	pr	1	jl au	Pu	Huds Bay	1776.	D	co	
11870 bellidifólium *W*	Plantain leav	♃	△	pr	½	jl au	Pu	N Amer	1790	D	co	Bot. mag. 2402
11871 heterophýllum *W*	various-leaved	♃	○	pr	1	jl s	W	N Amer	1640	S	co	Fl. dan. 486
11872 jamaicénse *W*	Jamaica		[○]	pr	1	jl s	Pu	Jamaica	1818	S	co	Slo. jam t 152. f 3
11873 longifólium *Desf*	long leaved	♃	△	pr	2	jl au	Pu	N Amer	1820	D	co	
11874 caucásicum *Bieb*	large-flowered	♃	△	pr	½	jl au	Pu	Caucasus	1821.	D	co	
11875 asteroídes *Link*	Aster like	♃	△	pr	1½	jl au	W	[illegible]	1823.	D	co	
11876 Villársii *W*	Villars's	♃	△	pr	1	jl au	Pu	Piedmont	1804	S	co	Bot. reg 583
11877 ácre *W*	blue	♃	○	pr	1½	jl au	B	Britain	gra pa.	S	co	Eng bot. 1158
11878 alpínum *W*	Alpine	♃	△	pr	1	jl	Pu	Scotland	al. rills.	D	s.l	Eng bot. 464
11879 uniflórum *W*	dwarf	♃	△	pr	½	au s	Pu	Scotland	highl.	D	co	Eng bot 2416
11880 glaúcum *B reg*	shrubby	■	□	pr	1	ja d	Pu	S. Amer	1812.	C	co	Bot. reg 10
11881 delphinifólium *W en*	Larkspur leav	♃	[○]	pr	1½	jl s	Pu	S Amer.	1816.	S	co	
1737 TUSSILA'GO *W*	Colt's Foot					*Compositæ*		Sp 12—17				
11882 nútans *W*	drooping flow	♃	[○]	un	½	jn jl	L.Pu	W Indies	1798.	S	co	Plum ic t 41 f 1
11883 alpína *W*	Alpine	♃	△	pr	½	mr my	L.Pu	Austria	1710.	D	co	Bot mag 84
11884 díscolor *W*	two colored	♃	△	pr	½	ap my	L.Pu	Austria	1633	D	co	Jac. aust 3 t. 247
11885 sylvéstris *W*	wood	♃	△	un	1	ap my	L.Pu	Austria	1816.	D	co	Jac. aus 5 ap t. 12
11886 Fárfara *W*	common	♃	△	w	½	mr ap	Y	Britain	moi pl	D	co	Eng bot 429
11887 frígida *W*	Lapland	♃	△	op	½	my	Pa	Lapland	1710	D	co	Fl dan t 61
11888 frágrans *W*	sweet scented	♃	△	op	1	ja mr	W	Italy	[illegible]	D	co	Bot mag 1388
11889 alba *W*	White Butter Bur	♃	△	pr	1	ja ap	W	Europe	[illegible]	D	co	Fl dan t 524
11890 nívea *W*	downy leaved	♃	△	pr	1	ap	W	Switzerl.	1813	D	co	Retz obs 2 t 3
11891 Petasítes *E B*	Common Butter Bur	♃	△	w	1	mr ap	F	[illegible]		D	co	Eng bot 431
hybrida E. B.	*hybrid*	♃	△	w	1½	mr ap	F	Britain	[illegible]	D	co	Eng bot 430
11892 spúria *W*	lobe leaved	♃	△	pr	1	mr ap	W	Germany	1790	D	co	Retz obs 1 t 2
11893 palmáta *W*	cut leaved	♃	△	pr	½	ap	W	Labrador	1778.	D	co	Hort kew t 11
1738 SENE'CIO *W*	Groundsel.					*Compositæ*		Sp [illegible]—171				
11894 reclinátus *W*	Grass leaved	♃	[○]	or	2	jn au	Pu	C G H	1774.	S	co	Jac ic 1 t 174
11895 hieraciifólius *W*	Hawkweed		○	or	1½	au	W	N Amer	1699	S	co	Her parad t [illegible]
11896 purpúreus *W*	purple	♃	[△]	or	2	jl s	Pu	C G H	1774	D	co	Jac ic 3 t [illegible]
11897 cérnuus *W*	drooping		○	or	4	jl au	Vi	E Indies	1780	S	co	Jac vind. 3 t 98
11898 erubéscens *W*	blush colored	♃	[○]	or	2	jn o	Pk	C G H	1774	S	l p	
11899 divaricátus *W*	straddling	♃	[○]	or	1½	jl	Pu	China	1601	S	l p	
11900 croáticus *W*	Croatian	♃	△	or	4	jl au	Y	Hungary	1805.	D	co	Pl ra hu 2 t 143
11901 Pseúdo China *W*	Chinese	♃	[△]	or	½	jn au	Y	E Indies	1732	C	co	Dil el. t 258 f 335
11902 hæmatophýllus *W en*	purple-leaved	♃	[△]	or	2	ap	Y	[illegible]	1789	C	co	
11903 japónicus *W*	jagged leaved	♃	△	pr	1	au	Y	Japan	1774	D	co	



History, Use, Propagation, Culture,

gnats and fleas. From this imaginary property, its Greek name (from κωνωψ, a gnat), its Latin name, *pulicaria*, its English name, *flea-bane*, and its French name, *Herbe aux puces*, are all derived. Conyza marilandica gives out a strong smell of camphor.

1735 *Madia.* *Madi* is the name of the plant in Chili. Clammy weeds, only seen in botanical gardens.

1736. *Erigeron.* A name synonymous with *senecio*, which is a translation of it. Named from ἦρ, the spring, and γέρων, an old man; because it becomes old in the beginning of the season. The name Senecio having been applied to another genus, the Greek term is preserved for this, which is related to it. E. viscosum is used to drive away fleas and gnats, probably from its strong scent, or, as some suppose, from the clammy juice of the leaves and stalks; hence the old name of Flea-bane, or Flea-wort.

1737 *Tussilago* From *tussis*, a cough, for curing which the flowers are frequently employed at this day. Farfarus is the name under which the Greeks designated the White Poplar, the leaves of which are like the modern T. Farfara.

T. Farfara is a certain indication of a clayey soil, and, according to Dr. Withering, is the first plant which vegetates in marle or lime stone rubble. The clayey part of the pestilential Maremmes of Tuscany, where scarcely any other plant will grow, is covered with common colts foot. The cotton of the leaves wrapped in a rag,

11857 Leaves ovate-lanc. entire hoary downy beneath, Corymb compound terminal
11858 Leaves decurrent ellipt. crenate downy beneath, Heads capitate

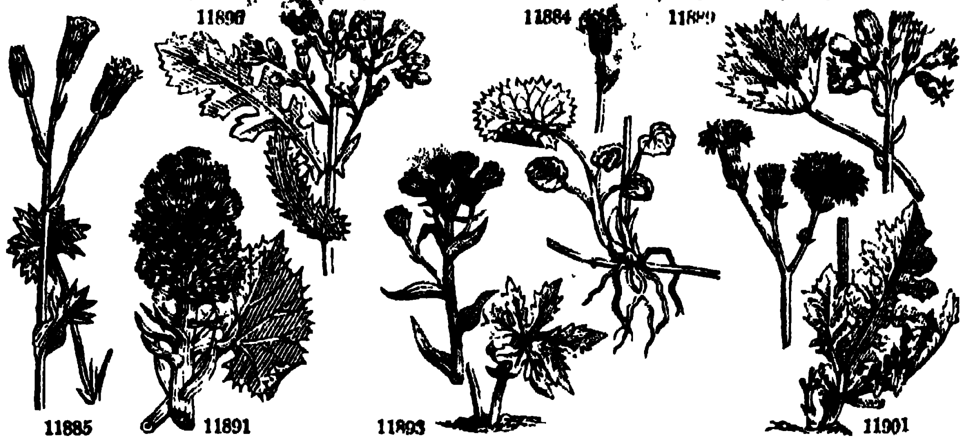
11859 Leaves lanc. sessile viscid, Outer involucres 10-leaved
11860 Leaves amplexicaul. lanc. viscid

11861 Leaves sublinear entire, Branches lateral many-flowered
11862 Nearly stemless, Rad. leaves on long stalks triply 3-parted, cauline linear undivided
11863 Stem panicled, Flowers subsolitary terminal, Leaves linear entire
11864 Stem and flowers panicled hairy, Leaves lanc. ciliated
11865 Lower leaves lanc. laciniate : cauline linear, Heads racemose
11866 Leaves scabrous : lower lanc. toothed in middle ; upper linear, Heads corymbose
11867 Stem many-fl. Lvs. lanc. subserrate : cauline half amplexicaul. Florets of ray capillary the length of disk
11868 Radical leaves oval-lanc. acute somewhat toothed, Stem nearly leafless simple long
11869 Stem many-fl. pilose, Leaves obl. somew. toothed amplexicaul. Florets of ray capillary longer than disk
11870 Rad. leaves obovate serrated : cauline lanc. entire, Stem about 2-fl. Ray longer than disk
11871 Rad. leaves roundish ovate deeply toothed stalked : cauline lanc. toothed subserrated in middle
11872 Stem few-fl. subvillous, Leaves cuneiform lanc. Serratures 2 on each side
11873 Branches spiked, Scales of invol. long, Peduncles scaly, Leaves very long smooth sessile
11874 Leaves entire bluntly mucronate : radical oblong stalked ; cauline cordate ovate sessile
11875 Stem nearly naked, Rad. leaves spatulate smooth dotted : cauline linear, Heads corymbose
11876 Leaves lanc. 3-nerved scabrous somewhat toothed sessile, Stem panicled, Ray shorter than disk
11877 Pedunc. alternate (scarcely racemose) single-fl. Pappus as long as the florets of the ray, Lvs lanc. obtuse
11878 Stems with usually only one fl. Pappus much shorter than the florets of the ray, Lvs. lanceolate
11879 Stem 1-flowered, Invol. pilose
11880 Leaves ciliated glaucous clammy : radical with winged stalks and few teeth ; cauline sessile entire
11881 Leaves pinnatifid ; segments of the cauline leaves linear entire ; of the radical lanc. somewhat toothed

11882 Scape 1-fl. naked, Head radiated nodding, Lvs. stalked obovate toothed sinuated at base downy beneath
11883 Scape 1-fl. nearly naked, Head discoid, Lvs reniform toothed smooth
11884 Scape 1-fl nearly naked, Head discoid, Lvs. reniform toothed downy beneath
11885 Scape about 1-fl. nearly naked, Head discoid, Lvs smooth reniform slightly 7-lobed
11886 Scape single-fl imbricated with scales, Lvs. cordate angular toothed downy beneath
11887 Thyrsus fastigiate, Heads radiant, Lvs. roundish cordate unequally toothed downy beneath
11888 Thyrsus fastigiate, Heads radiant, Lvs roundish cordate equally toothed downy beneath
11889 Thyrsus fastigiate, Heads discoid, Lvs. orbicular cordate doubly and finely toothed
11890 Thyrsus oblong, Heads discoid, Lvs. obl. cordate unequally toothed white beneath : lobes spreading
11891 Thyrsus ovate-oblong, Lvs. cordate unequally toothed with the lobes approximate downy beneath

11892 Thyrsus oblong, Heads discoid, Lvs. obl. cordate unequally toothletted snow-white beneath
11893 Thyrsus fastigiate, Heads obsoletely radiant, Lvs. roundish cordate half 7-lobed downy beneath

11894 Heads flosculous, Cor. naked, Invol. ventricose somewhat imbricated, Lvs. filiform-lin entire smooth
11895 Heads flosculous, Cor. naked, Lvs. obl. amplexicaul. unequally and deeply toothed, Stem virgate
11896 Heads flosculous, Cor. naked, Lvs. lyrate hairy : upper lanc. toothed
11897 Heads flosculous, Cor. naked, Lvs. ellipt. tooth-serrated hairy, Peduncles long many-flowered
11898 Heads flosculous, Cor. naked, Lvs. lyrate pilose on each side viscid
11899 Heads flosculous, Cor. naked, Lvs. lanc. toothed scabrous, Flowering branches spreading
11900 Heads flosculous, Cor. naked, Lvs. obl lanc. finely serrated smooth, Heads corymbose
11901 Heads flosculous, Cor. naked, Lvs. lyrate pinnatifid toothed, Scape nearly naked
11902 Heads flosculous, Cor. naked, Lvs. obl. pinnatifid toothed acuminate stalked cuneate at base
11903 Heads flosculous, Cor. naked, Lvs. pinnatifid : segm. lanc. acute cut, Stipules leafy subpalmate



and Miscellaneous Particulars.

dipped in a solution of saltpetre, and dried in the sun, makes an excellent tinder The leaves are the basis of the British herb tobacco ; they have been regarded as expectorant from the earliest ages, having been smoked through a reed in the days of Dioscorides, with the view of relieving the chest from accumulated mucus in catarrh, asthma, and phthisis. At present, though it occupies a place in the Materia Medica, very little reliance is placed on its powers. (*London Disp.* p. 542.)

T. Petasites, from the Greek πέτασος, a broad covering, in allusion to the leaves, which are larger than those of any British plant, and afford shelter from rain to poultry and other small animals. It is called Butter bur, in allusion to a former application, and Pestilent-wort, from its supposed efficacy in the plague. T. hybrida is by some considered, a variety of this species, as T. alba is of T. paradoxa. T. fragrans is valued in gardens as an early and fragrant flower ; like all the species, it is apt to run very much, and is therefore best kept in pots.

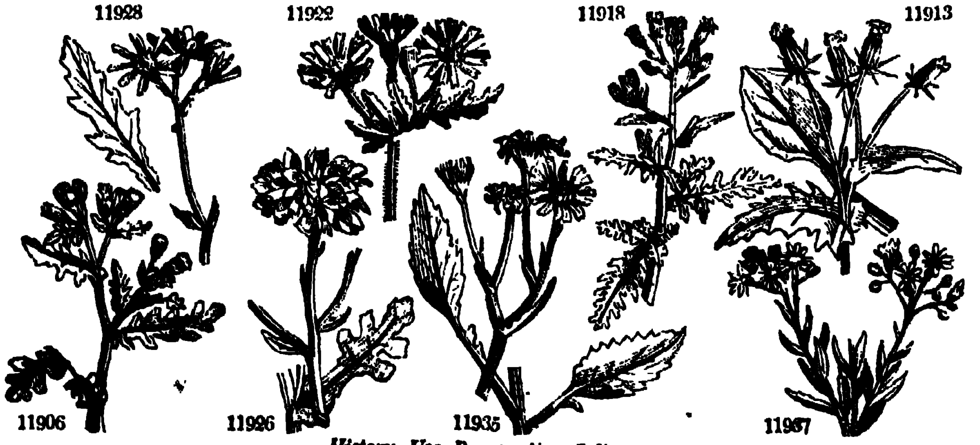
It is remarkable that no plant belonging to the tribe of Tussilagineæ, has been discovered with hermaphrodite flowers. They are distinguished from other tribes by their stigma, which occupies both surfaces of the lobes of the style. They are nearly all natives of Europe.

1738. *Senecio*. For the explanation of this word, see Erigeron. Most of these species are annual weeds, or

11904	glomerátus *Desf.*	clustered		○	un	1½	au	Y	N. Holl.	1816.	S	co	
11905	cacalioídes *Fisch.*	Cacalia-like		[○]	pr	1	au	Y	Brazil	1820.	S	co	
11906	vulgáris *W.*	common	⚘	△	w	1	ja.d	Y	Britain	rubble.	D	co	Eng. bot. 747
11907	arábicus *W.*	Arabian	⚘	⊙	un	1½	jl.au	Y	Egypt	1804.	S	co	
11908	dentátus *Jacq.*	toothed	£	⌊△⌋	un	1	jl.au	Y	C. G. H.	1820.	D	co	
11909	verbenæfólius *W.*	Vervain-leaved		○	un	1	jn.jl	Y	Egypt	1803.	S	co	Jac. vind. 1. t. 3
11910	triflórus *W.*	three-flowered		○	pr	1½	jl.s	Y	Egypt	1776.	S	co	
11911	ægyp'tius *W.*	Egyptian		○	pr	1½	jl.au	Y	Egypt	1771.	S	co	
11912	crassifólius *W.*	thick-leaved		○	pr	½	jl.au	Pu	S. Europe	1815.	S	co	Barr. ic. 261
11913	lívidus *W.*	livid		○	un	1	jl.au	Y	Spain	1801.	S	co	Schk. ha. 3. t.245
11914	trílobus *W.*	three-lobed		○	un	1	jn.au	Y	Spain	1728.	S	co	
11915	cinerascens *W.*	gray	m.	└┘	un	6	my.jl	Y	C. G. H.	1774.	C	p.l	Jac.schœ.2.t.150
11916	squamósus *W.*	squarrose	m.	└┘	un	3	my.jl	Y	C. G. H.	1820.	C	p.l	
11917	viscósus *W.*	stinking		○	w	1	jn.o	Y	Britain	ch. ba.	S	co	Eng. bot. 32
11918	sylváticus *W.*	mountain		○	w	1	jl.au	Y	Britain	woods.	S	co	Eng. bot. 748
11919	nebrodénsis *W.*	Sicilian		○	un	1½	jn.au	Pa.pu	S. Europe	1704.	S	co	Barr. rar. 401
11920	glaúcus *W.*	sea-green		○	un	1½	jn.au	Y	Egypt	1739.	S	co	
11921	hastátus *W.*	halberd-leaved	£	⌊△⌋	un	1½	my.au	Y	C. G. H.	1722.	D	l.p	Dil.el.t.152 f.184
11922	vernális *W.*	spring		○	un	1	ap.jn	Y	Hungary	1803.	S	co	Pl. rar. hu. 1.t.24
11923	artemisiæfólius *Lam.*	Wormwood-lv.	⚘	△	un	1½	jn jl	Y	France	1816.	D	co	
11924	rupéstris *W.*	rock	⚘	△	un	½	jn jl	Y	Hungary	1805.	D	s.l	Pl.rar.hu 2.t.128
11925	venústus *W.*	wing-leaved	£	⌊⊙⌋	el	1½	jl.s	Pu	C. G. H.	1774.	C	p.l	Bot. reg. 901
11926	élegans *W.*	elegant		○	pr	2	jn.au	Pu	C. G. H.	1700.	S	co	
	β *flore pléno*	*double-flowered*	m.	└┘	cl	2	ja.d	Pu	C. G. H.	1700.	C	s.l	Bot. mag. 238
11927	squálidus *W.*	inelegant		○	w	1½	jn.o	Y	England	walls.	S	co	Eng. bot. 600
11928	speciósus *W.*	red-flowered	£	⌊△⌋	or	½	jl.au	Sc	......	1789.	D	s.l	Bot. reg. 41
11929	erucifólius *W.*	Eruca-leaved	⚘	⌊△⌋	un	2	jl.au	Y	Europe	1816.	D	co	Barr. rar. t. 153
11930	uniflórus *W.*	Alpine	⚘	△	un	½	jl.au	Y	Al. of Eur.	1799.	D	l.p	All. ped. t. 17.f.8
11931	incánus *W.*	downy	⚘	△	un	½	jl.au	Y	Al. of Eur.	1759.	D	s.p	Plu alm. t.39 f.6
11932	abrotanifólius *W.*	Southernw.-lv.	⚘	△	un	2	jl o	Y	Al. of Eur.	1640.	D	co	Jac. aust. 1. t. 79
11933	tenuifólius *W.*	slender-leaved	⚘	△	un	2	jl.au	Y	Britain	woods.	D	l.p	Eng. bot 574
11934	Jacobæ'a *W.*	Common Ragwort	⚘	△	w	2	jl.au	Y	Britain	dry pa.	D	s.l	Eng. bot. 1130
11935	aquáticus *W.*	marsh	⚘	△	un	3	my.jn	Y	Britain	mar.	D	l.p	Eng. bot. 1131
11936	aúreus *W.*	golden	⚘	△	un	2	jl.au	Y	N. Amer.	1758.	D	l.p	
11937	rosmarinifólius *W.*	Rosemary-lvd.	m.	└┘	pr	3	jl.au	Y	C. G. H.	...	C	l.p	Jac. ic. 3. t. 587
11938	ásper *W.*	rough	m.	└┘	pr	3	jl.au	Y	C. G. H.	1774.	C	p.l	
11939	rigéscens *W.*	stiff-leaved	m.	└┘	pr	3	jl.au	Y	C. G. H.	1815.	D	l.p	Jac. coll.5.t.6.f.1
11940	linifólius *W.*	Flax-leaved	⚘	△	un	2	jl.au	Y	Spain	1820.	D	co	Bocc. mus t. 49
11941	paludósus *W.*	bird's-tongue	⚘	△	pr	5	jn.au	Y	England	fens.	D	p	Eng. bot. 650
11942	nemorénsis *W.*	branching	⚘	△	or	3	jl.au	Y	Austria	1785.	D	co	Jac. aust. 2.t 184
11943	sarracénicus *W.*	creeping-rooted	⚘	△	or	6	jl.o	Y	Britain	moi.pl.	D	co	Eng. bot. 2211
11944	ovátus *W.*	ovate	⚘	△	or	3	jl.o	Y	Germany	1823.	D	co	
11945	macrophýllus *Bieb.*	large-leaved	⚘	△	or	4	jl au	Y	Caucasus	1818.	D	co	
11946	solidaginoídes *W.*	Solidago-like	♣	└┘	or	2	jl au	Y	C. G. H.	1824.	C	co	
11947	umbrósus *W. en.*	various-leaved	⚘	△	or	2	jl.au	Y	Hungary	1815.	D	l.p	
11948	coriáceus *W.*	leathery-leaved	⚘	△	or	4	jl au	Y	Levant	1728.	D	l p	Dil.el.t.105 f.125
11949	Dória *W.*	broad-leaved	⚘	△	or	4	jl.s	Y	Austria	1570.	D	co	Jac. aust. 2.t 185
11950	Dorónicum *W.*	Leopard's Bane	⚘	△	or	1	jl.s	Y	S. Europe	1705.	D	co	Jac aus.2.t.ap.45
11951	lánceus *W.*	spear-leaved	♣	└┘	or	3	jl.o	Y	C. G. H.	1774.	C	p.l	
11952	longifólius *W.*	long-leaved	♣	└┘	or	3	au.n	Y	C. G. H.	1775.	C	p.l	Com. hort.2 t 71
11953	halimifolius *W.*	succulent-leav.	♣	└┘	or	3	jl	Y	C. G. H.	1723.	C	l.p	Dil.el.t 104.f 124
11954	ilicifólius *W.*	Ilex-leaved	♣	└┘	or	3	jn.jl	Y	C. G. H.	1731.	C	l p	Comm. rar. t. 42
11955	rígidus *W.*	hard-leaved	♣	└┘	or	3	jn.s	Y	C. G. H.	1704.	C	l.p	Com.hort. 2.t.75

1739. **AS'TER.** *W.* Starwort. *Compositæ.* *Sp.* 109—169.

11956	refléxus *W.*	reflexed-leaved	♣	└┘	or	3	f.s	Cr	C. G. H.	1759.	C	p.l	Bot. mag. 884
11957	tomentósus *W.*	tooth-leaved	♣	└┘	or	1½	my jl	Pk	N. S. W.	1793.	C	p.l	Bot. rep. 61
11958	sericeus *W.*	silky-leaved	♣	└┘	or	3	my n	R	Missouri	1802.	C	s p	Vent. cels. 33
11959	Cymbalariæ *W.*	Ivy-leaved	♣	└┘	or	2	my n	W	C. G. H.	1786.	C	p.l	Vent. malm. 95
11960	lirátus *B. M.*	fluted-stemmed	♣	└┘	or	3	my jl	W	N. S. W.	1812.	C	l.p	Bot. mag. 1509
11961	argophýllus *H. K.*	Musk-scented	♣	└┘	or	10	my.jl	W	V. Di. L.	1804.	C	a.p	Bot. mag. 1563



History, Use, Propagation, Culture,

rude gigantic yellow flowered autumnal perennials; S. venustus and cinerascens, however, are elegant plants with purple flowers. Of S elegans there is a double flowered variety, common in green houses, and readily propagated by cuttings.

Senecio hieracifolius is the pest of newly cleared ground in North America, as S. vulgaris is in Europe. It is known by the name of the Fire-weed.

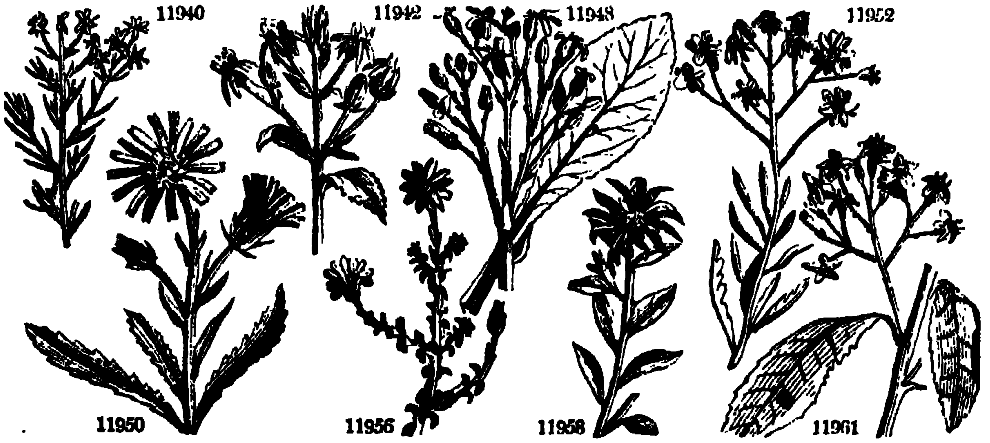
Senecio vulgaris is esteemed emollient and resolvative. It is employed in spitting of blood, in the form of a poultice, and against the gout and hæmorrhoids. It is given to horses suspected to be troubled with worms.

11904 Herb downy upwards, Lvs. sinuate toothed and pinnatifid, Heads clustered, Invol. cylindrical
11905 Herb hirsute, Lvs. broad-lanc. sinuate-toothed and toothletted: teeth callous at end, Heads panicled
11906 Leaves semiamplexicaul. pinnatifid toothed, Heads in clustered corymbs destitute of a ray
11907 Heads flosculous, Cor. naked, Leaves subbipinnate stalked smooth, Invol. not withered
11908 Heads radiant, Leaves half-amplexic. pinnatifid, Segments linear acute toothed distant, Peduncles long
11909 Heads flosculous, Cor. naked, Leaves obovate stalked cut-toothed, Pedunc. filiform 3-headed
11910 Heads radiate, Ray revolute, Leaves stalked obl. sinuate, Pedunc. 3-headed, Invol. conical
11911 Heads radiate, Ray revolute, Leaves amplexic. lin. lanc. pinnatifid, Scales of invol. sphacelate in part
11912 Heads radiate, Ray revolute, Leaves amplexicaul. lanceolate-linear fleshy bluntly sinuated
11913 Heads radiate, Ray revolute, Leaves amplexicaul. lanceolate toothed, Scales of invol. all unwithered
11914 Heads radiate, Ray revolute, Leaves amplexicaul. obovate 3-lobed at end serrated
11915 Heads radiate, Ray revolute, Leaves pinnatifid downy revolute at edge, Panicle spreading
11916 Leaves amplexicaul. cut toothed scabrous above downy beneath, Heads racemose
11917 Ray revolute, Leaves pinnatifid and viscid, Scales of the involucre lax hairy
11918 Ray revolute, Lvs. sess. pinnatifid lobed and toothed, Scales of invol. very short glab. Stem erect straight
11919 Ray revolute, Leaves lyrate sinuate blunt stalked, Stem hirsute [corymbose
11920 Ray revolute, Leaves amplexicaul. lanceolate blunt toothed entire
11921 Heads radiate, Petiole amplexicaul. Peduncles 3 times as long as pinnate sinuated leaves
11922 Heads radiate, Leaves amplexicaul. pinnatifid hirsute crisp-toothed, Stem woolly
11923 Cor. radiant, Leaves pinnated multifid: segm. filiform smooth, Heads corymbose
11924 Cor. radiant, Lvs. amplexic. pinnatifid glabrous above: segm. angular toothed, Stem and invol. glabrous
11925 Cor. radiant, Stem invol. and leaves glabrous, Leaves pinnatifid: segm. linear acute toothed
11926 Cor. radiant, Leaves pilose viscid pinnatifid equal spreading, Rachis narrowed below

11927 Cor. radiant, Leaves half-amplexicaul. pinnatifid: segm. linear subdentate distant
11928 Cor. radiant, Stem simple nearly naked, Radical leaves stalked oblong toothed ciliated
11929 Cor. radiant, Leaves pinnatifid toothed somewhat hairy, Stem erect
11930 Cor. radiant, Leaves tomentose oblong toothed, Stem leafy 1-flowered
11931 Cor. rad. Lvs. toment. on each side snow-white pinnatif.: segm. lin. blunt somew. tooth. Corymb contracted
11932 Cor. radiant, Leaves pinnate multifid linear naked acute, Peduncles about 2-flowered
11933 Cor. radiant, Leaves pinnate: pinnæ lin.-subulate somewhat cut downy beneath, Stem somewhat hairy
11934 Ray spreading, Leaves lyrate bipinnatifid divaric. toothed glabrous, Stem erect, Pericarps hairy
11935 Ray spreading, Florets elliptical, Leaves lyrate serrated: lower obovate entire, Pericarps glabrous
11936 Cor. radiant, Rad. lvs. ovate-cordate serrated stalked: cauline pinnatifid toothed, Peduncles thickened
11937 Cor. radiant, Lvs. lanc. lin. nearly entire smoothish, Corymb contracted terminal stalked
11938 Cor. radiant, Lvs. lanc. lin. toothed rigid scabrous, Corymbs terminal and axillary stalked
11939 Cor. radiant, Lvs. lanc. lin. subtomentose glauc. finely toothletted or entire, Corymb contracted terminal
11940 Cor. radiant, Leaves linear entire, Corymb squamose, Stem herbaceous
11941 Cor. radiant, Lvs. half amplexicaul. lanc. finely serrate subvillous beneath, Corymb terminal spreading
11942 Cor. radiant, Lvs. ovate lanc. serrated ciliated at edge sessile unequal at base
11943 Ray spreading, Lvs. lanc. sharply serrated nearly glabrous, Corymbs of rather few flowers
11944 Cor. radiant, Lvs. ovate-lanc. finely serrated smooth on each side subsessile
11945 Cor. radiant, Outer scales of invol. subulate spreading, Lvs. subdecurrent obl. lanc. villous
11946 Cor. radiant, Lvs. sess. obovate toothed at end glaucous: younger silky, Corymb compound terminal
11947 Cor. radiant, Lvs. toothed: lower ovate decurrent in the stalk: upper cordate obl. amplexicaul.
11948 Cor. radiant, Scales of invol. appressed, Lvs. subdecurrent villous beneath lanc. serrated
11949 Cor. radiant, Outer scales of invol. spreading, Lvs. subdecurrent obl. lanc. glauc. serrate
11950 Cor. radiant, Stem undivided about 1-fl. Lvs undivided serrated: radical ovate villous beneath
11951 Cor. radiant, Lvs. lanc. cordate at base amplexicaul. smooth finely serrated
11952 Cor. radiant, Lvs. lin. scattered
11953 Cor. radiant, Lvs. obovate fleshy somewhat toothed
11954 Cor. radiant, Lvs. obl. sessile toothed downy beneath: upper amplexicaul. toothed only at base
11955 Cor. radiant, Lvs. amplexicaul. spatulate repand eroded scabrous

§ 1. *Shrubby.*

11956 Leaves ovate subimbricated recurved serrate-ciliated, Heads terminal
11957 Leaves ovate serrate spreading downy beneath, Heads terminal about 3
11958 Leaves obl. lanc. sessile entire 3-nerved silky with down, Flowers terminal
11959 Leaves stalked roundish ovate hairy with 1 or 2 teeth on each side, Peduncles 1-headed long terminal
11960 Stem fluted, Leaves alternate stalked lanc. blistered repand-toothed downy beneath, Flowers panicled
11961 Leaves ovate lanc. toothed silky beneath, Panicles compound axillary, Rays 3



and Miscellaneous Particulars.

The tribe of Senecioneæ is nearly related to Anthemideæ, and a portion of Inuleæ, from which the differences in the style are insufficient to distinguish them. They appear, however, to be sufficiently well characterised by their other floral organs. They are found in every part of the world, especially in the south of Africa. Humboldt has observed, that they are very numerous in the upper region of the Andes, just below the limits of eternal snow, where the sun has little influence, where hurricanes are incessant, and not a tree is able to rear its head.

1739. *Aster.* The flowers of all the species of Aster resemble little stars, on account of the numerous rays

11962	angustifólius *W.*	narrow-leaved	■	⊔	or	6	my.jl	Pa.B	C. G. H.	1804.	C	l.p	Jac.schœ.3.t.370
11963	villósus *Th.*	villous	■	⊔	or	4	my.jl	W	C. G. H.	1812.	C	l.p	
11964	obtusátus *W.*	obtuse-leaved	■	⊔	or	4	my.jl	W	C. G. H.	1793.	C	l.p	
11965	fruticulósus *W.*	shrubby	■	⊔	or	3	mr.jl	W	C. G. H.	1759.	C	p.l	Bot. mag. 2283
11966	filifólius *V.*	thread-leaved	■	⊔	or	3	mr.jl	W	C. G. H.	1812.	C	l.p	Vent. malm. t.82
11967	aculeátus *Lab.*	prickly-leaved	■	⊔	or	2	mr.jl	W	N. Holl.	1818.	C	l.p	Bot. cab. 830
11968	exasperátus *Link.*	rough	■	⊔	or	3	mr.jl	W	C. G. H.	1823.	C	l.p	
11969	caroliniánus *W.*	tall	▪	⊔	cl	8	au.s	Pu	Carolina	...	D	co	
11970	hyssopifólius *W.*	Hyssop-leaved	♃	△	or	1½	s.o	W	N. Amer.	1683.	D	co	Doda. mem. t.60
11971	solidaginoìdes *W.*	Solidago-like	♃	△	or	2	au.s	W	N. Amer.	1699.	D	co	Plu. alm. t.79.f.2
11972	tardifólius *Mich.*	late-flowering	♃	△	or	1	au.s	W	N. Amer.	1820.	D	co	
11973	nemorális *H. K.* *ledifólius* Ph.	wood	♃	△	or	1	au.s	Li	N. Amer.	1778.	D	co	
11974	rígidus *Ph.*	stiff-leaved	♃	△	or	¾	au.o	Pu	N. Amer.	1759.	D	co	Plu. alm. t.14.f.7
11975	linarifólius *Ph.*	Toad-flax-leav.	♃	△	or	½	s.o	Pa.B	N. Amer.	1699.	D	co	
11976	graminifólius *Ph.*	grass-leaved	♃	△	or	½	s.o	Pa.pu	Huds. Bay	...	D	co	
11977	linifólius *W.*	Flax-leaved	♃	△	or	2	jl.au	W	N. Amer.	1739.	D	co	
11978	pilósus *W.*	hairy	♃	△	or	2	au.o	Pa.B	N. Amer.	1812.	D	co	
11979	foliósus *W.*	leafy	♃	△	or	3	o	Pa.B	N. Amer.	1732.	D	co	Dill. elt. t.35.f.39
11980	subulátus *Mich.*	subulate	♃	△	or	2	s.o	Pa.B	N. Amer.	...	D	co	
11981	tenuifólius *W.*	slender-leaved	♃	△	or	3	s.o	W	N. Amer.	1725.	D	co	Plu. alm. t.78.f.5
11982	dumósus *W.*	bushy	♃	△	or	3	s.o	W	N. Amer.	1734.	D	co	Plu. alm. t.78.f.6
11983	ericoìdes *W.*	Heath-leaved	♃	△	or	3	s	W	N. Amer.	1758.	D	co	
11984	multiflórus *W.*	many-flowered	♃	△	or	3	s.o	W	N. Amer.	1732.	D	co	Dill. elt.t.36.f.40
11985	ciliátus *Ph*	ciliated	♃	△	or	3	s.o	W	N. Amer.	...	D	co	
11986	canéscens *Ph.*	canescent	♃	△	or	2	s.o	Pa.pu	N. Amer.	1812.	D	co	
11987	paludósus *W.*	marsh	♃	△	or	3	jl.o	B	N. Amer.	1784.	D	m.s	
11988	sparsiflórus *Ph.*	scattered-flow.	♃	△	or	3	s.n	Pa.pu	N. Amer.	1798.	D	co	
11989	coridifólius *W.*	Coris-leaved	♃	△	or	1	au.n	B	N. Amer.	...	D	co	
11990	surculósus *Mich.*	rooting	♃	△	or	1	au.n	B	N. Amer.	...	D	co	
11991	squarrósus *W.*	ragged	♃	△	cl	1½	jn.jl	B	N. Amer.	1801.	D	co	
11992	argénteus *Mich.*	silver-leaved	♃	△	cl	1	jl.s	Pu	N. Amer.	1801.	D	co	
11993	cóncolor *W.*	self-colored	♃	△	cl	1	au.n	Pu	N. Amer.	1759.	D	co	
11994	myrtifólius *Link.*	myrtle-leaved	♃	△	or	2	au.s	W	......	1812.	D	co	
11995	reticulátus *Ph.*	netted-leaved	♃	△	or	3	au.o	W	N. Amer.	1812.	D	co	
11996	cornifólius *W.*	Cornus-leaved	♃	△	or	3	au.o	W	N. Amer.	1811.	D	co	
11997	húmilis *Ph.*	low	♃	△	cl	1	au.o	W	N. Amer.	1699.	D	co	Willd. ho.ber.67
11998	amygdalìnus *Ph.* *umbellàtus* W.	Almond-leaved	♃	△	or	2	jl.s	W	N. Amer.	1759.	D	co	
11999	salicifólius *W.*	Willow-leaved	♃	△	or	6	s.o	F	N. Amer.	1760.	D	co	Rob. ic. 307
12000	æstivus *W.*	summer	♃	△	or	2	jl.au	B	N. Amer.	1776.	D	co	
12001	Novæ An'gliæ *W.*	New England	♃	△	cl	6	s.o	Pu	N. Amer.	1710.	D	co	Bot. reg. 183
	β *rùber*	*red-flowered*	♃	△	or	6	s.o	R	N. Amer.	1812.	D	co	Bot re.183.f.inf.
12002	spùrius *W.* *cydneus* Ph. *rubricáulis* Lam.	beautiful-blue	♃	△	spl	4	s.o	Pu	N. Amer.	1789.	D	co	Hof.ph. 1.t.B.f.1
12003	grandiflórus *W.*	great-flowered	♃	△	or	2	o.n	Pu	N. Amer.	1720.	D	co	Bot. reg. 273
12004	phlogifólius *W.*	Phlox-leaved	♃	△	or	1½	jl.o	Vi	N. Amer.	1797.	D	co	
12005	pátens *W.*	spreading-hairy	♃	△	or	1½	s.n	Pu	N. Amer.	1773.	D	co	
12006	alpìnus *W.*	Alpine	♃	△	or	¾	my.au	Pu	Al. of Eur.	1658.	D	p.l	Bot. mag. 199
12007	pulchéllus *W.*	pretty	♃	△	or	¾	my.au	Pu	Armenia	...	D	co	
12008	punctátus *W.*	dotted	♃	△	or	3	au.s	Vi	Hungary	1815.	D	co	Pl.rar hu 2.t 109
12009	ácris *W.*	acrid	♃	△	or	2	au.s	B	S. Europe	1731.	D	co	Plu. al. t. 271.f 3
12010	cánus *W.*	hoary-leaved	♃	△	or	2	au.s	Pu	Hungary	1816.	D	co	Pl. rar. hu.1.t.30
12011	pannónicus *W.*	Hungarian	♃	△	or	2	jl.au	Vi	Hungary	1815.	D	co	Jac. vind. 1 t. 8
12012	Améllus *W.*	Italian	♃	△	or	2	au.s	Pu	Italy	1596.	D	co	Bot. reg. 340
12013	salìgnus *W.*	Sallow-leaved	♃	△	or	3	au.s	W	Germany	1815.	D	co	
12014	longifólius *P. S.*	long-leaved	♃	△	or	3	o	W	N. Amer.	1798.	D	co	Mor.s.7.t.22. f 26
12015	amplexicaúlis *W.*	stem-clasping	♃	△	or	3	s.n	B	N. Amer.	...	D	co	
12016	prenanthoìdes *W.*	Prenanthes-like	♃	△	or	3	s.n	B	N. Amer.	1821.	D	co	
12017	adulterìnus *W. en.*	bastard	♃	△	or	3	au.o	Vi	N. Amer.	...	D	co	
12018	lævigátus *W.*	smooth-stemm.	♃	△	pr	3	s.n	F	N. Amer.	1794.	D	co	

History, Use, Propagation, Culture,

of their circumference. A very numerous genus of plants, commonly called in England, Christmas Daisies, in allusion to the late period of the year at which they blossom. They are not very ornamental, and yet their flowers are acceptable at a season when few others are to be seen in open air. The species are extremely

11962 Leaves linear acute not dotted somewhat hoary, Pedunc. term. solitary 1-fl. long
11963 Leaves linear filiform obtuse hairy, Invol. imbricated
11964 Leaves linear fleshy smooth dotted blunt, Pedunc. 1-headed, Invol. imbricated shorter than disk
11965 Leaves linear blunt glabrous dotted, Pedunc. 1-headed long, Invol. imbricated as long as disk
11966 Leaves linear filiform fascicled smooth dotted, Ligules entire
11967 Leaves linear scattered revolute at edge : prickly above ; downy beneath, Heads in racemose panicles
11968 Stem and leaves rough, Leaves dense linear reflexed, Flowering branches short racemose
11969 Leaves obl. narrowed at each end sess. Stem somew. climbing, Branches downy, Scales of invol. squarrose

§ 2. *Herbaceous.*

* *Leaves entire.*

11970 Leaves lin. lanc. 3-nerved dotted acute scabr. at edge, Ray about 5-fl. Invol. imbric. twice as short as disk
11971 Lvs. lin. lanc. obsol. 3-nerv. blunt scab. at edge, Hds. in sess. clust. Ray about 5-fl. Inv. imbr. short. than disk
11972 Lvs. cuneate obov. acute nervel. scab. on each side twisted spread. Inv. cylindr. imbr. with 2 bractes at base
11973 Lvs. lin. lanc. narr. at base nerveless roughish revolute at edge, Inv. lax imbr. Branches filiform 1-headed

11974 Lvs. lin. mucro. somew. keeled rigid scabrous at edge : cauline reflexed ; of the branches much spreading
11975 Lvs. many lin. mucron. nerveless not dotted keeled scabrous rigid, Branches fastigiate 1-headed
11976 Lvs. narrow lin. nerveless not dotted smooth erect, Branchlets term. nearly naked 1-headed
11977 Lvs lin. nerveless dotted scabr. reflexed spreading, Branches corymb. fastigiate leafy, Invol. imbr. short
11978 Lvs. lin. lanc. hoary, Stem branched villous, Branchlets somew. 1-sided 1-headed, Invol. obl. lax imbricated
11979 Lvs. lin. lanc. narrowed at each end acum Stem downy panicled erect, Branches few-headed, Inv. imbr.
11980 Very smth. with small fl. Stem panicled, Branch. many-head. Lvs. lin subulate, Invol. cylindr. Ray minute
11981 Lvs. lin. lanc. narrow. both ways hispid at edge, Stem smth. branched erect, Branches 1-headed, Inv. imbr.
11982 Lvs. lin. glabrous : those of the branches very short, Branches panicled, Invol. cylindr. closely imbricated
11983 Lvs lin. glab. : those of the branches subul. close together ; of the stem long. Invol. subsquarr. Leafl. acute
11984 Lvs. lin. glab. Stem much branched diffuse downy, Branchlets 1-sided, Inv. imbr. : scales obl. squarr. acute
11985 Lvs. ciliat. : caul. lin. lanc. nerv. : those of the br. very short lanc. 3-nerv. Stem branch. downy, Br. panic.
11986 Hoary, Lvs lin. Panic. corymb. much branched leafy, Invol. imbr. very acute longer than disk [at base
11987 Lvs. remote lin. amplexicaul. erect very smth. scabr. at edge, Pedunc. almost naked, Inv. squarr. with 2 lvs.
11988 Very smth. Lvs. subul. lin. somew fleshy subreflex. Stem slender much branch. Branchl. setaceous 1-head.
11989 Lvs. very numerous lin. blunt reflexed hispid at edge, Stem branch. diffuse smooth, Branches 1-headed
11990 Dwarf with creeping roots, Stems weak simple, Lvs. long lanc smoothish, Invol. with lin. obl. blunt scales
11991 Lvs. very numerous ovate-acum. reflexed hispid at hedge, Stem branched hairy, Branches 1-headed
11992 Lvs. obl. lanc. silky sess. Stem slender decumbent loosely branched, Branchlets and branchlets 1-headed
11993 Lvs. obl. lanc. hoary on each side, Stem simple erect downy, Raceme terminal
11994 Cauline leaves amplexicaul. scabrous : of the branches small, Invol. imbricated : scales length of disk
11995 Hoary all over, Lvs. lanc. obl. acute at each end sess. revolute at end netted and 3-nerved beneath
11996 Smooth, Lvs obl. ovate acuminate shortly stalked scabrous at edge, Panicles few-headed, Stem smooth
11997 Lvs. subrhomboid oval-lanc. acuminate at each end somew. stalked glabr. hispid at edge, Corymb diverging
11998 Lvs. lanc. narrowed at base acuminate scabrous at edge, Stem simple corymb. at end, Invol. loosely imbr.

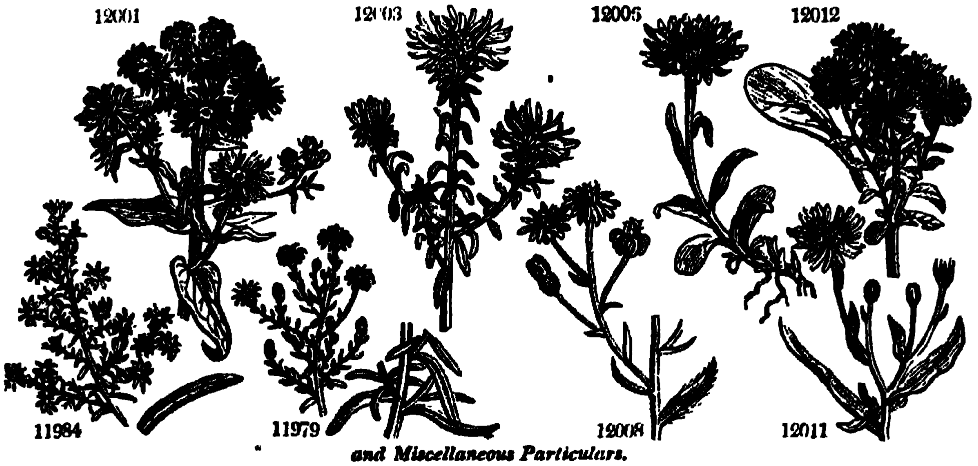
11999 Lvs. lin. lanc. nearly entire smth. Stem smth. panicled at end, Invol lanc. imbr. Scales acute spread. at end
12000 Lvs. lanc. somewhat amplexical. narrowed at end scabrous at edge, Stem erect hispid, Branchlets pilose
12001 Lvs. lin lanc pilose amplexicaul. auricled at base, Stem simple pilose straight, Heads sess. term. clustered

12002 Lvs. lin. lanc. amplexicaul. polished, Stem virgate panicl. Branches racemose, Inner scales of invol. colored

12003 Lvs. lin. rigid acute subamplexicaul. : those of the branches reflexed hispid at edge, Scales of invol. squarr.
12004 Lvs. lanc. cordate amplexicaul. downy beneath, Stem quite simple downy, Pan. term. lax few-headed
12005 Lvs. obl. lanc. ciliate cordate amplexicaul. scabrous on each side hairy, Stem branched hairy
12006 Stem 1-fl. Rad. lvs. lanc. spatulate : cauline lanc. Scales of invol. nearly equal lanc. bluntish
12007 Stem 1-fl. Rad. lvs. spatulate : cauline lin.-lanc. Scales of invol. nearly equal linear acuminate
12008 Lvs. lin. remote 3-nerved acuminate dotted scabrous at edge, Branches corymb. fastigiate, Ray 10-fl.
12009 Lvs. lin. lanc. glabrous not dotted 3-nerved, Invol. imbricated twice as short as disk
12010 Lvs. lin. lanc. 3-nerved hoary on each side, Invol. twice as short as disk imbricated
12011 Lvs. lin. lanc. hispid at edge, Stem simple corymbose, Scales of invol. lanc. blunt equal
12012 Lvs. obl. lanc. scabrous, Invol. imbr. subsquarrose · lvs. blunt ; inner membranous colored at edge
12013 Lvs. lin. lanc. sessile scabrous at edge, Stem panicled smooth, Invol. lax imbricated
12014 Lvs. lin. lanc. rarely toothed long smooth, Heads terminal, Invol. squarrose

** *Leaves lanceolate and ovate : lower serrate.*

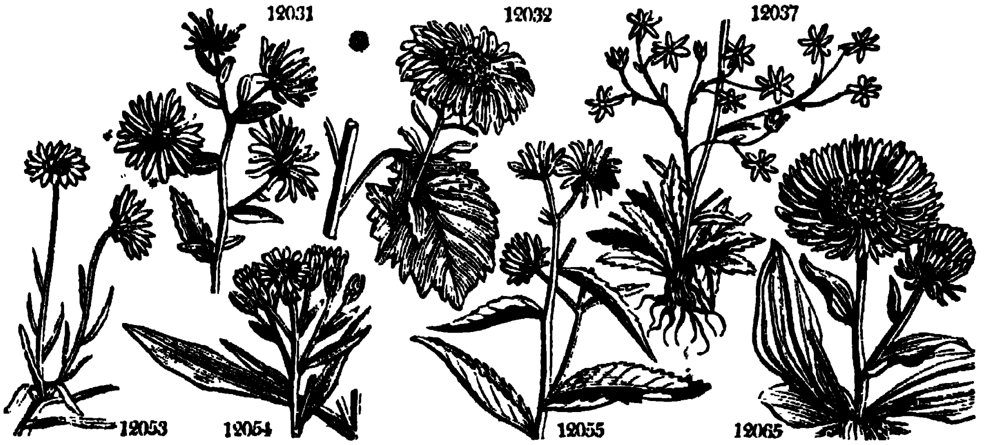
12015 Lvs. ov.-obl. acute amplexicaul cordate serrated smooth, Stem panicled smooth, Branches 1-2-headed
12016 Lvs. amplexicaul. spatulate lanc. acuminate serrated in middle cordate at base, Branches pilose
12017 Lvs. amplexic. lanc. : lower subserr. smooth ; of the branches lin. squarr. Invol. squarr. shorter than disk
12018 Lvs. subamplexicaul. broad-lanc. subserrate smooth, Stem glabrous, Branches many-headed



and Miscellaneous Particulars.

difficult to distinguish : the most ornamental are A. puniceus, Novæ Angliæ, pulchellus, and macrophyllus A. chinensis is a well known border annual ; of which there are varieties of different colors, and semi-double, and double. It is raised on a hotbed, and transplanted into the open ground in April or May.

12019	**versicolor** *W.*	various-colored	♃	Δ	el	3	au.s	W.pu	N. Amer.	1790.	D	co	
12020	**mutábilis** *W.*	changeable	♃	Δ	or	2	s.o	Pu	N. Amer.	1710.	D	co	Herm. lugd. t.67
12021	**læ'vis** *W.*	smooth	♃	Δ	or	2	s.o	B	N. Amer.	1758.	D	co	
12022	**concinnus** *W. en.*	neat	♃	Δ	pr	1½	s.o	Pu	N. Amer.	1800.	D	co	
12023	**puniceus** *W.*	red-stalked	♃	Δ	or	8	jl.o	B	N. Amer.	1710.	D	co	Herm. lug. t.651
12024	**hispidus** *W.*	rough-stalked	♃	Δ	or	1	s.o	W	China	1804.	D	co	Ic. Kæmpf. t. 29
12025	**floribúndus** *W.*	abundant-flow.	♃	Δ	or	4	s.o	Pu	N. Amer.	...	D	co	
12026	**Novi-Bélgii** *W.*	New-York	♃	Δ	or	4	s.o	P.B	N. Amer.	1710.	D	co	Herm. lugd. t.69
12027	**bellidiflórus** *W. en.*	Daisy-flowered	♃	Δ	or	3	s.o	Pa.R	N. Amer.	...	D	co	
12028	**spectábilis** *W.*	showy	♃	Δ	el	2	au.s	B	N. Amer.	1777.	D	co	
12029	**serotinus** *W.*	late-flowering	♃	Δ	or	3	s.n	B	N. Amer.	...	D	co	
12030	**tardiflórus** *W.*	spear-leaved	♃	Δ	or	2	jl.s	P.B	N. Amer.	1775.	D	co	
12031	**blándus** *Ph.*	charming	♃	Δ	or	2	o.n	Pa.pu	N. Amer.	1800.	D	co	Bot. cab. 959
12032	**chinénsis** *W.*	Chinese		⊙		2	jl.s	D.Pu	China	1731.	S	co	Dill. elt. t.34.f.38
12033	**acuminátus** *Ph.*	acuminate	♃	Δ	or	1½	au.o	W	N. Amer.	1806.	D	co	
12034	**conyzoides** *W.*	Conyza-like	♃	Δ	or	1	au.s	W	N. Amer.	1778.	D	co	
12035	**Rádula** *W.*	rasp-leaved	♃	Δ	or	2	s.n	W	N. Amer	1785.	D	co	
12036	**strictus** *Ph.*	upright-dwarf	♃	Δ	pr	½	s.n	Vi	N. Amer.	1806.	D	co	
12037	**Tradescánti** *W.*	Michaelmas Daisy	♃	Δ	or	3	jl.s	W	N. Amer.	1633.	D	co	Mor. s.7.t.21.f.42
12038	**recurvátus** *W.*	recurved	♃	Δ	or	3	au.s	Pa.B	N. Amer.	1800.	D	co	
12039	**émineus** *Ph.*	eminent	♃	Δ	or	2	s.n	Li	N. Amer.	...	D	co	
12040	**láxus** *Ph.*	loose-stalked	♃	Δ	or	2	s.n	W	N. Amer.	...	D	co	
12041	**símplex** *W. en.*	single-stalked	♃	Δ	or	3	au.o	W.pu	N. Amer.	...	D	co	
12042	**polyphýllus** *W. en.*	many-leaved	♃	Δ	or	3	au.o	W	N. Amer.	...	D	co	
12043	**júnceus** *W.*	slender-stalked	♃	Δ	or	4	s.o	F	N. Amer.	1758.	D	co	
12044	**lanceolátus** *W.*	lanceolate	♃	Δ	or	4	au.n	W.pu	N. Amer.	1811.	D	co	
12045	**dracunculoides** *W.*	tarragon-like	♃	Δ	or	3	s.n	W	N. Amer.	1811.	D	co	
12046	**frágilis** *W.*	brittle	♃	Δ	or	2	s	W	N. Amer.	1800.	D	co	
12047	**míser** *W.*	meagre-flower.	♃	Δ	wh	3	s.o	W	N. Amer.	1759.	D	co	
12048	**divérgens** *W.*	spreading-downy	♃	Δ	wh	3	s.o	W	N. Amer.	1758.	D	co	
12049	**diffúsus** *W.*	diffuse	♃	Δ	or	2	s.o	W	N. Amer.	1777.	D	co	
12050	**péndulus** *W.*	pendulous	♃	Δ	or	[illegible]	s.o	W	N. Amer.	1758.	D	co	
12051	**caucásicus** *W.*	Caucasian	♃	Δ	or	[illegible]	jl.au	Pu	Caucasus	1804.	D	co	
12052	**altáicus** *W. en.*	dwarf	♃	Δ	or	[illegible]	my.au	B	Siberia	1804.	D	co	
12053	**tenéllus** *W.*	slender		□	or	[illegible]	ap.o	B	C. G. H.	1769.	C	p.l	Bot. mag. 33
12054	**Tripólium** *W.*	sea	♃	Δ	or	2	au.s	B	Britain	sea sh.	D	co	Eng. bot. 87
12055	**sibíricus** *W.*	Siberian	♃	Δ	or	2	jl.o	B	Siberia	1768.	D	co	Gm. sib. 2. t.80. f.1
12056	**élegans** *W.*	elegant	♃	Δ	or	2	au.o	B	......	1790.	D	co	
12057	**pállens** *W. en.*	pale-flowered	♃	Δ	or	3	s.o	Vi	N. Amer.	...	D	co	
12058	**præ'cox** *W. en.*	early-flowering	♃	Δ	or	2	jl.au	Vi	N. Amer.	1800.	D	co	
12059	**undulátus** *W.*	wave-leaved	♃	Δ	or	3	au.o	P.B	N. Amer.	1699.	D	co	Herm. parad. 96
12060	**paniculátus** *W.*	panicled	♃	Δ	el	4	s.o	B	N. Amer.	1640.	D	co	Corn. canad. t.65
12061	**cordifólius** *W.*	heart-leaved	♃	Δ	or	2	jl.au	P.B	N. Amer.	1759	D	co	
12062	**corymbósus** *W.*	corymbed	♃	Δ	or	2	s	W	N. Amer.	1765	D	co	
12063	**macrophýllus** *W.*	large-leaved	♃	Δ	or	2	jl.s	W	N. Amer.	1739.	D	co	
12064	**heterophýllus** *W. en.*	various-leaved	♃	Δ	or	3	jls.	Pa.pu	N. Amer.	1811.	D	co	
12065	**alwarténsis** *Lodd.*	fine rayed	♃	Δ	el	1	my	R	Caucasus	1807.	D	co	Bot. mag. 2321
1740.	SOLIDA'GO. *W.*	Golden Rod.					*Compositæ.*		*Sp.* 48—61.				
12066	**canadénsis** *W.*	Canadian	♃	Δ	pr	2	jl.s	Y	N. Amer.	1648.	D	co	Sch. hand. 3. f.246
12067	**frágrans** *W. en.*	fragrant	♃	Δ	pr	3	jl.s	Y	N. Amer.	...	D	co	
12068	**prócera** *W.*	great	♃	Δ	pr	6	s.o	Y	N. Amer.	1758.	D	co	
12069	**serotína** *W.*	upright-smooth	♃	Δ	pr	4	jl.au	Y	N. Amer.	1758.	D	co	
12070	**gigantéa** *W.*	gigantic	♃	Δ	pr	6	au.s	Y	N. Amer.	1758.	D	co	
12071	**ciliáris** *W.*	ciliated	♃	Δ	pr	3	au.s	Y	N. Amer.	1811.	D	co	
12072	**refléxa** *W.*	hanging-leaved	♃	Δ	pr	3	au.s	Y	N. Amer.	1758.	D	co	
12073	**lateriflóra** *W.*	lateral-flowered	♃	Δ	pr	3	au.s	Y	N. Amer.	1758.	D	co	



History, Use, Propagation, Culture,

Astereæ are chiefly characterized by their style, which, in its most complete state, is alone sufficient to distinguish them from every other tribe. They are found in every part of the world, but especially in North America and Africa.

1740. *Solidago.* From *solidari*, to unite, on account of the vulnerary qualities of the plants. The species are all autumnal coarse-looking herbaceous plants with yellow flowers; in the shrubbery they make a pretty

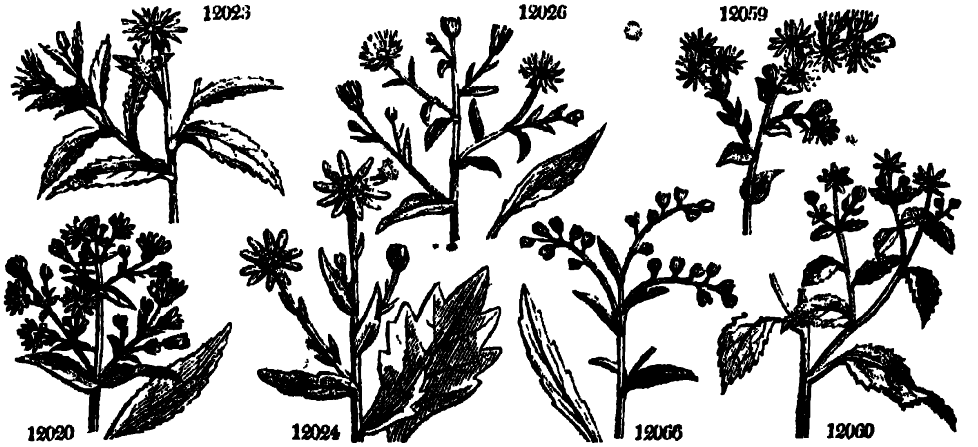
12019 Lvs. subamplexicaul. broad-lanc. subserrate smooth, Stem glabrous, Scales of invol. shorter than disk
12020 Lvs. subamplexic. : upper lanc. acumi. entire ; lower lanc. narrowed at base serrated, Branchlets virgate
12021 Lvs. subamplexicaul. remote obl. entire lucid : radic. subserrated, Invol. imbr. with cuneiform leaflets
12022 Lvs. subamplexicaul. lanc. lower subserrate smooth, Stem simple panicled at end, Invol. closely imbricated
12023 Lvs. amplexicaul. lanc. serrate roughish, Branches panicled, Invol. lax longer than disk
12024 Lvs. obl. lanc. scabrous ciliated : lower ovate, Stem hispid, Branches 1-headed, Scales of invol. obl. imbr.
12025 Lvs. subamplexicaul. lanc. : lower serrated, Stem smooth, Branches corymbose
12026 Lvs. subamplexicaul. lanc. glabrous scabrous at edge : lower subserrated, Branches divided
12027 Lvs. amplexicaul. narr. lanc. scabr. above lower subserr. Stem much branched, Invol. with spread. scales
12028 Lvs. lanc. roughish somewhat amplexicaul. : lower serrate in the middle, Scales of invol. lax leafy
12029 Lvs. obl. lanc. acuminate sessile smooth scabrous at edge : lower serrated, Branches corymbose smooth
12030 Lvs sessile serrated smooth spatulate lanc. narrowed at base and bent down towards each side
12031 Lvs. subamplexic. obl. lanc. acuminate serrated smooth, Stem pyramidal, Racemes scarcely longer than lvs.
12032 Lvs. ov. coarsely toothed stalked : cauline sessile cuneate at base, Stem hispid, Branches with single heads
12033 Lvs. broad lanc. narrow. at base entire with a very long point, Stem simp. flexuose angul. Panic. corymb.
12034 Lvs. obl. 3-nerved narrowed at base acute : upper sess nearly entire ; lower stalked serrated, Stem corymb.
12035 Lvs. lanc. serrate acuminate rugose very rough, Stem erect angular simple
12036 Lvs. sess. narrow lanc serrated scabrous, Stem 1 or few-headed
12037 Lvs. lanc. sess. serr. smooth, Branches virgate, Invol. imbricated, Stem round smooth
12038 Lvs. sess. narrow lanc. : lower serrated in middle, Stem branched smooth recurved, Invol. lax imbricated
12039 Lvs. lin. lanc. acumin. scabrous at edge : lower subserrated, Stem panicled, Branches 1-headed
12040 Lvs. lin. lanc. acumin. scabrous at edge : lower subserrated ; cauline [illegible], Stem lax panicled
12041 Lvs. lanc. acum. scabrous at edge : cauline serrated at end ; those of the branches entire, Stem panicled
12042 Lvs. lin. entire : radic. obl subserrated, Stem much branched downy, Invol. loosely imbricated
12043 Lvs. lanc. lin. sessile smooth : lower subserrate, Stem panicled smooth, Invol. imbricated
12044 Lvs. lin. lanc. sessile entire smooth : lower lanc. subserrate, Stem branched diffuse smoothish
12045 Lvs. lin. acuminate entire : lower lin. lanc. subserrate, Branches corymbose, Invol. imbricated
12046 Lvs. lin. acuminate entire : radical obl. serr. Branches in corymbose panicles, Invol. imbricated
12047 Lvs. sess. lanc. serrated smooth, Invol. imbricated ; leaflets acute, Stem rather villous
12048 Lvs. ellipt.-lanc. serrated smooth : cauline lin.-lanc. long, Branches spreading, Invol. imbr. Stem pubesc.
12049 Lvs. ellipt.-lanc. serrated smooth even-sized, Branches spreading, Invol. imbricated, Stem pubescent
12050 Lvs. ellipt.-lanc. serr. smooth : those of the branches distant, Branches much spreading pendulous
12051 Stem 1-fl. Lvs. ovate sessile scabrous, Scales of invol. nearly equal linear
12052 Lvs lin. lanc. entire blunt mucronate 3-nerved at base veiny, Stem simple corymbose downy
12053 Lvs. filiform aculeate ciliate, Invol. hemispherical, Leaflets equal
12054 Stem glabr. corymb. Lvs. lin.-lanc. fleshy obscurely 3-nerv. Scales of invol. lanc. membran. obt. imbricated
12055 Leaves lanc. subamplexicaul. serrate pilose scabrous, Invol. lax : leafl. lanc. acuminate foliaceous hispid
12056 Leaves scabr. : caul. obl. lanc. acute radical obl. stalked, Scales of invol. obl cuneate blunt subsquarrose
12057 Leaves sessile obl. lanc. serrate : floral ciliated, Stem branched glabrous, Invol. closely imbricated
12058 Lvs. obl. lanc. serrat. narrow. at base, Stem hairy, Inv. imbric. nearly equal, Outer scales somew. spreading

*** *Leaves cordate and ovate, serrate.*

12059 Leaves obl. cordate amplexicaul. entire, Petioles winged, Stem panicled hispid, Branchlets 1-sided
12060 Leaves ovate-lanc. subserrated stalked smooth, Petioles naked, Stem much branched smooth, Invol. lax
12061 Leaves cordate pilose beneath finely serrated stalked, Stem panicled smoothish, Panicle spreading
12062 Leaves ov. finely serrated acum. smoothish : lower cord. stalked, Branches hairy, Scales of invol. blunt
12063 Leaves ovate stalked serrated scabrous : upper ovate cordate sessile, Stem branched diffuse, Scales acute
12064 Leaves smooth : cauline ovate subcord. acuminate deeply serrated entire at end, Stem panicled smooth
12065 Leaves ovate narrowed at base entire about 5-nerved, Invol. lax squarrose, Ray very fine

§ 1. *Racemes 1-sided, Leaves 3-nerved.*

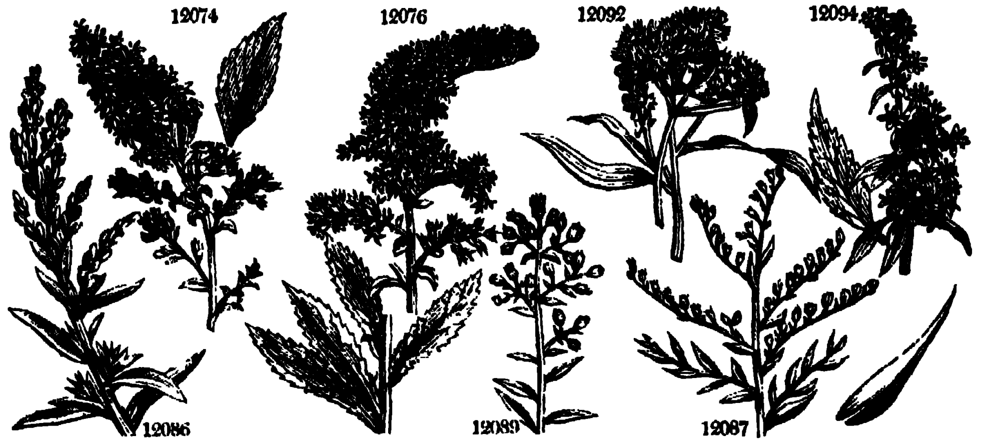
12066 Stem downy, Lvs. lanc. serrat. triple-ribb. rough, Clusters copious panicl. unilateral recurv. Radius hardly [exceeding disk
12067 Leaves obl. 3-nerved subserrated, Racemes 1-sided, Ligulæ middling, Stem smooth, Peduncles downy
12068 Stem villous erect, Lvs. lanc serrated triple-ribbed rough villous beneath, Clusters spiked erect drooping before flowering, Radius short
12069 Stem erect round very smooth, Leaves lin.-lanceol. smooth triple-ribbed serrated rough-edged, Clusters panicled unilateral, Stalks downy
12070 Stem erect smooth, Lvs. lanc. smooth serrated rough edged obscurely triple-ribbed, Clusters paniculated unilateral, Stalks hairy, Radius short
12071 Stem erect smooth, Leaves lanc somewhat triple-ribbed smooth rough-edged slightly serrated, Clusters panicled unilateral, Stalks smooth, Bract. fringed, Radius short
12072 Stem erect vill. Lvs. lanc somew. serrat. triple-ribbed rough reflexed, Clusters panicled slightly unilateral
12073 Stem erect rather hairy, Lvs lanc obscurely triple-ribbed smooth rough-edged : the lower ones slightly serrated, Clusters panicled unilateral somewhat recurved



and Miscellaneous Particulars.

appearance among other coarse things, but there is not one of them which is worth a place in a choice collection of ornamental plants. The leaves of the Solidago odora have a delightfully fragrant odor, partaking of that of anise and Sassafras, but different from either. When subjected to distillation, a volatile oil, possessing the taste and aroma of the plant in a high degree, collects in the receiver. This oil apparently has its residence in the transparent cells which constitute the dotting of the leaves. The effects of the S. odora are

12074 áspera *W.*	rough-leaved	♃	△	pr	3	s	Y	N. Amer.	1732.	D	co	Dil.el.t.305.f.392
12075 altíssima *Ph.*	tall	♃	△	pr	8	au.s	Y	N. Amer.	1686.	D	co	Mart. cent. 14
12076 rugósa *Ph.*	wrinkle-leaved	♃	△	pr	3	au.s	Y	N. Amer.	1732.	D	co	Dil.el.t.308.f.396
12077 villósa *Ph.*	villous	♃	△	pr	2	au.s	Y	N. Amer.	1732.	D	co	
12078 scábra *W.*	scabrous	♃	△	pr	3	au.s	Y	N. Amer.	1811.	D	co	
12079 nemorális *W.*	woolly-stalked	♃	△	pr	1½	s	Y	N. Amer.	1769.	D	co	
12080 pátula *W.*	spreading	♃	△	pr	2	s.o	Y	N. Amer.	1805.	D	co	
12081 ulmifólia *W.*	Elm-leaved	♃	△	pr	2	au.o	Y	N. Amer.	1805.	D	co	
12082 argúta *W.*	sharp-notched	♃	△	pr	4	jl.au	Y	N. Amer.	1758.	D	co	
12083 júncea *W.*	Rush-stalked	♃	△	pr	2	au s	Y	N. Amer.	1769.	D	co	
12084 ellíptica *W.*	oval-leaved	♃	△	pr	3	au.s	Y	N. Amer.	1759.	D	co	
12085 recurváta *W. cn.*	recurved	♃	△	pr	2	s n	Y	N. Amer.	...	D	co	
12086 sempervírens *W.*	evergreen	♃	△	pr	5	s.o	Y	N. Amer.	1699.	D	co	Cor.canad. t. 169
12087 odóra *W.*	sweet-smelling	♃	△	pr	3	jl.au	Y	N. Amer.	1699.	D	co	Pluk.al. t.116.f.6
12088 pauciflósculósa *Ph.*	slender-flower.	♃	△	pr	2	au.o	Y	N. Amer.	1811.	D	co	
12089 bicolor *W.*	two-colored	♃	△	pr	2	au.s	Y	N. Amer.	1759.	D	co	Pluk.al. t.114.f.8
12090 petioláris *W.*	late-flowered	♃	△	pr	4	o.d	Y	N. Amer.	1758.	D	co	
12091 stricta *W.*	Willow-leaved	♃	△	pr	3	s	Y	N. Amer.	1758.	D	co	
12092 lanceoláta *Ph.*	Grass-leaved	♃	△	pr	5	o	Y	N. Amer.	1758.	D	co	Bot. mag. 2546
12093 tenuifólia *Ph.*	slender-leaved	♃	△	pr	2	s.o	Y	N. Amer.	1758.	D	co	
12094 cæ'sia *W.*	Maryland	♃	△	pr	2	s.o	Y	N. Amer.	1732.	D	co	Dil.el.t.307.f.395
12095 lívida *W. cn.*	livid	♃	△	pr	2	s.o	Y	N. Amer.	...	D	co	
12096 hirta *W. cn.*	hairy	♃	△	pr	2	s.o	Y	N. Amer.	...	D	co	
12097 lithospermifólia *Ph.*	Gromwell-lvd.	♃	△	pr	2	au.o	Y	N. Amer.	1811.	D	co	
12098 lævigáta *W.*	fleshy-leaved	♃	△	pr	6	o.n	Y	N. Amer.	1699.	D	co	
12099 mexicána *W.*	Mexican	♃	△	pr	6	jl.o	Y	N. Amer.	1683.	D	co	Dodar.ac.4.t.219
12100 viminea *W.*	twiggy	♃	△	pr	3	s	Y	N. Amer.	1759.	D	co	
12101 erécta *Ph.*	upright	♃	△	pr	3	au o	Y	N. Amer.	...	D	co	
12102 macrophýlla *Ph.*	large-leaved	♃	△	pr	3	au.o	Y	N. Amer.	...	D	co	
12103 flexicaúlis *W.*	crook-stalked	♃	△	pr	2	s	Y	N. Amer.	1725.	D	co	Herm parad.244
12104 latifólia	broad-leaved	♃	△	pr	1¼	s	Y	N. Amer.	1725.	D	co	Pluk.al. t.235.f.4
12105 ambigua *W.*	angular-stalked	♃	△	pr	2	jl.au	Y	......	1759.	D	co	
12106 axilláris *Ph.*	axillary	♃	△	pr	2	au.o	Y	N. Amer.	1811.	D	co	
12107 Virgaúrea *W.*	common	♃	△	pr	2	jl.s	Y	Britain	woods.	D	co	Eng. bot. 301
12108 cámbrica *W.*	Welsh	♃	△	pr	½	jl au	Y	Wales	...	D	co	Dil.el.t.306.f.393
12109 multiradiáta *W.*	Labrador	♃	△	pr	½	jl.au	Y	Labrador	1776.	D	co	
12110 minúta *W.*	least	♃	△	pr	¼	jl.au	Y	Pyrenees	1772.	D	co	Bot. cab. 189
12111 húmilis *Ph.*	dwarf	♃	△	pr	1	jl.au	Y	N. Amer.	1811.	D	co	
12112 eláta *Ph.*	tall-hairy	♃	△	pr	6	au.o	Y	N. Amer.	1811.	D	co	
12113 rigida *W.*	hard-leaved	♃	△	pr	3	s	Y	N. Amer.	1710.	D	co	Herm.parad.243
1741. CINERA'RIA. *W.*	CINERARIA.					*Compositæ.*		*Sp.* 31—72.				
12114 geifólia *W.*	Kidney-leaved	ħ	⊔	or	2	ap.au	Y	C. G. H.	1710.	C	p.l	Com.hort.2. t.73
12115 canéscens *Wendl.* *parviflora* H. K.	hoary	ħ	⊔	or	2	ap.au	Y	C. G. H.	1790.	C	p.l	Bot. mag. 1900
12116 auríta *W.*	purple-flower'd	ħ	⊔	or	1½	jn.jl	Pu	Madeira	1777.	C	l p	Bot. mag. 1786



History, Use, Propagation, Culture,

aromatic, pleasant to the taste, gently stimulant, diaphoretic, and carminative. An essence made by dissolving the essential oil in proof spirit, is used in the eastern states as a remedy in complaints arising from flatulence, and as a vehicle for unpleasant medicines of various kinds. It has been employed successfully to allay vomit-

§ 2. *Racemes 1-sided. Leaves not 3-nerved.*

12074 Stem erect round hairy, Lvs. ov. rather ellipt. very rough rugged serrated without lateral ribs, Clusters panicled unilateral
12075 Stem erect hairy, Lvs. lanc. the lower ones deeply serrated very rough rugose, Panicles unilateral
12076 Stem erect hairy, Lvs. ovate-lanc. the lower ones closely serrated rugged very rough, Clusters panicled compound widely spreading unilateral
12077 Stem erect vill. Lvs. lanc. rather soft serrated without lateral ribs, Clusters panicled unilateral
12078 Stem erect hairy, Lvs. oblong pointed smooth above rugged and rough beneath, Clusters unilateral
12079 Stem erect downy, Stem lvs. lanc. hisp. ent. : radic. ones somew. wedge-shap. serrat. Clust. panic. unilateral
12080 Stem erect smooth angular, Lvs. ellipt. serrated smooth : the radic. ones obl.-spatulate, Clusters panicled unilateral spreading, Pedunc. downy
12081 Stem erect striated smooth, Lvs. ellipt. pointed deeply serrated vill. beneath : radical ones obovate, Clusters panicled unilateral, Pedunc. villous, Rays short
12082 Stem erect smooth, Lvs. smooth sharply and unequally serr. : those of the stem ellipt. ; radical ones ovate-obl. Clusters panicled unilateral, Rays elongate
12083 Stem erect smooth, Lvs. lanc. smooth rough-edged : the lower ones serrated, Clusters panicled unilateral
12084 Stem erect smooth, Lvs. ellipt. smooth serrated, Clusters panicled unilateral, Rays of a middling length
12085 Stem erect downy, Lvs. lanc. serrated rough edged, Clusters elongated unilateral recurved panicled
12086 Stem erect smth. Lvs. lin.-lanc. rather fleshy smth. entire rough-edg. Clust. panic. unilateral, Ped. roughish
12087 Stem erect striated downy, Lvs. lin.-lanc. entire smooth rough-edged, Clust. panic. unilateral nearly simple

§ 3. *Racemes erect.*

12088 Smooth somewhat shrubby, Lvs. lanc. obtuse without ribs, Panicle compound many-fl. tuft of flowers erect, Invol. narr.-oblong with 5 flor. in the disk and 1 in the radius
12089 Stem hairy, Lvs ellipt. hairy : the lower ones serr. ; those on the fl.-branches entire numerous and small, Clusters erect, Scales of invol. obtuse
12090 Stem erect villous, Lvs. ellipt. roughish stalked, Clusters erect, Rays twice the length of the invol.
12091 Stem erect smth. Stem-lvs. lanc. entire smth. rough-edg. : radic ones serrat Clust. panic. erect, Ped. smth.
12092 Stem smooth. furrowed much branched, Lvs almost lin. ent. roughish nearly erect with 3 or 5 rough ribs, Rays not longer than the disk
12093 Stem rough angular branch. corymb. Lvs spread. lin. very narr slightly 3-ribb. rough with axilla tufts of smaller ones, Rays scarcely exceeding the disk
12094 Stem nearly erect very smooth and even, Lvs. lanc. smooth with roughish edges and ribs, Clusters erect, Rays rather longer than the disk
12095 Stem smooth panic. Lvs. lanc. serrat. smth. rough-edged, Branches racemose at the extremity, Rays elong.
12096 Stem panic. hairy, Lvs. lanc. rough on both sides : those of the stem serrat. ; of the branches ent. Clusters erect, Rays elongated
12097 Stem branch. downy, Lvs. lanc. rough on both sides tapering 3-ribb. entire, Clusters erect, Rays elongated
12098 Stem erect smth Lvs. lanc. fleshy entire smooth in every part, Clusters panic. erect, Pedunc. scaly hairy, Radius twice the length of invol.
12099 Stem oblique smooth, Lvs. lanc. somew. fleshy entire smooth in every part, Clusters panic. erect, Pedunc. scaly smooth, Rays longer than invol.
12100 Stem erect slightly downy, Lvs. lin lanc. smooth rough-edged tapering at the base : the lower ones somew. serrated, Clusters erect, Rays elongated
12101 Stem rather vill. Lvs. lanc. veiny smooth entire somewhat stalked
12102 Lower lvs ov pointed taper. unequally and sharply serr. smooth : those of the stem lanc. tapering at each end serr. nearly sess. Clusters axill. stalked leafy the length of the leaves
12103 Stem zig-zag roundish smooth, Lvs. lanc. pointed serrated smooth nearly sess. Clust. axill. erect
12104 Stem somew. zig-zag angular smooth, Lvs ovate pointed strongly serrated smooth : tapering into a winged footstalk, Clusters axillary erect
12105 Stem slightly zig-zag smooth angul. branch. Lvs. ov.-lanc. pointed densely serrated rather hairy beneath tapering into a wing. footstalk ; upper ones ent. Clust. axill. erect the upper ones much long. than the lvs.
12106 Stem smooth round erect, Lvs. lanc. serr. glabrous, Racemes axill. subglobose erect, Rays long
12107 Cauline leaves lanc. : the lower ones ellipt. Racemes panicled erect crowded
12108 Stem quite simple downy, Lvs. cuneiform lanc. downy, Racemes erect, Rays long
12109 Stem a little villous, Lvs. sessile lanc. smooth ciliated : lower serrated at end, Rays long numerous
12110 Stem quite simple pilose, Lvs. lanc acute serrated smooth, Raceme term. simple erect, Rays long
12111 Stem simple erect smooth, Lvs. lanc. serrated smooth tapering and elongated at the base, Clusters erect
12112 Stem hairy round, Lvs. lanc. rather hairy beneath, Clusters erect, Rays elongated
12113 Lvs. ov.-obl. rough like the corymbose stem with minute rigid hairs : the lowermost serrat. ; upper entire, [Clusters compact, Rays twice the length of the obtuse calyx

12114 Pedunc. branched, Lvs. reniform narrowed somewhat lobed downy, Petioles auricled at end
12115 Pedunc. branched, Lvs. cordate 5-lobed toothed woolly, Petioles with appendages, Ray 3-flowered

12116 Heads corymbose, Lvs. cordate somewhat angular downy beneath, Petioles auricled at base

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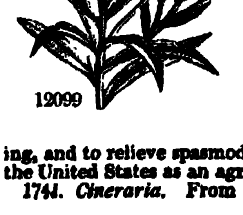
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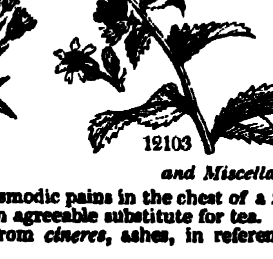
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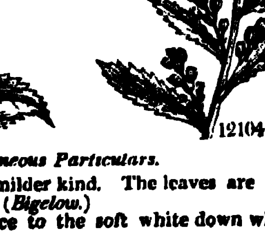
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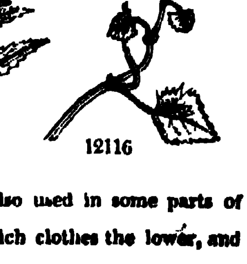
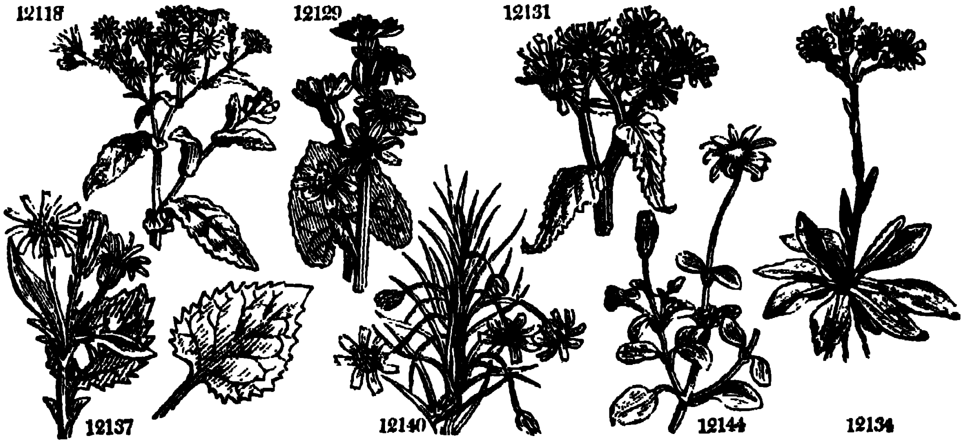

12116

and Miscellaneous Particulars.

ing, and to relieve spasmodic pains in the chest of a milder kind. The leaves are also used in some parts of the United States as an agreeable substitute for tea. (*Bigelow.*)

1741. *Cineraria.* From *cineres*, ashes, in reference to the soft white down which clothes the lower, and

12117	láctea *W. en.*	milk-colored	♄	⊔	or	3	jn.jl	W	......	1816.	C	l.p	
12118	cruénta *W.*	purple-leaved	♄	⊔	or	2	f.my	Pu	Canaries	1777.	R	p.l	Bot. mag. 406
12119	hýbrida *W. en.*	hybrid	♄	⊔	or	2	f.my	Pu	......	...	C	p.l	
12120	populifólia *H. K.*	Poplar-leaved	♄	⊔	or	2	jn.s	R	Canaries	1780.	C	p.l	Vent. malm. 100
12121	lobáta *W.*	lobed	♄	⊔	or	3	jn.au	Y	C. G. H.	1774.	C	p.l	
12122	malvæfólia *W.*	Mallow-leaved	¥	⊔	or	2	au	Y	Azores	1777.	R	p.l	
12123	Petasites *B. M.*	Butter-bur-lvd	♄	⊔	or	3	f.d	Y	Mexico	1812.	C	l.p	Bot. mag. 1536
12124	discolor *W.*	white-leaved	■	□	or	4	jl.au	Y	Jamaica	1804.	C	l.p	
12125	elátior *Bouché*	tall	£	⊔	or	5	jl au	W	......	...	D	l.p	
12126	parviflora *Bieb.*	small-flowered	♃	△	or	2	jl.au	Y	Caucasus	1820.	D	l.p	
12127	americána *W.*	American	■	□	or	6	...	Y	Grenada	1825.	C	p.l	
12128	bicolor *L.*	two-colored	♄	⊔	or	2	jl.au	Y	......	...	C	co	
12129	speciósa *Schrad.*	shewy	♃	△	or	6	jl.au	Y	Siberia	1815.	D	co	Bot. reg. 812
12130	sibírica *W.*	Siberian	♃	△	or	4	jn.au	Y	Siberia	1784.	C	co	Bot. mag. 1869
12131	gigantéa *H. K.*	gigantic	♃	△	or	4	jl au	Y	Cape Horn	1801.	D	co	Exot. bot. 2. t.65
12132	glaúca *W.*	glaucous-leav'd	♃	△	or	6	jn.jl	Y	Siberia	1790.	D	co	Gmel. sib. 2. t.74
12133	palústris *W.*	marsh	♃	△	or	3	jn jl	Y	England	mar.	D	m.s	Eng. bot. 151
12134	campéstris *W.* *integrifólia* E. B.	mountain	♃	△	or	½	my.jn	Y	England	ch.pa.	D	co	Eng. bot. 152
12135	longifólia *W.*	long-leaved	♃	△	or	2	jn.au	Y	Austria	1792.	D	co	Jac. aust.2. t.181
12136	cordifólia *W.*	heart-leaved	♃	△	or	2	jl.au	Y	Austria	1739.	D	co	Jac. aust 2. t.176
12137	alpína *W.*	Alpine	♃	△	or	2	jn.au	Y	Austria	1683.	D	co	Jac. aust.2. t.177
12138	marítima *W.*	Sea Ragwort	♄	⊔	or	2	jl.s	Y	S. Europe	1633.	C	l.p	Lob. ic. t.227. f.2
12139	canadénsis *W.*	Canadian	♃	△	or	2	jn.au	Y	Canada	1739.	D	co	
12140	linifólia *W.*	Flax-leaved	♄	⊔	or	2	jn au	Y	C. G. H.	...	C	l.p	Jac.schœ.3.t.308
12141	humifúsa *W.*	trailing	¥	⌊△⌋	or	¼	jl.au	Y	C. G. H.	1704.	R	p.l	
12142	viscósa *W.*	clammy	¥	⌊○⌋	or	2	jn.au	Y	C. G. H.	1774.	C	p.l	Ja.frag.12 t.7.f.2
12143	lanáta *W.*	woolly	♄	⊔	or	3	my.s	Pu	Canaries	1780.	C	p.l	Bot. mag. 53
12144	amelloídes *W.*	blue-flowered	♄	⊔	or	1½	f.s	B	C. G. H.	1753.	S	p.l	Bot. mag. 249
1742.	CALO'TIS. *R. Br.*	Calotis.					*Compositæ.*		*Sp.* 1—2.				
12145	cuneifólia *R. Br.*	wedge-leaved	£	⌊△⌋	pr	1	my.jn	B	N. Holl.	1819.	D	co	Bot. reg. 504
1743.	KAULFUS'SIA. *Nees*	Kaulfussia.					*Compositæ.*		*Sp.* 1.				
12146	amelloídes *Nees.*	Cape Aster-like	£	⌊△⌋	pr	1	jl.au	B	C. G. H.	1819.	D	co	Bot. reg. 490
1744	I'NULA. *W.*	Inula.					*Compositæ.*		*Sp.* 25—37.				
12147	Helénium *W.*	Elecampane	♃	△	or	4	jl au	Y	Britain	m. me.	D	co	Eng. bot. 1546
12148	O'culus-Christi *W.*	hoary	♃	△	or	1½	jl s	Y	Austria	1759.	D	co	Jac. aust.3. t 223
12149	británnica *W.*	creeping-rooted	♃	△	or	2	jl s	Y	Germany	1759.	D	co	Fl. dan. t. 413
12150	unduláta *W.*	wave-leaved		○	or	1	jl o	Y	Egypt	1739	S	co	
12151	índica *W.*	Indian		[○]	or	1½	jl.o	Y	E. Indies	1739.	S	co	Bur zeyl.t.55.f 2
12152	squarrósa *W.*	net-leaved	♃	△	or	1	jl.s	L.Y	Italy	1768.	D	co	Plu.alm. t 16 f 1
12153	viscósa *W.*	clammy	¥	⌊△⌋	or	1½	jl au	Y	S. Europe	1596.	C	p.l	Jac.vind. 2. t.165
12154	tuberósa *P. S* *Erigeron tuberósum* W	tuberous-rooted	♃	△	or	1½	jl.au	Y	S. Europe	1640.	D	co	Mor s.7 t.19.f.20
12155	salicína *W.*	Willow-leaved	♃	△	or	2	au.s	Y	N. Europe	1648.	D	co	Fl. dan t. 786
12156	glandulósa *W.*	glandular	♃	△	or	2	jl.au	Y	Georgia	1804.	D	co	Bot. mag. 1907
12157	Bubónium *W.*	Austrian	♃	△	or	1½	jl s	Y	Austria	1801.	D	co	Jac.aus.5.ap.t.19
12158	hírta *W.*	hairy	♃	△	or	1	jn.s	Y	Austria	1759.	D	co	Jac. aust.4. t 358
12159	suavéolens *W.*	woolly-leaved	♃	△	or	1¼	jn.au	Y	S. Europe	1758.	D	co	Jac. vind. 3. t. 51
12160	Vaillántii *W.*	Vaillant's	♃	△	or	2	jn.au	Y	France	1739.	D	co	
12161	móllis *Bernhardi*	soft	♃	△	or	2	jn au	Y	......	...	D	co	
12162	odóra *W.*	fragrant	♃	△	or	1½	jn.au	Y	S. Europe	1821.	D	co	M.h.3 s.7.t.21.f.6
12163	mariána *W.*	American	♃	△	or	1	jl.au	Y	N. Amer	1742.	D	co	Mill.ic 1. t.57. f.1
12164	germánica *W.*	German	♃	△	or	4	jn jl	Y	Germany	1759.	D	co	Jac. aust 2. t 134
12165	ensifólia *W.*	sword-leaved	♃	△	or	¾	jl.s	Y	Austria	1793.	D	co	Jac. aust.2. t.162
12166	crithmifólia *W.*	Samphire-leav.	♃	△	or	2	au s	Y	England	sal m.	D	co	Eng bot. 68
12167	provinciális *W.*	oval-leaved	♃	△	or	1	jl au	Y	France	1778.	D	co	
12168	montána *W.*	mountain	♃	△	or	1½	jl au	Y	S. Europe	1759.	D	co	Garid. aix. t. 10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History, Use, Propagation, Culture,

often the upper surface of the leaves. C. discolor, populifolia, &c. are popular half-shrubby plants, well calculated for bearing the confined air of a sitting room. Most of the hardy herbaceous species are fine ornamental plants of easy culture. C. lanata and amelloides flower the greater part of the year; the former species is considered the handsomest of the genus; its petals exteriorly are of a most vivid purple, interiorly they are white.

1342. *Calotis.* The name has been derived from καλος, beautiful, and ους ωτος, an ear, in allusion to the two membranous ear-shaped paleæ of the pappus. A pretty little New Holland herbaceous plant.

1743. *Kaulfussia.* Named after Dr. George Frederick Kaulfuss, professor of botany at Halle, a distinguished living Cryptogamic botanist. A small plant with bright blue flowers.

1744. *Inula.* The derivation of this word is uncertain. The Latins applied it to a plant which was eaten as

12117 Lvs. cordate angular downy beneath, Corymbs terminal panicled, Scales of invol. recurved at end
12118 Heads corymbose, Lvs. cordate angular toothed purple beneath, Petioles winged auricled at base
12119 Pedunc. about 1-headed, Branches corymb. Lvs. cord. angular toothed downy beneath, Petioles winged
12120 Heads corymbose, Lvs. cordate subangular downy beneath, Petioles with many appendages at end
12121 Heads subcorymbose, Lvs. roundish many-lobed smooth, Petioles auricled at base, Invol. calyculate
12122 Heads cymose, Lvs. cordate angular downy beneath, Petioles simple
12123 Leaves large round lobed downy and green on each side
12124 Heads corymbose, Leaves oblong lanc. acuminate toothletted smooth white beneath
12125 Lvs. cord. subangular smooth above downy beneath, Petioles with an appendage at top, Heads corymb.
12126 Stem simple, Heads panicled, Lvs. smooth tooth. : lower deltoid stalked : upper obl. lanc. amplexicaul.
12127 Panicles axillary, Lvs. alternate stalked broad lanc. serrated smooth above hoary beneath [above
12128 Heads corymb. Invol. hoary pubesc. Lvs. obl. pinnatif. at base : segm. somew. toothed shining and smooth
12129 Raceme simple, Lvs. reniform toothletted, Petiole inflat. Stem simple leafy, Bractes in the midd. of stalk
12130 Raceme simple, Lvs. cordate blunt toothletted smooth, Stem simple 1-leaved
12131 Heads corymb. Lvs. cauline ov. acute finely serrated downy beneath : petioles winged at base ; radic. cord.
12132 Raceme simple, Lvs. spatulate cordate entire smooth, Stem simple
12133 Heads corymbose, Lvs broad lanc. tooth-sinuated, Stem villous
12134 Heads umbellate, Stem simple, Lvs. downy : radical ovate subcrenulate ; cauline lanc. entire

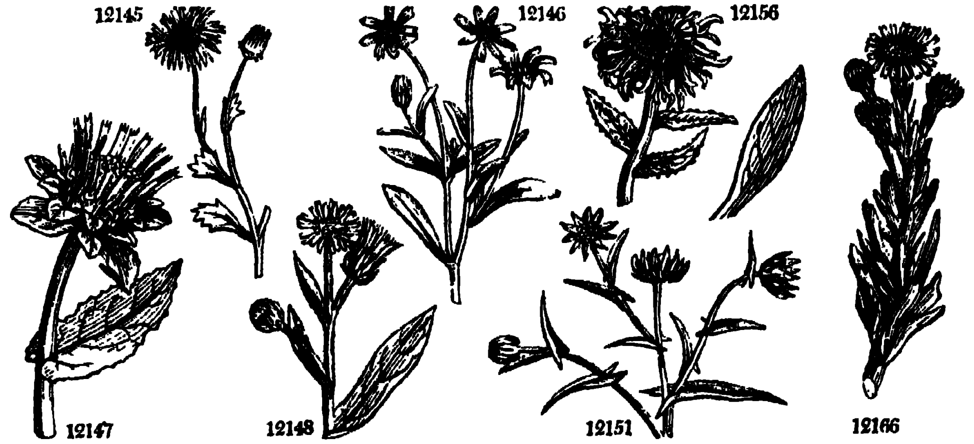
12135 Heads in corymbose umbels, Stem simple, Lvs. somewhat toothed : radic. spatulate ; caul. obl. lanc.
12136 Panicle few-headed, Stem simple, Lvs. all stalked cordate doubly toothed, Petioles toothed at base
12137 Heads corymbose, Lvs. pinnated : term. pinnæ large cordate cut-toothed ; lateral cuneate toothed at end
12138 Heads panicled, Invol. downy, Lvs. pinnatifid : segments blunt about 3-lobed downy beneath
12139 Heads panicled, Lvs. pinnatifid subvillous : segments sinuated, Stem herbaceous
12140 Pedunc. 1-headed axillary, Lvs. linear subulate glabrous, Stem shrubby
12141 Pedunc. 1-headed, Lvs. reniform somewhat angular, Petioles auricled at end or naked
12142 Pedunc. 1-headed, Lvs. pinnatifid lobed acute viscid fleshy
12143 Pedunc. 1-headed, Lvs. cordate roundish with 7 angles woolly beneath
12144 Pedunc. 1-headed, Lvs. opposite ovate naked

12145 Leaves cuneate cut-toothed at end

12146 The only species

12147 Lvs. amplexic. somewhat toothed ovate rugged downy beneath, Scales of the involucre downy
12148 Leaves amplexic. oblong entire hirsute, Stem pilose corymbose
12149 Leaves amplexic. lanc. serrated at base pilose beneath, Stem corymbose villous
12150 Leaves amplexic. cordate lanceolate wavy
12151 Leaves amplexic. cordate lanc. quite smooth serrated, Stem corymbose smooth, Pedunc. 1-headed filiform
12152 Leaves oval rigid sessile serrulate scabrous netted, Scales of invol. ovate reflexed
12153 Leaves sessile reflexed at base lanc. serrated, Stem downy clammy, Peduncles axillary leafy
12154 Leaves sessile lanc.-lin. Stem pilose branched, Branches spreading 1-headed, Root tuberous

12155 Leaves lanc. recurved serrate scabrous, Branches angular, Lower heads tallest
12156 Lvs. sess. obl. obsoletely serrated : serratures glandular, Stem hairy 1-headed, Scales of invol. lanc. villous
12157 Lvs. sess. obl. with cartilaginous teeth scabrous rigid, Stem corymbose, Scales of invol. blunt squarrose
12158 Lvs. sessile lanc. bluntly serrated rigid pilose, Stem villous 1-headed, Scales of invol. lanceolate
12159 Leaves ellipt. narrowed at base stalked pilose : lower toothed, Stem many-flowered
12160 Leaves sessile oblong lanc. serrated downy beneath, Heads stalked about 4 in terminal umbels
12161 Leaves lanc. acute serrulate hairy, Lvs. of invol. lanc. hairy outer reflexed
12162 Leaves amplexicaul. toothed very hairy : radical ovate ; cauline lanceolate
12163 Leaves sessile oblong lanc. attenuated at base obtuse entire mucronate with a gland, Pedunc. fil if. viscid
12164 Leaves sessile obl. acute entire scabrous, Stem branched at top, Heads corymbose
12165 Leaves sessile lin. acuminate nerved smooth scattered, Stem about 1-headed
12166 Leaves linear fleshy generally 3-pointed
12167 Leaves subserrate downy beneath : radical stalked ovate, Stem erect 1-flowered
12168 Leaves lanc. hirsute entire, Stem 1-headed, Invol. short imbricated

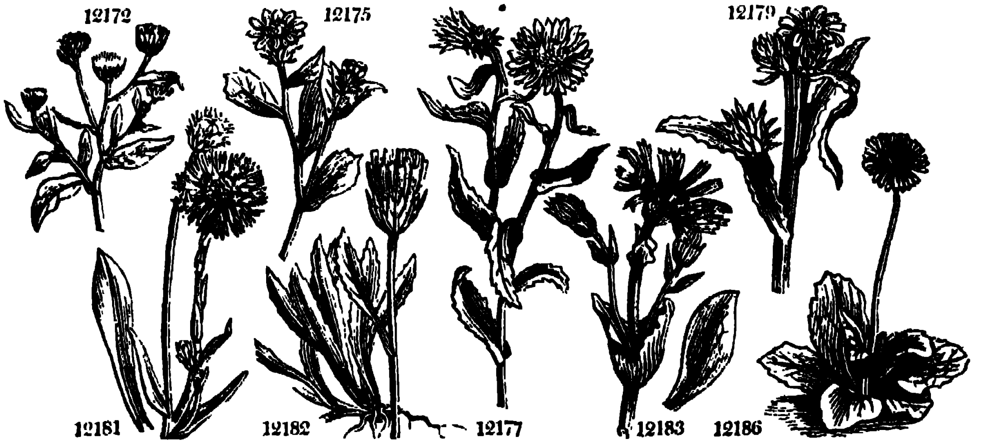


and Miscellaneous Particulars.

a preserve with sugar. Inuleæ in many respects resemble Anthemideæ, Senecioneæ, and Nassauvieæ, especially in their style; but they are perfectly well characterized by the peculiarities of their ovarium, pappus, stamens, and corolla. They are also related to Carlineæ. They are found in every part of the world, and especially in southern Africa; almost all the Compositæ of the southern latitudes being referable to them.

I. Helenium, called Elecampane, from the officinal name Enula campana, is one of the largest of British herbaceous plants. It was formerly esteemed a tonic, and is still retained in the Materia Medica, though little used. Bruised and macerated in wine, with balls of ashes and whortle berries, it dyes a blue color. The young branches of I. Crithmifolia are frequently sold in the London markets for samphire, to which they bear some resemblance in appearance, but none in virtues.

12169	bifrons *W.*	Italian	♃	△	or	1½	jn.au	Y	S. Europe	1713.	D	co	Herm. par. t.127
12170	saturejoides *W.*	Savory-leaved	■	☐	or	1	...	Y	Vera Cruz	1733.	C	l.p	Rel. Hous.8. t.19
12171	fœ'tida *W.*	stinking		○	or	2	jn.au	Y	Malta	1688.	S	co	Boc. sic. 26. t. 13
1745.	PULICA'RIA. *Gærtn.*	PULICARIA.					*Compositæ.*		*Sp.* 3.				
12172	vulgáris *Gærtn.*	Small Fleawort		○	w	1	au.s	Y	England	moi h.	S	co	Eng. bot. 1196
12173	arábica *Link.*	Arabian	♃	△	pr	1½	au.s	Y	Arabia	1823.	D	co	Pluk.al. t 149.f.4
12174	dysentérica *Link.*	meadow	♃	△	un	2	au.s	Y	England	wat.pl.	D	co	Eng. bot. 1115
1746.	GRINDE'LIA. *W.en.*	GRINDELIA.					*Compositæ.*		*Sp.* 5—7.				
12175	glutinósa *H. K.*	glutinous	♄	⊔	or	2	ja.d	Y	Mexico	1803.	C	l.p	Bot. reg. 187
12176	inuloides *W. en.*	Inula-like	♄	⊔	or	1½	jn.s	Y	Mexico	1815.	C	l.p	Bot. reg. 248
12177	squarrósa *Ph.*	Snake's-headed	£	⊔△	or	2	jl.s	Y	Missouri	1811.	D	l.p	Bot. mag. 1706
12178	angustifólia *Kunth.*	narrow-leaved	£	⊔△	or	1	jl.s	Y	Mexico	1822.	D	l.p	Bot. reg. 781
12179	ciliáta *Nutt.*	ciliated	♃	◐	or	1½	jl.s	Y	N. Amer.	1821.	D	l.p	Hook. ex. fl. 45
1747.	PODOLE'PIS. *H. K.*	PODOLEPIS.					*Compositæ.*		*Sp.* 2.				
12180	rugáta *H. K.*	wrinkle-scaled	£	⊔△	or		jl.au	W	N. Holl.	1803.	C	s.p	Lab.no.h.2 t.208
12181	acumináta *H. K.*	sharp-scaled	£	⊔△	or		my au	W	N. S. W.	1803.	C	s.p	Bot. mag. 956
1748.	CHÆTANTHE'RA. *Fl. per.*	CHÆTANTHERA.					*Compositæ.*		*Sp.* 1—2.				
12182	ciliáta *Fl. per.*	ciliated	£	⊔△	or	2	jl.au		Chili	1822.	D	co	
1749.	AR'NICA. *W.*	ARNICA.					*Compositæ.*		*Sp.* 5—34.				
12183	montána *W.*	mountain	♃	△	or	1	jl.au	Y	Europe	1731.	D	p.l	Bot. mag. 1749
12184	scorpioides *W.*	alternate-leav.	♃	△	or	½	jl.au	Y	Austria	1710.	D	p.l	Bot. cab. 913
12185	Dorónicum *W.*	Alpine	♃	△	or	1½	jl.au	Y	Austria	1816.	D	l.p	Jac. aust. 1 t. 92
12186	Bellidiástrum *W.*	Daisy-leaved	♃	△	or	1	jn.au	W	Austria	1570.	D	p.l	Bot. mag. 1196
12187	glaciális *W.*	ice	♃	△	or	1	jn.au	Y	Switzerl.	1823.	D	p.l	Jacq. ic. t. 586
1750.	GERBE'RIA. *Burm.*	GERBERIA.					*Compositæ.*		*Sp.* 1—2.				
12188	crenáta *Lindl.*	crenated	£	⊔○	pr	½	jl.au	Pu	C. G. H.	1822.	D	p.l	Bot. reg. 855
1751.	DORO'NICUM. *W.*	LEOPARD'S-BANE.					*Compositæ.*		*Sp.* 6—11.				
12189	Pardaliánches *W.*	great	♃	△	or	3	my	Y	Britain	m.pas.	D	co	Eng. bot. 630
12190	scorpioides *W.*	mountain	♃	△	or	3	ap.jn	Y	Germany	...	D	co	
12191	austriacum *W.*	Austrian	♃	△	or		ap.jn	Y	Austria	1816.	D	co	Jac. aust. t 130
12192	altáicum *W.*	Siberian	♃	△	or	1	jn.au	W	Siberia	1783.	D	s.l	P.ac.p.1779. t.16
12193	orientále *W. en.*	oriental	♃	△	or	1	jn.au	Y	Caucasus	1815.	D	l.p	
12194	plantagineum *W.*	Plantain-leav'd	♃	△	or	2	my	Y	Europe	1570.	D	co	
1752.	PERDI'CIUM. *H. K.*	PERDICIUM.					*Compositæ.*		1—12.				
12195	Anándria *H. K.*	Siberian	♃	△	un	¼	mr		Siberia	1759.	D	co	Gm.sib 2.t 68.f.1
1753.	TETRAGONOTHE'CA. *W.*	TETRAGONOTHECA.					*Compositæ.*		*Sp.* 1.				
12196	helianthoides *W.*	Sunflower-like	♃	△	or	4	au.o	Y	Virginia	1726.	D	p.l	Sch. han.3. t. 263
1754.	XIMENE'SIA. *W.*	XIMENESIA.					*Compositæ.*		*Sp* 1.				
12197	encelioides *W.*	Mexican	£	⊔△	or	3	jn.n	Y	Mexico	1795.	S	l.p	Cav. ic. 2 t. 178
1755.	HELE'NIUM. *W.*	HELENIUM.					*Compositæ.*		*Sp.* 4—8.				
12198	autumnále *W.*	smooth	♃	△	or	3	au.o	Y	N. Amer.	1729.	D	p.l	Sch. han.3. t.250
12199	pubéscens *W.*	downy	♃	△	or	3	au.s	Y	N. Amer.	1776.	D	p.l	
12200	quadridentátum *W.*	wing-stalked	♃	⊔△	or	3	my.o	Y	Louisiana	1790.	D	l.p	Bot. reg. 598
12201	quadripartitum *Link.*	four-parted	♃	⊔△	or	3	my.o	Y	......	1823	D	l.p	



History, Use, Propagation, Culture,

1745. ***Pulicaria.*** So named in allusion to its property of driving away fleas, *pulices*. See Conyza. P. dysenterica has its specific name from having cured certain Russian soldiers of the bloody flux. It is called by our old authors middle flea-bane, and was supposed by its smoke in burning to chase away fleas and other insects. Forskahl says, it is named in Arabic *Rara ejub*, or *Job's tears*, from a notion that Job used a decoction of this herb to cure his ulcers. Of course it was formerly recommended to cure the itch. P. vulgaris is also said to drive away fleas and gnats.

1746. ***Grindelia.*** A handsome genus of herbaceous plants, with neat foliage, and pretty yellow flowers. They are sometimes called Donia.

1747. ***Podolepis.*** From πους, a foot, and λεπις, a scale. The stalks of the flowers are covered with scales.

1748. ***Chætanthera.*** From χαιτη, hair, and ανθηρα, an anther, the anther being furnished with a hairy tuft.

1749. ***Arnica.*** This is said to be a corruption of *ptarmica*, derived from πταιρω, to sneeze. The Arnica montana is a powerful sternutatory; in the Vosges it is even called *tabac* on that account. The whole plant has important medicinal properties; it is fortifying, diuretic, emmenagogue, vulnerary, antiseptic, resolvative, and sternutatory. The root powdered is employed in diarrhœa, dysentery, and quartan fevers; it is also applied outwardly to bad ulcers, and in cases of gangrene. The flour is used in asthenia, rheumatic pains,

12169 Leaves ovate-oblong decurrent toothed entire at end, Flowers corymbose clustered
12170 Leaves sessile opp. linear lanc. entire dotted beneath, Pedunc. long 1-headed
12171 Leaves lanceolate linear entire, Corymbs branched, Rays of flowers very short

12172 Leaves amplexicaul. oblong wavy villous, Stem erect panicled, Pedunc. 1-fl. opposite the leaves
12173 Leaves oblong sessile, Pedunc. filiform, Invol. cylindrical
12174 Leaves oblongo-cordate amplexic. rugged downy, Stem woolly panicled, Scales of involucre setaceous

12175 Leaves ovate-obl. serrated, Involucres viscid
12176 Leaves sessile obl. lanceolate acuto serrated at end not viscid
12177 Leaves obl. amplexicaul. serrated, Scales of involucre filiform at end revolute squarrose
12178 Stems simple, Lower leaves spatulate: upper linear-oblong serrated 1-nerved
12179 Leaves oblong blunt half-amplexicaul. ciliate serrated, Leaves of invol. linear flat bristle-pointed

12180 Scales of invol. rugose blunt, Stem quite simple
12181 Scales of invol. equal ovate acuminate, Stem nearly simple

12182 Leaves lanceolate ciliated

12183 Leaves ovate entire: cauline twin opposite
12184 Leaves toothed, Teeth acuminate: radical stalked elliptical roundish; cauline alternate oblong
12185 Leaves remotely toothed hirsute: radical stalked obl. narrowed at base; caul. alternate obl. lanceolate
12186 Scape 1-headed naked, Leaves stalked obovate repand
12187 Leaves somewhat toothed and hairy: radical stalked obl. rounded at base; caul. altern. obl. lanceolate

12188 Leaves obovate crenate smooth, Scape 1-headed

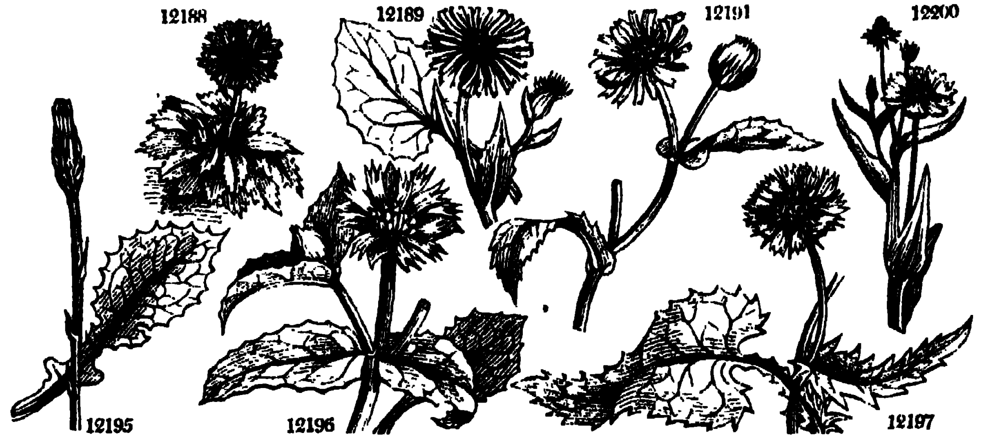
12189 Leaves cordate repando-dentate: radical ones petiolate; cauline ones amplexicaul.
12190 Leaves remotely toothletted: upper oblong amplexicaul.; lower ovate stalked, Petioles winged auricled
12191 Leaves toothletted: upper lanc. amplexicaul.; lower spatulate ovate; radical cordate stalked
12192 Leaves toothed obov. amplexic.: radical obov. spatulate narrowed into the stalk, Stem simple 1-headed
12193 Smooth, Radical leaves cordate deeply toothed; cauline oblong amplexicaul. Stem about 1-headed
12194 Downy, Lower leaves stalked ovate with winged petioles: upper amplexicaul.; all toothed

12195 Leaves stalked or ovate toothed subsinuate at base downy beneath: the old ones quite smooth

12196 The only species

12197 The only species

12198 Leaves serrated quite smooth
12199 Leaves serrated downy
12200 Lower leaves pinnatifid: upper entire smooth, Florets of disk 4-toothed
12201 Leaves lanceolate decurrent, Ray of corolla 4-parted



and Miscellaneous Particulars.

bruises, gutta serena, and paralysis of the bladder. The root is given in doses of six to twelve grains; the flowers of from three to four grains. Dr. Thomson observes, that in the hands of British practitioners it has not merited the eulogium of the French and German. (*Lond. Disp.* p. 169.)

1750. *Gerberia.* T. Gerber, a German naturalist, is only known as a traveller in Russia. A very pretty little greenhouse plant with neat purple flowers.

1751. *Doronicum.* Derived from the Arabic name *Doronigi.* *Pardalianches* is from παρδος, a tiger, and αγχειν, to strangle; on account of the use said formerly to have been made of the plant for the purpose of destroying wild animals.

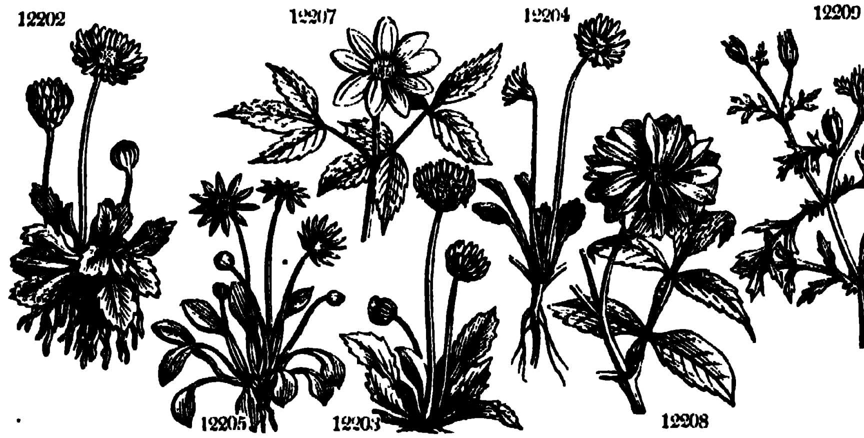
1752. *Perdicium.* A name given by Pliny to a plant of which the partridge, *perdrix*, is very fond. The plant is not now recognised.

1753. *Tetragonotheca.* From τετρα, four, γωνια, an angle, and θηκη, a capsule, in allusion to the four angles of the grains.

1754. *Ximenesia.* Named by the Abbé Cavanilles, after Joseph Ximenez, a Spanish apothecary, who is said to have attended to plants.

1755. *Helenium.* Named after the celebrated Helen, who is said to have availed herself of the cosmetic properties of the plant named after her. That is believed to be the modern Inula Helenium; the ancient name being unoccupied, it has been applied to this American genus, which resembles the other.

1756. BEL'LIS. *W.*	DAISY.					*Compositæ.*		*Sp.* 3—4.				
12202 perénnis *W.*	common	£	Δ	pr	¼	mr.au	W	Britain	past.	D	co	Eng. bot. 424
β horténsis	*large-double*	£	Δ	pr	¼	mr.au	R	......	...	D	co	Bot. mag. 228
γ fistulósa	*double-quilled*	£	Δ	pr	¼	mr.au	R	......	...	D	co	
δ prolífera	*Hen & Chicken*	£	Δ	pr	¼	mr.au	St	......	...	D	co	
12203 sylvéstris *W.*	large Portugal	£	Δ	pr	½	my.jl	W	Portugal	1797.	D	co	Bot. mag. 2511
12204 ánnua *W.*	annual		○	pr	¼	mr.jl	W	S. Europe	1759.	S	co	Bot. mag. 2174
1757. BEL'LIUM. *W.*	BELLIUM.					*Compositæ.*		*Sp.* 2.				
12205 bellidioides *W.*	small		○	pr	¼	jn.s	W	Italy	1796.	S	s.p	Lam. ill. t. 684
12206 minútum *W.*	dwarf	⚘	Δ	cu	1in	jn.o	W	Levant	1772.	D	co	Sc.ac.up.1.t.5.f.2
1758. DAH'LIA. *Cav.*	DAHLIA.					*Compositæ*		*Sp.* 2—3.				
12207 supérflua *H. K.*	fertile-rayed	⚘	Δ	or	6	jl.n	Pu	Mexico	1789.	R	h.l	Cav. ic. 1. t. 80
12208 frustránea *H. K.*	barren-rayed	⚘	Δ	or	6	s.n	Sc	Mexico	1802.	R	h.l	Cav. ic. 2. t. 226
β coccinea	*scarlet*	⚘	Δ	or	6	s.n	Sc	Mexico	1802.	R	h.l	Bot. mag. 762
γ aurántia	*Orange-colored*	⚘	Δ	or	6	s.n	Or	Mexico	1802.	R	h.l	
δ lútea	*yellow*	⚘	Δ	or	6	s.n	Y	Mexico	1802.	R	h.l	
1759. BŒBE'RA. *W.*	BŒBERA.					*Compositæ.*		*Sp.* 1.				
12209 chrysanthemoides *W.*	Chrysanth.-like		○	pr	1½	o	Y	Carolina	1821.	S	l.p	
1760. TAGE'TES. *W.*	TAGETES.					*Compositæ.*		*Sp.* 8—12.				
12210 lúcida *W.*	sweet-scented	£	[Δ]	or	1	jl.n	Y	S. Amer.	1798.	D	p.l	Bot. mag. 740
12211 pátula *W.*	French Marygold		○	or	2	jl.o	Y.o	Mexico	1573.	S	co	Bot. mag. 150
12212 erécta *W.*	African Marygold		○	or	3	jn.s	Y	Mexico	1596.	S	co	Lam. ill. t. 684
12213 minúta *W.*	small-flowered		○	or	2	au.o	Pa.Y	Chili	1728.	S	co	Dil.el.t.280.f.362
12214 tenuifólia *W.*	fine-leaved		○	or	3	jl.o	Y	Peru	1797.	S	co	Bot. mag. 2045
12215 clandestína *Lag.*	concealed		○	or	3	jl.o	Y	Mexico	1823.	S	co	
12216 micrántha *Cav.*	small-flowered		○	or	3	jl.o	Y	Mexico	1822.	S	co	
12217 glandulósa *Schrank.*	glandular		○	or	3	jl.o	Y	S. Amer.	1819.	S	co	
1761. HETEROSPER'MUM. *W.*	HETEROSPERMUM.					*Compositæ.*		*Sp.* 1—3.				
12218 pinnátum *W.*	wing-leaved		○	un	2	au.s	Y	New Spain	1799.	S	co	Cav. ic. 3. t. 267
1762. SCHKUH'RIA. *W.*	SCHKUHRIA.					*Compositæ.*		*Sp.* 1.				
12219 abrotanoides *W.*	Wormwood-lvd.		○	un	2	jl.s	Y	Mexico	1798.	S	co	Sch.ha.3.t.250.b.
1763. PEC'TIS. *W.*	PECTIS.					*Compositæ.*		*Sp.* 2—7.				
12220 ciliáris *W.*	ciliated		[○]	un	1	jl	Y	Hispanio.	1793.	S	co	Plum. ic.151. f. 2
12221 linifólia *W.*	Flax-leaved		[○]	un	1	jl.au	Y	Jamaica	1732.	S	co	Sl.jam.1.t.149.f.3
1764. LONGCHAMP'SIA. *Willd.*	LONGCHAMPSIA.					*Compositæ.*		*Sp.*				
12222 capillifólia *Willd.*	hair-leaved		○	pr	¼	jn.jl	W	B[illegible]ary	1822.	S	co	



History, Use, Propagation, Culture.

1756. *Bellis.* So called from *bellus*, pretty. Every one knows the daisy.

1757. *Bellium.* See Bellis, from which this genus differs chiefly in the pappus of the grains.

1758. *Dahlia.* Named after Andrew Dahl, a Swedish botanist, and pupil of Linnæus. Continental botanists call the genus Georgina. This genus grows in Mexico, in sandy meadows, and till the peace of 1814 was more cultivated in France than in England: at present it is one of the most fashionable hardy plants. Though its leaves are coarse, resembling those of the common dwarf elder, yet the flowers are showy, and continue in beauty till late in autumn. The plants grow freely in any soil or situation; but the poorer the ground is, the smaller the size of the plant, and the earlier and more abundant the flowers. The single-flowered varieties of D. superflua are almost without end; the double varieties of both species are much less numerous. Any number of the former may be raised from seeds, which ripen in abundance, and if sown in February on artificial heat, and transplanted in the end of April, they will flower in the July or August following. The double varieties are increased by dividing the roots, or by grafting, or by cuttings; they may also be sometimes raised from seeds. A very general way in which both kinds are propagated is by cuttings. They may be either taken from the root-shoots in spring, or the tops of the young shoots early in summer; the lower end of each cutting should be cut smoothly off in the middle of a joint, and all the leaves left on, excepting those that would be buried in planting the cutting. If planted in sandy soil, on a gentle bottom heat, and covered with a hand-glass, they will soon strike root, and produce both flowers and tubers the same autumn. The double sorts are grafted on tubers of the single varieties much in the manner of whip-grafting, but without a tongue. There must be no buds on the tuber; cut off a slice from the upper part of it, in a sloping direction, and make, at the bottom of the part so cut, a ledge, whereon to rest the graft; next, cut the scion sloping to fit, it should contain two joints, and be cut so that one of these may be at the bottom of it to rest on the ledge; from that joint the scion will occasionally put forth roots; from the other the future stem will be formed. Having tied the graft, clay it as in common grafting; then put the root in fine mould, burying half the graft, and place the pot in a gentle moist heat under a glass. If this be done in March, the plant may be shifted into a larger pot in April, and planted out in the end of May.

As the Dahlia is a bulky plant, it requires either to be grown in a very large pot, or in from three quarters to a yard and a half of surface. They look well in rows, or occurring singly in a shrubbery.

The treatment of the Dahlia bears a considerable resemblance to that of the potato and the marvel of Peru; as soon as the frost has blackened the tops of these three plants, their roots require to be taken up, and

12202 Scape naked single-headed, Leaves obovate crenate

12203 Scape naked single-headed, Leaves obovate crenate 3-nerved
12204 Stem somewhat leafy

12205 Stolones creeping, Scapes 1-headed, Leaves spatulate
12206 Stem leafy capillary

12207 Rachis of lvs. winged, Leafl. ovate acumin. serrated shining and smooth beneath, Outer invol. reflexed
12208 Rachis of lvs. naked, Leaflets ovate acuminate serrated roughish beneath, Outer invol. spreading

12209 Leaves pinnated : leaflets linear pinnatifid-toothed

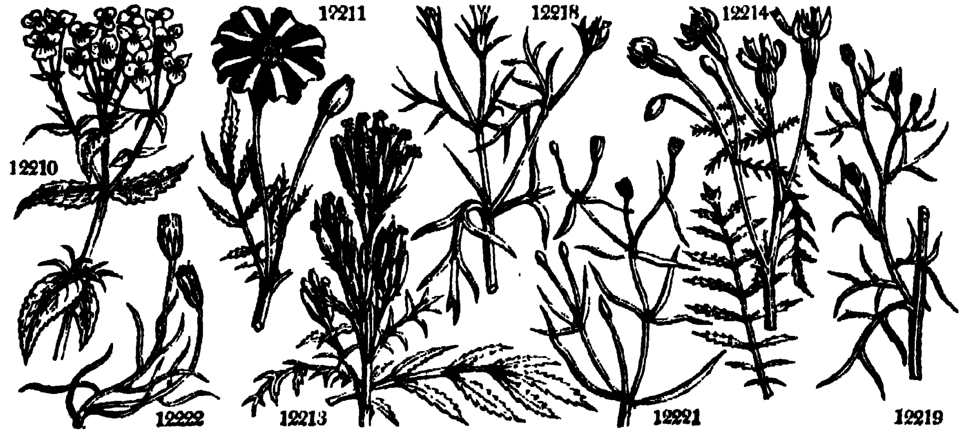
12210 Leaves simple lanceolate finely serrated ciliate at base
12211 Leaves pinnated : leafl. lanc. ciliate-serrated, Pedunc. 1-headed thickened, Inv. smooth, Stem spreading
12212 Leaves pinnated : leaflets lanc. ciliate-serrated, Pedunc. 1-headed ventricose, Invol. angular, Stem erect
12213 Leaves pinnated : leafl. lanc. serrated ; term. subdecurrent, Pedunc. many-fl. scaly, Flowers dense
12214 Leaves pinnated : leaflets linear serrated ; lower serratures long, Stem panicled, Invol. clavate
12215 Leaves pinnated : leaflets filiform, Ray not longer than involucrum
12216 Leaves pinnated : leaflets filiform subulate entire, Stem branched diffuse, Pedunc. 1-headed solitary
12217 Leaves pinnated : lower segments lanceolate ; upper linear, Serratures with intermediate glands

12218 Stem smooth, Leaves pinnated, Leaflets linear subulate entire

12219 Leaves altern. pinnate linear setaceous

12220 Leaves linear amplexicaul. ciliated at base attenuated at end
12221 Leaves linear sessile acute ciliated at base

12222 Stem filiform branched, Leaves woolly subulate filiform, Peduncles naked axillary 1-headed



and Miscellaneous Particulars.

kept in a dry place, where the frost cannot get at them till spring. About April they may be divided, and planted in the open air where they are to flower ; or, what is more common planted in large pots, and forwarded in heat till the middle of May, when they may be turned out of the pots where they are finally to remain. In this case they will flower a month or six weeks earlier than by the other method, and will, in general, continue flowering till they are destroyed by frost. Some care is requisite to preserve the roots sufficiently moist and plump to maintain the living principle, and yet not to rot, shrivel, or freeze them. The safest mode is to plant them in pots or boxes of dry earth, and place them in a shed or cellar, or under an ample covering of litter thatched over.

1759. *Bœbera.* Bœber is said by Willdenow to have been a learned Russian botanist.

1760. *Tagetes.* Named after Tages, a Tuscan divinity, the son of Genius, and the grandson of Jupiter. T. patula is a tender annual, deservedly popular, from the brilliancy and variegation of its flowers : it is cultivated in Japan, China, and many parts of India, but does not appear to be indigenous of those countries. The varieties of T. erecta differ chiefly in the shades of the same color, but there are also double and quilled flowers. Both species are raised from seeds, upon a moderate hot-bed, in the beginning of April, and when they are three inches high, transplanted to where they are finally to remain. The varieties are very apt to degenerate, and can only be reproduced by the most careful selection and separation.

This genus serves for the basis of M. Cassini's Tagetineæ, which do not appear to be at all distinct from Heliantheæ, from which they differ principally in the form of their ovarium. M. Cassini's principal motive for distinguishing them as a separate race, seems to have been his wish to reduce his tribe of Heliantheæ, which he finds too extensive. Nearly all the species are found in America.

1761. *Heterospermum.* From ἑτερος, various, and σπερμα, seed ; on account of the variable shape of the grains.

1762. *Schkuhria.* Named in honour of Christian Schkuhr, an acute German botanist, who has published some of the most accurate and useful, if not splendid, botanical works which the world has seen. It is to be regretted that their rarity makes them more generally unknown than they deserve to be.

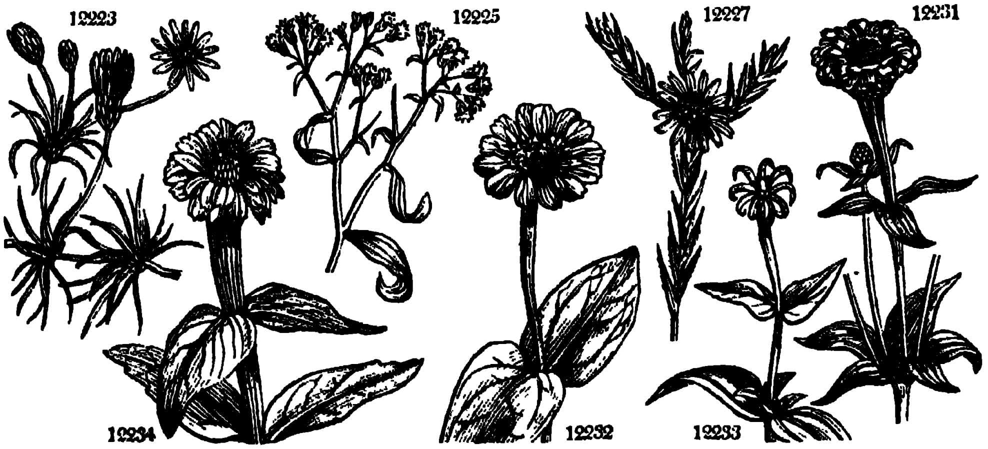
1763. *Pectis.* From *pecten*, a comb, to which the teeth of the pappus may be compared.

1764. *Longchampsia.* So named after Doctor J. L. A. Loiseleur Deslongchamps, a French botanist, author of a useful Flora Gallica, in two small duodecimo volumes, published at Paris, the first in 1806, the second in 1807.

1765. LEYSE'RA *W.*	LEYSERA.					*Compositæ.*		*Sp.* 2—8.				
12223 gnaphalódes *W.*	woolly	♄	⌴	pr	2	jl.s	Or	C. G. H.	1774.	S	p.l	Jac. ic. 3. t. 588
12224 squarrósa *W.*	squarrose	♄	⌴	pr	2	jl.s	Or	C. G. H.	1815.	C	l.p	Pluk. al.t.302.f.3
1766. SELLO'A. *Spreng.*	SELLOA.					*Compositæ.*		*Sp.* 1.				
12225 glutinósa *Spreng.*	clammy	♃	⊡	un	3	f	Y	Brazil	1819.	D	co	Bot. reg. 162
1767. RELHA'NIA. *W.*	RELHANIA.					*Compositæ.*		*Sp.* 3—19.				
12226 squarrósa *W.*	cross-leaved	♄	⌴	pr	1¼	my.jn	Y	C. G. H.	1774.	C	p.l	
12227 púngens *W.*	pungent	♄	⌴	pr	1½	s	Y	C. G. H.	1820.	C	p.l	Bot. reg. 587
12228 lateriflóra *W.*	side-flowering	♄	⌴	pr	½	s	Y	C. G. H.	1823.	C	p.l	
1768. ZIN'NIA. *W.*	ZINNIA.					*Compositæ.*		*Sp.* 6—8.				
12229 pauciflóra *W.*	yellow-flowered		⊙	or	2	jl.au	Y	Peru	1753.	S	r.m	Mill. ic. 1. t. 64
12230 multiflóra *W.*	red-flowered		⊙	or	2	jn.o	R	N. Amer.	1770.	S	r.m	Bot. mag. 149
12231 verticilláta *W.*	whorl-leaved		⊙	or	2	jl.au	R	Mexico	1789.	S	r.m	Bot. rep. 189
12232 élegans *W.*	purple-flowered		⊙	or	2	jn.s	Pu	Mexico	1796.	S	r.m	Bot. mag. 52
12233 tenuiflóra *W.*	slender-flowered		⊙	or	2	jl.au	Sc	Mexico	1799.	S	co	Bot. mag. 555
12234 hýbrida *B M.*	hybrid		⊙	or	2	jn.jl	Sc	S. Amer.	1818.	S	co	Bot. mag. 2123
1769. CHRYSAN'THEMUM. *W.*	CHRYSANTHEMUM.					*Compositæ.*		*Sp.* 23—43.				
12235 pinnatifidum *W.*	cut-leaved	♄	⌴	pr	3	my.au	W	Madeira	1777.	C	p.l	
12236 atrátum *W.*	fleshy-leaved	♃	△	pr	1	jl.au	W	Austria	1731.	D	co	
12237 heterophýllum *W.*	various-leaved	♃	△	pr	1	jl.au	W	Switzerl.	1806.	D	co	
12238 Leucánthemum *W.*	Ox-eye Daisy	♃	△	pr	2	jn.jl	W	Britain	past.	D	co	Eng. bot. 601
12239 montánum *W.*	mountain	♃	△	pr	2	jn.jl	W	France	1759.	D	co	Jac. obs. 4. t. 91
12240 ceratophylloides *All.*	Buckshorn	♃	△	pr	½	jn jl	W	Piedmont	1803.	D	co	Al.ped.1.t.37.f.1
12241 graminifólium *W.*	Grass-leaved	♃	△	pr	1	my jl	W	Montpel.	1739.	D	co	Jac. obs. 4. t. 92
12242 monspeliénse *W.*	Montpelier	♃	△	pr	1	jn.s	W	Montpel.	1739.	D	co	Jac. obs. 4. t. 93
12243 Achilléæ *W.*	Milfoil-leaved	♃	△	pr	1	jn.au	W	Italy	1775.	D	co	Mic. gen. 34.t.29
12244 argénteum *W.*	silver-leaved	♃	△	pr	1	jl.au	W	Levant	1731.	D	co	
12245 árcticum *W.*	northern	♃	△	pr	½	jn au	W pu	Kamtsch.	1801.	D	co	W. hort. ber. 33
12246 carinátum *W.*	three-colored		⊙	pr	2	jl.o	W.pu	Barbary	1796.	S	co	Bot. mag. 508
12247 púmilum *W. en.*	small		⊙	pr	¼	jl.o	W	......	1806.	S	co	
12248 sylvéstre *W. en.*	field	♃	△	pr	2	jn.jl	W	......	1804	D	co	
12249 ségetum *W.*	corn		⊙	w	1½	jn.au	Y	Britain	corn f.	S	co	Eng. bot. 540
12250 Mycónis *W.*	tongue-leaved		⊙	pr	1	jl.au	Y	Italy	1775.	S	co	Jac. obs. 4. t. 94
12251 itálicum *W.*	Italian	✱	△	pr	2	jn.jl	Pa.Y	Italy	1796.	D	co	
12252 coronárium *W.*	garden		⊙	or	4	jl.s	Y	Sicily	1629	S	co	Lam.ill.t.678.f.6
12253 indicum *L.*	Indian	♣		un	2	s.n	Y	China	...	C	r.m	
12254 sinénse *Sab.*	Chinese	♣		spl	3	o.n		China	1764.	C	r.m	

Garden Varieties.

1 Purple *Bot. mag.* 327
2 Changeable White *Bot. mag.* 2042
3 Quilled White *Bot. reg.* 4
4 Superb White *Bot. reg.* 455
5 Tasselled White
6 Quilled Yellow
7 Sulphur Yellow
8 Golden Yellow *Bot. reg.* 4*
9 Large Lilac
10 Rose or Pink
11 Buff or Orange
12 Spanish Brown
13 Quilled flamed Yellow *Hort. trans.* 4. t. 14
14 Quilled Pink *Bot. reg.* 616
15 Early Crimson *Hort. trans.* 5. t. 3
16 Large quilled Orange *Hort. trans.* 5. t. 3
17 Expanded light Purple
18 Quilled light Purple
19 Curled Lilac *Sweet's fl. Garden*, t. 7
20 Superb clustered Yellow *Sweet's fl. Garden*, t. 14
21 Semidouble quilled Pink *Hort. trans.* 5. t. 17*
22 Semidouble quilled White



History, Use, Propagation, Culture,

1765. *Leysera.* So called in honor of Frederick William Leyser, a German, and author of a Flora Halensis in 1783.

1766. *Selloa.* Named after Mr. Sello, a German botanist, employed by the Prussian government in collecting materials for a natural history of Brazil. An uninteresting stove perennial plant, remarkable for having florets mixed among the leaves of the involucrum.

1767. *Relhania.* In honor of the Rev. Richard Relhan, an English botanist, and author of a Flora Cantabrigiensis. The genus was named by L'Heritier. Plants of no beauty and easy culture.

1768. *Zinnia.* John Godfrey Zinn, a German, published, in 1757, a Catalogue of the Plants in the Garden of Gottingen, &c. Handsome border annuals, with persistent flowers, of the same culture as Tagetes.

1769. *Chrysanthemum.* From χρυσος, gold, and ανθος, a flower; because many of the kinds bear flowers of a yellow color. *Chrysanthème*, Fr., *Goldblume*, Ger., and *Crisantemo*, Ital. C. sinense is one of the handsomest of autumnal flowers, and of the easiest possible culture in any soil. It is a popular flower in China, whence all our numerous varieties have very recently been obtained, and chiefly through the exertions of the Horticultural Society. These are certainly a very great addition to the beauties of the flower garden in a dry autumn, and to the green-house or conservatory in the wet and foggy months of November and December, when scarcely any thing else is in flower. The plants are propagated by divisions, by suckers, and by cuttings;

12223 Leaves linear subulate ciliate rough, Scales of invol. lanceolate
12224 Leaves filiform downy, Scales of invol membranous reflexed

12225 The only species

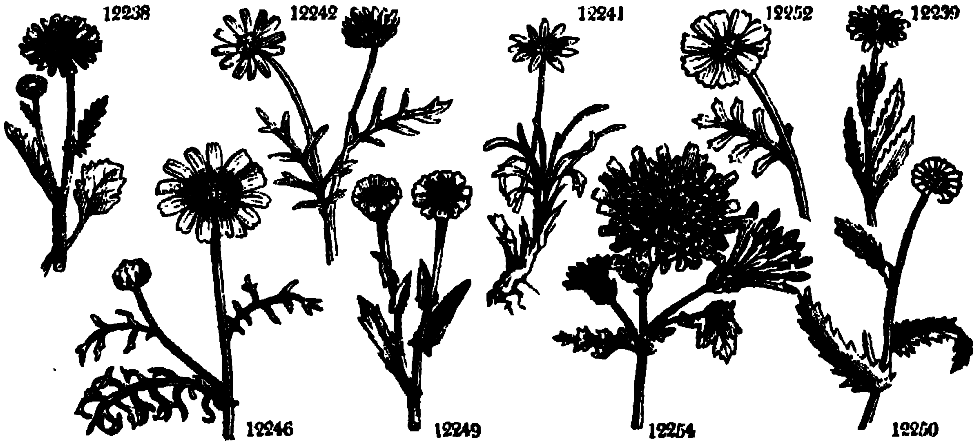
12226 Leaves oblong acuminate nerveless recurved at end
12227 Leaves linear somewhat pungent striated beneath, Heads sessile
12228 Leaves linear villous, Pedunc. lateral shorter than leaf

12229 Heads sessile, Leaves opp. cordate-lanceolate amplexicaul. sessile
12230 Heads stalked, Leaves opp. ovate-lanceolate somewhat stalked
12231 Heads stalked, Leaves whorled ovate-lanceolate stalked, Ray double
12232 Heads stalked, Leaves opp. cordate ovate sessile amplexicaul. Stem hairy, Paleæ serrated
12233 Heads stalked, Leaves opp. cordate lanceolate stalked, Ray linear-lanceolate reflexed
12234 Leaves cordate sessile rough at edge, Grains of disk with 2 awns : of the ray awnless

12235 Leaves smooth attenuated at base pinnatifid : segments cut
12236 Leaves all cuneiform oblong finely serrated, Stem simple 1-headed erect
12237 Leaves sessile : lower linear lanceolate serrated ; upper spatulate
12238 Leaves amplexic. obl. obt. cut pinnatifid at base ; radical ones obovate petiolate, Stem erect branched
12239 Lower leaves stalked spatulate serrate : upper lin. lanc. serrated, Stem 1-headed
12240 Leaves pinnated : pinnæ linear acute, Stem erect 1-headed
12241 Leaves linear nearly entire, Stem quite simple
12242 Lower leaves palmated : leaflets linear pinnatifid
12243 Leaves bipinnate : pinnæ oblong serrated, Heads corymbose
12244 Leaves bipinnate hoary : leaflets acute entire, Stem 1-headed simple
12245 Radical leaves 3-parted cut-toothed : cauline cuneiform 3-parted blunt
12246 Leaves bipinnated fleshy smooth, Scales of invol. keeled
12247 Leaves bipinnated linear subulate smooth, Stem erect somewhat branched
12248 Very near C. leucanthemum, but the lower leaves are more spatulate
12249 Leaves amplexic. glaucous inciso-serrate above toothed at the base
12250 Leaves lingulate blunt serrated, Scales of involucre equal
12251 Leaves bipinnate serrated, Rays length of disk, Stem procumbent
12252 Leaves bipinnatifid acute broadest externally, Stem branched
12253 Leaves flaccid stalked pinnatifid finely toothed : upper entire, Ray a little longer than flower
12254 Leaves coriaceous stalked sinuato-pinnatifid toothed glaucous. Ray very long

Garden Varieties.

23 Semidouble quilled Orange *Hort. trans.* 5. t. 17**
24 Late pale Purple
25 Quilled Salmon Color *Hort trans.* 5. t. 17*
26 Small Yellow *Hort. trans.* 5. t. 17**
27 Paper White
28 Pale Buff
29 Early Blush
30 Blush-Ranunculus-flowered
31 Changeable pale Buff
32 Two colored Red
33 Starry Purple
34 Brown Purple
35 Late quilled Yellow
36 Double Yellow Indian
37 Parkes's small Yellow
38 Tasselled Yellow
39 Tasselled Lilac
40 Semidouble quilled pale Orange
41 Golden Lotus-flowered
42 Two colored incurved
43 Yellow Waratah
44 Double White Indian

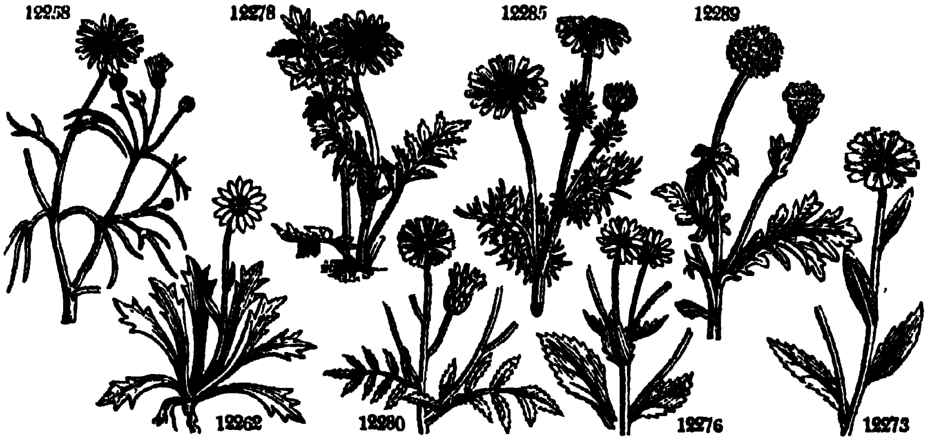


and Miscellaneous Particulars.

as they are very apt, in every case, to throw up suckers, the latter mode is decidedly the best. The cuttings may be taken from the side branches at any season from April to September; taken off before the end of May, they will flower the succeeding autumn; those taken off afterwards will not flower till next year. Chrysanthemums are so very prolific in suckers, that they soon become unsightly plants, and produce small and degenerate blossoms, unless frequently renewed from cuttings. The Chinese are said to do this every year; they take off the cuttings in May, strike them as we do, and then put each plant in a very small pot, in which it flowers the succeeding autumn. The plants are thus kept in a dwarf state, and clothed with green foliage from the ground to the flower. In order that the blossoms may be strong, they leave only one or two flower-buds on the summit of each plant, and they remove all suckers and side shoots till the blossom is over. This mode is now generally adopted with us; but sometimes the plants are retained a second, or even a third year, in which case care is requisite to leave no more stems, and to have no more suckers growing at one time than the roots can support in a vigorous state. As under this management the stems attain a great height, they require to be supported by a rod, and adjusted so as to form a symmetrical figure by a nice application of black threads, or small copper wires.

Sometimes the Chrysanthemum is grown in beds or borders, in which case the plants should be taken up every year and their superfluous suckers removed; or, which is better, they should be totally renewed by cuttings.

12255	paludósum *Desf.*	marsh		○	pr	1½	jn.jl	W	Barbary	1810.	S	co	Desf. atl.2. t. 238
12256	rotundifólium *W.&K.*	round-leaved	£	△	pr	1½	jn.jl	W	Hungary	1817.	D	co	
12257	anómalum *Lag.*	anomalous	£	△	pr	1	jn.jl	W	Spain	1816.	D	co	
1770.	PYRE'THRUM. *W.*	FEVERFEW.					*Compositæ.*		*Sp.* 32—47.				
12258	fœniculáceum *W.en.*	Fennel-leaved	▪	⌴	or	3	ja.d	W	Teneriffe	1815.	C	co	Bot. reg. 272
12259	crithmifólium *W.en.*	Samphire-leav.	▪	⌴	or	3	ja.d	W	Teneriffe	1815.	C	co	
12260	anethifólium *W.en.*	Dill-leaved	▪	⌴	or	3	ja.d	W	Teneriffe	1815.	C	co	
12261	latifólium *W. en.*	broad-leaved	£	△	pr	2	jn.jl	W	Pyrenees	1820.	D	co	
12262	Halléri *W.*	Haller's	£	△	pr	1	jn.jl	W	Switzerl.	1819.	D	co	Barr. ic. 458. f. 2
12263	ceratophylloides *W.*	Buckshorn-lvd.	£	△	pr	1	jn.jl	W	Piedmont	1819.	D	co	
12264	frutéscens *W.*	shrubby	▪	⌴	or	3	ja.d	W	Canaries	1699.	C	p.l	
12265	coronopifólium *W.en.*	Horn-leaved	▪	⌴	or	2	ja.d	W	Canaries	...	C	l.p	
12266	grandiflórum *W. en.*	great-flowered	▪	⌴	or	3	ja.d	W	Canaries	1815.	C	l.p	
12267	pinnatifídum *W.*	pinnatifid	£	△		2	my.jn	W	......	1823.	D	co	
12268	pulveruléntum *W.*	powdery	£	△	pr	1½	jn.au	W	Caucasus	1806.	D	co	
12269	sericeum *Bieb.*	silky	£	△	pr	1	jn.au	W	Iberia	1823.	D	co	
12270	parviflórum *W.*	small-flowered		○	un	2½	jn.au	W	......	1820.	S	co	
12271	speciósum *W. en.*	large-flowered	▪	⌴	or	3	ja.d	W	Canaries	1815.	C	l.p	
12272	ptarmicæfólium *W.*	Sneezewort-lv.	£	△	pr	1½	jl.au	W	Caucasus	1803.	D	co	
12273	serótinum *W.*	creeping-rooted	£	△	pr	1	s.o	W	N. Amer.	1731.	D	co	Jac. obs. 4. t. 90
12274	uliginósum *W.*	marsh	£	△	pr	1½	jl.s	W	Hungary	1816.	D	co	
12275	alpínum *W.*	Alpine	£	△	pr	½	jl.au	W	Switzerl.	1759.	D	co	
12276	Balsamíta *W.*	various-leaved	£	△	pr	2	jl.au	W	Levant	1779.	D	co	Jac. obs. 4. t. 89
12277	macrophýllum *W.*	large-leaved	£	△	pr	3	jl.au	W	Hungary	1803.	D	co	Pl. rar.hu.1. t.94
12278	róseum *W. en.*	scarlet-flower'd	£	△	cl	1½	au.s	Pk	Caucasus	1804.	D	co	Bot. mag. 1080
	Chrysánthemum coccíneum B. M.												
12279	achilleæfólium *Bieb.*	Milfoil-leaved	£	△	pr	2	au.s	Y	Caucasus	1823.	D	co	Gm. sib. t 86. f.2
12280	corymbósum *W.*	mountain	£	△	pr	1	jn.au	W	Germany	1596.	D	co	Jac. aust.4. t.379
12281	Parthénium *W.*	common	£	△	w	2	jn.s	W	Britain	rubb.	D	co	Eng. bot. 1231
	β *flore pléno*	*double-flowered*	£	△	or	2	jn.s	W	......	...	C	r.m	
12282	parthenifólium *W.*	Parthenium-lv.	£	△	pr	2	jn jl	W	Caucasus	1804.	D	co	Vent. cels. t. 43
12283	caucásicum *W.*	Caucasian	£	△	pr	½	jl.au	W	Caucasus	1804.	D	co	
12284	tenuifólium *W. en.*	slender-leaved	£	△	pr	1	jl.au	W	Caucasus	1806.	D	co	
12285	inodórum *W.*	scentless		○	pr	1	au.s	W	Britain	dry fi.	S	co	Eng. bot. 676
12286	marítimum *W.*	sea	£	△	pr	1	jn.o	W	Britain	sea sh.	D	co	Eng. bot. 979
12287	millefoliátum *W.*	many-leaved	£	△	pr	2	my s	Y	Siberia	1731.	D	co	Mill. ic. 1. t 9
12288	bipinnátum *W.*	wing-leaved	£	△	pr	¾	jn jl	Y	S beria	1796.	S	co	Gm.sib.2.t.85.f.1
12289	índicum *H. K*	Indian		○	un	¾	jn.s	Y	I ndies	1810.	C	p.l	Bot. mag. 1521
1771.	MATRICA'RIA. *W.*	MATRICARIA.					*Compositæ.*		*Sp.* 4.				
12290	suavéolens *W.*	sweet		○	un	1½	jn.au	W	Europe	1781.	S	co	
12291	Chamomílla *W.*	Wild Chamomile		○	w	1	my.jl	W	Britain	ro.sid.	S	co	Eng. bot. 1232
12292	capénsis *W.*	Cape	£	[○]	un	½	jl.s	W	C. G. H.	1699.	S	co	Seb.th.1. t.16. f.2
12293	pusílla *W. en*	small		○	un	½	jl.s	W	......	...	S	co	
1772.	BOLTO'NIA. *W.*	BOLTONIA.					*Compositæ.*		*Sp.* 2.				
12294	asteroides *W.*	Starwort-flow.	£	△	pr	2	au.o	F	N. Amer.	1758.	D	s.l	Bot. mag. 2554
12295	glastifólia *W.*	glaucous-leav'd	£	△	pr	1½	s	Pk	N. Amer.	1758.	D	s.l	Bot. mag. 2381
1773.	LIDBECK'IA. *W.*	LIDBECKIA.					*Compositæ.*		*Sp.* 2—3.				
12296	pectináta *W.*	silver-leaved	▪	⌴	pr	2	my.jn	Y	C. G. H.	1774.	C	l.p	Ber.ca.306.t.5.f 9
12297	lobáta *W.*	lobed	▪	⌴	pr	2	my.jn	Y	C. G. H.	1800.	C	l.p	Lam. ill.t.701.f.3
1774.	CE'NIA. *J.*	CENIA.					*Compositæ.*		*Sp.* 1.				
12298	turbináta *P. S.*	turbinated		○	un	1	jl.au	W	C. G. H.	1713.	S	co	Lam. ill.t.701.f.1
1775.	CO'TULA. *W.*	COTULA.					*Compositæ.*		*Sp* 5—29.				
12299	anthemoides *W.*	Anthemis-like		[○]	un	1	jl.au	Y	St. Helena	1696.	S	co	Dill. elt. t.23.f.25
12300	coronopifólia *W.*	Buckshorn-lvd.		[○]	w	½	jl.au	Y	C. G. H	1683.	S	co	Lam. ill.t.700.f.1



History, Use, Propagation, Culture,

Though these plants will grow in any soil, yet when in small pots they require a rich loam, and are the better for being watered, as in China, with liquid manure. The different varieties are well described by Mr. Sabine, in the fourth and fifth volumes of the Horticultural Transactions.

1770. *Pyrethrum.* An ancient Greek name, applied to this plant from its supposed resemblance to the G πυρεθρον of Dioscorides. That plant is believed to have been the Anthemis pyrethrum, or Pellitory of Spain, of the moderns, and to have received its name from the burning qualities of its root; πυρ, fire. All the plant of a yerethrum Parthenium has a strong unpleasant smell, and a bitter taste. It is used externally, in the form someslotion and of poultice, and internally as an infusion for colic, hysterical affections, and weak digestion. whence are some double-flowering varieties, which are very ornamental.

Horticult. *Matricaria.* So named on account of the use which is made of it in disorders of females. *Matricaire*, autumn, and *kraut*, Ger., and *Matricaria*, Ital. It excites menstruation. Chamomilla is an alteration of the when scarcely a

12255 Leaves all cuneiform oblong bluntly serrated, Stem branched diffuse
12256 Leaves stalked serrated : lower roundish ; upper ovate, Stem 1-headed
12257 Leaves with very narrow segments, Petioles very short connate

12258 Leaves pinnatifid fleshy : segments linear entire, Pedunc. long corymbose
12259 Leaves trifid fleshy ; segments somewhat toothed linear blunt, Pedunc. long subcorymbose
12260 Leaves bipinnatifid linear acute, Pedunc. 1-headed terminal
12261 Leaves lanceolate serrated : radical oblong, Stem 1-headed
12262 Cauline leaves lanceolate deeply toothed : radical pinnatifid, Stem 1-headed
12263 Leaves pinnatifid : segments of the lower linear lanc. entire or bifid ; upper linear entire
12264 Leaves fleshy pinnatifid linear toothed : upper linear trifid
12265 Leaves pinnatifid : segments lanc. somewhat 3-toothed fleshy, Pappus unequally toothed
12266 Leaves pinnatifid : segm. lanc. deeply toothed somewhat fleshy : upper lin. toothed, Pappus uneq. toothed
12267 Leaves downy glaucous subsessile lyrate pinnatifid unequally toothed, Heads corymbose
12268 Leave pinnate powdery, Leaflets pinnatifid blunt toothed, Pedunc. corymbose, Pappus toothed
12269 Leaves woolly bipinnate, Pinnæ and pinnules obl. imbricated, Stem 1-headed, Invol. woolly
12270 Leaves bipinnate : pinnæ lin.-filiform 2 or 3-parted, Stem erect branched, Pappus 2-lobed
12271 Leaves pinnatifid : segm. lanc. finely serrated, Grains subulate, Pappus unequally toothed
12272 Leaves linear serrulate, Heads corymbose
12273 Leaves lanc. : lower serrated at end ; upper entire, Branches corymbose
12274 Leaves lanc. all deeply serrated, Stem erect branched at end
12275 Lower leaves pinnatifid toothed : upper linear entire, Stem 1-headed
12276 Leaves ovate obl. serrated : radical stalked ; cauline sessile auricled at base, Heads corymbose
12277 Leaves hairy subsessile pinnatifid toothed blunt, Corymb terminal compound
12278 Leaves pinnated smooth : pinnæ once or twice pinnatifid with acute diverging segments, Invol. smooth

12279 Leaves bipinnate linear silky : pinnæ crossing, Pedunc. corymbose, Ray shorter than involucre
12280 Leaves pinnated, Pinnæ lanc. pinnatifid finely serrated : upper confluent, Pedunc. corymbose
12281 Lvs. petiol. flat bipinnate the segm. ovate cut, Pedunc. branch. corymb. Stem erect, Invol. hemispherical [pubescent
12282 Leaves pinn. : pinnæ obl. obt. pinnatifid toothed ; upper confluent, Stem virgate, Heads corymbose
12283 Leaves bipinnate : leaflets linear subulate, Stem 1-headed
12284 Rad. leaves bipinnate : pinnæ linear pinnatifid ; cauline bipinnatifid, Heads corymbose
12285 Leaves sess. bipinnatifid with segm. capillary, Stem branched spreading, Pappus entire
12286 Leaves bipinnatifid the segm. linear fleshy awnless, Stem diffuse branched, Pappus lobed
12287 Leaves bipinnate linear blunt, Stem ascending somewhat corymbose, Ray length of invol.
12288 Leaves hoary bipinnate linear blunt, Stem simple, Pedunc. twin, Ray shorter than disk
12289 Leaves pinnatifid : pinnæ cut-toothed, Pedunc. long nearly naked 1-headed, Scales of invol. blunt

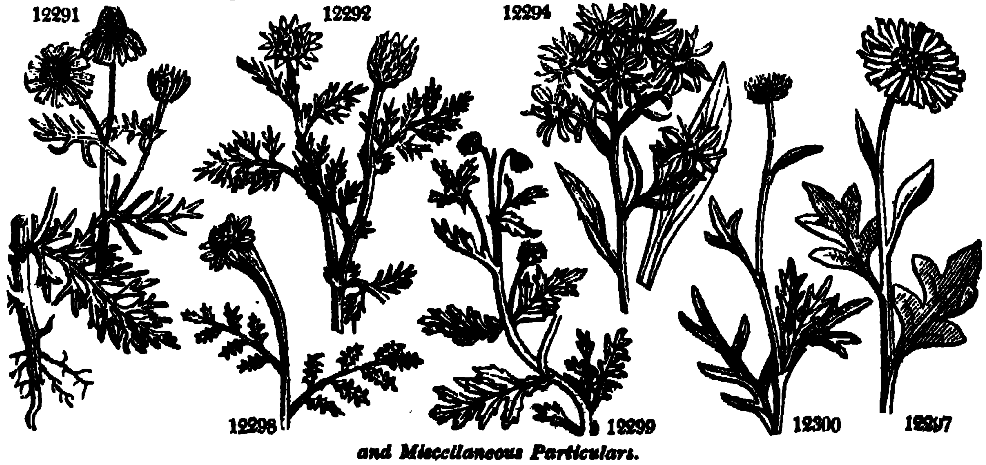
12290 Leaves triply pinnate, Scales of invol. acute
12291 Leaves glabrous bipinnatifid the segments capillary, Invol. nearly plane : its scales obtuse
12292 Leaves glabrous bipinnatifid : stem branched suffruticose
12293 Leaves pinn. somewhat fleshy, Pinnæ linear blunt, Scales of invol. blunt, Grains margined on one side

12294 Leaves all entire
12295 Lower leaves serrated

12296 Leaves pinnatifid glaucous beneath
12297 Leaves stalked 5-lobed

12298 Ray short white : red on the lower surface

12299 Leaves pinnate multifid dilated, Ray none
12300 Leaves lanc. lin. amplexicaul. pinnatifid toothed, Stem procumbent, Branches 1-headed



and Miscellaneous Particulars.

Greek *χαμαι μηλον*, a dwarf-apple, which Pliny informs us was applied to the plant, on account of its smelling of apples, or rather quinces. It is remarkable, that the Spaniards call it *mancinilla*, which also means a little apple. The chamomile of medicine is another plant. See Anthemis.

M. Chamomilla is supposed to possess the same qualities with the officinal chamomile (Anthemis nobilis), but in an inferior degree. Most of the species, and chiefly this one, are rejected by quadrupeds.

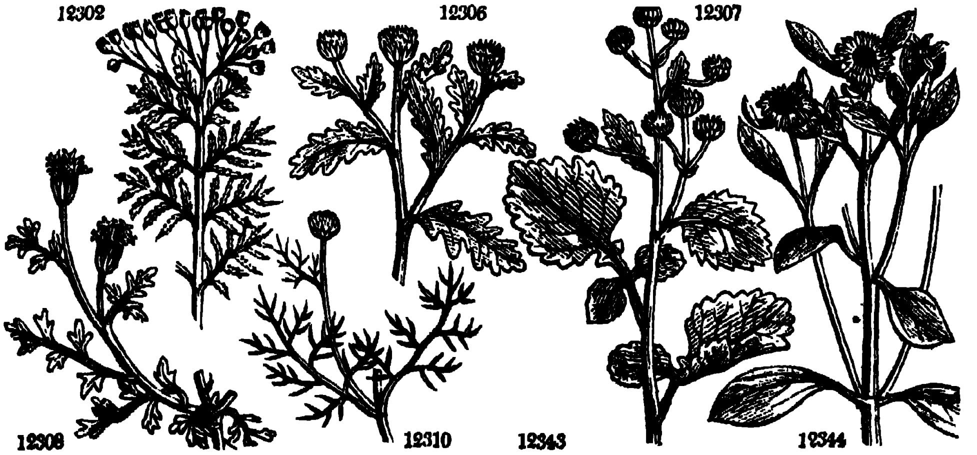
1772. *Boltonia.* Named after I. B. Bolton, an English botanist, who wrote a work upon the Ferns of Great Britain, and another upon the fungi growing about Halifax, published in 1788-9.

1773. *Lidbeckia.* E. G. Lidbeck, a German botanist, published some works upon agricultural matters.

1774. *Cenia.* From *κενος*, empty, in allusion to its inflated calyx.

1775. *Cotula.* A diminutive of Cota, an old name for some species of Anthemis, which this resembles in miniature.

12301	viscósa *W.*	clammy	£	[△]	un	½	au	W	Vera Cruz	1739.	D	l.p	
12302	tanacetifólia *W.*	Tansy-leaved		○	un	¾	jn.au	Y	C. G. H.	1783.	S	co	Plu. ma. t.430.f.7
12303	sphæránthus *Link.*	round-headed	£	[△]	un	2	my.jn	Y	Congo	1821.	D	co	
1776.	GRAN'GEA. *J.*	GRANGEA.					*Compositæ.*		*Sp.* 4—6.				
12304	cuneifólia *Lam.*	wedge-leaved		○	un	½	jl.s	Y	China	1816.	S	co	Lam. ill.t.699.f.2
12305	mínima *W.*	least		○	un	1in	jl.s	Y	China	1768.	S	co	Burm. in.t.58.f.3
12306	maderaspátana *Lam.*	Madras		[○]	un	¾	jl.au	Y	E. Indies	1780.	S	co	Lam. ill. t.699.f.3
12307	latifólia *Desf.* *Cótula bicolor* W.	two-colored		[○]	un	1½	jl.au	W.Y	E. Indies	1804.	S	co	Lam. ill. t.699.f.1
1777.	ANACY'CLUS. *W.*	ANACYCLUS.					*Compositæ.*		*Sp.* 6—11.				
12308	créticus *W.*	trailing		○	pr	1	jn.au	Y	Candia	1759.	S	co	Ann.mus.11.t.22
12309	orientális *W.*	oriental		○	pr	1½	jn.au	Y	Levant	1731.	S	co	Boe. lugd.1.t.110
12310	aúreus *W.*	golden-flowered		○	pr	½	jn.au	Y	Levant	1570.	S	co	Lam. ill.t.700.f.2
12311	valentínus *W.*	fine-leaved		○	pr	1	jn.jl	Y	Spain	1656.	S	co	Sch.ha.3 t.254.b.
12312	radiátus *Link.* *Anthemis valentina* W.	purple-stalked		○	pr	1½	jl.au	Y	S. Europe	1596.	S	s.l	Breyn. cent. t.75
12313	clavátus *Link.*	clubbed		○	pr	1½	jl.au	W	Barbary	1801.	S	co	Biv. cen. sic.1.t.7
1778.	AN'THEMIS. *W.*	CHAMOMILE.					*Compositæ.*		*Sp.* 29—47.				
12314	rigéscens *W. en.*	rigid	£	△	pr	2	jl.s	W	Caucasus	1805.	D	co	W. hor. be.1.t.62
12315	Cóta *W.*	Venetian		○	pr	1	jl.au	W	Italy	1714.	S	co	Plu. alm. t.17.f.5
12316	altíssima *W.*	tall		○	pr	6	au	W	S. Europe	1731.	S	co	
12317	marítima *W.*	sea		○	pr	1	jl.au	W	England	sea co.	S	s.l	Eng. bot. 2370
12318	tomentósa *W.*	downy	£	△	pr	½	jl.o	W	Levant	1795.	D	co	
12319	pubéscens *W.*	pubescent	£	△	pr	1	jl.au	W	S. Europe	1803.	D	co	
12320	míxta *W.*	simple-leaved		○	pr	1	jl.au	W	France	1731.	S	co	Mic. gen. t.30.f.1
12321	saxátilis *W. en.*	rock	£	△	pr	1	jl.au	W	Hungary	1807.	D	co	
12322	Chamomílla *W. en.*	various-leaved	£	△	pr	1	jl au	W	S. Europe	1807.	D	co	
12323	chía *W.*	cut-leaved		○	pr	1½	jn.o	W	Chio	1731.	S	co	
12324	nóbilis *W.* —*flore pleno*	common *double*	⚘	△	m	½	jl.s	W	Britain	gra.pa.	D	co	Eng. bot. 980
12325	arvénsis *W.*	corn	£	○	w	1	jn.au	W	Britain	dr. fi.	S	co	Eng. bot. 602
12326	austríaca *W.*	Austrian		○	w	1	my.au	W	Austria	1759.	S	co	Jac. aust. 5. t.444
12327	Cótula *W.*	stinking		○	w	1	jn.s	W	Britain	cor.fi.	S	co	Eng. bot. 1772
12328	fuscáta *W.*	brown-scaled		○	pr	1	jl.au	W	Portugal	1805.	S	co	
12329	montána *W*	mountain	£	△	pr	½	jl.o	Pu	Italy	1759.	D	co	Ger. prov. t. 8
12330	Pyréthrum *W.*	Pellitory of Spain	£	△	or	1	jn.jl	W	S. Europe	1570.	D	s.p	Bot. mag. 462
12331	globósa *W.*	globe	£	⌊△⌋	el	1	au.s	W	S. Europe	1570.	D	co	Jac. schœ.3.t 371
12332	tinctória *W.*	Ox-Eye	£	△	pr	1½	jn.n	Y	Britain	sto. pl.	D	co	Eng. bot. 1472
12333	discoídea *W.*	saw-leaved		○	pr	1	jl.au	Y	Italy	1800.	S	co	
12334	arábica *W.*	Arabian		○	pr	1½	jl.au	D.Y	Barbary	1759.	S	s.l	Smith spic.9.t.10
12335	apiifólia *R. Br.*	Parsley-leaved	£	⌊△⌋	pr	2	au.s	W	China	1819.	D	co	Bot. reg. 527
12336	punctáta *W.*	dotted	£	⌊⌋	pr	1	au.s	W	Barbary	1818.	S	co	Desf. atl. t. 239
12337	ruthénica *Bieb.*	Russian		○	pr	1½	my.jn	W	Tauria	1823.	D	co	
12338	fruticulósa *Bieb.*	shrubby	£	△	pr	1½	jn	W	Caucasus	1820.	D	co	
12339	coronopifólia *W.*	Buckshorn-lvd.	£	△	pr	1	jn.jl	W	Spain	1818.	D	co	
12340	alpína *W.*	alpine	£	△	pr	¾	jn.jl	W	Austria	1824.	D	co	Jac.aust.app.t.30
12341	carpática *W.*	Carpathian	£	△	pr	½	jn.jl	W	Carpathia	1820.	D	co	
12342	fállax *W.*	doubtful		○	pr	1	jl.au	W	......	1825.	S	co	
1779.	CENTROSPER'MUM. *Spreng.*	CENTROSPERMUM.					*Compositæ.*		*Sp.* 1.				
12343	chrysánthum *Spreng.*	yellow		○	pr	¾	jl.au	Y	Spain	1823.	S	co	
1780	SANVITA'LIA. *Cav.*	SANVITALIA.					*Compositæ.*		*Sp.* 1.				
12344	procúmbens *Cav.*	trailing	✱	○	un	1	jl.au	Y	Mexico	1798.	S	co	Bot. reg. 707



History, Use, Propagation, Culture,

1776. *Grangea.* A genus of Adanson's. The meaning of the word is unknown.

1777. *Anacyclus.* An abridgement of *Ananthocyclus*, which was the name originally proposed by Vaillant, and which does not appear to have been altered for the better. He formed it from α, privative, ανθος, a flower, and κυκλος, a circle; on account of the rows of ovaries without flowers, which are placed in a circle round the disk.

1778. *Anthemis.* From ανθος, a flower, on account of the multitude of flowers with which the plants are covered. A. nobilis is in considerable repute, both in the popular and scientific Materia Medica. The flowers, which are the parts used, have a strong and fragrant smell, and a bitter aromatic taste; both are extracted by water and alcohol. The active principles appear to be bitter extractive, resin, and essential oil. Medicinally, the flowers are considered tonic, carminative, and slightly anodyne: yet when a strong infusion of them is taken in a tepid state, it proves powerfully emetic. Given in substance, united with opium and astringents, if the bowels be easily affected, they have been successfully used for the cure of intermittents; and the infusion. In combination with ginger, or other aromatics, and the alkalies, is an excellent stomachic in dyspepsia, chlorosis, gout, flatulent cholic, and chronic debility of the intestinal canal. The tepid strong infusion is a ready emetic, and is often employed to promote the operation of other emetics. By coction in water, the essential oil is

12301 Leaves lyrate pinnated, Flowers radiant
12302 Leaves tripinnate : segment acute, Stem erect, Heads flosculose corymbose
12303 Stem hirsute, Leaves lyrate pinnatifid hairy, Heads terminal hemispherical

12304 Leaves cuneiform smooth 3-toothed stalked, Heads axill. sessile
12305 Leaves obl. cuneate repand-toothed stalked, Heads axill. sessile
12306 Leaves obl. sinuate toothed downy, Stem branched procumbent, Pedunc. 1-headed opp. the leaves
12307 Leaves obovate toothed cut at base stalked, Peduncles branched

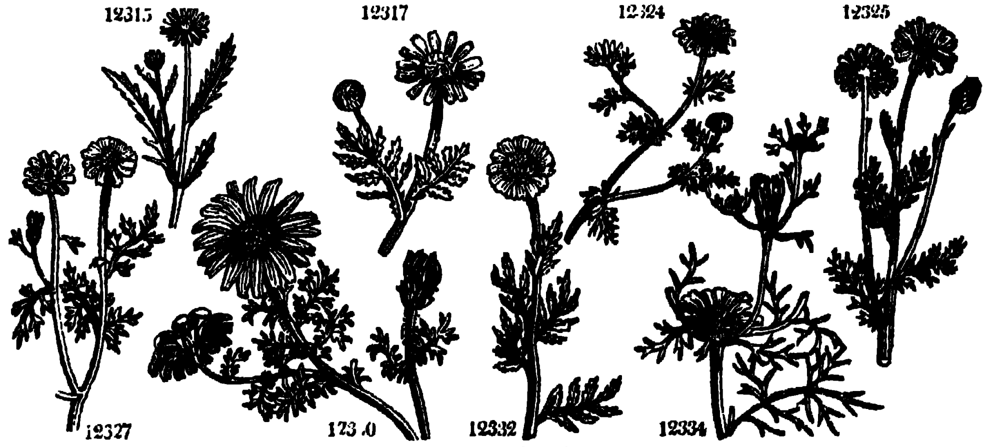
12308 Leaves bipinnate, Leaflets oblong, Stem procumbent
12309 Leaves bipinnate, Leaflets linear subulate flat, Stem ascending, Peduncle naked terminal
12310 Leaves bipinnate roundish hoary with excavated dots
12311 Leaves decompound linear : segm. divided roundish acute, Heads flosculose
12312 Leaves 3-pinnate, Pinn. linear-subulate downy, Stem branched divaricating, Pedunc. thick

12313 Leaves bipinnate linear, Pedunc. inflated, Grains winged

12314 Leaves bipinnatifid : segm. somewhat toothed rigid, Paleæ oblong acuminate
12315 Leaves bipinnatifid : segm. lin. subulate toothed, Paleæ round pungent dilated at base
12316 Leaves bipinnatifid : segm. lanc. somewhat toothed ; lower teeth reflexed, Paleæ lanc. cuspidate
12317 Leaves bipinnatifid dotted beneath : segm. lanc. entire, Grains naked, Stem herbaceous
12318 Snow-white, Leaves pinnate : pinnæ 3 or 5-fid, Invol. downy, Stem erect
12319 Leaves bipinnate : pinnæ linear, Stem erect and invol. downy, Inner scales sphacelate at end
12320 Leaves sessile pinnatifid : segments toothed, Stem erect branched
12321 Leaves pinnate : pinnæ linear entire subpubescent, Floral leaves simple, Branches 1-headed
12322 Rad. leaves bipinnatifid toothed : cauline pinnatifid somewhat toothed
12323 Leaves bipinnatifid stalked : segm. trifid oblong acute, Petioles sheathing, Sheaths toothed
12324 Lvs. bipinn. the segm. lin. subul. a little downy, Scales of recept. membranous scarcely long. than the disk
[entire pappus
12325 Lvs. bipinnatif. their segments lin. lanc. pubesc. Recept. conical its scales lanc. Pericarps crowned with an
12326 Recept. conical : paleæ obl. mucronate, Grains naked, Leaves bipinnate woolly
12327 Leaves bipinnatif glabrous their segm. subul. Receptacle conical its scales setaceous, Pappus O.
12328 Recept. subconical, Paleæ obl. blunt, Grains naked, Lvs. bipinnate linear filiform 3-parted
12329 Leaves pinnated downy : pinnæ linear trifid bluntish, Stem ascending, Pedunc. long naked downy
12330 Leaves 3-pinnate : leaflets linear, Stem decumbent, Branches axillary 1-headed
12331 Leaves hairy bipinnatifid : segments trifid lanc. linear, Stem nearly erect divided
12332 Leaves bipinnatifid serrated downy beneath, Stem erect branched subcorymbose
12333 Leaves bipinnate serrated smooth, Stem erect branched, Pappus membranous toothed cut on one side
12334 Leaves pinnated : pinnæ linear 3-parted, Stem proliferous, Heads solitary axillary sessile
12335 Leaves smooth pinnatifid : lobes cuneate trifid or cut, Heads solitary
12336 Leaves bipinnatifid dotted beneath : segments entire, Crown of grains toothed
12337 Leaves woolly bipinnate : pinnæ lanc. acute, Flowering branches corymbose, Recept. conical
12338 Leaves stalked silky bipinnate : segm. linear acute, Invol. downy, Rays ovate
12339 Leaves linear sessile pinnatifid : segm. entire, Stem erect branched
12340 Leaves sessile pinnatifid : segm. linear subulate pectinate entire, Stem downy 1-headed
12341 Leaves pinnated : pinnæ linear entire blunt, Stem downy 1-headed [edge
12342 Leaves pinnated revolute at edge : segm. lin. subul. subtrifid, Upper scales of invol. blunt with a membran.

12343 The only species, resembling a Calendula

12344 Stem procumbent, Leaves ovate entire



and Miscellaneous Particulars.

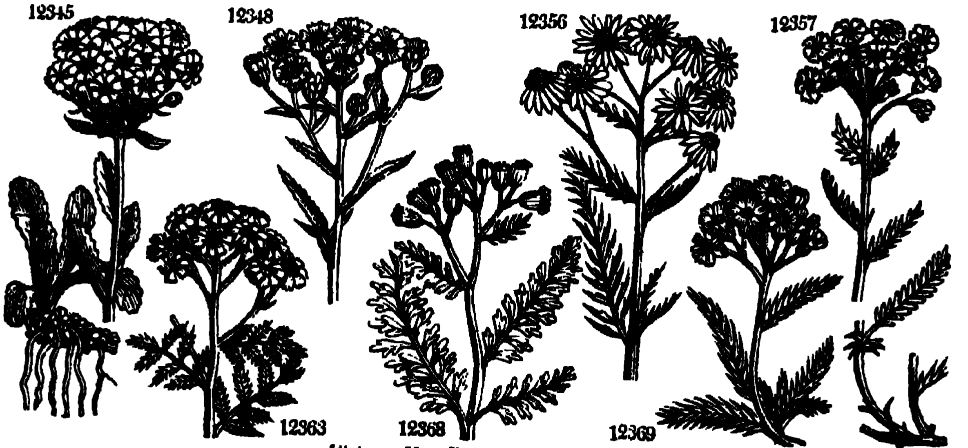
dissipated : chamomile flowers, therefore, ought never to be ordered in decoctions. Externally, they are used as fomentations in cholic, intestinal inflammation, and to phagedenic ulcers : and their infusion is also found to be an useful addition to emollient anodyne glysters in flatulent cholic, and in irritations of the rectum producing tenesmus. (*London Disp.* p. 158.) There is a double variety generally grown for the apothecaries ; it is more ornamental than the single, but much less efficacious as a medicine.

A. cotula is said by Linnæus to be a very grateful plant to toads ; to drive away fleas, and to annoy bees. It is a very common weed on soft rich soils and dunghills, and increases by seeds with amazing rapidity. The tribe of Anthemideæ, of which this genus is the example, are nearly related to Helianthеæ. In their style they resemble Inuleæ, Senecioneæ, and Nassauvieæ, but their floral organs are different. They inhabit Europe, Asia, and Africa, scarcely one has been found in America, or the southern parts of the world.

1779. *Centrospermum.* From κεντρον, a spur, and σπερμα, a seed, in allusion to the spiny points of the pappus. A small annual plant with the aspect of Calendula.

1780. *Sanvitalia.* Named by Lamarck without any explanation. A hardy annual plant, with flowers having a yellow ray and dark purple disk, like some species of Rudbeckia.

1781.	ACHILLE'A. *W.*	MILFOIL.					*Compositæ.*		*Sp.* 50—69.				
12345	linguláta *W.*	tongue-leaved	♃	△	or	1	jl.au	W	Hungary	1815.	D	co	Pl.rar.hun.1.t.2
12346	Hérba-róta *W.*	Herbarota	♃	△	or	½	jn.jl	W	France	1640.	D	co	All. ped. 1.t.9.f.3
12347	grandiflóra *M. B.*	great-flowered	♃	△	or	1	jl.au	W	Caucasus	1815.	D	co	
12348	Ptármica *W.*	Sneezewort	♃	△	or	1	jl.n	W	Britain	moi.pl.	D	co	Eng. bot. 757
	β *flore pléno*	*double-flowered*	♃	△	or	1	jl.n	W	......	...	C	co	
12349	cristáta *W.*	slender-branch.	♃	△	or	½	jl.au	W	Italy	1784.	D	p.l	
12350	Agératum *W.*	Sweet Maudlin	♃	△	or	2	au.o	Y	S. Europe	1570.	D	s.p	
12351	decolórans *W. en.*	pale-yellow	♃	△	or	1	jn.au	W.Y	......	1798.	D	co	
12352	speciósa *W. en.*	spear-leaved	♃	△	or	1½	jl.s	W	......	1804.	D	co	
12353	alpina *W.*	Alpine	♃	△	or	½	jl.n	W	Siberia	1731.	D	s.p	Bo. mu. 144.t.101
12354	serráta *W.*	saw-leaved	♃	△	or	2	au.s	Y	Switzerl.	1686.	D	co	
12355	Clavénnæ *W.*	silver-leaved	♃	△	or	½	jn.jl	W	Austria	1656.	D	p.l	Bot. mag. 1287
12356	impátiens *W.*	impatient	♃	△	or	2	jn.s	W	Siberia	1759.	D	co	Gme. si.2.t.83.f.1
12357	pectináta *W.* *ochroleúca* Waldst.	comb-leaved	♃	△	or	1½	au.s	Pa.Y	Hungary	1801.	D	co	Pl.rar.hun.1.t.34
12358	squarrósa *W.*	rough-headed	♃	△	or	1	jl.au	W	......	1775.	D	p.l	
12359	falcáta *W.*	sickle-leaved	♃	△	or	½	jn.s	Pa.Y	Levant	1739.	D	co	Lam. ill. t.683.f.3
12360	tenuifólia *W.*	slender-leaved		○	or	1	jn.au	Y	Levant	1733.	D	co	
12361	Santolina *W.*	Lavend.-cotton-lv.	♃	△	or	1	jn.au	Pa.Y	Levant	1759.	D	p.l	
12362	anthemoides *W.*	Chamomile-like	♃	△	or	½	jn.au	Pa.Y	......	...	D	co	
12363	atráta *W.*	black-cupped	♃	△	or	2	jl.s	W	Austria	1596.	D	co	Jac. aust. 1. t. 77
12364	biserráta *Bieb.*	biserrate	♃	△	or	1½	jn.jl	W	Albania	1820.	D	co	
12365	coronopifólia *W.*	Buckshorn-lvd.	♃	△	or	1½	jl.au	Pa.Y	Levant	1823.	D	co	Wil.achill.t.1.f.2
12366	álbida *W. en.*	whitish	♃	△	or	1	jl	Pa.Y	......	1819.	D	co	
12367	chamæ'melifólia *Dec.*	dwarf	♃	△	or	¾	jl	W	France	1825.	D	co	
12368	Gerbéri *W.*	Siberian	♃	△	or	1½	jl.au	Pa.Y	Siberia	1821.	D	co	Gmel.sib.t.83.f.2
12369	moscháta *W.*	musk	♃	△	or	2	jn.jl	W	Itally	1775.	D	co	Jac. aus.5.t.ap.33
12370	nána *W.*	dwarf	♃	△	or	½	jn.au	W	Italy	1759.	D	co	All. ped. 1.t.9.f.2
12371	crética *W.*	Cretan	♃	△	or	1	jl.au	W	Candia	1739.	D	p.l	Bocc. mus. t. 34
12372	ægyptiaca *W.*	Egyptian	♃	[△]	or	1	jl.s	Pa.Y	Levant	1640.	R	p.l	Tourn. it. 1. t. 87
12373	macrophýlla *W.*	large-leaved	♃	△	or	3	jl.au	W	Italy	1710.	D	co	Triumf. obs. t.23
12374	aúrea *W.*	golden-flower'd	♃	△	or	1	jn.s	Y	Levant	1739.	D	co	
12375	Eupatórium *W.*	Caspian	♃	△	or	2	jl.au	Y	Casp. Sho.	1803.	D	co	
12376	compácta *W.*	compact	♃	△	or	1	jl.au	Pa.Y	......	1803.	D	co	
12377	pubéscens *W.*	downy	♃	△	or	1	jn.s	L.Y	Levant	1739.	D	p.l	
12378	crithmifólia *W.*	Samphire-leav.	♃	△	or	½	jl.au	W	Hungary	1804.	D	p.l	Pl.rar.hun.1.t.66
12379	tanacetifólia *W.*	Tansy-leaved	♃	△	or	1	jl.au	Pk	Switzerl.	1658.	D	co	Moris.6.t.11.f.14
12380	distans *W.*	branching	♃	△	or	3	jl.au	W	Italy	1804.	D	co	All. ped. t. 53.f.1
12381	lanáta *W. en.*	woolly	♃	△	or	1	jl.au	W	......	1804.	D	co	
12382	mágna *W.*	great	♃	△	or	3	jn.n	W	S. Europe	1683.	D	co	
12383	Millefólium *W.*	Yarrow	♃	△	or	2	jn.o	W	Britain	pas.	D	co	Eng. bot. 758
	β *rúbra*	*red-flowered*	♃	△	or	2	jn.o	W	......	...	D	co	
12384	asplenifólia *P. S.*	Rose-colored	♃	△	or	1½	jn.au	Pk	N. Amer.	1803.	D	s.p	Vent. cels. t. 93
12385	micrántha *W.*	small-flowered	♃	△	or	1	jn.o	Y	Levant	1805.	D	p.l	
12386	tomentósa *W.*	tomentose	♃	△	or	2	my.o	Y	Britain	hea.	D	co	Eng. bot. 2532
12387	ochroleúca *W.*	cream-colored	♃	△	or	2	jl.s	Pa.Y	......	1804.	D	co	
12388	microphýlla *W.*	small-leaved	♃	△	or	1	jl.s	W	Spain	1800.	D	co	Barr. ic. 1114
12389	Ligústica *W.*	Ligurian	♃	△	or	4	jn.au	W	Italy	1791.	D	co	All.ped.1.t.53.f.2
12390	nóbilis *W.*	showy	♃	△	or	2	jn.au	W	Germany	1640.	D	co	Schk.han.3.t.255
12391	myriophýlla *W. en.*	many-leaved	♃	△	or	1½	jl.s	W	......	1798.	D	co	
12392	odoráta *W.*	sweet-scented	♃	△	or	½	jn.au	W	Spain	1729.	D	co	Jac. col. 1. t. 21
12393	setácea *W.*	bristly	♃	△	or	1	jn.au	W	Hungary	1805.	D	p.l	Pl.rar.hun.1.t.80
12394	abrotanifólia *W.*	Southernw.-lv.	♃	△	or	2	jn.au	Y	Levant	1739.	D	p.l	
1782.	TRI'DAX. *W.*	TRIDAX.					*Compositæ.*		*Sp.* 1—2.				
12395	procum'bens *W.*	long stalked		○	un	½	jl.au	Y	Mexico	1804.	S	co	
1783.	AMEL'LUS. *W.*	AMELLUS.					*Compositæ.*		*Sp.* 3—4.				
12396	Lychnitis *W.*	trailing	♄	⊔	pr	½	jn.jl	Vi	C. G. H.	1768.	C	p.l	Jac.co.su. t.10.f1
12397	villósus *Ph.*	villous	♄	△	pr	1	au.s	Y	Missouri	1811.	D	co	
12398	spinulósus *Ph.*	spiny	♃	△	pr	2	au.s	Y	Missouri	1811.	D	co	



History, Use, Propagation, Culture,

1781. *Achillea.* Named after Achilles, a disciple of Chiron, and the first physician who used it in healing wounds. A. Ptarmica is called sneeze-wort, because the dried powder of the leaves snuffed up the nostrils provokes sneezing. In the spring, the young tender shoots were formerly put into salads, to correct the coldness of other herbs. There is a variety with double flowers, which is very ornamental, especially in pots. A. moschata, the *Genipi* of the Swiss, is an excellent sudorific, aromatic, and acrid, and is a grateful food to cattle.

12345 Leaves obl. linear blunt doubly serrulated downy ciliated, Stem villous
12346 Leaves linear narrowed at base serrated and stem smooth [at end
12347 Leaves lin. acute equally and finely serrulate smooth, Stem panicled, Corymbs few-headed, Paleæ bifid
12348 Leaves linear lanc. acuminate sharply serrated

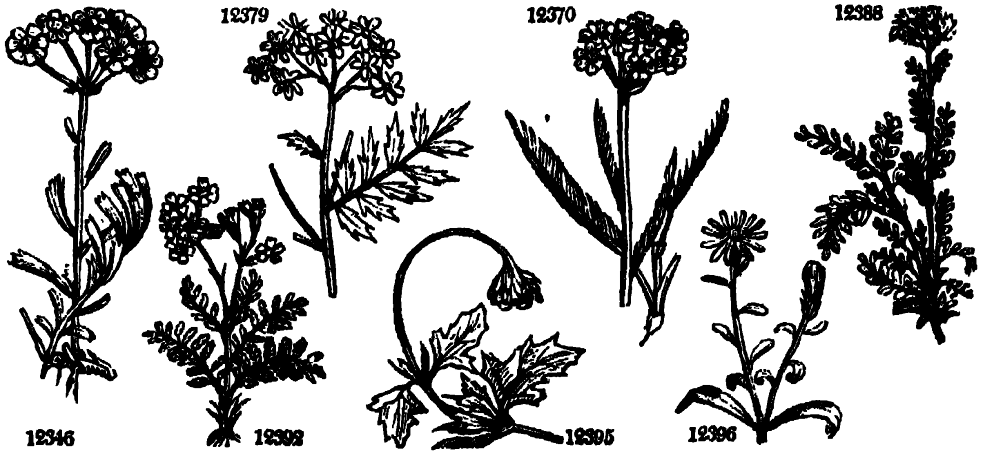
12349 Leaves lin. plane acuminate toothed : teeth emarginate transversely ciliated, Stem diffuse
12350 Leaves obl. blunt serrated narrowed into the petiole fascicled glabrous, Corymb compound contracted
12351 Leaves linear acuminate equally and finely serrated smooth : serratures of the base deepest, Paleæ entire
12352 Leaves lanc. equally and finely serrated downy, Serratures of base deepest, Stem panicled, Paleæ entire
12353 Leaves linear pectinate pinnatifid glabrous : segm. subserrated, Corymb compound
12354 Leaves downy linear lanc. pinnatifid : segments deepest at base
12355 Leaves downy pinnatifid smooth : segm. linear blunt : upper toothed at end, Corymb simple
12356 Leaves pectinate pinnatifid smooth : segm. linear acute ; lower 2-parted, Corymb simple
12357 Leaves pectinate pinnatifid : segm. linear subulate entire, Corymb compound contracted, Stem downy

12358 Leaves pinnatifid : segm. obl. cuneate unequally toothed vertically bent, Corymbs simple
12359 Leaves pinnated roundish pilose : pinnæ 3-parted toothed imbricated across, Corymbs simple
12360 Leaves pinnat. somew. downy, Pinnæ 3-part. blunt entire transversely imbr. Ray scarcely long. than invol.
12361 Leaves pinnated somewhat downy, Pinnæ 3-parted transverse distant : segm. 3-toothed, Stem branched
12362 Leaves pinnated downy : pinnæ linear entire blunt ; lowest longest, Cymes simple
12363 Leaves pectinate pinnate smooth : pinnæ linear acuminate usually 3-parted
12364 Leaves linear-lanc. acuminate unequally and finely biserrate villous beneath
12365 Leaves downy pinnatifid : segm. lanc. serrated, Corymb compound
12366 Stem downy, Leaves pinnated minutely cut acute rigid bent upwards with a downy nerve
12367 Leaves pinnated : pinnæ long distant very narrow linear entire, Corymb compact branched
12368 Cauline lvs. pinnatifid with entire segm. : radic. pinnatifid with 3-fid segm. Ray scarcely larger than invol.
12369 Leaves pectinate pinnate smooth, Pinnæ linear bluntish entire dotted
12370 Leaves pinn. villous : pinnæ toothed linear ; radical bipinnate, Stem quite simple
12371 Leaves pinn. downy : pinnæ roundish 4-fid concave spreading, Stem branched at end
12372 Leaves pinn. downy : pinnæ roundish bluntly toothed, Corymb compound
12373 Leaves pinn. smooth : pinnæ lanc. cut-serrated ; outer confluent, Corymb compound
12374 Leaves bipinnate downy : pinnæ linear-lanc. toothed, Corymb simple, Peduncles long
12375 Leaves bipinnatifid hoary : segm. lin. lanc. serrated, Corymb compound globose, Flowers flosculous
12376 Leaves bipinnatif. setaceous villous : segm. lanc. entire, Corymb compound contracted, Flowers flosculous
12377 Leaves bipinnatifid pubescent : segm. linear lanc. unequal acute, Corymb compound
12378 Leaves downy : cauline bipinnatifid with linear blunt segm. ; radical bipinnate, Corymbs compound
12379 Leaves bipinnatifid : segm. lanc. serrated, Corymb compound spreading
12380 Leaves bipinnatifid : segm. lanc. cut-serrated, Rachis winged cut-serrated, Corymbs fastigiate compound
12381 Leaves bipinnatifid villous : segm. lanc. blunt, Corymbs fastigiate compound
12382 Leaves thrice pinnatifid : segm. lanc. acute, Corymbs compound fastigiate
12383 Leaves bipinnate slightly hairy their segm. linear toothed acute, Stems furrowed

12384 Leaves pinnatifid downy beneath : segm. toothed, Stem branched fastigiate smooth
12385 Leaves bipinnatifid downy : segm. lanc. entire, Corymb compound
12386 Leaves bipinnatifid woolly : the segm. crowded linear acute, Corymbs repeatedly compound
12387 Leaves subbipinnatifid : pinnæ of the base undivided : segm. lin. lanc. Corymb compound, Invol. cylindr.
12388 Leaves bipinnatifid shorter than the intervals between them : segm. lin. entire, Corymbs comp. fastigiate
12389 Leaves bipinnatifid : segm. lin. finely serrated, Rachis winged entire, Corymb compound fastigiate
12390 Cauline leaves bipinnatifid : segm. lin. somew. toothed, Rachis winged toothed : radical thrice pinnatifid
12391 Leaves bipinnate downy : pinnæ pinnatifid, Segments linear-subulate, Corymbs compound fastigiate
12392 Leaves bipinnate pilose beneath : pinnæ linear entire, Corymb simple
12393 Leaves bipinnate : leaflets linear setaceous mucronate very compact pilose, Corymbs compound fastigiate
12394 Leaves bipinnate downy : pinnulæ very fine linear entire distant, Corymbs compound fastigiate

12395 The only species

12396 Leaves hoary linear lanc. opposite : those of the branches alternate
12397 Very villous, Leaves sessile oblong acuminate entire, Heads axillary on short stalks
12398 Hoary, Lvs. bipinnatifid cut-toothed, Segm. linear rigid mucronate, Heads lateral and terminal clustered

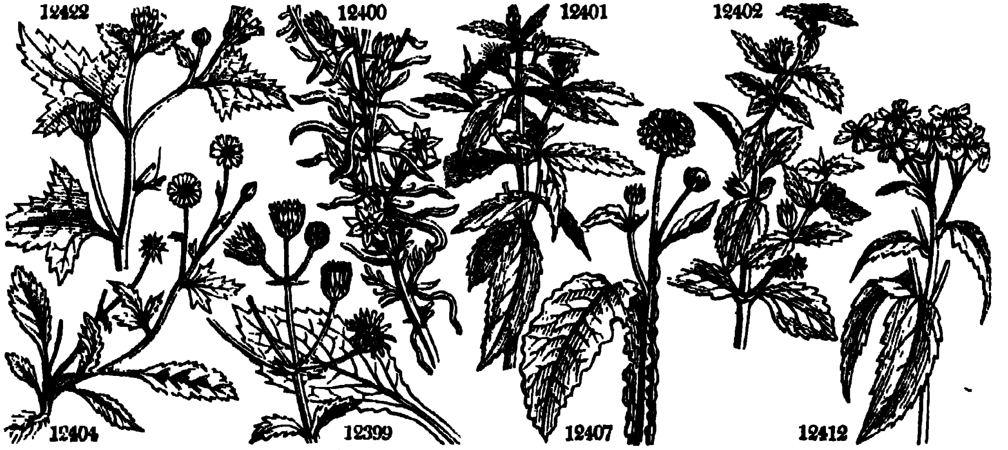


and Miscellaneous Particulars.

1782. *Tridax.* From τϱιδακνος, cut into three pieces. The rays of the flower are divided in three.

1783. *Amellus.* A name used by Virgil for a beautiful flower growing on the banks of the river *Mella.* The plant of Virgil is supposed to have been Aster Amellus.

1784. **STAR'KEA.** *W.*	Starkea.					*Compositæ.*		*Sp.* 1.				
12399 umbelláta *W.*	umbel-flowered	£	[△]	un	1½	jn.jl	Y	Jamaica	1768.	D	l.p	Lam. ill.t.682.f.2
1785. **COLUMEL'LIA.** *Jacq.*	Columellia.					*Compositæ.*		*Sp.* 1.				
12400 biénnis *Jacq.*	biennial	£	⊡	un	1	jn.jl	Y	C. G. H.	1821.	S	co	Jac.schœ.3.t.301
1786. **ECLIP'TA.** *W.*	Eclipta.					*Compositæ.*		*Sp.* 2—10.				
12401 eréeta *W.*	upright		○	un	2	jl.s	W	America	1690.	S	l.p	Dil.el.t.114.f.137
12402 prostráta *W.*	trailing	✱	⊡	un	¼	jl.s	W	E. Indies	1732.	S	l.p	Dil.el.t.113.f.138
1787. **MEYE'RA.** *Swz.*	Meyera.					*Compositæ.*		*Sp.* 1.				
12403 séssilis *Swz.*	sessile	£	[△]	un	1	jl.au	Y	W. Indies	...	D	co	Bot. rep. 429
1788. **CHRYSANTHEL'LUM.** *P. S.*	Chrysanthellum.					*Compositæ.*		*Sp.* 1.				
12404 procúmbens *P. S.* *Verbesina mútica* W.	procumbent		⊡	un	1½	jn.jl	Y	W. Indies	1768.	S	co	Sw. ob.314.t.8.f.1
1789. **SIEGESBECK'IA.** *W.*	Siegesbeckia.					*Compositæ.*		*Sp.* 2—5.				
12405 orientális *W.*	oriental		○	pr	2	au.o	Y	India	1730.	S	co	Schk.han.3.t.256
12406 flosculósa *W.*	small-flowered		○	pr	2	jn.jl	Y	Peru	1784.	S	co	L'Her. stirp.t.16
1790. **VERBESI'NA.** *W.*	Verbesina.					*Compositæ.*		*Sp.* 10—23.				
12407 aláta *W.*	wing-stalked	£	⌊△⌋	pr	2	my.o	Or	S. Amer.	1699.	C	l.p	Bot. mag. 1716
12408 virgínica *W.*	white-flowered	♃	△	pr	2	jl.s	W	N. Amer.	1812.	D	co	
12409 gigantéa *W.*	tree	♄	□	un	8	...	Y	W. Indies	1758.	C	l.p	Jac. ic. 1. t. 175
12410 Siegesbéckia *W.*	American	♃	△	un	3	o.n	Y	Virginia	1731.	D	co	
12411 Coreópsis *Ph.* *Coreópsis alternifólia* W.	Coreopsis-like	♃	△	pr	5	s.n	Y	N. Amer.	1640.	D	co	Jac. vind. 2.t.110
12412 serráta *W.*	saw-leaved	£	⌊△⌋	un	3	jl.o	Y	Mexico	1803.	D	l.p	Cav. ic. 3. t. 214
12413 sativa *H. K.*	Oil-seed		⊡	un	6	au.s	Y	E. Indies	1806.	S	co	Bot. mag. 1017
12414 calenduláreа *W.*	Ceylon		⊡	un	2	jl.s	Y	Ceylon	1739.	S	co	Bur. zey. t. 22.f.1
12415 dichótoma *W.*	forked		⊡	un	3	jn.jl	Y	E. Indies	1789.	S	co	M. co.go.1779.t.4
12416 fruticósa *W.*	shrubby	ħ	□	un	3	jn.au	Y	W. Indies	1759.	C	co	Plum. ic. t. 52
1791. **SYNEDREL'LA.** *P. S.*	Synedrella.					*Compositæ.*		*Sp.* 1—3.				
12417 nodiflóra *P. S.*	sessile-flowered		⊡	w	½	jn.jl	Y	W. Indies	1726.	S	s.l	Ex. flora. 60
1792. **GALINSO'GEA.** *W.*	Galinsogea.					*Compositæ.*		*Sp.* 2—6.				
12418 parviflóra *W.*	small-flowered		○	un	3	my.s	D.Y	S. Amer.	1796.	S	co	Cav. ic. 3. t. 281
12419 trilobáta *W.*	three-lobed		○	un	3	au.n	O	Peru	1797.	S	co	Bot. mag. 1895
1793. **ACMEL'LA.** *P. S.*	Acmella.					*Compositæ.*		*Sp.* 2—7.				
12420 mauritiána *P. S.* *Spilanthes Acmella* W.	Balm-leaved		⊡	un	1½	jl.au	Y	Mauritius	1768.	S	s.l	Rump. am.6.t.65
12421 buphthalmoídes *P.S.*	oval-leaved		○	un	1½	jl.s	Y	S. Amer.	1798.	S	co	Jac. schœ.2.t.151
1794. **ZALUZA'NIA.** *P. S.*	Zaluzania.					*Compositæ.*		*Sp.* 1—2.				
12422 triloba *P. S.*	three-lobed	£	⌊△⌋	un	1½	jl.s	Y	Mexico	1798.	D	l.p	
1795. **PASCA'LIA.** *W.*	Pascalia.					*Compositæ.*		*Sp.* 1.				
12423 glaúca *W.*	glaucous-leaved	♃	△	pr	1½	jn.au	Y	Chili	1799.	D	co	Bot. rep. 549
1796. **HELIOP'SIS.** *P. S.*	Heliopsis.					*Compositæ.*		*Sp.* 1.				
12424 læ'vis *P. S.* *Buphthálmum helianthoídes* W.	Sunflower-lvd.	♃	△	or	6	jl.o	Y	N. Amer.	1714.	D	co	L'Her.stirp.t.45
1797. **BUPHTHAL'MUM.** *W.*	Ox-Eye.					*Compositæ.*		*Sp.* 9—27.				
12425 frutéscens *W.*	shrubby	ħ	⌴	or	2	jn.au	Y	America	1696.	C	p.l	Dill.elt. t 28.f 44
12426 arboréscens *W.*	tree	ħ	⌴	or	3	my.s	Y	Bermudas	1699.	C	p.l	Dill.elt. t.38.f.43



History, Use, Propagation, Culture,

1784. *Starkea.* Named by Willdenow, after the Rev. Mr. Starke, of Gros Tchirna, in Silesia, who paid much attention to the Cryptogamous plants of that country. This genus was included by Linnæus in Amellus, from which Willdenow remarks that it differs in habit, and in its hairy receptacle.

1785. *Columellia.* So called by Jacquin, after the celebrated Geoponic writer, Lucius Junius Moderatus Columella, a Spaniard, born forty-two years before Christ. A plant resembling Amellus annua. The flowers are yellow and sessile in the dichotomies of the branches. The Columellia of Loureiro is a different thing.

1786. *Eclipta.* A translation of the Malay name *Wangi-wangi-maihg*, which signifies an eclipse of the sun, to which the form and disposition of the radiated flower has been likened. Worthless weeds with white flowers.

1787. *Meyera.* Named after Gottlieb-Andrew Meyer, a German, who published, in 1694, a dissertation upon the Sycomorus of Scripture.

1788. *Chrysanthellum.* A diminutive of Chrysanthemum, which see.

1789. *Siegesbeckia.* Dr. John George Siegesbeck, a German physician, director of the garden at St. Petersburgh, published in 1736, a catalogue of it under the title of Flora of St. Petersburgh. There was also a Botanosophia from his pen in 1737.

12399 Leaves opp. 3-nerved downy beneath, Heads in umbels

12400 The only species

12401 Stem erect strigose, Leaves oblong lanc. sessile remotely serrated
12402 Stem prostrate strigose, Leaves obl. lanc. somewhat stalked subserrate somewhat wavy scabrous

12403 Stem erect, Leaves amplexicaul. ovate toothed

12404 Leaves alternate 3-parted toothed: radical oblong serrated, Stem creeping

12405 Leaves stalked ov. unequally toothed subtriangular at base somewhat cut, Outer Invol. longer than inner
12406 Leaves sessile ovate toothed, Florets of disk 3-toothed triandrous

12407 Leaves alternate decurrent wavy blunt
12408 Leaves alternate lanc. subserrate, Corymb compound
12409 Leaves alternate deeply pinnatifid, Stem shrubby
12410 Leaves opposite ovate lanc. serrated acuminate at each end decurrent
12411 Stem winged, Lvs. lanc. acuminate somewhat stalked serrated, Heads corymbose, Cor. of ray lanceolate

12412 Leaves opposite ovate-lanc. serrated downy beneath
12413 Leaves opposite cordate-lanc amplexicaul. remotely serrated, Invol. simple 5-leaved
12414 Leaves opposite obl. lanc. bluntish strigose serrated at end, Pedunc. 1-headed long, Invol. simple
12415 Leaves opposite ov. acuminate serrated 3-nerved hairy, Pedunc. winged 1-headed, Invol. simple
12416 Leaves opposite ov. acuminate serrated 3-nerved scabrous on each side, Pedunc. 1-headed axillary

12417 Leaves opposite ov. serrated 3-nerved, Heads axillary subsessile, Invol. simple, Stem trichotomous

12418 Leaves ovate 3-nerved serrated
12419 Leaves oblong lanceolate toothed 3-nerved: lower hastate 3-lobed

12420 Stem procumbent downy, Lvs. ovate entire, Pedunc. lateral, Ray shorter than disk

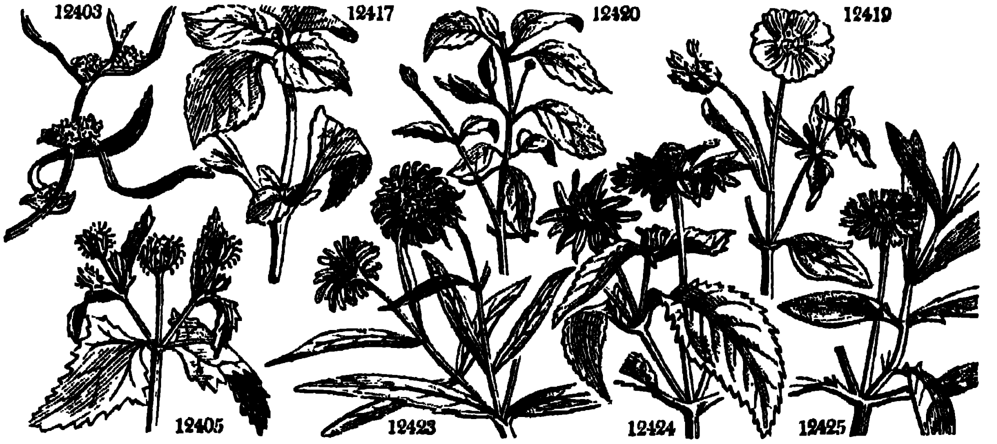
12421 Leaves ovate serrated 3-nerved downy beneath, Ray many-flowered

12422 Leaves ternate 3-lobed: lower opposite, Stem suffrutescent

12423 The only species

12424 Leaves opposite ovate serrated 3-nerved, Invol. leafy, Stem herbaceous

12425 Leaves opposite obovate hoary, Petioles with 2 teeth
12426 Leaves opposite lanceolate narrowed at base not toothed smooth



and Miscellaneous Particulars.

1790. *Verbesina.* A name with the same meaning as Verbena, which see. The V. alata resembles Vervain in the appearance of its foliage.

1791. *Synedrella.* A name of unknown meaning. A little worthless weed.

1792. *Galinsogea.* Named after after Mar. Ma. Galinsoga, first physician to the queen of Spain, and intendant of the garden of Madrid. One of the species, G. trilobata, is sometimes cultivated as a hardy annual. But it does not possess much merit.

1793. *Acmella.* From ακμη, a point, on account of the pricking taste of the foliage.

1794. *Zaluzania.* Apparently an alteration of Zaluzianskia, a name applied in error to Marsilea trifolia, and formed in honor of an obscure Polish botanist.

1795. *Pascalia.* A genus dedicated by Ortega to Didan Pascal, doctor of medicine, and a professor at Parma.

1796. *Heliopsis.* A name with the same meaning, and a genus with the same habit, as Helianthus, which see.

1797. *Buphthalmum.* From βους, an ox, and οφθαλμος, an eye, in allusion to the broad open disk of the flowers It is believed that the Buphthalmum of Pliny is a species of Anthemis.

12427 sericeum *W.*	silky	♄.	⊔	or	3	my.jl	Y	Canaries	1779.	C	p.l	Bot. mag. 1836
12428 spinósum *W.*	prickly		○	or	3	jn.s	Y	Spain	1570.	S	co	Barr. ic. 551
12429 aquáticum *W.*	sweet-scented		○	or	½	jl.au	Y	S. Europe	1731.	S	co	Breyn. cent. t.77
12430 maritimum *W.*	sea	♄	|△|	or	1	jl.s	Y	Sicily	1640.	D	s.l	Bocc.mus. t.129
12431 salicifólium *W.*	Willow-leaved	♃	△	or	1½	jn.o	Y	Austria	1759.	D	co	Jac. aust. 4.t.370
12432 grandiflórum *W.*	great-flowered	♃	△	or	1½	jn.o	Y	Austria	1722.	D	p.l	Moris.s.6.t.7.f.52
12433 cordifólium *W.*	heart-leaved	♃	△	or	1	jn.au	Y	Hungary	1739.	D	p.l	Pl.rar.hu.2.t.113

FRUSTRANEA.

1798. HELIAN'THUS. *W.*	Sun Flower.					*Compositæ.*		*Sp.* 24—31.				
12434 ánnuus *W.*	annual		○	or	6	jn.o	Y	S. Amer.	1596.	S	co	Reneal.spec.t.83
12435 índicus *W.*	dwarf annual		○	or	3	jn.o	Pa.Y	Egypt	1785.	S	co	Tabern. ic. 764
12436 tubæfórmis *W.*	tube-flowered		○	or	5	jl.au	Y	Mexico	1799.	S	co	Jac.schœ.3.t.375
12437 dentátus *W.*	tooth-leaved	♄	|△|	or	6	s.n	Y	Mexico	1798.	C	l.p	Cav. ic. 3. t. 220
12438 multiflórus *W.*	many-flowered	♃	△	or	6	au.o	Y	N. Amer.	1597.	D	co	Bot. mag. 227
β plénus	*double-flowered*	♃	△	or	6	au.o	Y	N. Amer.		D	co	
12439 tuberósus *W.*	Jerusalem Artich.	♃	△	cul	8	s.o	Y	Brazil	1617.	R	co	Jac. vind.2.t.161
12440 angustifólius *Ph.*	narrow-leaved	♃	△	or	3	s.o	Y	N. Amer.	1789.	D	co	Bot. mag. 2051
12441 macrophýllus *Ph.*	large-leaved	♃	△	or	6	au.o	Y	N. Amer.	1800.	D	co	W.hort. ber.t.70
12442 móllis *W.*	soft	♃	△	or	4	jl.o	Y	N. Amer.	1805.	D	co	
12443 decapétalus *W.*	ten-petalled	♃	△	or	6	au.n	Y	N. Amer.	1759.	D	p.l	Rob. ic. 235
12444 prostrátus *W.*	rough	♃	△	or	2	jl.s	Y	N. Amer.	1800.	D	co	
12445 strumósus *W.*	Carrot-rooted	♃	△	or	8	jl.s	Y	N. Amer.	1710.	D	p.l	Boc. sic. t. 27. f.4
12446 altíssimus *W.*	tall	♃	△	or	8	jl.s	Y	N. Amer.	1731.	D	co	Jac. vind. 2.t.160
12447 gigantéus *W.*	gigantic	♃	△	or	10	s.o	Y	N. Amer.	1714.	D	co	Moris.s.6.t.7.f.65
12448 longifólius *Ph.*	long-leaved	♃	△	or	6	au.o	Y	Georgia	1812.	D	co	
12449 diffúsus *R. M.*	diffuse	♃	△	or	3	au.o	Y	N. Amer.	1821.	D	co	Bot. mag. 2020
12450 lineáris *Cav.*	linear	♃	△	or	2	au.o	Y	Mexico	1823.	D	co	Bot. reg. 523
12451 trachelifólius *W.*	Trachelium-lv.	♃	△	or	6	s.o	Y	N. Amer.	1825.	D	co	
12452 excélsus *W.*	lofty	♃	△	or	8	s.o	Y	Mexico	1820.	D	co	Cav. ic. t. 219
12453 missúricus *Link.*	Missouri	♃	△	or	3	s.o		Missouri	1821.	D	co	
12454 trilobátus *Link.*	three-lobed	♃	△	or	3	s.o	Y	Mexico	1824.	D	co	
12455 divaricátus *Ph.*	divaricate	♃	△	or	6	au.o	Y	N. Amer.	1759.	D	p.l	Mo.h. s.6.t.7.f.66
12456 pubéscens *W.*	downy	♃	△	or	4	jl.o	Y	N Amer.	1795.	D	co	Bot. reg. 524
12457 atrorúbens *W.*	dark-purp.-eyed	♃	△	or	3	jl.o	Br	N. Amer.	1732.	D	p.l	Bot. reg. 508
1799. GYMNOLO'MIA. *Kunth.*	Gymnolomia.					*Compositæ.*		*Sp.* 1.				
12458 maculátum *Kunth.*	spotted	♣	▭	pr	3	jn.jl	Y	W. Indies	1821.	D	p.l	Bot. reg. 662
1800. RUDBECK'IA. *W.*	Rudbeckia.					*Compositæ.*		*Sp.* 12—20.				
12459 pinnáta *Ph.*	fragrant	♃	△	or	3	au.s	Y	N. Amer.	1803.	D	co	Bot. mag. 2310
12460 digitáta *W.*	narr.-jagged-lv.	♃	△	or	6	au.s	Y	N. Amer.	1759.	D	p.l	Moris.s 6.t.6.f.54
12461 laciniáta *W.*	broad jagged-lv.	♃	△	or	6	jl.s	Y	N. Amer.	1640.	D	p.l	Moris s.6.t.6.f.53
12462 columnáris *Ph.*	high-crowned	♃	△	or	3	au.s	Y	N. Amer.	1811.	D	co	Bot. mag. 1601
12463 subtomentósa *Ph.*	downy-lobed	♃	△	or	3	au.s	Y	N. Amer.	1802.	D	co	
12464 tríloba *W.*	three-lobed	♃	◎	or	4	au.s	Y	N. Amer.	1699.	S	co	Bot. reg. 525
12465 hírta *W.*	great-hairy	♃	△	or	2	jn.n	Y	N. Amer.	1714.	D	p.l	Sweet's fl.gar.82
12466 fúlgida *H. K.*	small-hairy	♃	△	or	3	jl.au	Y	N. Amer.	1760.	D	p.l	Bot. mag. 1996
12467 lævigáta *Ph*	smooth	♃	|△|	or	3	jl.au	Y	Carolina	1812.	C	co	
12468 amplexifólia *W.*	stem-clasping		○	or	3	jl.au	Y	Louisiana	1793.	S	co	Jac. ic. 3. t. 592
12469 purpúrea *Ph.*	purple	♃	△	or	5	jl.o	D.P	N. Amer.	1699.	D	p.l	Bot. mag. 2
12470 serótina *Sweet*	late	♃	△	or	2	au	Y	N. Amer.	1823.	D	co	Sweet's fl.gard.4

History, Use, Propagation, Culture,

1798. *Helianthus.* From ἥλιος, the sun, and ἄνθος, a flower. Nothing can be a more complete ideal representative of the sun, than the gigantic sun-flower, with its golden rays; it is dedicated with great propriety to the sun, which it never ceases to adore while the earth is illuminated by his light. When he sinks into the west, the flowers of Helianthus are turned towards him; and when he rises in the east, the flowers are again ready to be cherished by the first influence of his beams.

H. annuus is a well known border annual, which will grow in any soil. There are varieties with double flowers, the tubular florets being changed into ligular ones, like those in the ray. The whole plant, and particularly the flower, exudes a thin pellucid odorous resin, resembling venice turpentine. From the seeds an edible oil has been expressed, and they are also excellent food for domestic poultry. The flowers turning with the sun, is by some considered a popular error; Gerarde says he never could observe it; and Professor Martin has seen four flowers on the same stem pointing to the four cardinal points. H. tuberosus, *Topinambour*, Fr., *Erdapfel*, Ger., and *Girasole*, Ital., is called Jerusalem, from the corruption of the Italian word *Girasole*; and Artichoke, from the resemblance in flavor which the tubers have to the bottoms of artichokes. These tubers are in considerable esteem on the continent as a substitute for potatoes; and before the introduction of that vegetable, they were a good deal in use in this country. Their culture and treatment is the same as for that vegetable. H. multiflorus a showy autumnal flower.

12427 Leaves opposite close spatulate oblong silky, Scales of invol. setaceous hirsute
12428 Leaves alternate obl. lanc. amplexicaul. entire hirsute, Invol. leafy mucronate
12429 Invol. bluntly leafy sessile axillary, Leaves oblong blunt alternate nearly entire, Stem dichotomous
12430 Invol. bluntly leafy stalked, Lvs. alternate spatulate, Stem herbaceous
12431 Leaves alternate obl.-lanc. subserrated 3-nerved villous, Invol. naked, Stem herbaceous
12432 Leaves alternate lanc. somewhat toothletted smooth, Invol. naked, Stem herbaceous
12433 Leaves alternate : lower stalked cordate doubly serrated : upper sess. ovate serrated, Stems herbaceous

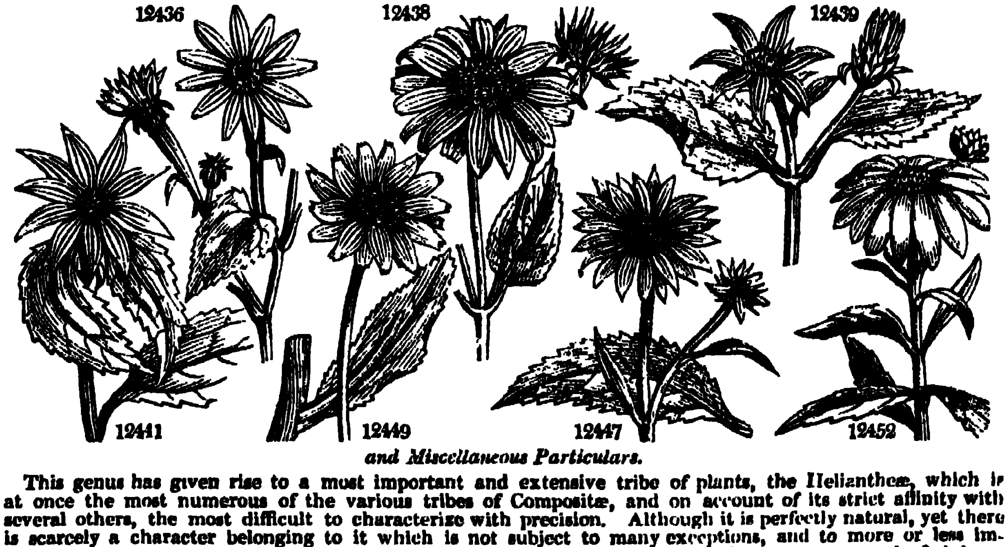
FRUSTRANEA.

12434 Leaves all cordate 3-nerved, Pedunc. thick, Heads cernuous
12435 Leaves all cordate 3-nerved, Pedunc. evensized, Invol. leafy
12436 Leaves cordate cuneate at base villous 3-nerved, Pedunc. thick fistular
12437 Leaves ovate acuminate narrowed at base unequally serrate scabrous, Pedunc. filiform, Rays obovate
12438 Leaves 3-nerved scabrous : lower cordate ; upper ovate, Ray many-fl. Scales of invol. lanceolate

12439 Leaves 3-nerved scabrous : lower cordate-ovate ; upper ovate acum alternate, Petioles ciliated at base
12440 Stems slender about 1-headed, Leaves linear revolute at edge rough
12441 Leaves ovate acuminate 3-nerved serrated scabrous above hoary beneath, Invol. squarrose
12442 Leaves ovate acuminate 3-nerved closely serrated scabrous above : hoary and soft beneath
12443 Lvs. ov. acum. remotely serrat. 3-nerv. scabr. Scales of invol. lanc. nearly equal subciliated, Rays 10 or 12
12444 Lvs. lanc. acuminate scabr. serrated 3-nerved : upper entire, Scales of invol. lanc. ciliated, Stem procumb.
12445 Lvs. ovate acuminate serrated 3-nerved scabrous beneath, Scales of invol. lin. lanc. ciliated at base
12446 Lvs. altern. lanc. serr. scabr. 3-nerved narrow. at end stalked, Petioles ciliated, Scales of invol. lanc. ciliat.
12447 Lvs. altern. lanc. serr. scabr. obsol. 3-nerv. narrow. at each end subsess. ciliat. at base, Scales of inv. lanc. cil.
12448 Smooth, Stem panicled, Branches few-flowered at top, Lvs. sessile very long entire : lower serrated
12449 Stem hispid spreading, Leaves ovate rigid scabrous, Peduncles very long 1-flowered
12450 Leaves altern. or opp. sessile linear revolute at edge entire 1-nerved, Heads corymbose
12451 Leaves ov. lanc. acuminate serrated 3-nerved very rough on each side, Scales of invol. lin. lanc. ciliated
12452 Leaves altern. lanc. serrated scabrous 3-nerved narrowed at each end woolly at base, Stem vill. in 2 rows
12453 Leaves amplexicaul. Heads on long stalks, Disk of head dark purple
12454 Stem erect hairy, Lvs. stalked 3-lobed very rough, Invol. hairy, Pappus with 2 setæ
12455 Stem smooth much branched, Lvs. opp. sessile lanc. ovate 3-nerved, Panicle trichotomous slender few-fl.
12456 Leaves subsess. cordate ovate 3-nerved amplexicaul. closely serrated downy, Scales of invol. lanc. villous
12457 Leaves opp. spatulate crenate 3-nerved scabrous, Scales of invol. erect the length of disk

12458 Leaves oblong-lanceolate subserrate, Heads 1-3, Ray 8-flowered

[hispid
12459 Lvs. all pinnat. : one or other of the lower pinnæ 2-parted ; the rest undivided, Pappus ent. Stem furrowed
12460 Rad. lvs. pinn. : leaflets sessile lanc. toothed somewhat cut ; upper confluent, Pappus entire
12461 Rad. lvs. pinn. : leaflets ovate unequal at base about 3-lobed toothed, Pappus 4-toothed
12462 Stem upright simple few-fl. at top, Leaves pinnatifid cut : segm. linear, Invol. simple 5-leaved
12463 Stem branched, Branches erect many-fl. Lvs. obl. lanc. acute serrated : lower 3-lobed
12464 Leaves spatulate : lower 3-lobed ; upper undivided
12465 Leaves undivided spatulate ovate 3-nerved serrated hairy, Recept. conical, Paleæ lanceolate
12466 Leaves obl. lanc. toothletted hispid narrowed at base subcordate, Recept. hemispherical, Paleæ lanceolate
12467 Quite smooth, Peduncles long 1-headed, Lvs. ovate-lanc acuminate each way 3-nerved
12468 Leaves obl. lanc. cordate amplexicaul. : lower serrated, Disk cylindrical conical
12469 Leaves lanc. ovate alternate undivided, Rays bifid
12470 Stem hispid, Lower leaves broad-ovate tapered at base remotely toothed very rough, Rays 3-toothed



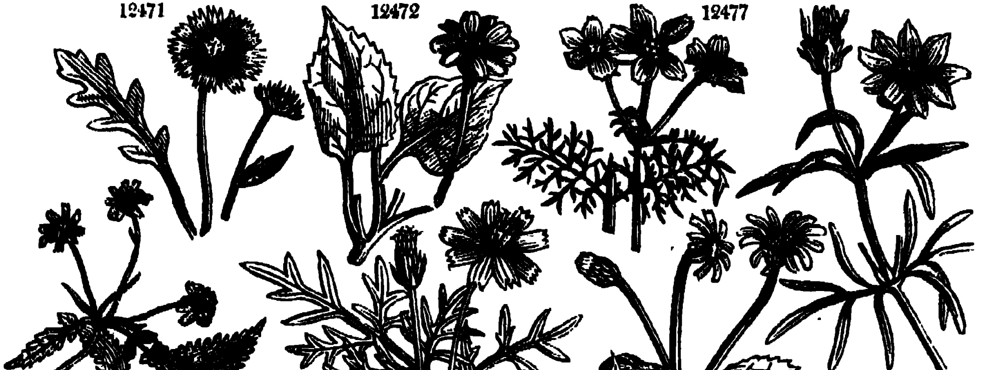
and Miscellaneous Particulars.

This genus has given rise to a most important and extensive tribe of plants, the Helianthеæ, which is at once the most numerous of the various tribes of Compositæ, and on account of its strict affinity with several others, the most difficult to characterize with precision. Although it is perfectly natural, yet there is scarcely a character belonging to it which is not subject to many exceptions, and to more or less important modifications. Almost all the species of Heliantheæ are natives of America, several of Asia, a few of Africa, and scarcely any of Europe. They appear to be entirely unknown in the southern parts of the world.

1799. *Gymnolomia.* From γυμνος, naked, and λωμα, an edge ; in allusion to the nature of the margin of the grains.

1800. *Rudbeckia.* Named after the famous Olaus Rudbeck, professor of botany at Upsal, who died of grief in 1702, at witnessing the destruction by fire of his laborious work, called *Campi Elysii*, which was nevertheless published in 1701 and 2, by the diligence of his son. He is also celebrated for having made the discovery that the Paradise of Scripture was situated somewhere in Sweden. Handsome border annuals or perennials. R. purpurea is remarkable for bearing purple flowers.

1801.	GALAR'DIA. *W.*	Galardia.					*Compositæ.*		Sp. 1—2.				
12471	bicolor *W.*	two-colored	♃	△	or	2	jl.o	Or	Carolina	1787.	D	co	Bot. mag. 1602
1802.	TITHO'NIA. *Desf.*	Tithonia.					*Compositæ.*		Sp. 1.				
12472	tagetiflóra *W.*	Marigold-flow.		[○]	pr	1	jl.o	Or	Vera Crux	1818.	D	co	Bot. reg. 591
1803.	COS'MEA. *W.*	Cosmea.					*Compositæ.*		Sp. 4—6.				
12473	lútea *B. M.*	yellow-flowered		⌊○⌋	pr	2	o.n	Y	Mexico	1811.	S	co	Bot. mag. 1689
12474	sulphúrea *W.*	Southernw.-lvd.		○	pr	2	jl.au	Y	Mexico	1799.	S	co	Jac. ic. 3. t. 595
12475	bipinnáta *W.*	purple-flowered	£	⌊△⌋	pr	2	jl.au	Pu	Mexico	1799.	C	l.p	Bot. mag. 1535
12476	parviflóra *W.*	white-flowered		○	pr	2	jl.au	W	Mexico	1800.	S	co	Jac. schœ.3.t.374
1804.	COREOP'SIS. *W.*	Coreopsis.					*Compositæ.*		Sp. 19—32.				
12477	ferulæfólia *W.*	Fennel-leaved	♃	⌊△⌋	or	3	o.n	Y	Mexico	1799.	D	l.p	Bot. mag. 2059
12478	verticilláta *W.*	whorl-leaved	♃	△	or	3	jl.o	Y	N. Amer.	1759.	D	p.l	Bot. mag. 156
12479	tenuifólia *W.*	slender-leaved	♃	△	or	2	jl.au	Y	N. Amer.	1780.	D	co	Pl.man. t.344.f.4
12480	chrysántha *W.*	Angelica-leav.	£	[○]	or	2	jl.s	Y	W. Indies	1752.	S	co	Plum. ic. 53. f. 1
12481	aúrea *W.*	Hemp-leaved	♃	△	or	3	au.s	Y	N. Amer.	1785.	D	p.l	
12482	trípteris *W.*	three-leaved	♃	△	or	6	au.o	Y	N. Amer.	1737.	D	p.l	Moris.s.7.t.3.f.44
12483	senifólia *W.*	six-leaved	♃	△	or	4	au.o	Y	N. Amer.	1812.	D	co	
12484	álba *W.*	climbing	$	[△]	or	6	jn.jl	W	Jamaica	1699.	D	l.p	Herm. para. 124
12485	incisa *B. reg.*	jagged-leaved	$	[△]	or	6	s.d	Y	W. Indies	...	D	co	Bot. reg. 7
12486	réptans *W.*	trailing	$	[○]	or	6	jl.s	Y	W. Indies	1792.	S	co	Smith spic. t. 22
12487	lanceoláta *W.*	lanceolate	♃	○	or	3	jl.s	Y	Carolina	1724.	S	co	Bot. cab. 821
12488	tinctória *Nutt.*	Dyer's		○	or	2	my.o	Y	Missouri	1822.	S	co	Bot. reg. 846
12489	auriculáta *W.*	ear-leaved	♃	△	or	6	au.o	Y	N. Amer.	1699.	D	p.l	Plu. alm. t.83.f.5
12490	latifólia *W.*	broad-leaved	♃	△	or	3	au.s	Y	N. Amer.	1786.	D	co	
12491	argúta *Ph.*	sharp-notched	♃	△	or	2	au.s	Y	Carolina	...	D	co	
12492	crassifólia *W.*	thick-leaved	♃	△	or	3	au o	Y	Carolina	1786.	D	p.l	
12493	angustifólia *W.*	narrow-leaved	♃	△	or	2	jn.au	Y	N. Amer.	1778.	D	p.l	
12494	aláta *W.*	wing-stalked	♃	△	or	3	jl.au	Y	Mexico	1803.	D	co	Cav. ic. 3. t. 260
12495	prócera *W.*	tall	♃	△	or	8	s.o	Y	N Amer.	1765.	D	p.l	
1805.	SIM'SIA. *Pers.*	Simsia.					*Compositæ.*		Sp. 2—3.				
12496	ficifólia *Pers.*	fig-leaf		○	un	3	jl.au	Y	Mexico	1799.	S	co	Cav. ic. 1. t. 77
12497	amplexicaúlis *Pers.*	stem-clasping	♃	△	un	4	jl.au	Y	......	1806.	D	p.l	
1806.	OSMI'TES. *W.*	Osmites.					*Compositæ.*		Sp. 2—5.				
12498	camphorina *W.*	Camphire-scent.	■	⌊⌋	pr	1½	ap.jl	W	C. G. H.	1794.	C	l.p	Se mu. 1.t.90.f.8
12499	dentáta *Thunb.*	toothed	■	⌊⌋	pr	1½	ap.jl	W	C. G. H.	1820.	C	l.p	
1807.	ENCE'LIA. *Cav.*	Encelia.					*Compositæ.*		Sp. 1—2.				
12500	canéscens *Cav.*	downy-leaved	■	⌊⌋	pr	1½	jl	Or	Peru	1786.	C	l.p	Bot. reg. 909
1808.	SCLEROCAR'PUS. *W.*	Sclerocarpus.					*Compositæ.*		Sp. 1.				
12501	africánus *W.*	African		⌊○⌋	un	2	jl.au	Y	Guinea	1812.	S	co	Jac. ic. 1. t. 176
1809.	CULLU'MIA. *H. K.*	Cullumia.					*Compositæ.*		Sp. 3.				
12502	ciliáris *H. K.*	ciliated	■	⌊⌋	or	2	my.jn	Y	C. G. H.	1774.	C	p.l	Bur. afr. t.54. f.1
12503	setósa *H. K.*	recurv. smooth-lv.	■	⌊⌋	or	2	jn.au	Y	C. G. H.	1780.	C	l.p	
12504	squarrósa *H. K.*	recurv. awl-lvd.	■	⌊⌋	or	2	jn.au	Y	C. G. H.	1786.	C	l.p	Th. act. haf.3.t.5
1810.	BERCKHE'YA. *H. K.*	Berckheya.					*Compositæ.*		Sp. 8—20.				
12505	cynaroides *W.*	Artichoke-cup.	£	⌊△⌋	or	1	jn	Y	C. G. H.	1789.	D	l.p	
12506	obováta *W.*	smooth-shrubb.	■	⌊⌋	or	2	jn.au	Y	C. G. H.	1794.	C	l.p	Ho.n.h.6 t.34.f.2
12507	incána *W.*	hoary	■	⌊⌋	or	2	jl.au	Y	C. G. H.	1739.	C	l.p	Jac. ic. 3. t. 591
12508	cuneáta *W.*	wedge-leaved	■	⌊⌋	or	2	jn.au	Y	C. G. H.	1812.	C	l.p	Th.act. ha.3.t.10
12509	palmáta *W.*	palmated	■	⌊⌋	or	3	jn.au	Y	C. G. H.	1800.	C	l.p	Th. act.ha.3.t.13
12510	grandiflóra *W.*	large-flowered	■	⌊⌋	or	2	jn au	Y	C. G. H.	1812.	C	l.p	Bot. mag. 1844
12511	uniflóra *W.*	single-flowered	£	⌊△⌋	or	3	jn.au	Y	C. G. H.	1815.	D	co	Th. act. haf.3.t.7
12512	cérnua *H. K.*	drooping-flow.	£	[○]	or	2	my.jl	Y	C. G. H.	1774.	S	co	Meerb. ic. 1. t.40
1811.	DIDEL'TA. *W.*	Didelta.					*Compositæ.*		Sp. 2.				
12513	carnósum *W.*	alternate-leav'd	■	⌊⌋	un	3	jn.jl	Y	C. G. H.	1774.	C	l.p	L'Her. stirp.t.28
12514	spinósum *W.*	opposite-leaved	■	⌊⌋	un	3	jn.jl	Y	C. G. H.	1774.	C	l.p	Wen.obs.t.4.f.32



History, Use, Propagation, Culture,

1801. *Galardia.* Fougeroux de Bondaroy, the nephew of Duhamel, dedicated this genus to M. Gaillard de Charentonneau, an amateur of botany.

1802. *Tithonia.* A fanciful name given to this plant by Desfontaines, because of the color of its flower, which resembles Yellow Morning, or Aurora, whose husband was Tithonus.

1803. *Cosmea.* From κοσμος, beautiful, on account of the elegance of the foliage.

1804. *Coreopsis.* From κορις, a bug, and οψις, resemblance. Its seed is convex on one side, and concave on the other; it has a membranous margin, and it has two little horns at the end which gives it very much the appearance of some insect. C. verticillata is a handsome shrubbery plant, continuing long in flower; the florets are used in North America, to dye cloth red. C. tinctoria is a very handsome border annual.

1805. *Simsia.* Named by Persoon, after Dr. John Sims, the co-editor with Mr. König, of the excellent Annals of Botany, and for many years the sole editor of the Botanical Magazine.

12471 Stem branched, Leaves lanc. Paleæ of pappus entire awned

12472 The only species

12473 Leaves pinnate and bipinnatifid, Pinnæ serrated somewhat decurrent, Ray few-flowered neuter
12474 Leaves bipinnatifid : segm. lanc. Segm. of exterior invol. lanceolate
12475 Leaves bipinnate, Leaflets linear subulate, Scales of outer invol. ovate
12476 Leaves bipinnate, Leaflets filiform, Scales of outer invol. lanceolate

12477 Leaves bipinn. Pinnules lin. lanc. not broader than their rib
12478 Leaves whorled 3 or 5-pinnated : pinnæ lin. 3-parted and undivided, Disk discolored
12479 Leaves whorled 3 or 5-pinnated : pinnæ lin. 3-parted and undivided, Disk same color as ray
12480 Leaves ternate ovate-obl. serrated, Ray same color as disk
12481 Leaves serrated : radical 3-parted : cauline trifid or entire lanc. linear
12482 Leaves entire : radical pinnated ; cauline in threes lanc. stalked
12483 Leaves entire ternate sessile
12484 Leaves subternate cuneate serrated
12485 Villous, Leaves stalked quinate and ternate : leaflets ovato-lanc. subpinnatifid or cut serrated
12486 Leaves serrated ovate : upper ternate, Stem creeping
12487 Leaves lanceolate entire ciliated
12488 Rad. leaves pinnate or bipinnate entire, Outer leaves of involucre short, Ray discolored at base
12489 Leaves entire ovate : lower ternate
12490 Leaves ovate acuminate crenate toothed, Grains naked
12491 Leaves stalked lanc. ovate by degrees acuminate finely serrated, Corymbs dichotomous term. and axillary
12492 Leaves obovate oblong entire downy
12493 Leaves alternate lin. lanc. entire smooth, Ray oblong trifid : middle segm. largest
12494 Stem winged, Leaves alternate scabrous roundish ovate cuneate at base 3-nerved
12495 Leaves ellipt. acuminate serrated stalked veiny decurrent : lower whorled ; upper alternate

12496 Leaves 3-lobed toothed roughish, Petiole naked at base
12497 Hoary, Leaves somewhat palmate 3-lobed, Petiole leafy at base amplexicaul.

12498 Leaves lanc. obsoletely serrated toothed at base smooth
12499 Leaves obovate toothed villous

12500 Cor. of ray 4-fid nearly equal to disk, Leaves hoary with down

12501 The only species

12502 Leaves ovate smooth imbricated at the edge and rib ciliate-spiny, Spine of the end reflexed
12503 Leaves alternate obl. recurved smooth ciliate-spiny, Leaves of invol. ciliated
12504 Leaves altern. lanc. subulate recurved smoothish ciliat. spiny decurr. at base, Segm. of invol. ciliate spiny

12505 Cauline leaves altern. amplexicaul. ciliate spiny : radical entire unarmed, Scales of invol. entire
12506 Leaves opp. obl. lanc. narrowed at base spiny-toothed smooth, Scales of invol. ciliate spiny
12507 Leaves altern. ovate spiny-toothed 3-nerved netted hoary villous, Scales of invol. toothed spiny villous
12508 Leaves altern. obl. cuneiform spiny-toothed villous on each side, Scales of invol. toothed spiny
12509 Leaves altern. lanc. pinnatifid downy beneath : segm. entire spiny at end, Scales of invol. 3 or 5-fid
12510 Leaves opp. lanc. 3-nerved spiny-toothed downy beneath, Scales of invol. spiny-toothed
12511 Leaves altern. lanc. spiny-toothed downy beneath, Stem herbaceous 1-headed, Scales of invol. lanc. spiny-toothed
12512 Leaves altern. lanc. amplexicaul. spiny-toothed ciliated smooth on each side, Heads cernuous

12513 Leaves altern. lanceolate oblong fleshy
12514 Leaves opp. somewhat amplexicaul. ovate

and Miscellaneous Particulars.

1806. *Osmites.* From οσμη, perfume. One of the species gives out a strong smell of Camphor.

1807. *Encelia.* A name of Adanson's, the meaning of which is unknown. A pretty half shrubby plant, with grey soft leaves.

1808. *Sclerocarpus.* From σκληρος, hard, and καρπος, fruit, with reference to the bony covering of the grain.

1809. *Cullumia.* Named after Sir Thomas Cullum, an English baronet, and one of the earliest promoters of the principles of Linnæus in this country. He is still living, at a very advanced age.

1810. *Berckheya.* Named after John Lefranc de Berckhey, a Dutch botanist.

1811. *Didelta.* From δις, double, and δελτα, a Greek letter equivalent to the English D; because the receptacle resembles a double triangle.

1812.	**GORTE'RIA.** *W.*	GORTERIA.				*Compositæ.*		*Sp.* 1—3.				
12515	persoňáta *W.*	procumbent		⊔○ or	½	jl.au	Y	C. G. H.	1774.	S	co	Jac. col.4 t.21.f.1
1813.	**GAZA'NIA.** *H. K.*	GAZANIA.				*Compositæ.*		*Sp.* 4—9.				
12516	rígens *H. K.*	great-flowered	♣	⊔ or	1	my.s	Or	C. G. H.	1755.	C	p.l	Bot. mag. 90
12517	uniflóra *B. M.*	garden	♣	⊔ or	1	jl.au	Y	C. G. H.	1816.	C	p.l	Bot. mag. 2270
12518	Pavónia *H. K.*	Peacock	¥	⊔△ or	1½	jn.jl	Y	C. G. H.	1804.	C	p.l	Bot. reg. 35
12519	subuláta *H. K.*	awl-leaved	¥	⊔△ or	1	jl.au	Y	C. G. H.	1792.	D	l.p	
1814.	**CRYPTOSTEM'MA.**	CRYPTOSTEMMA.				*Compositæ.*		*Sp.* 3—5.				
12520	calenduláceum *H.K.*	Marygold-flow.		○ or	1	jn.au	Y.Pu	C. G. H.	1752.	S	co	Bot. mag. 2252
12521	hypochondríacum *H.K.*	divided-rayed		○ or	1	jl.au	Y	C. G. H.	1731.	S	co	
12522	runcinátum *H. K.*	Dandelion-lvd.		○ or	1	jl.au	Y	C. G. H.	1794.	S	co	
1815.	**ARCTOTHE'CA.** *W.*	ARCTOTHECA.				*Compositæ.*		*Sp.* 1.				
12523	répens *W.*	creeping		⊔△ or	1	jl.au	Y	C. G. H.	1793.	D	co	Jac.schœ.3.t.306
1816.	**SPHENO'GYNE.** *H.K.*	SPHENOGYNE.				*Compositæ.*		*Sp.* 7.				
12524	anthemoídes *H. K.*	white-crowned		○ el	½	jl.s	Y	C. G. H.	1774.	S	co	Bot. mag. 544
12525	crithmifólia *H. K.*	Samphire-leav.	♄	⊔ el	1	ap.au	Y	C. G. H.	1768.	C	l.p	Bur. afr. t. 65.f.1
12526	scariósa *H. K.*	scaly-cupped	♄	⊔ el	1	ap.au	Y	C. G. H.	1774.	C	l.p	
12527	abrotanifólia *H. K.*	Southernw.-lv.	♄	⊔ el	1	my.au	Y	C. G. H.	1789.	C	l.p	
12528	dentáta *H. K.*	small-leaved	♄	⊔ el	1½	jn.jl	Y	C. G. H.	1787.	C	l.p	Burm. afr. t. 64
12529	odoráta *H. K.*	smooth-seeded	♄	⊔ el	1	ap.jn	Y	C. G. H.	1774.	C	l.p	
12530	pilífera *Ker.*	piliferous	♄	⊔ el	1½	d	Y	C. G. H.	1821.	C	l.p	Bot. reg. 604
1817.	**ZŒ'GEA.** *W.*	ZŒ'GEA.				*Compositæ.*		*Sp.* 1.				
12531	Leptaúrea *W.*	yellow-flowered		○ un	½	jl.au	Or	Levant	1779.	S	co	Jac. ic. 1. t. 177
1818.	**LEU'ZEA.** *Dec.*	LEUZEA.				*Compositæ.*		*Sp.* 2—5.				
12532	conífera *Dec.*	cone	♃	△ or	½	jn.s	Pu	S. Europe	1683.	D	l.p	Ann. mu. 16.t.14
12533	altáica *Link.*	Altai	♃	△ or	½	jn.s	Pu	Siberia	1822.	D	co	
1819.	**CENTAU'REA.** *W.*	CENTAURY.				*Compositæ.*		*Sp.* 101—182.				
12534	phrýgia *W.*	feathery-calyx.	♃	△ or	1½	jn.o	Pu	Switzerl.	1633.	D	co	Fl. dan. 520
12535	salicifólia *Bieb.*	Willow-leaved	♃	△ or	1½	jn.o	Pu	Caucasus	1823.	D	co	
12536	pectináta *W.*	pectinated	♃	△ or	1	jl.o	Pu	France	1727.	D	co	
12537	austrìaca *W.*	Austrian	♃	△ or	1½	jn.o	Pu	Austria	1815.	D	co	
12538	uniflóra *W.*	one-headed	♃	△ or	1	jn.o	Pu	S. Europe	1819.	D	co	
12539	flosculósa *W.*	flosculous	♃	△ or	1	jn.o	Pu	Italy	1818.	D	co	
12540	nervósa *W. en.*	nerved	♃	△ or	1½	jn.s	Pu	S. Europe	1815.	D	co	
12541	trichocéphala *W.*	downy-calyxed	♃	△ or	1	jl.au	Pu	Siberia	1805.	D	co	Gm.s.2.t.45.f.1.2
12542	rivuláris *Brot.*	river-side	♃	△ or	2	jl.s	Br	Portugal	1812.	D	co	
12543	hyssopifólia *W.*	Hyssop-leaved	♄	⊔ or	½	jl.au	Pu	Spain	1812.	C	co	Barr. ic. 306
12544	nígra *W.*	Black Knapweed	♃	△ w	1	my.au	Pu	Britain	past.	D	co	Eng. bot. 278
12545	nigréscens *W.*	dark	♃	△ un	1½	jn.au	Pu	Hungary	1805.	D	co	
12546	Triumfétti *W.*	Triumfetti's	♃	△ un	1	jn.au	Pu	M. Cenis	1820.	D	co	
12547	montána *W.*	mountain	♃	△ or	1½	jn.au	B	Austria	1596.	D	co	Bot. mag. 77
12548	axilláris *W.*	axillary	♃	△ or	1	jn.au	Pu	Austria	1823.	D	co	
12549	Cyánus *W.*	Blue-bottle		○ or	3	jn.au	B	Britain	corn fi.	S	co	Eng. bot. 277
12550	paniculáta *W.*	panicled	♃	⊙ or	1½	jl.au	Pu	Europe	1640.	S	co	Jac. aust. 4.t.320
12551	spinósa *W.*	prickly-branch.	♃	⊔△ or	2	jl.s	Pu	Candia	1640.	C	p.l	Bot. mag. 2493

History, Use, Propagation, Culture,

1812. *Gorteria.* Named after David Gorter, a Dutchman, professor of botany at Harderwych, and afterwards physician to Elizabeth, Empress of Russia. He published a Flora Belgica in 1767, and assisted Kraschenninikoff in his Flora Ingrica G. Rigens is a very showy plant when the flowers are fully expanded. All the species are of easy culture.

1813. *Gazania.* Supposed to have been so called from γαζα, riches, in allusion to the splendour of the flowers.

1814. *Cryptostemma.* From κρυπτον, concealed, and στεμμα, a crown; the scaly crown of the grains being involved in wool. Tender annuals, natives of the Cape of Good Hope.

1815. *Arctotheca.* See Arctotis, from which this has been divided.

1816. *Sphenogyne.* So called from σφην, a wedge, and γυνη, a female, in allusion to the wedge-shaped stigmas. Pretty annual flowers.

1817. *Zoegea.* Named after Dr. J. Zoega, who published a Flora Islandica in 1775. *Leptaurea* is an abbreviation of *Lepto-centaurea*, small centaurea.

1818. *Leuzea.* Divided by M. Decandolle, from Centaurea, from which it differs in not having the outer florets barren, nor the pappus with simple hair, nor the insertion of the fruit oblique. He named it after his friend Deleuze.

12515 Leaves lanc. entire and sinuated, Stem erect, Flowers stalked

12516 Leaves lanc. spatulate and pinnatifid entire white with down beneath, Pedunc. 1-headed terminal
12517 Stem shrubby decumbent, Leaves spatulate-lanceolate downy beneath, Ray same color as disk
12518 Leaves pinnatifid hairy above downy beneath : segm. oval-lanc. Scape 1-headed, Stem decumbent
12519 Stem leafy decumbent 1-headed, Leaves subulate linear revolute at edge downy beneath

12520 Ligulæ undivided, Leaves pinnatifid toothed downy beneath
12521 Ligulæ 3-5-parted, Leaves lyrate downy
12522 Ligulæ 3-5-parted, Leaves runcinate toothed downy beneath

12523 The only species

12524 Smooth, Lvs. bipinnatifid or pinnatifid linear-filiform, Lvs. of pappus white
12525 Smooth, Lvs. pinnatifid linear filiform, Outer leaflets of invol. subulate
12526 Leaves bipinnatifid or pinnatifid linear filiform smooth, Scales of invol. scarious blunt shining
12527 Leaves bitripinnatifid and invol. downy
12528 Leaves pinnatifid smoothish : segm. 2-3-toothed, Teeth piliferous, Outer scales of invol. lanceolate
12529 Leaves flat smooth cut pinnatifid at end, Outer lvs. of invol scarious at end, Pappus obsolete
12530 Leaves fleshy linear pinnatifid and bipinnatifid, Pappus much shorter than the florets of disk

12531 The radical and lower cauline leaves pinnatifid

12532 Leaves tomentose : root ones lanceolate ; stem ones pinnatifid, Stem simple
12533 Flower very large

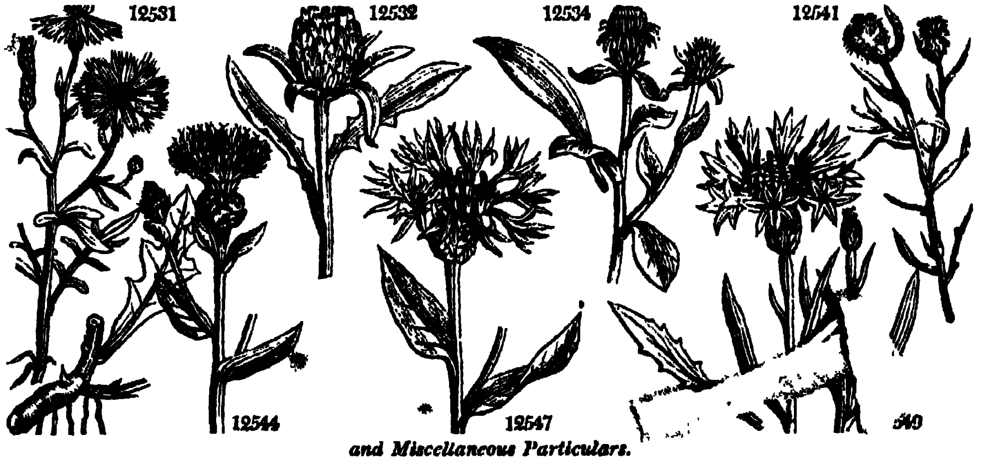
§ 1. CYANUS. *Involucrum ciliated, unarmed.*

* *Involucrum with feathery setæ.*

12534 Inv. recurved-feathery, Leaves oblong undivided scabrous mucronate serrulated
12535 Inv. recurved-feathery top-shaped, Leaves oblong undivided scabrous mucronate serrulated, Stem simple
12536 Invol. recurved feathery, Leaves mucronate-serrated : lower stem ones sinuate pinnatifid
12537 Invol. recurv. feathery, Lvs. egg-shap. undivid. scabr. gross. tooth. : upp. ones and those of branches undivid.
12538 Invol. recurved feathery, Leaves lanceolate sometimes toothed downy
12539 Invol. recurved feathery, Head without a neutral ray, Leaves hairy lanceolate remotely toothed
12540 Invol. recurved feathery, Leaves ovate lanceolate toothed at base nerved downy, Corollas flosculous
12541 Invol. recurved feathery pubescent, Leaves linear-lanceolate quite entire scabrous
12542 Invol. erect feathery, Lower lvs. lanc. attenuat. into the petiole serrul. ; caul. ov.-obl. downy on each side
12543 Invol. recurved feathery pubesc. Head without a neutral ray, Lvs. lin. quite entire, Stem somew. shrubby

** *Involucrum with ciliated appendages.*

12544 Scales of the invol. ovate ciliated with capillary teeth, Lower leaves angular lyrate : upper ones ovate
12545 Innermost invol. scales scarious, Root lvs. obsoletely pinnatif. : lower stem ones somew. tooth. at the base ;
upper ones undivided quite entire
12546 Invol. serrated with white ciliæ, Leaves decurrent deeply pinnatifid, Pinnæ generally two
12547 Invol. serrated, Leaves smoothish lanceolate quite entire decurrent, Stem simple
12548 Invol. ciliated variegated, Leaves sessile linear downy, Stem 1-headed
12549 Scales of the involucre serrated, Leaves linear entire : the lowermost toothed
12550 Invol. ciliated egg-shaped, Scales flat close-pressed : Lower lvs. bipinnatif. : upper pinnatif. Stem panicled
12551 Invol. ciliated, Root lvs. undivided and pinnatifid smooth, Stem lvs. downy pinnatifid, Branches spinous



and Miscellaneous Particulars.

1819. *Centaurea.* It is said, that with this plant, the *Centaur* Chiron cured the wound in his *foot* made by the arrow of Hercules. Crupina is from the Dutch verb *kruipen*, which signifies to creep; because the dark multifid pappus resembles the legs of a creeping insect.

Phrygia signifies dry (*φρυγιος*), in allusion to its calyx.

Jacea is said to have been so named from *jacere*, to lie down, on account of its prostrate habit.

Calcitrapa, the Latin of a caltrop, or iron ball covered with stiff spines, formerly used in warfare to impede the operations of cavalry. Its calyx is very like one of these instruments.

Centaurea Crocodilium is so named, because the spines of the calyx have been fancifully likened to the claws of a Crocodile.

Verutum, the name of another species, is the Latin of a short javelin used by the Roman foot-soldiers. The spines on its calyx resemble a small dart.

C. nigra is a harsh stubborn weed in meadows and permanent pastures, seldom touched by cattle either green or in hay, and with difficulty extirpated. C. cyanus, *Bluet*, Fr., *Kornblume*, Ger., and *Ciano*, Ital., is a common weed in corn fields, on gravelly soils, throughout Europe, and also a popular border annual. The expressed juice of the natural florets makes a good ink; it also stains linen of a beautiful blue, but the color is not permanent. C. benedicta was so called from its being supposed to possess extraordinary medical powers; it was

12552 Cinerária *W.*	hoary-leaved	⚘	△|	or	3	jl.au	Pu	Italy	1710.	D	co	Mor. s.7. t.26.f20
12553 cinérea *W.*	gray	⚘	△	or	2	jn.jl	Pu	Italy	1710.	D	co	Jac. vind. 1. t. 92
12554 dealbáta *W.*	mealy	⚘	△	or	1½	jl.au	Pu	Caucasus	1804.	D	co	
12555 argéntea *W.*	silver-leaved	ⱳ	⊔	or	1½	jl.au	Pa.Y	Candia	1739.	C	p.l	Barr. ic. t 218
12556 coriácea *W.*	leathery-leaved	⚘	△	or	1½	jn.jl	Pu	Hungary	1804.	D	co	Pl.rar hu.2.t.195
12557 Fischéri *W. en.*	Fischer's	⚘	△	or	2	jn.jl	Vi	Siberia	1816.	D	co	
12558 macrocéphala *W.*	large-headed	⚘	△	or	3	jn.au	Y	Caucasus	1805.	D	co	Bot. mag. 1248
12559 átropurpúrea *W.*	dark-purple	⚘	△	or	3	jn.au	Pu	Hungary	1802	D	co	Pl.rar.hu.2.t.116
12560 aláta *W.*	winged-stalked	⚘	△	or	1½	au.s	Y	Tartary	1781.	D	co	Vent. cels. 80
12561 elongáta *W.*	long	⚘	△	or	2	au.s	Vi	Barbary	1823.	D	co	
12562 Scabiósa *W*	Greater Knapw.	⚘	△	w	1½	jn.au	Pu	Britain	corn fi.	D	co	Eng. bot. 56
12563 intybácea *H. K.*	Succory-leaved	⚘	△	or	1½	jl.s	Pu	S. Europe	1778.	D	co	
12564 maculósa *P. S.*	spotted-calyxed	⚘	△	or	1	jl.au	Pu	Siberia	1816.	D	co	Gm.s.2.t.44.f.1,2
12565 Stœ'be *W.*	wing-leaved	⚘	△	or	1	jn.jl	Y	Austria ?	1759.	D	co	
12566 ochroleúca *W.*	Caucasian	⚘	△	or	1½	jl au	Pa.Y	Caucasus	1801.	D	co	Bot. mag. 1175
12567 ovína *W.*	sheep's	⚘	△	or	1	jl.n	Y	Caucasus	1802.	D	co	
12568 sempervírens *W.*	evergreen	♄	△|	or	1½	jl au	Y	Spain	1683.	C	p.l	Bocc.sic. t 39.f.3
12569 ragusína *W.*	white-leaved	ⱳ	⊔	or	2	jn.jl	Y	Candia	1710.	C	p.l	Bot. mag. 494
12570 tatárica *W.*	Tartarian	⚘	△	or	2	jl.au	Y	Tartary	1801.	D	co	
12571 calocéphala *W. en.*	smooth-stalked	⚘	△	or	3	jn.au	Y	Levant	1816.	D	co	

12572 coronopifólia *W.*	Buck's-horn		○	or	3	jn jl	Y	Levant	1739.	S	co	
12573 parviflóra *W.*	small-flowered	⚘	△	or	1½	jn.jl	Vi	Barbary	1823.	D	co	
12574 refléxa *W.*	crook-spined	⚘	△	or	3	jl.au	Y	Iberia	1801.	D	co	
12575 centauroídes *W.*	lyre-leaved	⚘	△	or	3	my.jl	Y	S. Europe	1739.	D	co	Col. ecph 1. t. 35
12576 collína *W.*	hill	⚘	△	or	3	jn.jl	Y	S. Europe	1596.	D	co	
12577 rupéstris *W.*	rock	⚘	△	or	2	jl.au	Y	Italy	1804.	D	co	Co.ecp.1 t. et f.2
12578 pubéscens *W.*	downy	⚘	△	or	1	jl.au	Y	......	1804.	D	co	
12579 Balsamíta *W.*	Syrian	⚘	△	or	2	jl.au	Y	Syria	1820.	D	co	
12580 aúrea *W.*	great-golden	⚘	△	or	2	jl.s	Y	S. Europe	1758.	D	co	Bot. mag 421
12581 peregrína *W.*	soft-leaved	⚘	◑	or	2	jl.au	Y	S. Europe	1749.	S	co	
12582 radiáta *W.*	rayed	⚘	△	or	1½	jl.au	W	Siberia	1804.	D	co	Gm.sib.2.t.47.f.1
12583 sórdida *W.*	sordid	⚘	△	or	1	jl.au	Pu	......	1818.	D	co	
12584 hýbrida *W.*	hybrid	⚘	△	or	1½	jl.au	Y	Tauria	1822.	D	co	
12585 rígida *W*	rigid	⚘	△	or	1	jl.au	Pu	......	1823.	D	co	

12586 sonchifólia *W.*	Sow-thistle-lvd.	⚘	△	or	1	au.o	Pu	[illegible] .terr.	1780.	D	co	Pluk.phyt.39. f.1
12587 cruénta *W. en.*	obovate-leaved	⚘	△	or	1	jn.au	Pu	......	1816.	D	co	
12588 Séridis *W.*	purple-flower'd	⚘	△	or	1	jn.au	Pu	Spain	1686.	D	co	Plu.alm. t.38 f 1
12589 románа *W.*	Roman	⚘	◑	or	3	jl.s	R	Rome	1739.	S	co	Barr. rar. t. 504
12590 férox *W.*	hedgehog	⚘	△|	or	2	jl.s	Pu	Barbary	1790.	S	p.l	Desf atl 2. t 242
12591 sphærocéphala *W.*	globe-headed	⚘	△	or	2	jl.au	Pu	S. Europe	1683.	D	co	Bot. mag. 2551
12592 Isnárdi *W*	Jersey	⚘	△	or	1	jl.au	Pu	Britain	Jersey.	D	co	Eng. bot 2256
12593 napifólia *W.*	Turnip-leaved		○	or	3	jl.s	Pu	Candia	1691.	S	co	Herm. par. t 189
12594 áspera *W.*	rough		○	or	2	jn.o	Pu	S. Europe	1772.	S	co	Boc. mus.35. t.26
12595 pulláta *W.*	various-colored	⚘	△	or	2	jn.au	Pu	S. Europe	1759.	D	co	Lob. ic. t.542. f.2
12596 polyacántha *W.*	many-spined		○	or	½	jl.au	Pu	Portugal	1804.	S	co	
12597 benedicta *W.*	Blessed Thistle		○	or	2	jn.o	Y	Spain	1548.	S	co	Zorn. ic. 122
12598 solstitiális *W.*	Barnaby's Thistle		○	or	2	jl.au	Y	England	fields.	S	co	Eng. bot. 243
12599 meliténsis *W.*	cluster-headed		○	or	½	jl.au	Y	Malta	1710.	S	co	Bocc. sic. t. 35

12600 sulphúrea *W. en.*	sulphur-colored		○	or	½	jl.au	Y	......	1815.	S	co	
12601 sícula *W*	Sicilian		○	or	1½	jl.au	Y	Sicily	1710.	S	co	Bocc. sic. t. 8. f.1
12602 Adámi *W.*	Adams		○	or	1	jl.au	Y	Siberia	1804.	S	co	

12603 straminea *W.*	straw-colored		○	or	½	jl.au	Y	Egypt	1801.	S	co	W. hort. ber. 26

12604 erióphora *W.*	woolly-headed		○	or	¾	jn.o	Y	Portugal	1714.	S	co	
12605 Calcítrapa *W.*	Star-thistle		○	or	1	jl.au	Pk	England	gra.so.	S	co	Eng. bot. 125
12606 calcitrapoídes *W.*	Phœnician		○	or	1	jn.jl	Pu	Levant	1683.	S	co	
12607 Verútum *W.*	dwarf		○	or	2	au.s	Y	Levant	1780.	S	co	Jac. ic. 1. t. 178
12608 ægyptíaca *W.*	Egyptian	⚘	△|	or	1	jn.s	W	Egypt	1790.	C	p.l	

History, Use, Propagation, Culture,

said not only to destroy worms and cure fevers, but also the plague, and the most putrid and stubborn ulcers and cancers. At present it is in no estimation whatever.

It has by some botanists been thought advisable to separate this genus into several others; but the differences upon which the separation has been made depend upon variations in the form of the involucrum,

12552 Invol. ciliated, Leaves downy very white all compound : lowest bipinnatifid ; highest pinnate-laciniated
12553 Invol. ciliated, Leaves somewhat downy cinereous : lower ones pinnate-laciniate ; upper ones simple
12554 Invol. ciliated, Lvs. downy underm. Root lvs. bipinnatifid : segm. lanceolate acute, Stem-leaves pinnatifid
12555 Invol. serrated, Leaves downy : root ones pinnated ; upper 1-eared
12556 Invol. ciliat. smooth, Lvs. pinnatif. scabr. Segm. obl. lanc. acute : highest root ones sometimes cut at base
12557 Invol. ciliated sphacelate, Scales spreading, Leaves obl. lanc. entire villous downy : cauline decurrent
12558 Invol. scales roundish egg-shaped ciliated, Leaves oblong lanc. undivided very scabrous acute serrated
12559 Invol. scales ovate lanceolate serrate-ciliated, Leaves bipinnatifid, Segments lanceolate
12560 Invol. egg-shaped smooth, Scales somew. scar. at tip, Lvs greenish decurr. undivided : radical ones lyrate
12561 Inv. scales scar. at tip serr. Lvs.scab. at edge : root ones obl. tooth. ; stem ones lanc.somew.decurr. quite ent.
12562 Scales of the involucre ciliated ovate pubescent, Leaves pinnatifid roughish : the segm. lanceolate acute
12563 Invol. ciliated nearly globular, Leaves deeply pinnatifid, Segments linear
12564 Invol. ciliated ovate roundish beautifully spotted, Leaves slender bipinnatifid, Stem a little panicled
12565 Invol. ciliated oblong, Leaves pinnatifid linear quite entire
12566 Invol. serrated, Leaves oblong serrated decurrent and undivided [branched divaricated
12567 Invol. ciliat. Scales ovate-lanc. spread. at tip, Lower lvs. bipinnatif. lanc. lin. : upper ones pinnatifid, Stem
12568 Invol. ciliated, Leaves lanceolate serrated : lowest tooth elongated so as to appear like a stipule
12569 Invol. ciliated, Leaves downy pinnatifid, Segments obtuse egg-shaped quite entire : outer ones largest
12570 Invol. ciliated, Leaves scabrous : underneath pinnatifid, Segments lanceolate sometimes toothed
12571 Invol. scarious, Scales ovate lanceolate serrated ciliated, Leaves scabrous beneath : radical bipinnatifid

§ 2. Calcitrapa. *Involucrum ciliated with spines.*

* *Spines simple.* [panicled

12572 Invol. erect feathery, Head without a neutral ray, Lower lvs. pinnatif. : upper ones lin. All quite ent. Stem
12573 Invol. ciliate-spinous egg-shaped, Scales reflexed at tip, Lvs. hoary : root ones lyrate ; stem ones linear
12574 Invol. ciliate-spinous at tip, Spines of lower scales reflex. Lvs. pinnat. Pinnæ lin.obt. Root leaves bipinnat.
12575 Invol. ciliate-spinous, Leaves lyrate-pinnated generally entire : terminal lobe large toothed
12576 Invol. ciliate-spinous, Stem-leaves pinnatifid : root ones bipinnatifid, Segments lanceolate
12577 Invol. ciliate-spinous, Stem-leaves pinnated : root leaves bipinnated, Pinnæ linear-filiform
12578 Invol. ciliate-spin. at tip, Stem-lvs. pinnatif. lin. lanc. : root ones bipinnatif. Segm. lanc. terminal 1-toothed
12579 Invol. ciliate fringed with straight rigid white bristles, Lvs. obl. a little toothed, Head yell. without a ray
12580 Invol. simply spinous, Spines spreading, Florets equal, Leaves hairy : lower ones pinnatifid
12581 Invol. bristly spinous, Leaves lanceolate petioled toothed near the base
12582 Invol. scarcely spinous somewhat awned rayed, Leaves pinnatifid
12583 Invol. ciliated spinous, Stem-leaves pinnated quite entire : root-leaves bipinnatifid
12584 Invol. ciliate spinous at the tip, Leaves hoary pinnatifid quite entire : upper ones linear-lanceolate
12585 Invol. ciliate subspiny, Leaves oblong downy sessile somewhat toothed ; narrowed at base deeply toothed

** *Spines palmate.*

12586 Invol. palm.-spin. Spines reflex. Lvs. obl. smooth. embracing the stem ½ decurr. repand tooth. Teeth prickly
12587 Invol. palm.-spinous, Spines reflex. Lvs. obov. somew. tooth. stalked : floral somew. decurr. mucro.-toothed
12588 Inv. palm.-spin. Spines reflex. Lvs. obl. hoary embrac. stem ½-decurr. tooth. cut at base, Teeth rather prickly
12589 Invol. palm. spinous, Lvs. decurr. not prickly : root ones pinnatifid ; terminal lobe very large
12590 Inv. palm. spin. Spines reflex. larger than calyx, Lvs. hoary obl. sess. decurr. pinnatifid, Teeth not prickly
12591 Invol. palmate spinous, Lvs. ovate-lanc. petioled toothed
12592 Invol. palmate spinous solitary sess. Lvs. lanc. a little embracing the stem pinnatifid toothed
12593 Invol. palmate spinous, Stem lvs. lanc. toothed decurrent : root lvs. lyrate obtuse
12594 Invol. palmate spinous, Spines 3 or 5, Lvs. lanc. sessile toothed
12595 Invol. ciliated surrounded by a whorl of long lvs. Lvs. lyrate toothed obtuse
12596 Invol. palmate spinous, Lvs. embracing the stem runcinate pinnatifid prickly : toothed root ones lyrate
12597 Invol. doubly spinous woolly bracteated, Leaves half decurrent toothed spiny
12598 Invol. palm. spinous term. solitary, Spines straight, Lvs. lanc. decurr. not prickly : root ones lyrate
12599 Invol. palm. spin. term. ones clustered sess. Spines straight, Lvs. lanc. scabrous decurr. not prickly : lower stem ones a little toothed ; root ones sinuated
12600 Invol. palm. spinous solitary subsessile, Spines straight, Lvs. lanc. scabrous toothletted decurrent
12601 Inv. palm. spin. Spines spread. Lvs. scabr. : stem lvs. lanc. a little embrac. stem finely tooth. ; root ones lyrate
12602 Invol. palm. spinous solit. Spines straight : inner scales scarious at the tip, Lvs. downy lanc. decurr. : lower ones finely toothed pinnatifid at the base
12603 Invol. palmate spinous terminal sess. glomerated, Leaves petioled pinnatifid cut-toothed

*** *Appendages of involucrum spiny-pinnate.*

12604 Invol. doubly spinous woolly, Lvs. half decurrent entire and sinuated, Stem proliferous
12605 Invol. doubly spinous sess. Lvs. pinnatifid toothed, Stem divaricated spreading hairy
12606 Invol. somewhat doubly serrated, Lvs. embracing the stem lanc. undivided serrated [entire decurr.
12607 Inv. palm. spin. : midd. spine very long ; lat. ones short, Root-lvs. sinuate-pinnatif. Stem ones lanc. quite
12608 Invol. doubly spinous somewhat woolly, Lvs. sess. lanc. entire and toothed, Stem proliferous

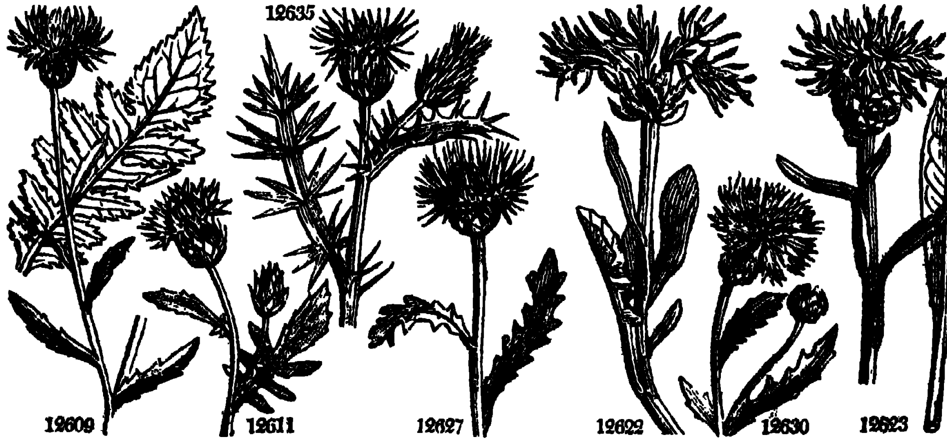
and Miscellaneous Particulars.

unconnected with differences of organization ; they are therefore not adopted here. The tribe of Centaureæ of M. Cassini is not distinguished from Carduineæ by any very important characters. The greater part of the species are natives of Europe and Asia, several of Africa, a very few of America, and none of the southern parts of the world.

12609 salmántica *W.*	Ragwort-leaved	♃ ⊙	or	3	jl.au	Pu	S. Europe	1596.	S	co	Jac. vind. 1. t. 64
12610 muricáta *W.*	muricated	○	or	1	jl.au	Pu	Spain	1621.	S	co	
12611 Crocodýlium *W.*	blush-flowered	○	or	1½	jl.au	Pu	Levant	1777.	S	co	Barr. rar. t. 503
12612 Rhapóntica *W.*	Swiss	♃ △	or	1½	jl.au	Pu	Switzerl.	1640.	D	co	Bot. mag. 1752
12613 babylónica *W.*	Babylonian	♃ △	or	7	jn.s	Y	Levant	1710.	D	co	Alp. exot. t. 282
12614 spléndens *W.*	shining	♃ ⊙	or	3	jl.au	Pu	Spain	1597.	S	co	
12615 dilúta *H. K.*	pale-flowered	♃ △	or	2	jl.au	Pa.pu	S. Europe	1781.	D	co	
12616 decúmbens *P. S.*	decumbent	♃ △	or	1½	jl.s	Pu	France	1815.	D	co	
12617 Jácea *W.*	Brown Knapw.	♃ △	w	1½	jl.s	Pu	England	past.	D	co	Eng. bot. 1678
12618 tagána *W.*	Portugal	♃ △	un	1½	jl.au	Pu	Portugal	1640.	D	co	Brot.phy.lus. t.3
12619 álba *W.*	white-flowered	♃ △	or	2	jn.s	W	Spain	1597.	D	co	
12620 amára *W.*	bitter	♃ △	or	1½	jl.au	Pu	Italy	...	D	co	Boc. mus.31.t.17
12621 nìtens *W.*	shining	○	or	2	jl.au	Pu	Caucasus	1823.	S	co	Bu.cen.2.t.15.f.1
12622 sibírica *W.*	Siberian	♃ △	or	1	jl.au	R	Siberia	1782.	D	co	Gm.sib.2.t.42.f.2
12623 glastifólia *W.*	Woad-leaved	♃ △	or	4	jn.s	Y	Siberia	1731.	D	co	Bot. mag. 62
12624 orientális *W.*	oriental	♃ △	or	1½	jl.au	Y	Siberia	1759.	D	co	
12625 Béhen *W.*	saw-leaved	○	or	1½	jl.au	Y	Levant	1797.	S	co	
12626 répens *W.*	creeping	♃ △	or		jn.au	Y	Levant	1739.	D	co	
12627 moscháta *W.*	Sweet Sultan	○	or	2	jl.o	Pu	Persia	1629.	S	s.l	Kn. thes.2. t.C.4
12628 Centaúrium *W.*	great	♃ △	or	4	jl.au	Y	Italy	1596.	D	co	
12629 ruthénica *W.*	Russian	♃ △	or	3	jl.au	Pa.Y	Russia	1806.	D	co	Gmel. sib. 2. t.41
12630 suavéolens *W.*	Yellow Sultan	○	or	1½	jl.o	Y	Levant	1683.	S	s.l	Sweet fl. gard.51
12631 Crupína *W.*	black-seeded	○	or	3	jn.jl	F	Italy	1596.	S	co	Col.ecphr.1.t.34
12632 Lippii *W.*	Lippi's	○	or	1	jn.jl	Pa.pu	Egypt	1739.	S	co	Is.a.pa.1719.t.10
12633 glaúca *W.*	glaucous	♃ △	or		jn.jl	Pa.Y	Caucasus	1805.	D	co	
12634 alpína *W.*	Alpine	♃ △	or	3	jl.au	Y	Italy	1640.	D	co	Corn.can 69.t 70
1820. GALAC'TITES. *P. S.*	Galactites.				*Compositæ.*		*Sp.* 1.				
12635 tomentósa *P. S.*	woolly	○	or	1½	jl.au	Pu	S. Europe	1738.	S	co	An. mus.16. t. 9

NECESSARIA.

1821. WEDE'LIA. *W.*	Wedelia.				*Compositæ.*		*Sp.* 3—21.				
12636 híspida *Kth.*	hispid	£ △]	or	1½	jn	Y	N. Spain	1819.	D	co	Bot. reg. 543
12637 radiósa *Ker.*	many-rayed	ℓ □	or	3	ap.n	Y	Brazil	1820.	C	co	Bot. reg. 610
12638 perfoliáta *W.*	perfoliate	⊡	un	2	jl.au	Y	Mexico	1796.	S	co	Cav. ic. 1. t. 15
Alcina perfoliáta Cav.											
1822. MILLE'RIA. *P.S.*	Milleria.				*Compositæ.*		*Sp.* 2.				
12639 quinqueflóra *W.*	five-flowered	⊡	un	2	jl.o	Y	Vera Cruz	1731.	S	co	Cav. ic. 1. t. 82
12640 biflóra *W.*	two-flowered	⊡	un	1	jl.o	Y	Campeachy	1730.	S	co	Mart. dec. 47. f.1
1823. BALTIMO'RA. *W.*	Baltimora.				*Compositæ.*		*Sp.* 1.				
12641 récta *W.*	upright	○	un	2	jn.jl	Pa.Y	Vera Cruz	1699.	S	co	Sch.ha.3. t.261.C
1824. SIL'PHIUM. *W.*	Silphium.				*Compositæ.*		*Sp.* 10—15.				
12642 laciniátum *W.*	jagged-leaved	♃ △	w	12	jl.s	Y	N. Amer.	1781.	D	co	Lin. fil. fas.1. t.3
12643 compósitum *W.*	scollop-leaved	♃ △	w	6	jl.s	Y	N. Amer.	1789.	D	co	
12644 terebinthináceum *W.*	broad-leaved	♃ △	w	6	au.s	Y	N. Amer.	1765.	D	co	Jac. vind. 1. t. 43
12645 perfoliátum *W.*	perfoliate	♃ △	w	7	jl.o	Y	N. Amer.	1766.	D	co	
12646 conjúnctum *W. en.*	conjoined	♃ △	w	7	jl.o	Y	N. Amer.	...	D	co	
12647 connátum *W.*	round-stalked	♃ △	w	6	jl.o	Y	N. Amer.	1765.	D	co	
12648 Asteríscus *W.*	hairy-stalked	♃ △	w	5	jl.s	Y	N. Amer.	1732.	D	co	Dill.elt. t.37.f.42
12649 trifoliátum *W.*	three-leaved	♃ △	w	6	jl.o	Y	N. Amer.	1755.	D	co	Moris.s.6.t.3.f.68
12650 ternátum *W.*	various-leaved	♃ △	w	4	jl.o	Y	N. Amer.	1806.	D	co	
12651 átropurpúreum *W*	purple-stalked	♃ △	w	4	jl.o	Y	N. Amer.	1812.	D	co	



History, Use, Propagation, Culture,

C. moschata is a handsome border annual, of which there is a white-flowered variety. C. Centaurium, nontana, splendens, and glastifolia, are among the most ornamental of the perennials.

1820. *Galactites.* A plant formerly included in Centaurea, and named on account of the milky veins of its eaves (γαλα, milk).

1821. *Wedelia.* Named after George Wolfgang Wedel, a German, born in 1625, died in 1721. He was professor at Jena, and published many learned dissertations upon the plants of the ancients. There was also a John Adolphus Wedel, professor in the same university.

§ 3. CROCODYLIUM. *Involucrum not ciliated, but spiny at end.*

12609 Invol. globul. smth. Spine very small weak a little reflex. Lvs. lanc. serrat. root ones lyrate, Stem divaricat.
12610 Invol. simply spinous villous, Lower lvs. lyrate toothed: upper ones lanc. Peduncles very long
12611 Invol. scarious simply spinous, Lvs. pinnatifid quite entire terminal: segm. larger toothed

§ 4. RHAPONTICUM. *Leaves of involucrum with a round scarious appendage, which is often lacerated.*

12612 Invol. scales lacerated, Lvs. ovate-obl. finely toothed tomentose [ones lyrate
12613 Invol. conical hard, Scales ending in a patulous point, Lvs. somew. tomentose decurr. undivided: root
12614 Inv. egg-shap. Scales mucronat. Lower lvs. bipinnatif. lin.: upper one pinnat. Pinnæ lin. sometimes toothed
12615 Invol. ciliated, Scales acum. somew. thorny, Lvs. obl. pinnatif. Florets of the ray longer than those of disk
12616 Invol. scarious, Scales dilated cut, Lvs. linear-lanc.: radical cut
12617 Scales of invol. scarious torn: lower ones pinnatifid, Lvs. lin. lanc.: the lower ones broader and toothed
12618 Invol. scales roundish quite ent. Lvs. obl. smth.: root ones serrat. Stem ones sometimes slightly cut at base
12619 Invol. scales entire mucronated, Lvs. pinnate toothed: stem ones linear toothed at the base
12620 Stems decumbent, Lvs. lanc. quite entire
12621 Invol. cylindrical, Scales mucronated, Lvs. pinnated, Pinnæ lin. mucronated quite entire
12622 Invol. scales egg-shaped obtuse ciliated, Lvs. downy on both sides pinnatif. and undivided, Stem declining
12623 Leaves undivided quite entire decurrent
12624 Invol. scales pectinate ciliated, Lvs. deeply pinnatifid, Segm. linear lanceolate [the stem decurrent
12625 Invol. conical, Scales quite ent. Lvs. coriaceous reticularly veined: root ones lyrate; stem ones embracing
12626 Leaves lanc. toothed somewhat petioled, Peduncles filiform leafless

§ 5. *Leaves of involucrum neither ciliated, nor spiny, nor with a scarious appendage.*

12627 Invol. roundish smooth, Scales egg-shaped, Lvs. lyrate toothed
12628 Invol. scales egg-shaped, Lvs. pinnated, Leaflets decurrent serrated
12629 Invol scales egg-shap. obt. Lvs. pinnat. smooth, Leafl. cartilagin. sharply serrat. termin. one obl. egg-shaped
12630 Invol. round. smooth, Lower lvs. broad somew. spatul. tooth.: upp. ones lyr. at base, Head yell. sweet-scent.
12631 Invol. scales linear awl-shaped, Leaves pinnated serrated
12632 Invol. scales mucronate, Leaves somewhat decurrent lyrate toothed
12633 Invol. pubescent, Scales roundish obtuse, Leaves deeply pinnatifid: lowest segments toothed
12634 Invol. scales egg-shaped obtuse, Leaves pinnated smooth quite entire odd one serrated

12635 Invol. bristly spinous, Leaves decurrent sinuated spinous downy underneath.

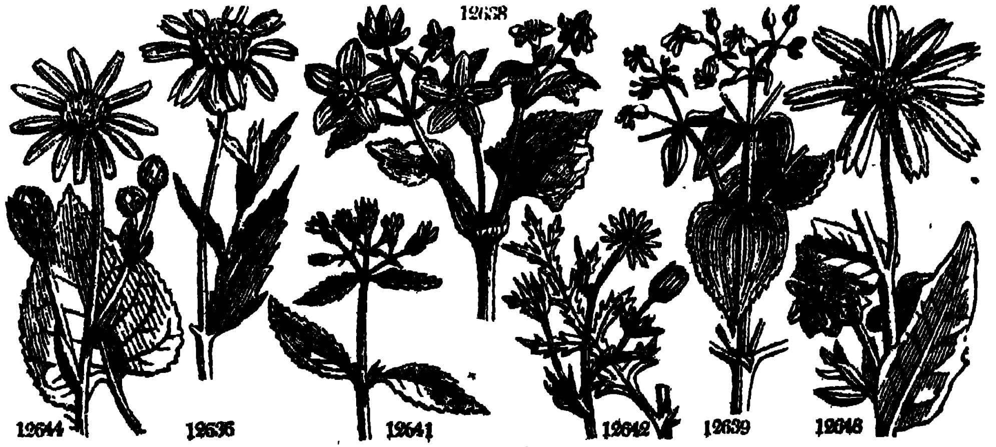
NECESSARIA.

12636 Leaves lanceolate acuminate serrated with a large tooth on each side at the base
12637 Leaves ovate-lanceolate, Invol. urceolate squarrose, Rays imbricated
12638 Stem herbaceous, Leaves rhomboid narrowed at base connate

12639 Leaves stalked roundish-ovate narrowed at base: floral subcordate, Pedunc. terminal dichotomous
12640 Leaves stalked oblong ovate ciliated, Pedunc. terminal aggregate

12641 Stem winged, Heads pale-yellow small

12642 Radical and cauline leaves pinnatifid, Stem hirsute
12643 Cauline leaves sinuate pinnatifid: radical ternate sinuate multifid
12644 Leaves alternate ovate serrated scabrous: radical cordate
12645 Leaves opposite deltoid stalked perfoliate, Stem square smooth
12646 Lvs. opp. conn. unequally toothed, Stem smooth square, Four outer sc. of invol. longer than the inner
12647 Leaves sessile stalked, Stem round scabrous
12648 Leaves opposite or alternate sessile oblong hairy: lower serrate, Stem round hispid
12649 Stems 6-angled, Leaves ternate ovate toothed, Panicle trichotomous
12650 Stems round, Leaves ternate somewhat toothletted, Panicle dichotomous
12651 Stems round, Leaves about 4 toothletted, Panicle dichotomous



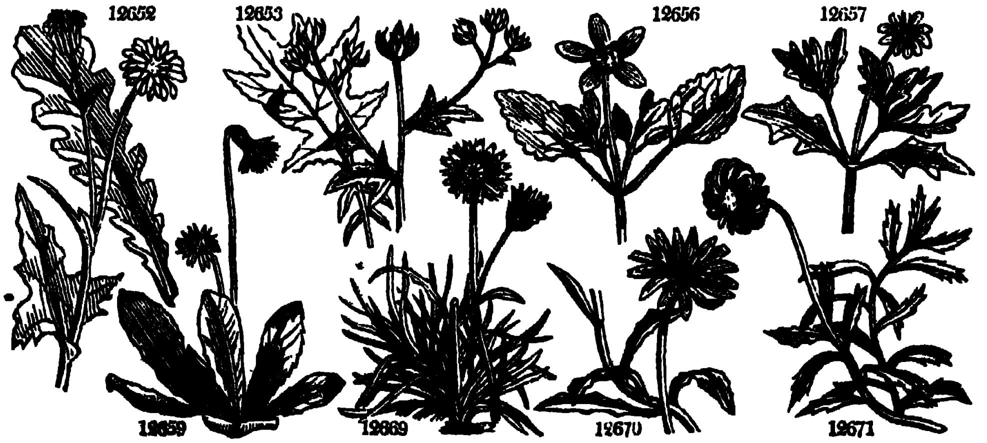
and Miscellaneous Particulars.

1822. *Milleria.* So named by Linnæus, after Philip Miller, F. R. S., the well known author of the Gardener's Dictionary, and considered the first botanical gardener of his time. He was born in 1692, and died in 1769.

1823. *Baltimora.* This plant grows in the neighbourhood of Baltimore.

1824. *Silphium.* D'Herbelot asserts, that *silphi* or *serpi*, was a name given by the natives of Africa to the plant which produced the *laser* of the Romans, a substance held in great esteem among them for its flavor and its medicinal properties. All the species are tall herbaceous plants with bright yellow flowers, and are very proper ornaments for a shrubbery.

1825. TRIX'IS. *Dec.*	Trixis.					*Compositæ.*		*Sp.* 1—5.				
12652 senecioides *Hooker*	Groundsel-like		○	pr	1½	au.s	W	Chili	1821.	S	co	Hook. ex. fl. 101
1826. POLYM'NIA. *W.*	Polymnia.					*Compositæ.*		*Sp.* 3—4.				
12653 canadénsis *W.*	Canadian	⚘	△	or	6	jl.au	L.Y	N. Amer.	1768.	D	co	L.am.ac.3.t.1.f.5
12654 Uvedália *W.*	broad-leaved	⚘	△	or	8	au.o	Y	N. Amer.	1699.	D	co	Cav. ic. 3. t. 227
12655 abyssínica *W.*	upright	♃	[○]	or	4	ap.my	Y	Africa	1775.	S	co	
1827. CHRYSO'GONUM. *L.*	Chrysogonum.					*Compositæ.*		*Sp.* 1.				
12656 virginiánum *L.*	Virginian	⚘	△	pr	½	my.jn	Y	N. Amer.	...	D	p.l	Plu.alm. t.83. f.4
1828. MELAMPO'DIUM. *W.*	Melampodium.					*Compositæ.*		*Sp.* 2—6.				
12657 americánum *W.*	American		[○]	un	1½	au.o	W	Vera Cruz	1733.	S	co	Rel.Hous.9. t.21
12658 húmile *W.*	dwarf		[○]	un	1½	jn.o	W	Jamaica	1782.	S	co	
1829. CHAPTA'LIA. *Vent.*	Chaptalia.					*Compositæ.*		*Sp.* 1.				
12659 tomentósa *Ph.*	woolly	⚘	△	pr	½	my.jn	W	N. Amer.	1806.	D	co	Bot. mag. 2257
1830. CALEN'DULA. *W.*	Marygold.					*Compositæ.*		*Sp.* 19—34.				
12660 arvénsis *W.*	field		○	or	2	my.s	D.Y	Europe	1597.	S	co	
12661 sicula *W. en.*	Sicilian	*	○	or	1	my.s	D.Y	Sicily	1816.	S	co	
12662 stelláta *W.*	starry		○	or	2	jn.s	O	Barbary	1795.	S	co	Sch.hand.3.t.265
12663 officinális *W.*	common		○	or	3	jn.s	O	S. Europe	1573.	S	co	
β *pléna*	*double-flowered*		○	or	3	jn.s	O	......	...	S	co	
12664 sáncta *W.*	pale-flowered		○	or	2	my.s	Y	Levant	1731.	S	l.p	
12665 incána *W.*	hoary		○	or	1½	jn.au	Y	Barbary	1796.	S	l.p	Desf. atl. 2. t.245
12666 pluviális *W.*	Small Cape		○	or	1	jn.au	W.pu	C. G. H.	1699.	S	s.l	Mill. ic. t. 75. f. 2
12667 hýbrida *W.*	Great Cape		○	or	1	jn.jl	W	C. G. H.	1752.	S	s.l	Sweet fl. gard.39
12668 nudicaúlis *W.*	naked-stalked		○	or	1	jn.au	W.pu	C. G. H.	1731.	S	s.l	Com.hort.2.t.33
12669 graminifólia *W.*	Grass-leaved	♃	[△]	or	1	my.s	W.pu	C. G. H.	1731.	C	p.l	Bot. reg. 289
12670 Trágus *W.*	bending-stalk'd	♄	⊔	or	2	my.jn	W.pu	C. G. H.	1774.	C	p.l	Bot. mag. 1981
β *flāccida* V.	*flaccid*	♄	⊔	or	2	my.jn	Or	C. G. H.	1774.	C	l.p	Bot. reg. 28
12671 viscósa *H. K.*	viscous	♄	⊔	or	2	jn.s	Or	C. G. H.	1790.	C	p.l	Bot. rep. 412
12672 oppositifólia *W.*	glaucous-leav'd	♄	⊔	or	2	au	Y	C. G. H.	1774.	C	p.l	
12673 fruticósa *W.*	shrubby	♄	⊔	or	2	jn.jl	Y	C. G. H.	1752.	C	p.l	Mill. ic. 2. t. 283
12674 chrysanthemifólia *V.*	large-flowered	♄	⊔	or	2	mr.au	Y	C. G. H.	1790.	C	p.l	Bot. reg. 40
12975 arboréscens *W.*	rough-leaved	♄	⊔	or	3	d	Y	C. G. H.	1774.	C	p.l	Jac. ic. 3. t. 596
12676 suffruticósa *W.*	suffruticose	♄	⊔	or	1	d	Y	C. G. H.	1823.	C	p.l	
12677 denticuláta *W.*	toothletted	♄	⊔	or	2	d	Y	Barbary	1821.	C	p.l	
12678 muricáta *W.*	muricated	♄	⊔	or	2	d	Y	C. G. H.	...	C	p.l	
1831. ARCTO'TIS. *H. K.*	Arctotis.					*Compositæ.*		*Sp.* 26—40.				
12679 acaúlis *W.*	dwarf	♃	[△]	or	½	ap.jl	Y.R	C. G. H.	1759.	R	p.l	Bot. reg. 122
12680 tricolor *W.*	three-colored	♃	[△]	or	1½	my.jl	W.R	C. G. H.	1794.	D	l.p	Bot. reg. 131
12681 unduláta *W.*	wave-leaved	♃	[△]	or	1	ap.jn	Or	C. G. H.	1795.	C	p.l	Jac.schœ.2.t.160
12682 grandiflóra *H. K.*	great-flowered	♃	[○]	or	1½	mr.my	Pa.Y	C. G. H.	1774.	S	l.p	
12683 glaucophýlla *W.*	Sea-green-leav.	♃	[△]	or	1	my.au	Y.Pu	C. G. H.	1794.	D	l.p	Jac.schœ.2.t.170
12684 plantagínea *W.*	Plantain-leav'd	♃	[△]	or	1	jn.au	Or	C. G. H.	1768.	C	p.l	
12685 argéntea *W.*	silver-leaved	♃	[○]	or	1	au	Or	C. G. H.	1774.	D	l.p	
12686 rósea *W.*	Rose	♃	[△]	or	1	jl.s	Pk	C. G. H.	1793.	C	l.p	Jac.schœ.2.t.162
12687 decúmbens *W.*	decumbent	♃	[△]	or	1	jl.s	Y	C. G. H.	1790.	D	l.p	Jac.schœ.3.t.381
12688 angustifólia *W.*	narrow-leaved	♄	⊔	or	1½	jl.s	Pu	C. G. H.	1739.	C	l.p	
12689 fláccida *W.*	bending-stalked		[○]	or	1	my.jl	W.R	C. G. H.	1794.	S	l.p	Jac.schœ.2.t.163
12690 decúrrens *W.*	decurrent	♄	⊔	or	1½	jn.jl	W.R	C. G. H.	1794.	C	l.p	Jac.schœ.2.t.165
12691 melanocicla *W. en.*	various-colored	♄	⊔	or	1	jn.jl	W.pu	C. G. H.	1812.	C	l.p	
12692 réptans *W.*	creeping	♃	[△]	or	¾	jl.s	W.o	C. G. H.	1795.	R	p.l	Jac.schœ.3.t.382
12693 auriculáta *W.*	ear-leaved	♄	⊔	or	1	jn.au	Y	C. G. H.	1795.	C	p.l	Jac.schœ.2.t 169
12694 fastuósa *W.*	Orange-flower.	♃	[○]	spl	2	my.jl	O.R	C. G. H.	1795.	S	co	Jac.schœ.2.t.166



History, Use, Propagation, Culture,

1825. *Trixis.* From τρεις, three, on account of its triangular capsule with three cells.

1826. *Polymnia.* Polymnia was the name of one of the Muses. Why it has been applied to this plant is not very obvious. A coarse broad-leaved weedy plant.

1827. *Chrysogonum.* From χρυσος, gold, and γονυ, a knee. The bright yellow flowers are usually produced in the bends of the stems.

1828. *Melampodium.* One of the Greek names of black hellebore, with which the modern plant has no relation. The plant of the ancients was probably named from the blackness of the roots, (μελας, black, and πους, a foot).

1829. *Chaptalia.* Dedicated by Ventenat to the famous French chemist, M. Chaptal. A pretty little North American herbaceous plant.

1830. *Calendula.* So named because it may be found in flower during the *Calends* of each month, or, which is the same thing, during every month in the year. C. pluvialis has been named from its flowers closing at the approach of rain.

12652 Herbaceous downy, Leaves sinuate pinnatifid toothed: cauline amplexicaul.

12653 Leaves toothletted acuminate: lower pinnatifid; upper 3-lobed or entire
12654 Leaves 3-lobed acute running down the petiole: lobes angular sinuated
12655 Leaves opposite sessile oblong lanceolate somewhat toothed, Invol. 5-parted, Florets all female

12656 Leafstalks longer than leaves

12657 Stem erect, Leaves somewhat linear 1-toothed on each side
12658 Stem erect, Leaves lyrate-toothed sessile

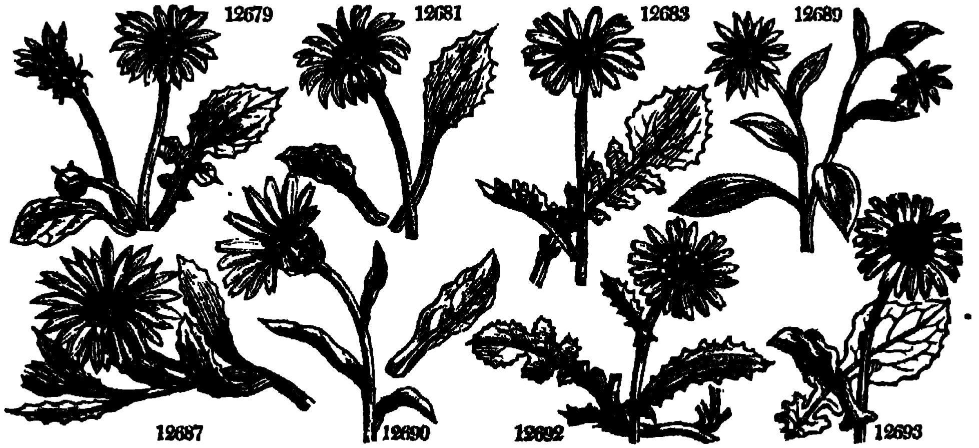
12659 Leaves ovate-oblong entire silvery beneath, Scape naked 1-headed, Head nodding

12660 Pericarps cymbiform muricated incurved: outer lanceolate-subulate muricated at back
12661 Pericarps cymbiform muricated incurved: outer ovate with a membraneous edge toothed crested at back
12662 Pericarps cymbiform incurved muricated: outer 5 ovate-lanceolate membranous toothed at edge
12663 Pericarps cymbiform all incurved muricated

12664 Pericarps urceolate obovate smooth, Involucre somewhat muricated
12665 Pericarps cymbiform smooth: outer subulate erect somew. muricat. Lvs. obl. spatul. downy on each side
12666 Leaves narrow lanceolate sinuate toothletted, Stem leafy, Peduncles filiform
12667 Leaves oblong lanceolate blunt toothed, Stem leafy, Peduncles thickened at end
12668 Leaves lanceolate sinuate toothed, Stem nearly naked
12669 Leaves linear nearly entire, Stem nearly naked
12670 Leaves linear somewhat toothletted muricate dotted beneath, Pericarps orbicular, Stem suffruticose

12671 Leaves cuneate cut toothed glabrous, Invol. downy ciliated, Stem shrubby weak
12672 Leaves opposite linear entire somewhat fleshy smooth
12673 Leaves obovate somewhat toothed, Stem fruticose decumbent
12674 Leaves obovate sublyrate roughish, Stem suffruticose erect
12675 Lvs. obl. toothed scabrous, Invol. in fruit cernuous, Pericarps nearly orbicular, Stem fruticose panicled
12676 Peric. cymbif. incurv. muricat.: outer lanc. subulate muricated erect, Lvs. obl. spatul. downy on each side
12677 Pericarps all uniform incurved cymbiform muricated, Leaves lanceolate toothletted acute smoothish
12678 Leaves oblong papillose scabrous: lower toothed; upper entire, Stem shrubby

12679 Radiant florets fertile, Stem very short decumbent, Leaves hoary on each side ternate lyrate
12680 Radiant florets fertile, Leaves downy beneath ovate entire or lyrate-toothed, Scape furrowed 1-headed
12681 Radiant florets fertile, Leaves downy beneath wavy-toothed ovate or lyrate, Scapes 1-headed
12682 Leaves pinnatifid toothletted cobwebbed 3-nerved
12683 Radiant florets fertile, Leaves hoary pinnatifid repand somewhat toothed, Outer scales of invol. reflexed
12684 Radiant florets fertile, Leaves lanceolate ovate nerved toothletted amplexicaul.
12685 Radiant florets fertile, Leaves lanceolate linear entire downy
12686 Radiant florets fertile, Stem procumbent, Leaves spatulate-lanceolate repand-toothed hoary
12687 Radiant florets fertile, Stem procum. Leaves obl. lanc. unequally toothed hoary downy beneath 3-nerved
12688 Radiant florets fertile, Stem branched ascending, Leaves downy spatulate lanceolate 3-nerved pubescent
12689 Radiant florets fertile, Stem branched ascending, Leaves spatulate lanceolate entire 3-nerved downy
12690 Radiant florets fertile, Stem shrubby, Leaves hairy oblong undivided somewhat toothed
12691 Radiant florets fertile, Stem shrubby erect hoary, Lvs. obov. oblong vill. toothed decurr. down the petiole
12692 Radiant florets fertile, Stem ascend. Lvs. hairy hoary beneath: lower lyrate-toothed; upper lanc. tooth.
12693 Radiant florets fertile, Stem snow white, Leaves lyrate amplexicaul. downy toothed: term. lobe rhomb.
12694 Radiant florets fertile, Stem erect, Leaves hairy oblong toothed, Outer scales of invol. reflexed ciliated



and Miscellaneous Particulars.

C. officinalis, *Souci du jardin*, Fr., *Goldblume*, Ger., and *Furrancio*, Ital., has been a garden plant time out of mind, and used in soups and broths, both to color them, and as comforters of the heart and spirits. It had formerly many virtues ascribed to it, but is now totally out of use in this country. According to Linnæus, the flowers are open from nine in the morning till three in the afternoon. There are double, lemon-colored, and prolific varieties. From the flowers of Calendula officinalis is obtained a distilled water, a kind of vinegar, and a conserve.

With this genus for his type, M. Cassini has formed a small tribe which he calls Calenduleæ, remarkable for a peculiar smell, very perceptible in the common pot-marygold, which is said to be confined to themselves alone. But this seems to be almost the only character by which they are distinguished from Heliantheæ. The greater part of Calenduleæ are found in the country of the Cape of Good Hope; but some are found in Europe and Asia.

1851. *Arctotis.* Vaillant, who named this genus, called it *Arctotheca*, from αρκτος, a bear, and θηκη, a capsule, because its fruit is shaggy like a bear. This and some neighbouring genera have given rise to M.

12695 spinulósa *W.*	thorny-leaved		[○]	or	1½	my.au	Or	C. G. H.	1795.	S	co	Jac.schœ.2.t.167
12696 maculáta *W.*	spotted	⚘	⊔	or	1½	my.au	W.o	C. G. H.	1812.	C	l.p	Bot. reg. 130
12697 áspera *B. reg.*	broad rough-lv.	⚘	⊔	or	1½	jl.s	Y	C. G. H.	1710.	C	p.l	Bot. reg. 34
12698 auréola *B. reg.*	narr. rough-lv.	⚘	⊔	or	1	jl.s	Or	C. G. H.	1710.	C	p.l	Bot. reg. 32
12699 bícolor *W. en.*	two-colored	⚘	⊔	or	1	jl.s	W.s	C. G. H.	1812.	C	l.p	
12700 speciósa *B. M.*	shewy	⚘	⊔	or	1½	jn.au	Y	C. G. H.	1812.	C	p.l	Bot. mag. 2182
12701 elátior *W.*	tall	⚘	⊔	or	1½	jn.au	Y.Pu	C. G. H.	1820.	C	p.l	Jac.schœ.2.t.172
12702 arboréscens *W.*	Tree	⚘	⊔	or	1½	jn.au	W.pk	C. G. H.	1818.	C	p.l	Jac.schœ.2.t.171
12703 cúprea *W.*	copper-colored	⚘	⊔	or	1½	jn.au	Y.Pu	C. G. H.	1823.	C	p.l	Jac.schœ.2.t.176
12704 Cinerária *W.*	grey	£	[△]	or	1½	jn.au	Y.o	C. G. H.	1824.	D	p.l	Jac.schœ.2.t.174

1832. OSTEOSPER'MUM. *W.* Osteospermum. *Compositæ.* *Sp.* 9—27.

12705 corymbósum *W.*	corymbose	⚘	⊔	or	3	au	Y	C. G. H.	1822.	C	l.p	
12706 spinósum *H. K.*	rough-leaved	⚘	⊔	or	3	f.o	Y	C. G. H.	1700.	S	l.p	Com. hort.2. t.43
12707 spinéscens *H. K.*	smooth-leaved	⚘	⊔	or	3	mr.jn	Y	C. G. H.	1793.	C	l.p	Jac.schœ.3.t.377
12708 pisíferum *W.*	smooth	⚘	⊔	or	4	mr.my	Y	C. G. H.	1757.	S	l.p	Bot. cab. 470
12709 moniliferum *W.*	Poplar-leaved	⚘	⊔	or	3	jl.au	Y	C. G. H.	1714.	S	l.p	Dil. elt. t.68. f.79
12710 ilicifólium *W.*	Holly-leaved	⚘	⊔	or	4	jl.au	Y	C. G. H.	1816.	C	l.p	Bur. afr.172. t.62
12711 rígidum *W.*	rigid	⚘	⊔	or	3	ap.jl	Y	C. G. H.	1774.	C	l.p	
12712 cærúleum *W.*	blue-flowered	⚘	⊔	or	3	jn.s	B	C. G. H.	1774.	C	l.p	Jac. ic. 1. t. 179
12713 polygaloídes *W.*	Milkwort-leav.	⚘	⊔	or	3	jn.s	Y	C. G. H.	1759.	C	l.p	Pluk.mant.t.382

1833. OTHON'NA. *W.* Ragwort. *Compositæ.* *Sp.* 21—39.

12714 pinnáta *W.*	wing-leaved	£	[△]	or	3	ap.jn	Y	C. G. H.	1759.	C	l.p	Bot. mag. 768
12715 pectináta *W.*	Wormwood-lv.	⚘	⊔	or	3	ap.jn	Y	C. G. H.	1731.	C	p.l	Bot. mag. 306
12716 Athanásiæ *W.*	Athanasia-like	⚘	⊔	or	3	n.d	Y	C. G. H.	1795.	C	p.l	Jac.schœ.2.t.242
12717 abrotanifólia *W.*	Southernw.-lv.	⚘	⊔	or	3	ja.mr	Y	C. G. H.	1692.	C	p.l	Bot. reg. 108
12718 retrofrácta *W.*	bending-stalk'd	⚘	⊔	or	2	mr.au	Y	C. G. H.	1812.	C	l.p	Jac.schœ.3.t.376
12719 coronopifólia *W.*	Buckshorn-lvd.	⚘	⊔	or	2	jl.s	Y	C. G. H.	1731.	C	p.l	Com. hort.2.t.70
12720 cheirifólia *W.*	Stock-leaved	♀	⊔	or	1½	ap.jn	Y	Barbary	1752.	C	p.l	Bot. reg. 266
12721 Tagétes *W.*	Marygold-leav.		[○]	or	1	ap.jn	Y	C. G. H.	1823.	S	co	
12722 flabellifólia *B.C.*	fan-leaved	⚘	⊔	or	1	ap.jn	Y	C. G. H.	1821.	C	co	Bot. cab. 728
12723 crassifólia *W.*	thick-leaved	⚘	⊔	or	2	s.o	Y	C. G. H.	1710.	C	p.l	Mil.ic.2.t.245.f.2
12724 denticuláta *W.*	tooth-leaved	⚘	⊔	or	2	ap.jl	Y	C. G. H.	1774.	C	p.l	Bot. mag. 1979
12725 heterophýlla *W.*	various-leaved	⚘	⊔	or	2	ap.jl	Y	C. G. H.	1812.	C	l.p	
12726 Lingua *W*	tongue-leaved	£	[△]	or	2½	my.s	Y	C. G. H.	1787.	D	l.p	Jac.schœ.2.t.238
12727 filicaúlis *W.*	Yam-rooted	✱	[△]	or	1½	ap.my	Y	C. G. H.	1791.	D	l.p	Jac schœ.2 t.241
12728 bulbósa *W.*	bulbous	✱	[△]	or	2	my.jn	Y	C. G. H.	1774.	D	l.p	Breyn. cent. t.66
12729 perfoliáta *Jac.*	perfoliate	£	[△]	or	1½	my.jl	Y	C. G. H.	1789.	D	l.p	Bot. mag. 1312
12730 parviflóra *W.*	small-flowered	⚘	⊔	or	2	jl.au	Y	C. G. H.	1704.	C	p.l	Volk.norib.t.226
12731 ericoídes *W.*	Heath-leaved	⚘	⊔	or	2	jl.au	Y	C. G. H.	1815.	C	l.p	
12732 tenuíssima *W.*	fine-leaved	⚘	⊔	or	1½	ap.jl	Y	C. G. H.	1759.	C	l.p	Jac.schœ.2.t.239
12733 arboréscens *W.*	tree	♆	⊔	or	2	jl.au	Y	C. G. H.	1723.	C	p.l	Dil.el.t.103.f.123
12734 cacalioídes *W.*	tuberous	✱	[△]	or	½	my.s	Y	C. G. H.	1774.	D	l.p	

1834. HIP'PIA. *W.* Hippia. *Compositæ.* *Sp.* 2—5.

12735 frutéscens *W.*	shrubby	⚘	⊔	un	½	f.au	Y	C. G. H.	1710.	C	p.l	Bot. mag. 1855
12736 integrifólia *W.*	annual		[○]	un	½	jl.au	Y	E. Indies	1777.	S	l.p	H.mal h. t.67. f.2

*1835. SOLI'VA. *Fl. per.* Soliva. *Compositæ.* *Sp.* 1—6.

12737 anthemifólia *R. Br.*	Chamomile-lvd.		○	un	½	jn.jl	Ap	N. Holl.	1818.	S	co	An.mus. t.61. f.1

Gymnóstyles anthemifólia Juss.

1836. PSIA'DIA. *W.* Psiadia. *Compositæ.* *Sp.* 1.

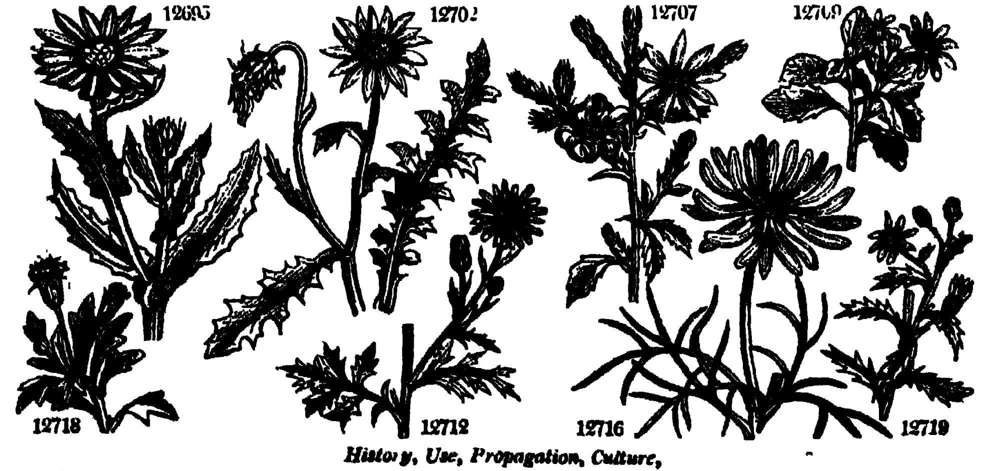
12738 glutinósa *W.*	glutinous	⚘	▭	un	2	jn.au	Y	Mauritius	1796.	C	p.l	Jac schœ .2.t.152

1837. ERIOCE'PHALUS. *W.* Eriocephalus. *Compositæ.* *Sp.* 2—4.

12739 africánus *W.*	cluster-leaved	⚘	⊔	or	3	ja.mr	Y	C. G. H.	1732.	C	p.l	Bot. mag. 833
12740 racemósus *W.*	silver-leaved	⚘	⊔	or	3	mr.ap	Y	C. G. H.	1739.	C	p.l	

1838. *FILA'GO *L.* Cotton Rose. *Compositæ.* *Sp.* 16—21.

12741 germánica *L.*	common		○	un	½	jn.au	Y.Br	Britain	san.fi.	S	co	Eng. bot. 948
12742 gállica *L.*	narrow-leaved		○	un	½	jn.au	Y.Br	Britain	san.fi.	S	co	Eng. bot. 2369
12743 pyramidáta *L.*	pyramidal		○	un	½	jn.au	Br.Y	S. Europe	1779.	S	co	



History, Use, Propagation, Culture,

Cassini's tribe of Arctotideæ, which has the remarkable peculiarity of occasionally producing an ovarium with three cells. In the peculiarities of their style they approach the tribes of Echinopseæ, Carduineæ, Centaureæ, and Carlineæ. They are entirely confined to the regions of the Cape of Good Hope.

1832. *Osteospermum.* From οστεον, a bone, and σπερμα, seed, in allusion to the hardness of the fruit.

1833. *Othonna.* Dioscorides mentions this name as being applied to various things, but especially to a plant with a leaf like rocket, but perforated with little holes, whence it was called Othonna, from οθονη, linen. The plant of the ancients can have had little affinity with that of the moderns.

1834. *Hippia.* A name applied by Cordus to the common Chickweed, because it was agreeable food for

12695 Radiant florets fertile, Stem erect, Leaves hoary viscid oblong amplexicaul mucronate-toothed
12696 Radiant florets fertile, Leaves pinnatifid lyrate angular toothed downy beneath
12697 Radiant florets fertile, Stem erect, Leaves pinnatifid scabrous downy beneath revolute at edge
12698 Radiant florets fertile, Outer scales of invol. reflexed cuneate obl. with a broad short point somew. cobw.
12699 Radiant florets fertile, Stem erect, Leaves pinnatifid lyrate hoary downy beneath, Invol. imbricated
12700 Stemless, Leaves lyrate pinnatifid hoary beneath 3-nerved, Outer scales of invol. linear recurved
12701 Radi. flor. fertile, Stem erect, Branches downy hairy, Lvs. pinnatif. downy ben. : seg. lin. lanc. angul. downy
12702 Radiant florets fertile, Stem erect, Pedunc. hairy, Lvs. pinnatif. hoary downy ben. : seg. lanc. angul. toothed
12703 Radiant florets fertile, Stem erect, Leaves downy beneath : segm. linear subpinnatifid wavy
12704 Radiant florets fertile, Leaves hoary downy long-stalked pinnatifid : segm. lanceolate blunt toothed

12705 Leaves lanceolate glabrous, Heads panicled
12706 Leaves obovate serrate downy, Spines branched
12707 Leaves lanceolate pinnatifid-toothed scabrous, Spines branched
12708 Leaves lanceolate mucronate somewhat stalked smooth serrated, Branches toothletted angular
12709 Leaves obovate serrated stalked subdecurrent
12710 Leaves oblong toothed-angular scabrous ½-amplexicaul. Branches furrowed
12711 Leaves toothed pinnatifid hairy, Branches unarmed
12712 Leaves pinnatifid smooth, Segments lanceolate unequally serrated
12713 Leaves lanceolate scattered decurrent smooth entire, Axillæ woolly

12714 Leaves pinnatifid : pinnæ lanceolate entire decurrent
12715 Leaves pectinate-pinnatifid downy : segm. linear toothed at the edge
12716 Leaves pinnate filiform, Invol. hemispherical many-toothed
12717 Leaves multifid pinnated linear, Joints of stem villous
12718 Leaves lanceolate 1-toothed on each side in the middle or entire, Peduncles axillary, Stem divaricating
12719 Lower leaves lanceolate entire : upper sinuate toothed
12720 Leaves lanceolate 3-nerved entire, Stem suffruticose creeping
12721 Leaves deeply pinnatifid glabrous : segments linear somewhat toothed, Stem herbaceous
12722 Leaves pinnatifid very small, Peduncles long slender axillary 1-headed, Ray longer than disk
12723 Leaves lanceolate entire somewhat fleshy, Stem erect
12724 Leaves oblong toothletted smooth narrowed at base amplexicaul. Heads panicled
12725 Radical leaves ovate angular toothed : cauline lanceolate entire
12726 Leaves entire : radical lanceolate ; cauline lanceolate subcordate ½-amplexicaul. Stem erect
12727 Leaves entire : radical cordate ; cauline ovate-lanceol. cordate at base amplexicaul. Stem flaccid filiform
12728 Leaves ovate somewhat toothed, Peduncles 1-headed very long
12729 Root tuberous, Leaves amplexicaul. Peduncles 1-headed
12730 Leaves lanceolate smooth amplexicaul. Heads panicled
12731 Stem dichotomous imbricated : leaflets acerose, Peduncle very long solitary in the divarications
12732 Leaves filiform fleshy, Stem shrubby
12733 Leaves oblong entire, Stem arborescent fleshy with woolly scars
12734 Fleshy naked smooth a span high, Leaves fascicled obovate sessile, Peduncle 1-headed

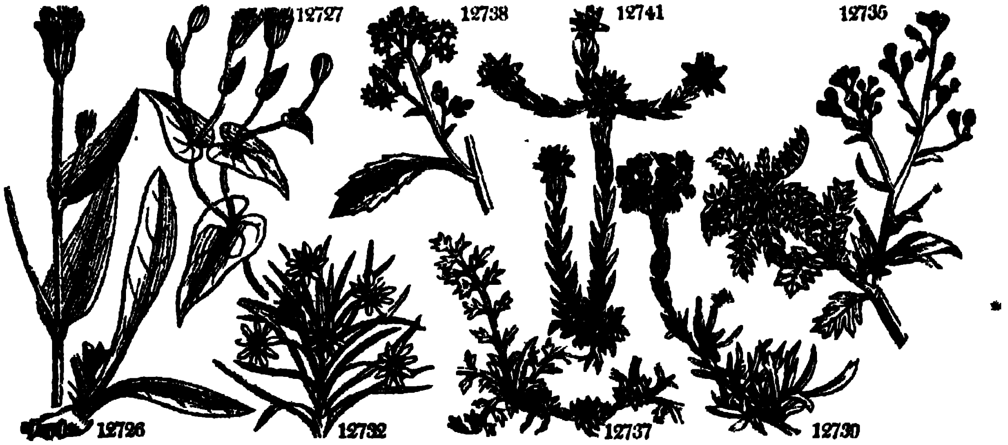
12735 Shrubby villous, Leaves pinnatifid, Heads corymbose
12736 Hispid erect, Leaves ovate serrated 5-nerved, Racemes terminal

12737 Leaves pinnated : leaflets linear many-times lobed acute, Pericarps cuneiform hairy

12738 The only species

12739 Leaves entire and divided, Heads corymbose
12740 Leaves linear silky

12741 Stem erect prolifer. at summit, Lvs. lanc. downy acute, Fls. capitate in the axils of branches and terminal
12742 Stem erect dichotom. Lvs. lin. acum. downy, Fls. crowded axill. and term. Clust. much shorter than leaves
12743 Stem erect subdichotomous, Leaves lanceolate spatulate downy, Flowers clustered axillary and terminal



and Miscellaneous Particulars.

horses, ἱππος, a horse ; and given to this plant by Linnæus for no reason whatever. Little plants resembling Tansy.

1835. *Soliva.* Named by the authors of the Flora Peruviana, after Salvator Soliva, a Spanish physician and botanist.

1836. *Psiadia.* From ψιας, a drop of dew, in allusion to the dew-bespangled foliage of the plants.

1837. *Eriocephalus.* From εριον, wool, and κεφαλη, a head, on account of the woolly grains collected in terminal heads.

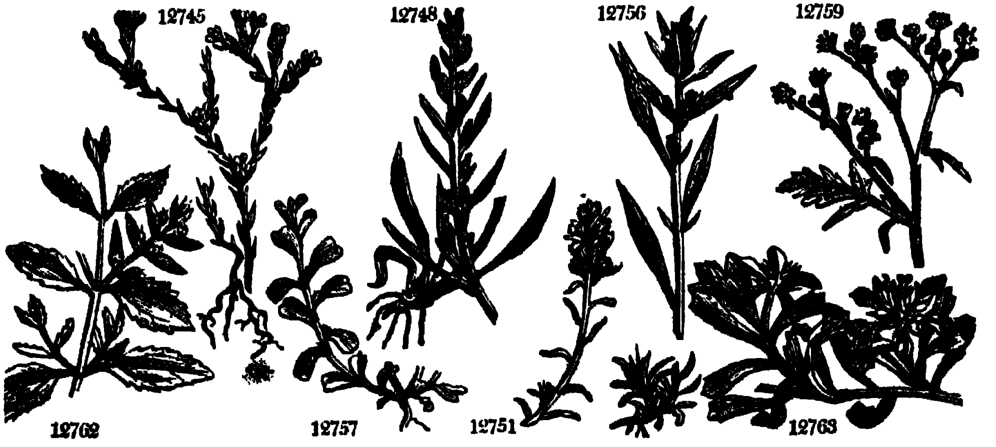
1838. *Filago.* All the parts of these plants are covered with delicate threads or *fila*.

12744 montána *Pers*	mountain		○	un	½	jn.au	Br.Y	S. Europe	1820.	S	co	
12745 mínima *Pers.*	least		○	un	½	jl.au	Y.Br	Britain	sa.pas.	S	co	Eng. bot. 1157
12746 arvénsis *Pers.*	corn		○	un	½	jl.au	Y.Br	Europe	1804.	S	co	
12747 Lagópus *Pers.*	Hare's-foot		○	un	½	jl.au	Y.Br	Siberia	1820.	S	co	
12748 rec'ta	upright-wood	⚘	△	un	1	au	Y.Br	Britain	sa.pas.	D	co	Eng. bot. 194
12749 coarctáta	contracted		○	un	1	au	Br	M.Video	1819.	D	co	
12750 americána	Jamaica	£	[△]	un	1	jl.au	Pa.Y	Jamaica	1815.	D	co	
12751 supína *Lk.*	dwarf	⚘	△	un	½	jn.jl	Y.Br	Scotland	sc.alp.	D	co	Eng. bot. 1193
12752 pusílla *Hænke.*	pygmy	⚘	△	un	1in	jn.jl	Y.Br	Austria	1820.	D	co	Krock.siles t.41
12753 sphæ'rica *Lk.*	spherical	⚘	△	un	1½	jn.jl	W	N. Holl.	1819.	D	co	
12754 cephaloídea *Lk.*	large-headed		○	un	½	jn.jl	Y.w	N. Holl.?	1823.	S	co	
12755 uliginósa	marsh		○	un	1	au	Y.Br	Britain	wat.pl.	D	co	Eng. bot. 1194
12756 sylvática	highland	⚘	△	un	1	au	Y.Br	Britain	al.pas.	R	a.l	Eng. bot. 913
1839. MICRO'PUS. *W.*	Micropus.					*Compositæ.*		*Sp.* 2—3.				
12757 supínus *W.*	trailing		○	un	½	jn.s		S. Europe	1710.	S	l.p	Sch.hand.3.t.267
12758 eréctus *W.*	upright		○	un	½	jn.s		S. Europe	1683.	S	l.p	Lœf. hisp.t.1. f.3
1840. PARTHE'NIUM. *W.*	Parthenium.					*Compositæ.*		*Sp.* 2.				
12759 Hysteróphorus *W.*	cut-leaved		○	un	1	jl.o	W	Jamaica	1728.	S	l.p	Bot. mag. 2275
12760 integrifólium *W.*	entire-leaved	⚘	△	un	3	jn.o	W	Virginia	1661.	D	p.l	W. hort. ber. 4
1841. I'VA. *W.*	Iva.					*Compositæ.*		*Sp.* 2—5.				
12761 ánnua *W.*	annual		[○]	un	2	jl.au	W	S. Amer.	1768.	S	l.p	Schmidel.ic. t.15
12762 frutéscens *W.*	shrubby	■		or	4	au	W	N. Amer.	1711.	C	co	Plu.alm. t.27. f.1
1842. ACICAR'PHA *Juss.*	Acicarpha.					*Calycereæ.*		*Sp.* 1—3.				
12763 spatuláta *Jacq.*	spatulate	£	[△]	cu	½	...		Brazil	1824.	D	p.l	

✱

SEGREGATA.

1843. ELEPHANTO'PUS. *W.*	Elephants Foot.					*Compositæ.*		*Sp.* 3—7.				
12764 scáber *W.*	rough-leaved	£	[△]	un	1	jn.s		E. Indies	1695.	C	s.p	Rhee.mal 10. t.7
12765 caroliniánus *W.*	Carolina	£	⊔△⊔	un	1½	jl.s	R	America	1732.	C	l.p	Dil.el.t.106.f.126
12766 tomentósus *W.*	woolly	£	⊔△⊔	un	1	jl.au	R	W. Indies	1733.	D	l.p	
1844. ŒDE'RA. *W.*	Œdera.					*Compositæ.*		*Sp.* 1—3.				
12767 prolífera *W.*	proliferous	♣	⊔	pr	1½	my.jn	Y	C. G. H.	1789.	C	s.l	Bot. mag. 1637
1845. FLAVE'RIA. *J.*	Flaveria.					*Compositæ.*		*Sp.* 1—2.				
12768 contrayérba *W. en.*	Peruvian	£	[○]	m	1½	jl.s	Y	Peru	1794.	S	l.p	Bot. mag. 2400
1846. STŒ'BE. *W.*	Stœbe.					*Compositæ.*		*Sp.* 2—4				
12769 æthiópica *W.*	Juniper-leaved	♣	⊔	pr	2	au		C. G. H.	1759.	C	p.l	
12770 cinérea *W.*	Heath-leaved	♣	⊔	pr	2	jl.s		C. G. H.	1784.	C	p.l	Pl. man.t.297.f.1
1847. NAUMBUR'GIA. *W.*	Naumburgia.					*Compositæ.*		*Sp.* 1.				
12771 trinerváta *W.* *Brotéra Contrayer'va* Spr.	three-nerved		○	un	3	jl.au	Y	S. Amer.	1799.	S	l.p	Sch.b.j 1800.2.t5
1843. CASSI'NIA. *H. K.*	Cassinia.					*Compositæ.*		*Sp.* 3—11.				
12772 aúrea *R. Br.*	yellow	£	⊔△⊔	or		jl.au		N. Holl.	1803.	D	l.p	Bot. reg. 764
12773 spectábilis *R. Br.*	shewy		○	or	6	jl.au	Y	N. Holl.	1818.	S	co	Bot. reg. 678
12774 leptophýlla *R. Br.*	small-leaved	♣	⊔	pr	2	jl.o	W	N. Zeal.	1821.	C	co	
1849. SPHÆRAN'THUS. *W.*	Sphæranthus.					*Compositæ.*		*Sp.* 3—8.				
12775 índicus *W.*	Indian	£	[△]	un	2	au.d	B	E. Indies	1699.	C	p.l	Bur.zeyl.t.94.f.3
12776 africánus *W.*	African		⊔○⊔	un	1	jl.au	B	C. G. H.	1759.	S	co	Pl.man. t.108.f.7
12777 hírtus *W.*	hairy	£	[△]	un	2	l.au	B	......	1823.	C	co	Lam.ill.t.718.f.1



History, Use, Propagation, Culture,

1839. *Micropus.* From *μικρος*, small, and *πους*, a foot; so called with reference to Leontopodium (which see), than which it is smaller, but which it resembles in its velvety silvery leaves.

1840. *Parthenium.* The Greek name of the Matricaria, which see. The indecent derivation of the word *Hysterophorus*, is sufficiently explained by Vaillant. (*Mem. Acad. Sciences, anno* 1720.)

1841. *Iva.* This name, according to Fuchsius, is a mere abbreviation of *abiga;* see Ajuga. It has been applied by Linnæus to these plants because their smell resembles that of the ancient Iva.

1842. *Acicarpha.* From *ακις*, a point, and *καρφος*, a palea, because that appendage is spiny.

1843. *Elephantopus.* It is said that some resemblance may be found between the radical leaves of this plant and an elephant's foot (*ελεφας*, an elephant, and *πους*, a foot).

1844. *Œdera.* After George Œder, a Dane, professor of botany at Copenhagen, and the founder of the extensive Flora Danica.

1845. *Flaveria.* From *flavus*, yellow, because the plants are used in Chili for dying of that color.

12744 Stem erect subdichotomous, Lvs. lin. lanc. appressed downy, Flowers clustered axillary and terminal.
12745 Stem erect branch. Branch. sprdg. Lvs. lanc. acute cottony, Fls. conic. clust. lat. term. Clust. longer than lvs.
12746 Stem erect panicled, Leaves oblong lanceolate woolly, Heads clustered lateral and terminal downy
12747 Stem erect branched, Lvs. lanc. cord. at base amplexicaul. woolly, Heads clust. lat. and terminal downy
12748 Leaves nearly glabrous above, Spike longer more interrupted
12749 Stem herbaceous quite simple, Leaves oblong spatulate downy beneath hoary, Heads clustered
12750 Stem erect branched, Lvs. obov. spatulate downy beneath, Heads axillary and terminal clustered spiked
12751 Stem decumb. branch. only from base, Flower. stems erect, Fls. solit. or racem. Lvs. lin. downy on both sides
12752 Stem quite simple nearly erect about 3-flowered, Leaves linear acute downy, Runners procumbent
12753 Stem branched erect, Leaves linear 3-nerved acute very narrow at base downy beneath
12754 Stem simple, Leaves linear 3-nerved acuminate silky beneath, Heads terminal clustered [than lvs.
12755 Stem very much branch. diffuse woolly, Lvs. lin.-lanc. downy, Fls. in term. crowded clust. which are shorter
12756 Stem simple nearly erect downy, Fls. axillary forming a distant leafy spike Leaves linear lanc. downy

12757 Leaves opposite obovate cuneate
12758 Leaves alternate lanceolate, Heads woolly

12759 Leaves bipinnatifid
12760 Leaves undivided oblong toothed

12761 Leaves lanceolate-ovate, Bractes lanceolate and petioles downy
12762 Leaves lanceolate dotted scabrous deeply serrated, Stem shrubby

12763 Leaves spatulate

SEGREGATA.

12764 Leaves scabrous : radical narrowed at base ; cauline lanceolate, Stem branched strigose
12765 Radical and cauline leaves oblong narrowed at base somewhat hairy, Stem simple hairy
12766 Leaves ovate downy

12767 Leaves lanceolate serrated reflexed

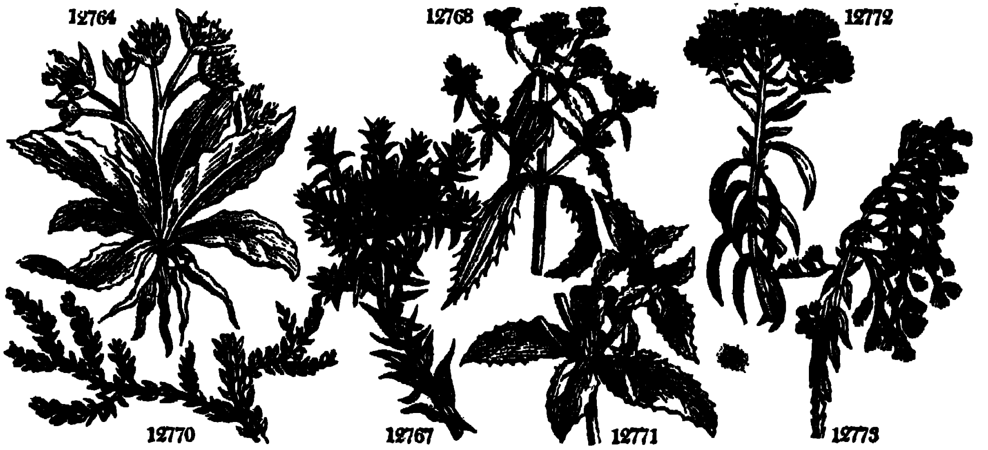
12768 Leaves somewhat stalked lanceolate 3-nerved mucronate-serrate

12769 Leaves mucronate subulate reflexed, Stem erect
12770 Leaves linear subulate oblique, Spike cylindrical

12771 The only species

12772 Leaves lanceolate-linear smooth glandular beneath, Corymbs decompound
12773 Panicle decompound, Leaves lanceolate decurrent with their under surface and the branches woolly
12774 Corymb nearly sessile, Leaves small linear white beneath

12775 Leaves lanceolate serrate decurrent glabrous, Peduncles winged, Wings of stem and peduncles serrated
12776 Leaves decurrent ovate serrated, Peduncles round
12777 Leaves obovate serrated hairy decurrent, Peduncles winged, Wings of stem and peduncles serrated



and Miscellaneous Particulars.

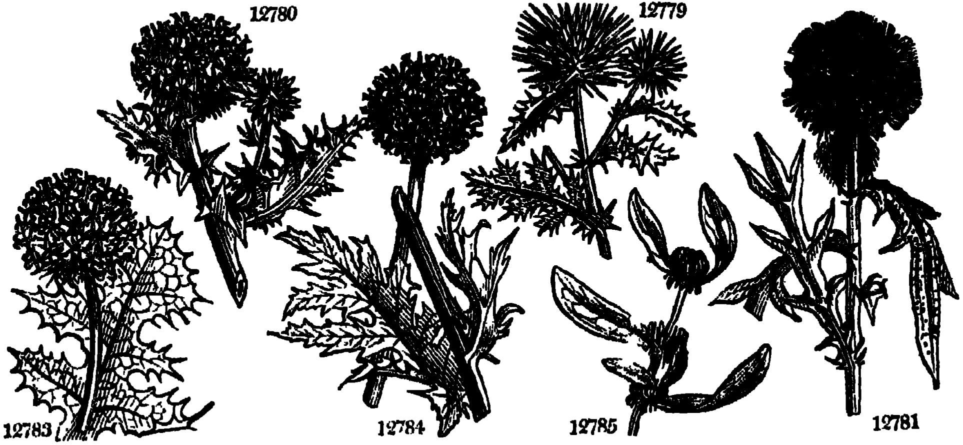
1846. *Stœbe.* The name under which Theophrastus and Pliny designate a plant of a rough and spiny habit. This is the character of the modern plant, which is very dissimilar to that of the ancients, which is believed to have been Poterium spinosum.

1847. *Naumburgia.* Named by Willdenow without explanation ; but we presume in honor of John Samuel Naumburg, author of a Dissertation upon Veronica Chamædrys, &c., published at Erfurt in 1792.

1848. *Cassinia.* Named after M. Henri Cassini, a celebrated French botanist, who has devoted much attention to the study of the very difficult tribe of plants to which this belongs, and with singular success But his observations are scattered through so many different works, that it is almost hopeless to acquire a knowledge of their actual extent. Neat New Holland shrubs with white or yellow flowers.

1849. *Sphæranthus.* From *σφαιρα*, a globe, and *ανθος*, a flower, on account of the globular form of the heads of flowers.

1850. **ECHI'NOPS.** *W.*	GLOBE THISTLE.					*Compositæ.*	*Sp.* 7—9.					
12778 **sphærocéphalus** *W.*	great	♃	△	or	5	jl.au	L.B	Austria	1596.	D	co	
12779 **spinósus** *W.*	thorny-headed	♃	△	or	4	jl.au	W	Egypt	1597.	D	l.p	Moris.s.7.t.35.f.4
12780 **Ritro** *W.*	small	♃	△	or	3	jl.s	B	Europe	1570.	D	co	Bot. mag. 932
12781 **strigósus** *W.*	annual		○	or	2	jl.s	W	Spain	1729.	S	l.p	Bot. mag. 2109
12782 **lanuginósus** *W.*	woolly	♃	△	or	2	jn.jl	B	Levant	1736.	D	l.p	
12783 **paniculátus** *Jacq.*	panicled	♃	△	or	6	jl.au	B	Spain	1816.	D	l.p	Bot. reg. 356
12784 **strictus** *B.M.*	upright	♃	△	or	3	jl.au	Pa.B	Europe	1822.	D	l.p	Bot. mag. 2457
1851. **ROLAN'DRA.** *W.*	ROLANDRA.					*Compositæ.*	*Sp.* 1.					
12785 **argéntea** *W.*	silver-leaved	♄	└┘	or		jl	W	W. Indies	1714.	C	l.p	Slo. jam.1.t.7. f.3
1852. **BROTE'RA.** *W.*	BROTERA.					*Compositæ.*	*Sp.* 1.					
12786 **corymbósa** *W.*	umbelled	♃	△	or	2	jn.jl	B	S. Europe	1640.	D	l.p	Mor. s.7.t.33.f.17
1853. **GUNDE'LIA.** *W.*	GUNDELIA.					*Compositæ.*	*Sp.* 1.					
12787 **Tournefórtii** *W.*	Tournefort's	♃	△	un	1½	jn.au	L.G	Levant	1739.	D	s.p	Mill. ic. t. 287
1854 **EUXE'NIA.** *Cham.*	EUXENIA.					*Compositæ.*	*Sp.* 1.					
12788 **gráta** *Cham.*	pleasant	♄	└┘	pr	2	...	Y	Chili	1825	C	p.l	Hor.Phy.ber.t.6



History, Use, Propagation, Culture,

1850. *Echinops.* From ἐχῖνος, a hedgehog, and ὄψις, resemblance; because of the bristly round heads of flowers protected in every direction by stiff spines. The woolly leaves of Echinops strigosus are employed in Spain as tinder. Upon this genus M. Cassini has founded his tribe of Echinopseæ, which it must be confessed is entirely distinct from any other, and extremely remarkable on account of its very singular aberrations from the ordinary structure of Compositæ.

1851. *Rolandra.* After Daniel Rolander, a pupil of Linnæus, who visited Surinam. Nothing appeared from him except an account of Doliocarpus in the seventeenth volume of the Transactions of the Academy of Sciences of Stockholm.

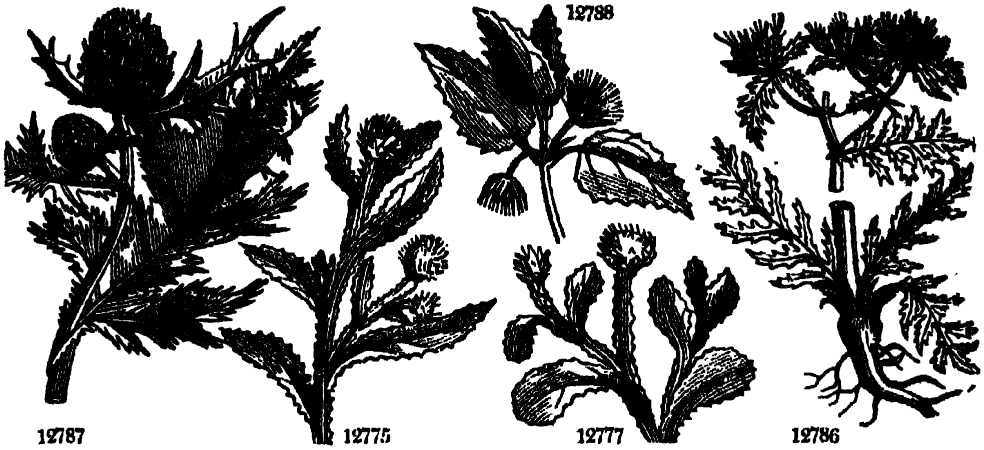
12778 Leaves pinnatifid downy above woolly beneath, Stem branched
12779 Heads scattered with long spines
12780 Head globose, Leaves pinnatifid smooth above
12781 Heads fascicled, Lateral invol. sterile, Leaves strigose on the upper side
12782 Stem branched woolly, Leaves subbipinnate: segments narrow smooth above, Head subsessile
12783 Leaves rugose squarrose pinnatifid smooth above glaucous with down beneath
12784 Stem simple upright 1-headed, Leaves eroded pinnatifid spiny-toothed smooth above downy beneath

12785 The only species

12786 Heads corymbose numerous

12787 Leaves long and spiny

12788 The only species



and Miscellaneous Particulars.

1852. *Brotera.* Named after Felix Avelhar Brotero, a Portuguese botanist, professor at Coimbra; author of a useful Flora Lusitanica.

1853. *Gundelia.* Named after Andrew Gundelsheimer, a German botanist, who accompanied Tournefort in his journey into the Levant in 1709.

1854. *Euxenia.* A name unexplained by its author. Apparently derived from εὔξενος, hospitable, but in what sense we do not perceive.

CLASS XX. — GYNANDRIA.

THE singular plants which constitute this class are distinguished from all others by the anomalous structure of their flowers. These do not, as is usually the case, contain a certain number of stamens surrounding a central ovarium or style, but on the contrary are furnished with a solitary fleshy undivided process, round which the sepals radiate, and which supplies the place of stamens and style. The nature of this process has been variously explained: the modern opinion is that it is formed by the accretion of the stamens and style into a single mass, and this opinion seems to be confirmed by analysis and analogy. Omitting, therefore, a notice of such theories respecting its nature as are opposed to that which is now received as the most correct, it will suffice to explain a little in detail, the opinion which is adopted in this work. The central process, called the columna or column, is understood to be formed by the filaments of three stamens surrounding a style, and by mutual accretion firmly united with it and with each other into a solid mass. Of these three stamens, it most frequently happens that the *two lateral* are sterile, and not furnished with even the vestige of an anthera; and that their presence is not indicated by more than two irregular excrescences, as in Orchis, or by the same number of small appendages, as in Satyrium, or by two horn-like or tooth-like processes, present in several of the genera with waxy pollen-masses: it even happens, and not unfrequently, that no vestige whatever of them remains. But in Cypripedium both are fertile and bear perfect anthers, while the central stamen is barren and foliaceous. When the lateral stamens are, as above stated, abortive, which is the most common form of the columna, the central stamen bears at its upper extremity an anther, which is either moveable or fixed firmly in its place. The pollen which this contains, assumes three very distinct appearances in different tribes. It is either granular, dividing into many separable small pieces, as in Orchis; or powdery, consisting of an infinite number of granules, as in Spiranthes; or waxy, when it consists of a few large concrete masses, as in Epidendrum. The stigma is most frequently concave, and placed nearly under the anther, but in such a manner, that there is no contact between it and the pollen. In what way, therefore, fecundation can take place among truly Gynandrous plants, is one of those mysterious contrivances of nature which has not yet been explained. It is generally believed to take place by absorption in some undiscovered manner, before the flowers expand; but it is extremely difficult to understand how this can occur in many genera. The foregoing remarks apply only to the tribe of plants called Orchideous. The few genera attached to the latter part of the class are Gynandrous by the cohesion indeed of their stamens and style, but in a much more obvious manner.

Gynandrous plants are among the most interesting of the vegetable productions of the globe, whether we consider the vivacity of their colors, or the singularity of their organization, or the grotesque appearance of their tortuous roots, or the delicious perfume of their flowers. They are distributed in abundance over all the earth. In Europe and the temperate parts of the world, they are principally found in meadows and pastures among grass; but in tropical regions they often constitute the chief beauty of the forest, occupying the forked branches of living trees, or the prostrate trunks of fallen timber, over which, in company with ferns and parasitical Aroideæ, they climb and trail in every direction, until they adorn the one with bright hues and rich odours foreign to their nature, and render the others more beautiful in death, than in the full vigour of their existence.

Order 1. MONANDRIA. Stamen 1.

§ 1. *Anther terminal, erect. Pollen granular, cohering by an elastic thread.*

1855. ***Disa.*** Flowers ringent: helmet with a spur or bag at the base. Inner sepals united to the column. Lip without a spur.

1856. ***Satyrium.*** Flower ringent: five anterior sepals united at base. Lip behind, fornicate with two spurs or bags at the base. Anther resupinate. Stigma 2-lipped.

1857. ***Platanthera.*** Flower vaulted. Lip entire with a spur. Cells of the anther widely divided at their base by the broad interposed stigma. Glands of pollen masses naked. Lips of stigma absent.

1858. ***Gymnadenia.*** Cor. ringent. Lip spurred at the base beneath. Glands of the stalks of the pollen-mass naked, approximate.

1859. ***Orchis.*** Cor. ringent. Lip spurred on the underside at the base. Glands of the stalks of the pollen-mass (1-2) contained in one common little pouch.

1860. ***Nigritella.*** Ovary straight. Flower spreading. Lip posterior, entire, with a scrotiform spur. Glands of pollen-masses distinct, and enclosed in a single 2-celled pouch.

1861. ***Habenaria.*** Cor. ringent. Lip spurred on the upper side at the base beneath. Glands of the stalk of the pollen-mass naked, distinct, with the cells of the footstalks adnate or separated.

1862. ***Bartholina.*** Flower ringent: inner sepals united below with the lip. Lip spurred beneath at the base. Stalks of the pollen-masses long; cells united to the column: glands distinct, half covered by the exterior lobe.

1863. ***Glossula.*** Sepals conniving in a galea: the upper without a spur. Lip anterior, spurred, 3-parted, with an inflated spur. Pollen-masses 2, 2-parted, with 2 glands inclosed in distinct pouches.

1864. ***Anacamptis.*** The flower of Orchis, from which it differs in having the gland of the pollen-masses single, with inflexed edges, and enclosed in a pouch.

1865. ***Aceras.*** Flower ringent. Lip without a spur. Glands of the pollen-masses included in a common pouch.

1866. ***Ophrys.*** Flower somewhat spreading. Lip without a spur. Glands of the pollen-masses inclosed in two distinct pouches.

1867. ***Chamorchis.*** Ovary reclinate at end. Flower galeate. Lip without a spur, undivided. Glands of the pollen-masses naked. Upper lip of stigma divided. Anther of Orchis.

1868. ***Herminium.*** Flower somewhat spreading. Lip without a spur. Glands of the pollen-masses naked, distinct.

1869. ***Serapias.*** Flower ringent. Lip without a spur. Column sharp-pointed. Pollen-masses attached to a single gland inclosed in one pouch.

§ 2. *Anther parallel with stigma. Pollen powdery.*

1870. ***Goodyera.*** Cor. ringent, with the 2 exterior or lateral segments of the perianth placed beneath the lip, which is gibbous at the base and undivided at the extremity. Column free. Pollen angular.

1871. ***Diuris.*** Flower irregular. Two outer linear sepals placed beneath the trifid lip: the inner clawed and spreading. Column with the lateral lobes petaloid. Pollen farinaceous.

1872. ***Ponthieva.*** Flower irregular. Lip behind, with the inner sepals inserted in the column. Pollen farinaceous.

1873. *Neottia.* Flowers connivent. Lip sessile, 2-lobed, with no calli. Anther terminal, sessile. Stigma 2-lipped pervious; the front lip thickened.

1874. *Spiranthes.* Spike spiral. Ovary oblique at the end. Sepals connivent. Lip clawed, parallel with columna, with 2 calli at the base, entire. Anther terminal stalked. Stigma flat, cuspidate, membranous, finally split.

1875. *Stenorhynchus.* Like the last; but the lip adheres to the columna by means of the margins of its lateral lobes: it has no callosities. Stigma corneous, always entire.

1876. *Listera.* Flowers connivent. Lip 2-lobed, sessile, with no calli. Anther intramarginal, half covered over by the hooded clinandrium. Stigma closed, nearly flat, with a strong transverse furrow.

§ 3. *Anther terminal, persistent. Pollen powdery.*

1877. *Arethusa.* Lip united at base with the columna, at the end hooded, in the inside crested. Sepals 5, united at base. Pollen angular.

1878. *Calopogon.* Lip at the back clawed, with a bearded inside. Sepals 5, distinct. Column separate. Pollen angular.

1879. *Pogonia.* Lip sessile, hooded, crested inside. Sepals 5, distinct, without glands. Pollen farinaceous.

1880. *Epipactis.* Lip ventricose below; the extremity either undivided or 3-lobed: the middle lobe the largest, connected as it were by a joint. Pollen farinaceous.

1881. *Caleana.* Lip unguiculate, placed at the back, with a peltate hollow lamina, having a perforation on the outside. Pollen farinaceous.

1882. *Corallorhiza.* Lip produced behind, adnate with the spur or free. Column free. Masses of pollen 4, oblique, not parallel.

§ 4. *Anther terminal, opercular deciduous. Pollen waxy.*

1883. *Rodriguezia.* Perianth. 4-leaved ringent. Lip entire, unguiculate cornute at base; callous in the middle. Pollen-masses 2, with an elastic caudicula. Stigma with 2 horns.

1884. *Gomeza.* Like the last, but lip not cornute at base.

1885. *Cymbidium.* Lip not spurred, concave, jointed with the simple base of the columna. Sepals spreading, distinct. Pollen masses 2, 2-lobed behind.

1885. *Brassia.* Lip expanded, undivided. Sepals spreading, distinct. Column not winged. Pollen-masses 2, 2-lobed behind; fixed by the middle to a common process of the stigma.

1887. *Lissochilus.* Pollen-masses 2, obliquely 2-lobed. Lip saccate at base, sessile, undivided, convex at the base, united with the apterous toothless column. Inner sepals divaricating, petaloid; outer reflexed, calycine.

1888. *Geodorum.* Lip cucullate-ventricose, sometimes spurred at base, sessile, not jointed with the column. Sepals like the lip, 1-sided. Pollen-masses 2, lobed at back.

1889. *Catasetum.* Perianth. not inverted, generally globose. Lip saccate, concave, different from the sepals. Pollen-masses 2, 2-lobed behind, inserted on a large naked transverse caudicula, which finally separates with elasticity.

1890. *Trizeuxis.* Perianth. 2-parted; upper segment 2-lobed; lower 3-parted, inflated. Lip parallel with column, with a recurved dilated limb. Stigma excavated. Anther 1-celled, fleshy. Pollen-masses 2, adhering to a fusiform caudicula.

1891. *Xylobium.* Perianth. spreading. Lip behind jointed, with an unguiform process of the column, 3-lobed, incumbent on columna. Outer lateral sepals united by their bases, with the process of column. Pollen-masses 2, furrowed on one side, seated on a broad caudicula.

1892. *Maxillaria.* Perianth. spreading. Lip in front 3-lobed, jointed with the unguiform process of the column. Lateral outer sepals united by their bases with the process of column. Pollen-masses 2, bipartite, united by their bases to a common gland.

1893. *Notylia.* Perianth. 4-leaved: upper sepals spreading. Lip divaricating entire. Columna acuminate. Pollen-masses 2, entire. Anther posterior, not terminal.

1894. *Pleurothallis.* Lip jointed with the simple or slightly lengthened base of column. The two anterior sepals united at base. Pollen-masses 2, not furrowed.

1895. *Oncidium.* Lip expanded, lobed, tubercled at base. Petals spreading, sometimes only 4. Column winged. Pollen-masses 2, 2-lobed behind, fixed by the middle to the common process of the stigma.

1896. *Cyrtopodium.* Sepals 5, distinct. Lip 3-lobed, connected with a joint with the unguiform process of the base of the apterous column. Pollen-masses 2, 2-lobed behind.

1897. *Cœlogyne.* Perianth. resupinate, spreading. Lip 3-lobed, cucullate, jointed with columna. Column winged. Anther lateral, 2-celled. Pollen-masses 2, 2-parted. Stigma funnel-shaped, 2-lipped.

1898. *Macradenia.* Lip sessile, cucullate, concave, undivided, acuminate. Sepals distinct, spreading. Column distinct, with the lobes of its end conniving. Pollen-masses 2, unfurrowed, seated on a long filiform caudicula.

1899. *Dendrobium.* Lip without a spur, jointed with the unguiform process of the column, to whose edges the anterior sepals adhere. Pollen-masses 4, parallel.

1900. *Anisopetalum.* Flowers erect. Sepals conniving. The two lateral exterior large, cohering at end: two inner very small subulate. Lip oblong, with 2 teeth near the base. Pollen-masses 4, without gland or caudicula.

1901. *Camaridium.* Perianth. resupinate, expanded. Sepals distinct. Lip distinct, sessile, cucullate, 3-lobed. Column round. Stigma arched. Pollen-masses 4, parallel, compressed, without a caudicula at the time of expansion.

1902. *Ornithidium.* Lip sessile, hooded, connate with the base of column. Sepals conniving. Pollen-masses 4, oblique, furrowed at base.

1903. *Isochilus.* Lip almost of the same shape as the distinct, connivent, sepals. Pollen-masses 4, parallel.

1904. *Pholidota.* Flowers resupinate. Sepals uniform; the three outer erect, keeled at back. Lip ventricose. Column dilated at end. Anther 2-celled. Pollen masses 4, each pair having a gland.

1905. *Broughtonia.* Column distinct, or at the very base united with the unguiculate lip, which is lengthened at the base into a tube, connate with the ovarium. Pollen-masses 4, parallel, with a granular caudicula reflexed upon the masses.

1906. *Cattleya.* Sepals spreading. Lip sessile, cucullate, surrounding the half round column. Pollen-masses 4, with as many powdery reflexed caudiculæ.

1907. *Epidendrum.* Column united with the claw of the lip, and forming a tube which sometimes runs down the ovarium. Pollen-masses 4, with as many powdery reflexed caudiculæ.

1908. *Polystachya.* Perianth. not inverted, cuneate, closed. Pollen-masses 4, placed on a simple naked caudicula with a gland.

1909. *Cryptarrhena.* Sepals 5, distinct, spreading. Lip not spurred, with a dilated flat lamina. Column distinct, not winged. Anther enclosed in the cucullate head of the column. Pollen-masses 4.

1910. *Ornithocephalus.* Flowers resupinate. Lip stalked. Sepals nearly equal; the two upper finally reflexed. Column short, with a very long beak. Pollen-masses 4, adhering to a very long glandular caudicula.

1911. *Bletia.* Lip sessile, cucullate; sometimes spurred at the base. Sepals 5, distinct. Column separate. Pollen-masses 8 or 4, 2-lobed.

1912. *Eria.* Perianthium woolly, conniving or expanded. Lip 3-lobed, jointed with an unguiform process of the column to whose sides the anterior sepals are united. Pollen-masses 8, cohering at the end by means of a powdery substance.

1913. *Octomeria.* Lip jointed with an unguiform process, to the edges of which the anterior sepals adhere. Pollen-masses 8. Perianthium quite smooth.

1914. *Brassavola.* Lip with a simple claw, undivided. Sepals distinct, spreading. Pollen-masses 8 or more.

1915. *Sarcanthus.* Lip fleshy, entire, calcarate; the spur furnished with various appendages in the interior. Sepals spreading equally. Pollen-masses 2, seated on an elastic caudicula.

1916. *Vanda.* Lip saccate, continuous with the simple base of the apterous column, trifid, with the middle lobe fleshy. Sepals spreading, distinct. Pollen-masses 2, obliquely 2-lobed, attached to an elastic caudicula.

1917. *Aerides.* Lip spurred or saccate, inserted at the end of the unguiform process, to whose edges the anterior sepals are united. Pollen-masses 2, two-lobed behind, fixed by a common process to the middle of the stigma.

1918. *Renanthera.* Like the last, but sepals very long and spreading, and lip only a little saccate at base.

1919. *Ionopsis.* Sepals connivent, the anterior placed under the labellum. Lip spurred at base. Pollen-masses 2.

1920. *Eulophia.* Sepals 5, distinct, uniform, ascending, spreading. Lip spurred at base, with a sessile crested lamina, 3-lobed. Pollen-masses 2, two-lobed, with a posterior lobe attached to an elastic caudicula.

1921. *Angræcum.* Sepals conniving, galeate. Lip spurred 3-lobed, jointed with column. Pollen-masses 2. Stigma concave, transverse.

1922. *Arranthes.* Lip spurred, membranous, entire, jointed with an unguiform process of the column, to which the two front sepals are adherent. Pollen-masses 2, hollow, perforated on one side, with no caudicula, and two glands.

1923. *Calanthe.* Lip spurred, lobed, united with the column. Perianth. spreading. Pollen-masses 8.

1924. *Stelis.* Lip of the same form as the inner dwarf vaulted sepals. Three outer sepals united at base. Pollen-masses 2.

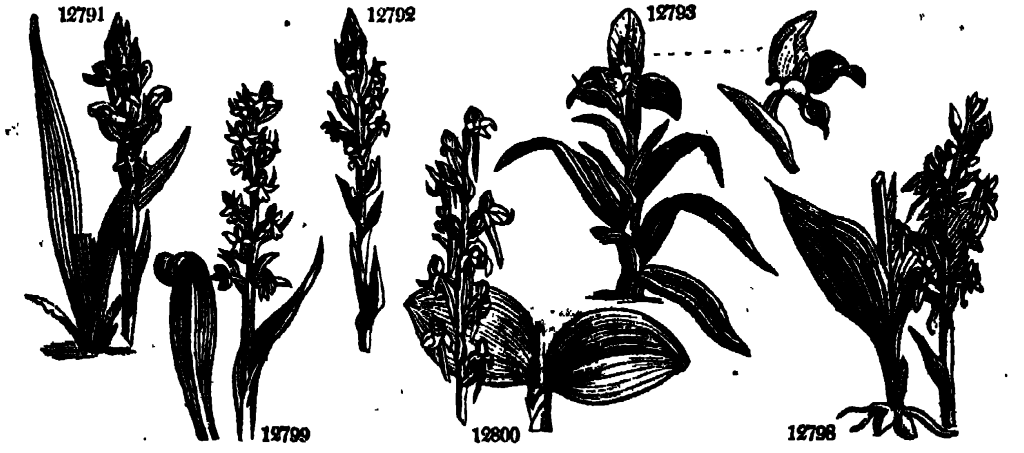
1925. *Malaxis.* Lip flat, expanded, regularly vertical. Column round. Pollen-masses 4, loose.

1926. *Prescotia.* Perianth. spreading. Two upper sepals connate at base. Lip behind, erect, fleshy, cucullate, entire, embracing the very minute column. Pollen-masses 2, twin, granular, united by the end to a gland.

1927. *Microstylis.* Lip flat, sagittate, or deeply cordate. Column very small, round. Pollen-masses 4, loose.

MONANDRIA.

1855. DI'SA. *Sw.*	Disa.				*Orchideæ.*	*Sp.* 6—37.						
12789 cornúta *W.*	horned	✻	⌊△⌋	el	1½	jn.jl	Pa.B	C. G. H.	1805.	R	s.p	
12790 spatuláta *W.*	spoon-lipped	✻	⌊△⌋	cu	1	jn.jl	Pa.pu	C. G. H.	1805.	R	s.p	Journ.sc.4.t.5.f.3
12791 prasináta *B. Reg.*	green-flowered	✻	⌊△⌋	cu	¾	jn.jl	G.R	C. G. H.	1815.	R	s.p	Bot. reg. 210
12792 bracteáta *W.*	small-flowered	✻	⌊△⌋	cu	½	jn.jl	G	C. G. H.	1818.	R	s.p	Bot. reg. 324
12793 grandiflóra *W.*	large-flowered	✻	⌊△⌋	spl	1	jl.au	Sc	C. G. H.	1825.	R	s.p	Bot. reg. 926
12794 graminifólia *Banks*	blue	✻	⌊△⌋	spl	1½	...	B	C. G. H.	1825.	R	s.p	Journ.sc.6.t.1.f.2
1856. SATY'RIUM. *W.*	Satyrium.				*Orchideæ.*	*Sp.* 3—19.						
12795 cucullátum *W.*	cucullate	✻	⌊△⌋	cu	¾	jn.s	Pa.Y	C. G. H.	1787.	R	s.p	Bot. reg. 416
12796 car'neum *H. K.*	great-flowered	✻	⌊△⌋	el	1½	jn.s	Pk	C. G. H.	1787.	R	s.p	Bot. mag. 1512
12797 coriifólium *W.*	leathery-leaved	✻	⌊△⌋	or	1	o	Y	C. G. H.	1820.	R	s.p	Bot. reg. 703
1857. PLATAN'THERA. *Rich.*	Platanthera.				*Orchideæ.*	*Sp.* 3—11.						
12798 bifólia *Rich.*	ButterflyOrchis	✻	△	pr	1	my.jn	W	Britain	woods.	R	p.l	Eng. bot. 22
12799 dilatáta	dilated	✻	△	pr	1½	au	W	Canada	1823.	R	s.p	Hook. ex. fl. 95
12800 orbiculáta	round-leaved	✻	△	cu	1	ap.my	G	Canada	1823.	R	s.p	Hook. ex. fl. 145
1858. GYMNADE'NIA. *R. Br.*	Gymnadenia.				*Orchideæ.*	*Sp.* 3—6.						
12801 conópsea *R. Br.*	fragrant	✻	△	pr	1	jn.jl	Pu	Britain	me.pas.	R	h.l	Eng. bot. 10
12802 viridis *Rich.*	Frog Orchis	✻	△	pr	¾	jn.jl	G	Britain	me.pas.	R	l.p	Eng. bot. 94
12803 álbida *Rich.*	small-white	✻	△	pr	½	jn.jl	W	Britain	sun.hi.	R	l.p	Eng. bot. 505
1859. OR'CHIS. *L.*	Orchis.				*Orchideæ.*	*Sp.* 19—84.						
12804 Mório *W.*	meadow	✻	△	or	¾	my.jn	Pu	Britain	me.pas.	R	l.p	Eng. bot. 2059
12805 longicórnu *P. S.*	flat-spurred	✻	⌊△⌋	or	½	ap.my	Pu	Barbary	1815.	R	l.p	Bot. reg. 202
12806 máscula *W.*	early purple	✻	△	or	1	ap.my	Pu	Britain	woods.	R	l.p	Eng. bot. 631



History, Use, Propagation, Culture,

1855. *Disa.* A name of unknown meaning, adopted by Linnæus from Bergius. Beautiful Cape herbaceous plants, with flowers of various colors, either growing singly, or in long spikes. Disa cornuta produces a spike, often a foot or a foot and a half long. D. grandiflora has large, nearly solitary flowers, of a brilliant scarlet color. The species are cultivated without difficulty in a stove or in a greenhouse, if the roots are planted in light sandy peat, mixed with a very little loam, and not overwatered. The same treatment is suitable to the other tender tuberous or fibrous-rooted Orchideæ.

1856. *Satyrium.* The aphrodisiacal properties of Orchideous plants induced the ancients to give this name to almost all the species they knew; from *σατυρος*, a satyr. The bag-like appendages of the lip have perhaps assisted in the application of the name. The species are mostly handsome plants, with yellow or pink flowers. Mr. Salisbury says, he preserved Satyrium cucullatum some years, by attending to planting the bulb in a pot, nearly full of broken tiles, mixed with pure sandy loam, and keeping it quite dry when not vegetating.

1928. *Liparis.* Perianth. spreading. Lip flat, expanded, entire, turned various ways. Column winged. Pollen-masses 4, with neither caudicula nor glands.

1929. *Calypso.* Lip ventricose, spurred beneath near the end. Sepals ascending, 1-sided. Column petaloid, dilated. Pollen-masses 4.

§ 5. *Pollen granular. Seeds not arillate.*

1930. *Vanilla.* Flower jointed with ovary, and deciduous. Lip united at base with columna. Capsule fleshy.

Order 2. DIANDRIA. Stamens 2.

1931. *Cypripedium.* Lip ventricose, inflated. Column terminated by a petaloid lobe dividing the anthers. Two anterior sepals usually united.

1932. *Stylidium.* Cal. 2-lipped. Cor. irregular, 5-fid; the fifth segment dissimilar. Column reclinate, with a double bend. Anthers with 2 spreading lobes. Caps. 2-celled.

1933. *Gunnera.* Cal. 2-toothed, superior. Cor. O. Style 2-parted. Drupe 1-seeded, crowned by the teeth of the calyx.

Order 3. HEXANDRIA. Stamens 6.

1934. *Aristolochia.* Cal. O. Cor. 1-petalous, ligulate, ventricose at base. Caps. 6-celled, many-seeded, inferior.

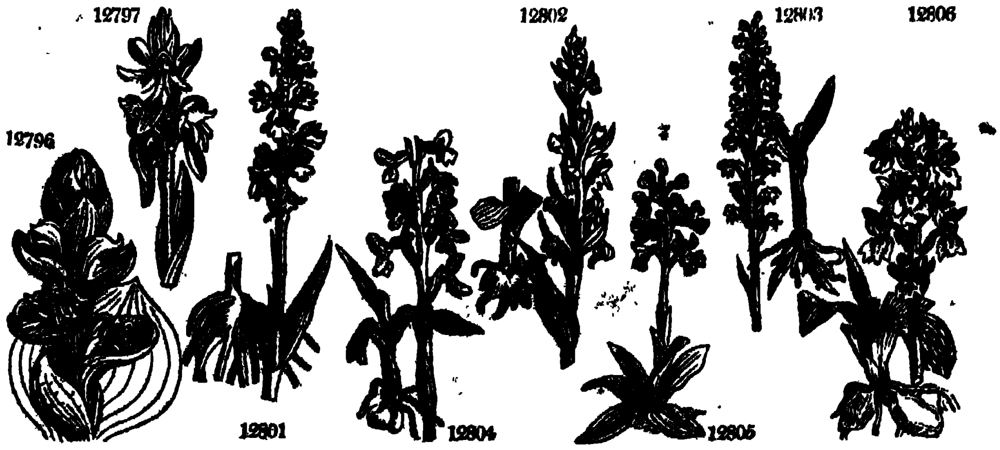
MONANDRIA.

12789 Helmet blunt: spur conical deflexed, Inner sepals 2-toothed, Lip obovate velvety flat, Spike lax
12790 Helmet erect acute, Lip stalked dilated at end trifid, Stem few-flowered, Leaves linear
12791 Helmet blunt: spur obl. keeled convex at back, Lip linear acutish, Spike lax, Bractes shorter than fls.
12792 Helmet blunt: spur obl. Lip linear broadest at end, Spike cylindrical, Bractes erect longer than flowers
12793 Helmet acute erect: spur conical nodding, Lip linear blunt, Stem about 2-fl.
12794 Leaves filiform shorter than 3-flowered scape, Spur blunt ascending

12795 Radical leaves twin cordate roundish concave: cauline remote cucullate bluntish
12796 Radical leaves twin cordate roundish: cauline sheath-like close, Spike compact, Sepals keeled outside
12797 Leaves ovate acuminate somew. reflexed sheathing coriaceous crenated at edge, Fls. and helmet cernuous

12798 Horn filiform twice as long as ovary, Lip linear entire, Rad. leaves twin oblong narrowed at base
12799 Lip lanceolate obtuse dilated at base, Spur the length of lip a little shorter than the ovary, Stem leafy
12800 Lip linear lanceolate, Three upper sepals erect conniving: lateral reflexed, Leaves 2 orbicular

12801 Bulbs palmate, Lip trifid entire, Spur setaceous twice as long as ovary
12802 Horn short double, Lip linear 3-toothed: lateral teeth acute; middle very short
12803 Horn blunt 3 times shorter than ovary, Lip 3-parted: segments acute; middle one largest
[ovary
12804 Lip 3-lob.: lobes cren. obt. midd. one emargin. Seg. of perianth ascend. obt. Spur conic. ascend. shorter than
12805 Lip 3-lobed: lateral reflexed toothletted; middle shorter than blunt, Spur long comp. truncate ascending
12806 Lip 3-lob. crenul. obt.: the midd. lobe cleft, Seg. of the perianth cleft; exterior one reflex. Spur lin. ascend. compressed at the extremity rather longer than the ovary



and Miscellaneous Particulars.

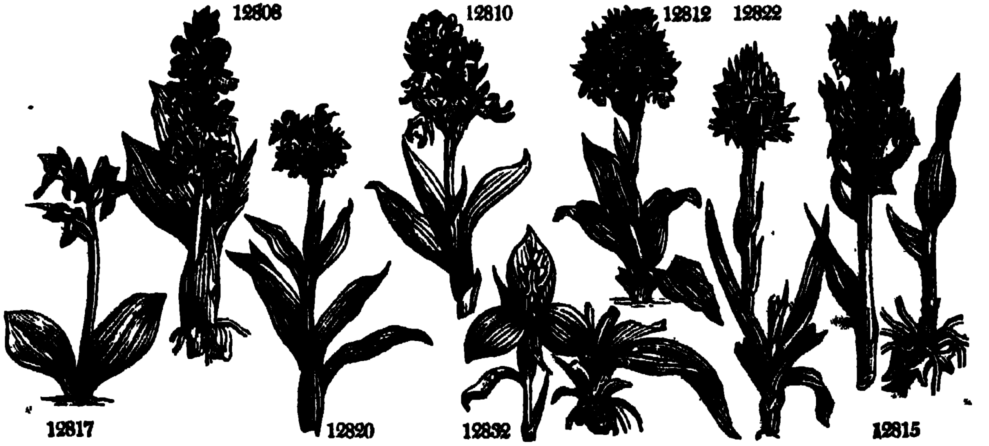
1857. *Platanthera.* So named from πλατυς, broad, and ανθηρα, an anther, on account of the width of that organ, which is as broad or broader than the base of the labellum. Curious wood plants with greenish flowers.

Platanthera bifolia is one of our indigenous plants, which may be cultivated without any difficulty, if planted in pure loam from a lime-stone bottom. It succeeds in a pot, if filled half full of broken tiles; and when in the open ground, the border should be well drained, at least six inches in depth. No plant bears forcing better, or exhales a more delightful perfume. This species is never observed but in a lime-stone soil, and is exceedingly plentiful near Buxton.

1858. *Gymnadenia.* From γυμνος, naked, and αδην, a gland; because it differs from Orchis in not having the glands enclosed in a pouch, but altogether uncovered. The principal species of the genus is the Orchis conopsea of old botanists.

1859. *Orchis.* The Greek name of the plant. In Arabic, according to Forskahl, it is called *sahhleb*, from

12807	ustuláta *W.*	dwarf	⚘ △	or	½	my.jn	Pu	England	dr.pa.	R	l.p	Eng. bot. 18
12808	fúsca *W.*	brown	⚘ △	or	3	my.jn	Br.P	England	ch.hil.	R	l.p	Eng. bot. 16
12809	tephrosan'thos *Desf.*	fine-lipped	⚘ △	or	1½	my.jn	Pa.pu	Britain	ch.hil.	R	l.p	
12810	militáris *W.*	military	⚘ △	or	1	my.jn	Pu	England	[illegible]	R	h.l	Eng. bot. 1873
12811	unduláta *Bivona*	wavy-leaved	⚘ ⌊△⌋	or	1	d	Pa.pu	Sicily	[illegible]	R	l.p	Bot. reg. 375
12812	acumináta *W.*	pointed-flower.	⚘ ⌊△⌋	or	1	ap.my	Pa.pu	Barbary	1815.	R	l.p	Bot. mag. 1932
12813	globósa *W.*	round-spiked	⚘ △	or	¾	jn.jl	Pa.pu	Austria	1792.	R	l.p	Jac. aust. 3.t.265
12814	hircina *W.*	Lizard	⚘ △	or	1½	jn.jl	Pu	England	ch.wo.	R	l.p	Eng. bot. 34
12815	latifólia *W.*	marsh	⚘ △	or	1	my.jn	Pk	Britain	m.me.	R	l.p	Eng. bot. 2308
12816	maculáta *W.*	spotted-palmate	⚘ △	or	1½	jn.jl	F	Britain	woods.	R	h.l	Eng. bot. 632
12817	spectábilis *W.*	showy	⚘ △	or	½	jn.jl	Pk	N. Amer.	1801.	R	l.p	Bot. cab. 78
12818	papilionácea *W.*	papilionaceous	⚘ △	or	1½	jn.jl	Pa.pu	S. Europe	1788.	R	l.p	
12819	longibracteáta *Biv.*	Sicilian	⚘ ⌊△⌋	or	1½	d	Pu	Sicily	1818.	R	l.p	Bot. reg. 357
12820	variegáta *All.*	variegated	⚘ ⌊△⌋	or	¾	ap.my	Pa.pu	S. Europe	1818.	R	l.p	Bot. reg. 367
12821	sulphúrea *Schrad.*	sulphur-colored	⚘ ⌊△⌋	or	1	my.jn	Y	Portugal	1820.	R	l.p	Bot. mag. 2569
1860.	NIGRITEL'LA. *Rich.*	NIGRITELLA.				*Orchideæ.*	*Sp.* 1.					
12822	angustifólia *Rich.*	dark-flowered	⚘ △	cu	½	jn.jl	Br.P	Austria	1759.	R	l.p	Flo. dan. t. 998
1861.	HABENA'RIA. *R. Br.*	HABENARIA.				*Orchideæ.*	*Sp.* 9—17.					
12823	bracteáta *R. Br.*	long-bracted	⚘ △	cu	1	my.jn	G	N. Amer.	1805.	R	l.p	Sweet fl. gar. 62
12824	hyperbórea *R. Br.*	northern	⚘ △	cu	½	jn.jl	G	Iceland	1805.	R	l.p	
12825	herbiola *R. Br.*	American	⚘ △	cu	1	jn.jl	G	N. Amer.	1789.	R	p.l	
12826	fimbriáta *R. Br.*	purple-fringed	⚘ △	el	1½	jn.jl	Pu	Canada	1789.	R	p.l	Bot. cab. 552
12827	cristáta *R. Br.*	yellow-crested	⚘ △	el	1½	s	Y	N. Amer.	1806.	R	p.l	
12828	ciliáris *R. Br.*	yellow-fringed	⚘ △	el	1	jn.jl	Y	N. Amer.	1796.	R	p.l	Bot. mag. 1668
12829	lácera *Mich.*	torn	⚘ △	pr	1½	jn.jl	Pa.Y	N. Amer.	1812.	R	p.l	Bot. cab. 229
12830	blephariglóttis *Hook.*	white-fringed	⚘ △	pr	1	my.jn	W	Canada	1820.	R	s.p	Hook. ex. fl. 87
12831	tridentáta *Hook.*	three-toothed	⚘ △	pr	1½	my.jn	W	Canada	1820.	R	s.p	Hook. ex. fl. 81
1862.	BARTHOLI'NA. *R. Br.*	BARTHOLINA.				*Orchideæ.*	*Sp.* 1.					
12832	pectináta *R. Br.*	pectinated	⚘ [△]	cu	¾	o	W	C. G. H.	1787.	R	l.p	Journ.sc.4.t.8.f.2
1863.	GLOS'SULA. *Lindl.*	GLOSSULA.				*Orchideæ.*	*Sp.* 1.					
12833	tentaculáta *Lindl.*	feeler-flowered	⚘ [△]	cu	¾	d	G	China	1824.	R	l.p	Bot. reg. 862
1864.	ANACAM'PTIS. *Rich.*	ANACAMPTIS.				*Orchideæ.*	*Sp.* 1.					
12834	pyramidális *Rich.*	pyramidal	⚘ △	or	1½	jn.jl	R	Britain	dr.pa.	R	h.l	Eng. bot. 110
1865.	A'CERAS. *R. Br.*	ACERAS.				*Orchideæ.*	*Sp.* 1—3.					
12835	anthropóphora *R.Br.*	Green Man	⚘ △	cu	1	jn	G	England	ch.pa.	R	l.p	Eng. bot. 29
1866.	O'PHRYS. *L.*	OPHRYS.				*Orchideæ.*	*Sp.* 6—14.					
12836	apífera *W.*	Bee	⚘ △	el	¾	jn.jl	Pu	England	ch.pa.	R	h.l	Eng. bot. 383
12837	tenthredinífera *W.*	Saw-fly	⚘ ⌊△⌋	el	¾	ap.my	Y.s	Barbary	1815.	R	s.l	Bot. reg. 205
12838	aranífera *W.*	Spider	⚘ △	el	¾	ap.my	G	England	ch.so.	R	s.l	Eng. bot. 65



History, Use, Propagation, Culture,

whence doubtless our word *salep* has been obtained. This is a curious and beautiful genus, but rather difficult of culture. Few of the species produce seeds, but are propagated by their bulbs or tubers, which, in most of the species, are of a peculiar structure and economy. An Orchis being taken out of the ground is found with two solid masses, ovate or fasciculated at the base of the stem, above which proceed the thick fleshy fibres which nourish the plant. One of these bulbs or tubers is destined to be the successor of the other, and is plump and vigorous, whilst the other or decaying one is always wrinkled and withered. From this withered one has proceeded the existing stem, and the plump one is an offset, from the centre of which the stem of the succeeding year is destined to proceed. By this means, the actual situation of the plant is changed about half an inch every year; and as the offset is always produced from the side opposite to the withered bulb, the plant travels always in one direction at that rate, and will in a dozen years have marched six inches from the place where it formerly stood.

In the garden, the Orchis can hardly be said to be propagated; the species are generally taken up from their native habitations with balls, and transferred to a shady border, where they remain for a year or two, but seldom increase. Those which grow in the open fields are generally found in calcareous soil, and those in bogs or woods thrive best in peat, or peat and loam mixed. The culture of this genus, however, has been very little attended to. According to Sweet, the best time to transplant the British Orchideæ, is when they are in a growing state.

The Orchis affords the preparation known as Salep, imported from Turkey, and other parts of the Levant; and which has also been made in this country from O. mascula, and other species. The root is washed, the brown skin rubbed off, and then dried in an oven and ground into powder. This powder, as an article of diet, is accounted extremely nutritious, containing a great quantity of farinaceous matter in a small bulk. O. mascula is very abundant in the meadows of Gloucestershire, and Salep has been made from its bulbs, equal to that imported. (*Encyc. of Agr.* 5527.)

12807 Lip 3-part. : seg. lin. dotted scabr. ; midd. 2-parted, Sepals erect ac. Spur uncin. thrice as short as ovary
12808 Lip 3-part. dott. scabr. : later seg. obl. ; midd. larg 2-lob. cren. with a point betw. Spur straightish thrice as short as ovary, Bractes 4 times as short as ovary
12809 Lip 4-parted very narrow : segm. filif. ; middle longer with a tooth between, Spike conic. Bractes minute
12810 Lip 3-parted very narrow : seg. lin. ; midd. 2-lob. blunt with a point between, Spur straight twice as short as ovary, Bractes obsolete
12811 Bulbs ovate, Stem leafy, Lip 3-parted scabr. : lat. seg. very narr. : midd. very long bifid with an appendage, Leaves wavy spotted
12812 Lip 3-lobed dotted : middle broadest with a tooth between, Spur compressed, Outer sep. subul. Spike dense
12813 Lip 3-part. : midd. seg. emarg. Sep. mucron. at end, Spur twice as short as ovar. Spike dense ov. Lvs. lanc.
12814 Lip 3-parted : lat. seg. lin. sub. : middle long bifid thrice as long as ovary, Spur very short conical double
12815 Lip slightly 3-lobed : sides reflex. Three inn. segm. of perianth conniv. Spur cylind. shorter than germen, Bract. longer than the flowers
12816 Lip plane 3-lobed crenate : 3 inn. segm. of perianth conniv. ; lat. ones patent, Spur cylind. shorter than the germen, Bract. as long as the germen
12817 Lip obov. undiv. cren. ret. Sep. straight : lat. long. Spur clav. short. than ovary, Bract. longer than fl. [ovary
12818 Lip obov. undiv. tooth. emarg. Sep. nerv. conniv. Spur subul. short. than ovar. Bract. membr. col. as long as
12819 Bulbs undivided, Sepals conniving, Lip trifid : middle segment projecting 2-lobed, Bractes longer than fl.
12820 Lip trifid dotted : segments ovate serrulate ; middle broadest emarginate, Spike ovate compact
12821 Scape naked, Lip slightly 3-lobed at end, Spur ascending, Bractes as long as ovary

12822 The only species

12823 Spur short double, Lip linear retuse 3-toothed : lateral blunt ; middle obsol. Bractes twice as long as fl.
12824 Spur cylindrical shorter than ovary, Lip entire linear oblong [than flower
12825 Spur filif. shorter than ovary, Lip obl blunt toothed on each side at base, Palate 1-toothed, Bractes longer
12826 Spur filiform longer than ovary, Lip 3-parted with cuneiform fringed segments
12827 Spur filiform shorter than ovary, Lip lanceolate pinnatedly fringed, Inner sepals toothed cut
12828 Spur filiform longer than ovary, Lip lanceolate pinnatedly fringed, Inner sepals fringed cut
12829 Lip long 3-parted : segm. somewhat digitate filiform, Spur length of ovary, Spike obl Flowers alternate
12830 Roots fascicled, Lip lanc. ciliated the length of upper sepals, Spur very long a little shorter than ovary
12831 Sepals conniving, Lip nearly equal broad ovate bluntly 3-toothed, Spur filiform curved longer than ovary

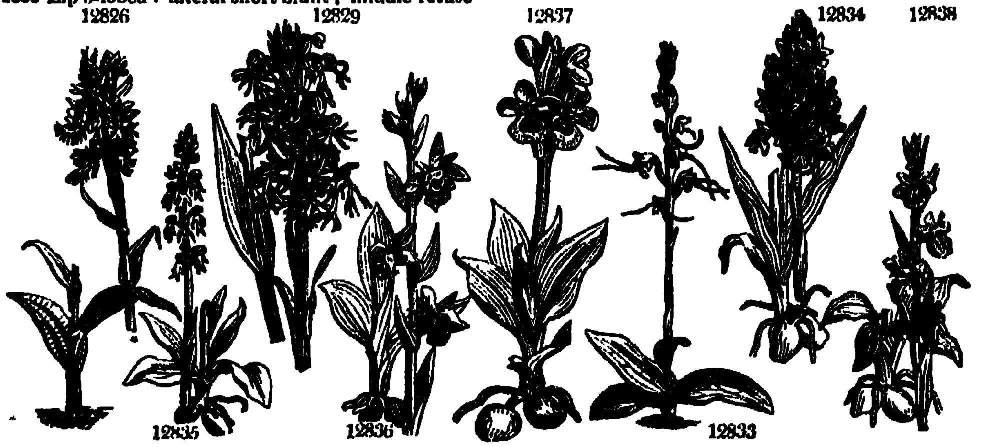
12832 The only species

12833 The only species

[spread. Spur filif
12834 Lip 3-cleft : lobes eq. ent. with 2 longitud. append. on upp. side near base, Seg. of perin. lanc. 2 outer ones

12835 Lip the length of ovary

12836 Lip 3-fid : middle lobe largest ½-trifid ; middle segm. longest subulate deflexed
12837 Lip 2-lobed villous obovate appendaged, Sepals spreading : three outer oblong blunt ; inner very short
12838 Lip 3-lobed : lateral short blunt ; middle retuse



and Miscellaneous Particulars.

Orchis fusca and militaris, according to Salisbury, succeed best in chalky soil, free from all manure whatever ; but they will endure more moisture than would be supposed ; for he found them in a very wet part of the meadow below the terrace, at Mill Hill, where they had, no doubt, been planted by Mr. Peter Collinson. Gymnadenia conopsea affords another singular instance of this sort, which is found growing wild on the driest limestone, mixed with Anacamptis pyramidalis, and in bogs where one can hardly tread, mixed with *Epipactis palustris*.

1860. *Nigritella.* So named by M. Richard, from *niger*, black, in allusion to the color of the flowers.

1861. *Habenaria.* From *habena*, a thong or rein, on account of the long spur of the flower, which resembles something of that sort. Most of the species have white flowers, and natives of America. Some have bright yellow flowers, others purple ones.

1862. *Bartholina.* Named in honor of Thomas Bartholini, a Danish physician, who flourished at the end of the seventeenth century. A small Cape plant, with a beautifully fringed white flower.

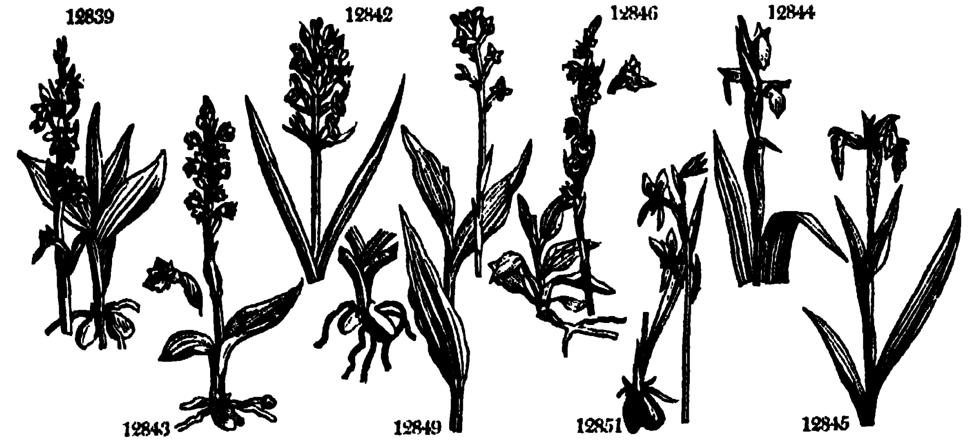
1863. *Glossula.* So called by Mr. Lindley, from *γλωσσα*, a tongue, in reference to the tongue-like segments of the labellum. An obscure Chinese plant, with pale green minute flowers.

1864. *Anacamptis.* From *αναχαμπτω*, to bend back, in allusion, it is presumed, to the reflexed edges of the appendage of the pollen-masses. In all respects similar to Orchis in habit. It is the Orchis pyramidalis of Linnæus.

1865. *Aceras.* From *α*, without, and *κερας*, a horn, in allusion to the absence of the spur from the labellum, by which character it is chiefly distinguished from Orchis. Aceras anthropophora is difficult to cultivate. It can only be propagated by seeds, which thrive best in a mixture of sand, loam, and chalk.

1866. *Ophrys.* From the Greek word *οφρυς*, which signifies an eye-lash, to which the delicate fringe of the inner sepals may be very well compared. O. apifera is a singularly beautiful plant not uncommon on calcareous soils, near woods, and in open meadows. It ripens seeds plentifully, as will all the species, if care be taken, as

12839 muscifera *H. K.*	Fly	✱ △ el	¾	my.jn	Pu	England	ch.pa.	R	h.l	Eng. bot. 64
12840 aráchnites *W.*	villous	✱ △ el	¾	my.jn	Br	Europe	...	R	h.l	Bot. mag. 2516
12841 lùtea *W.*	yellow	✱ ⌊△⌋ el	¾	ap.my	Y	Spain	1818.	R	h.l	Hook. ex. fl. 10
1867. CHAMOR'CHIS. *Rich.*	CHAMORCHIS.			*Orchideæ.*		*Sp.* 1.				
12842 alpina *Rich.*	alpine	✱ ⌊△⌋ pr	½	ap.my		Switzerl.	1824.	R	s.p	
1868. HERMI'NIUM. *R. Br.*	HERMINIUM.			*Orchideæ.*		*Sp.* 1.				
12843 Monórchis *R. Br.*	musk	✱ △ cu	½	jn jl	G	England	ch.ba.	R	l.p	Eng. bot. 71
1869. SERA'PIAS. *R. Br.*	SERAPIAS.			*Orchideæ.*		*Sp.* 2—4.				
12844 Lingua *W.*	tongue-lipped	✱ ⌊△⌋ cu	1	my.jn	Br	S. Europe	1786.	R	l p	Bot. cab. 655
12845 cordigera *W.*	heart-lipped	✱ ⌊△⌋ cu	1	jl.au	Br	S. Europe	1806.	R	l.p	Bot. rep. 475
1870. GOODYE'RA. *H. K.*	GOODYERA.			*Orchideæ.*		*Sp.* 5—9.				
12846 rèpens *H. K.*	creeping	⅄ △ pr	¾	jl.au	W	Scotland	al.wo.	D	l.p	Eng. bot. 289
12847 pubéscens *H. K.*	downy	⅄ △ pr	¾	jl	W	N. Amer.	1802.	D	l.p	Lind. coll. 25
12848 discolor *B. reg.*	purple-leaved	¥ [△] pr	1	n.d	W	S. Amer.	1815.	D	l.p	Bot. reg. 271
12849 prócera *Hook.*	Nepal	¥ [△] pr	2	jn.jl	W	Nepal	1821.	D	l.p	Hook. ex. fl. 39
12850 tesselláta *Lodd.*	tessellated	⅄ △ pr	¾	jn.jl	W	N. Amer.	1821.	D	l.p	Bot. cab. 952
1871. DIU'RIS. *Sw.*	DIURIS.			*Orchideæ.*		*Sp.* 1.				
12851 aúrea *Sw.*	golden-flowered	¥ ⌊△⌋ el	1½	...	Y	N. S. W.	1810.	R	l.p	Exot. bot. 1. t. 9
1872. PONTHIE'VA. *R. Br.*	PONTHIEVA.			*Orchideæ.*		*Sp.* 2.				
12852 glandulósa *R. Br.*	glandular	¥ [△] cu	1	ja.mr	G	W. Indies	1800.	D	l.p	Bot. mag. 842
12853 petioláta *Lindl.*	stalked	¥ [△] cu	1	au	Br	S. Vincent	1822.	D	l.p	Bot. reg. 760
1873. NEOT'TIA. *L.*	NEOTTIA.			*Orchideæ.*		*Sp.* 1.				
12854 Nidus avis *W.*	bird's-nest	¥ △ cu	1	my	Br	Britain	ch.wo.	R	l.p	Eng. bot. 48
1874. SPIRAN'THES. *Rich.*	SPIRANTHES.			*Orchideæ.*		*Sp.* 6—13.				
12855 picta *Lindl.*	Lemon-scented	¥ [△] pr	2	ap.jn	W	Trinidad	1805.	D	s.p	Bot. mag. 1562
12856 eláta *Lindl.*	tall	¥ [△] pr	2	ap.jn	W	W. Indies	1790.	D	s.p	Bot. mag. 2026
12857 pudica *Lindl.*	modest	⅄ [△] pr	½	n.d	Pk	China	1819.	D	s.p	Lindl. coll. 30
12858 bicolor *Lindl.*	two-colored	¥ [△] pr	1	ja.f	W	Trinadad	1823.	D	s.p	Bot. reg. 794
12859 cérnua *Rich.*	nodding-flower.	⅄ △ pr	1	jl	W	N. Amer.	1796.	D	l.p	Bot. mag. 1568
12860 æstivális *Rich.*	Ladies-traces	⅄ △ pr	¾	[illegible]	W	Britain	me.pa.	D	l.p	Eng. bot. 541
1875. STENORHYN'CHUS. *Rich.*	STENORHYNCHUS.			*Orchideæ.*		*Sp* 2—7.				
12861 speciósus *Rich.*	showy	¥ [△] el	1	ap.jn	Sc	W. Indies	1790.	D	s.p	Bot. mag. 1374
12862 orchioìdes *Rich.*	frosted-flower'd	¥ [△] el	1½	my	F	Jamaica	1806.	D	s.p	Bot. mag. 1036
1876. LISTE'RA. *R. Br.*	TWAY-BLADE.			*Orchideæ.*		*Sp.* 2.				
12863 ováta *H. K.*	common	⅄ △ cu	1	my.jn	G	Britain	woods.	R	l.p	Eng. bot. 1548
12864 cordáta *H. K.*	heart-leaved	⅄ △ cu	½	jn.jl	G	Britain	moi.h.	R	l.p	Eng. bot. 358
1877. ARETHU'SA. *L.*	ARETHUSA.			*Orchideæ.*		*Sp.* 1—4.				
12865 bulbósa *H. K.*	bulbous	✱ ⌊△⌋ el	¾	my.jn	Pk	N. Amer.	...	R	l p	Bot. mag. 2204



History, Use, Propagation, Culture,

Sweet directs, to "rub the pollen on the stigma." The seeds must be sown as soon as ripe, and the plants transplanted to where they are finally to remain, when of a small size. Several species of this genus, and of Orchis, were successfully cultivated by Collinson, in his botanic garden at Mill-Hill. His method was to place them in a soil and situation as natural to them as possible, and to suffer the grass and herbage to grow round them. O. aranifera, with a little attention and management, will grow and flower freely in pots. Curtis found the following method successful: "take up the roots carefully when in flower; bare them no more than is necessary to remove the roots of the other plants; fill a large sized garden-pot with three parts choice loam moderately stiff, and one part chalk, mixed well together, and passed through a sieve somewhat finer than a common cinder sieve; in this mixture place your roots at about the depth of two inches, and three inches apart; water them occasionally during summer, if the weather prove dry; at the approach of winter place the pot in a frame under a glass, to keep it from wet and frost, which combined, destroy the beauty of the foliage, if not the plant itself; in the autumn, before any of the others make their appearance, this species emerges." (*Curtis, Fl. Lond.* n. 68.)

Salisbury says, that Ophrys muscifera, and most of its congeners, are very easily cultivated; but require the purest loam from a chalky bottom, and the border to be most effectually drained; for any permanent wet in summer makes them push too soon. On the hillocks and declivities where they grow wild, the slight showers are absorbed by the surrounding turf or long grass, and the heavy rains we usually have after midsummer-day run off quickly.

1867. *Chamorchis.* From χαμαι, dwarf, and *Orchis.* A pretty little alpine plant, exceedingly difficult to cultivate. Roots have been brought in damp moss from Switzerland, but they probably have perished ere now.

1868. *Herminium.* A name which is not explained by its author. It is the Ophrys Monorchis of old botanists.

1869. *Serapias* is the name of an Egyptian divinity, whose temples were notorious scenes of profligacy. In this sense, with reference to the uses of the plant, as also in Satyrium, the word seems to have been applied by Pliny. Rare herbaceous plants of the south of Europe, but cultivated in a frame.

1870. *Goodyera.* So called after Mr. John Goodyer, an obscure British botanist. The species grow freely in sandy peat, and, unlike most of the Orchideæ, may be increased by dividing the roots.

12839 Lip 3-fid : middle lobe large 2-lobed, Anther blunt
12840 Stem leafy, Lip vill. 3-lobed : midd. lobe obov. shortly 3-lobed at end, Inner sepals linear-lanc. very short
12841 Stem leafy, Lip downy obov. 3-lobed at end : lobes nearly equal, Inner sepals lanc. twice as short as outer

12842 Leaves linear setaceous, Scape naked

12843 The radical leaves lanceolate twin

12844 Lip 3-parted : middle lobe oblong lanceolate acute smoothish hanging down
12845 Lip 3-parted : middle lobe ovate acuminate hanging down with a hairy disk

12846 Radical leaves ovate, Lip and petals lanceolate
12847 Radical leaves ovate, Lip ovate acuminate, Sepals ovate
12848 Leaves fleshy chocolate-colored ovate without nerves
12849 Stem leafy, Leaves ovate-lanceolate stalked, Lip rounded glandular inside, Petals broad ovate
12850 A smooth variety of G. pubescens

12851 Leaves linear channelled shorter than scape, Middle segm. of lab. with a double keel inside

12852 Lip unguiculate acuminate, Inner sepals ½-ovate
12853 Spike lax erect, Leaves stalked erect crisp smooth, Flowers discolored

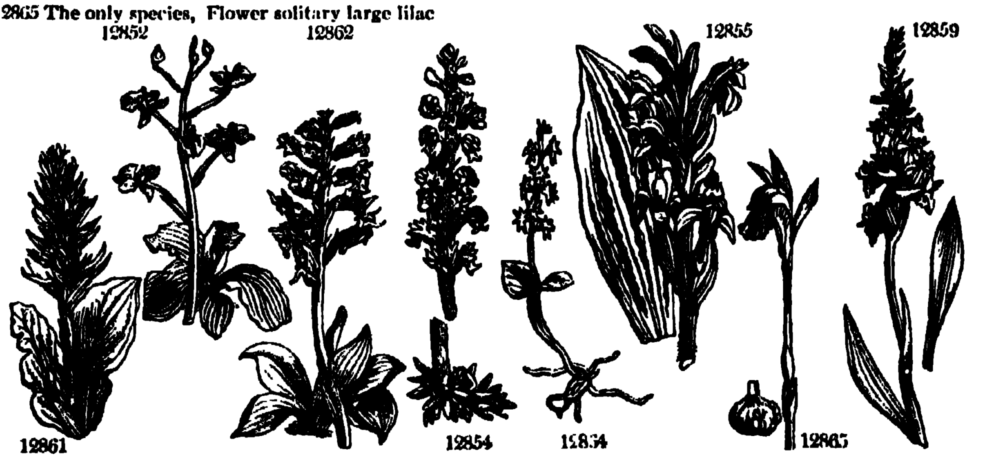
12854 The only species

12855 Rad. lvs. obl. lanc. Scape with bractes, Anterior sepals decurrent placed under the ½-inferior labellum
12856 Lip obovate emarginate, Scape sheathed, Bractes shorter than flower, Leaves ovate stalked flat at edge
12857 Leaves linear-lanc. Lip subsessile crenulate at end, Sepals ovarium and rachis quite smooth
12858 Lvs. linear lanceolate 2-colored, Scape villous much longer than leaves, Fl. gibbous on its outside at base
12859 Leaves lanceolate 3-nerved, Stem sheathed, Flowers recurved cernuous, Lip oblong entire acute
12860 Rad. leaves oblong somewhat stalked, Spike twisted with the flowers on one side, Lip ovate

12861 Lip lanc. undivided, Scape bracteate, Bractes longer than flower, Leaves oblong wavy towards the end
12862 Rad. leaves broad lanceolate, Spike erect, Lip saccate at base with the sepals, Lip acuminate

12863 Stem with only a pair of ov.-ellipt. opp. lvs. Col. of fructification having an appendage in which the anther is placed
12864 Stem with only 2 cordate opposite leaves, Col. without any appendage behind, Lip with 2 teeth at the base

12865 The only species, Flower solitary large lilac



and Miscellaneous Particulars.

1871. ***Diuris.*** From δις, double, and ουρα, a tail, in allusion to the form of the sepals. Beautiful New Holland plants, which may be cultivated in the same way as Disa.

1872. ***Ponthieva.*** Named after De Ponthieu, who sent many specimens of West Indian plants to Sir J. Banks. The species may be cultivated in pots, well drained, and filled with sandy loam and peat. Water must be sparingly given when the plants are not in a growing state.

1873. ***Neottia.*** This word in Greek signifies bird's nest, and has been applied to the present plant on account of the interwoven fibres of its roots. No means of cultivating the only species has been yet discovered. It grows naturally in woods among decayed leaves, and is supposed to be parasitical.

1874. ***Spiranthes.*** From σπειρα, a screw, or any thing spirally twisted; on account of the disposition of the flowers on their spike. Delicate little herbaceous plants with fibrous roots, and generally white flowers. S. æstivalis has the germs on the flower-stalks placed regularly one above another, somewhat resembling tresses of plaited hair; whence its name of Ladies' traces or tresses. This species grows more readily in the garden than most of its tribe.

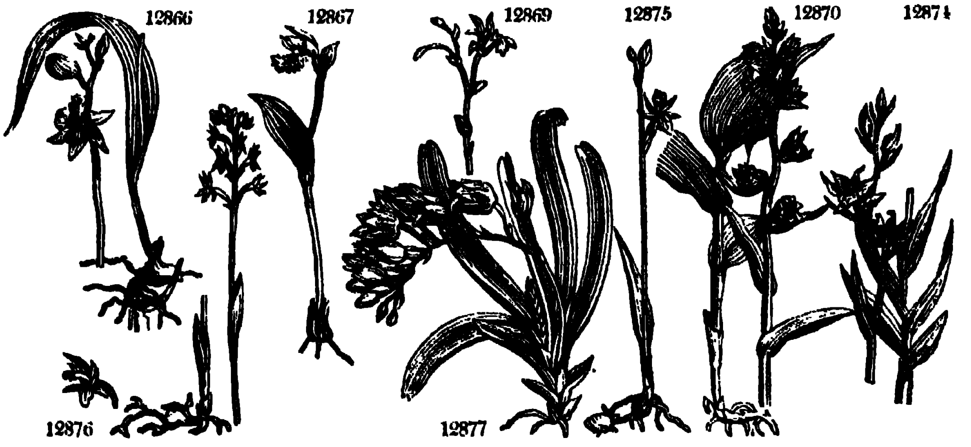
According to Salisbury, no plant whatever is more easy to cultivate than this. At Chapel-Allerton it propagated itself every where, springing up from seeds in the neighbouring pots, whatever soil or plants happened to be in them; and they were once found germinating on a dead root of a Persian Cyclamen, in a pot, which, for want of draining, was full of Jungermannias.

1875. ***Stenorhynchus.*** A splendid genus of evergreen stove herbaceous plants, with brilliant red or yellow flowers. They have been named from στενος, narrow, and ρυγχος, a beak, on account of the long pointed stigma. N. orchioides is one of the most beautiful plants of this genus, introduced by E. J. A. Woodford, Esq. in 1806, from the Island of Barbadoes, where it grows wild in the most arid places among grass. It requires, nevertheless, moderate waterings here while the leaves are green.

1876. ***Listera.*** Dr. Martin Lister was a celebrated English physician and naturalist, who died in 1711. The species require a shady situation and a light sandy soil, with some peat intermixed. They will grow on a bank under the drip of trees, or in small pots. They are increased by dividing the roots.

1877. ***Arethusa.*** A poetical name. Arethusa was a nymph of Diana, who was transformed into a fountain. The species of this genus are all found in moist places. They are very impatient of cultivation. The best way to manage them, is to plant them in loose wet peaty soil, and to keep them in a frame well exposed to the sun.

1878.	**CALOPO'GON.** *R. Br.*	CALOPOGON.					*Orchideæ.*	*Sp.* 1.				
12866	pulchéllus *H. K.*	tuberous-rooted	✱	⊿	el	1½	jl.au	Pu	N. Amer.	1771.	R l.p	Bot. mag 116
	Limodórum tuberósum B. M.											
1879.	**POGO'NIA.** *R. Br.*	POGONIA					*Orchideæ.*	*Sp.* 3—4.				
12867	ophioglossoides *B. reg.*	Adder's-tongue	✱	⊿	el	1	jn.jl	Pk	N. Amer.	1816.	R l.p	Bot. reg. 148
12868	divaricáta *H. K.*	Lily-leaved	✱	△	pr	¾	jn.jl	Pk	N. Amer.	1787.	D l.p	Lam. ill.t.729.f.3
12869	péndula *Lindl.*	pendulous	✱	△	pr	½	au	Pk	N. Amer.	1824.	D l.p	Bot. reg. 908
1880.	**EPIPAC'TIS.** *Sw.*	EPIPACTIS.					*Orchideæ.*	*Sp.* 5—9.				
12870	latifólia *W.*	broad-leaved	⚘	△	or	1½	jl.au	Pu	Britain	m wo.	D l.p	Eng. bot. 269
12871	palústris *W.*	marsh	⚘	△	or	¾	jl.au	Pu	Britain	mar.	D l.p	Eng. bot. 270
12872	pállens *W.*	white	⚘	△	or	1	jn	W	Britain	...	D l p	Eng. bot. 271
12873	ensifólia *W.*	narrow-leaved	⚘	△	or	1½	jn	W	Britain	m.wo.	D l.p	Eng. bot. 494
12874	rúbra *W.*	purple	⚘	△	or	1½	jn.jl	Pu	Britain	m.wo.	D l.p	Eng. bot. 437
1881.	**CALEA'NA.** *R. Br.*	CALEANA.					*Orchideæ.*	*Sp.* 1—2.				
12875	májor *H. K*	smooth-lipped	✱	⊿	pr	1½	...	G	N. S. W.	1810.	D l.p	
1882.	**CORALLORRHI'ZA.** *H. K.*	CORALLORRHIZA.					*Orchideæ.*	*Sp.* 1—4.				
12876	innáta *H K.*	spurless	✱	△	cu	½	jn.jl	G	Scotland	sc.wo.	D l.p	Eng. bot. 1547
1883.	**RODRIGUE'ZIA.** *Fl. per.*	RODRIGUEZIA.					*Orchideæ.*	*Sp.* 1—2.				
12877	secúnda *Kunth.*	one-sided	£	[△]	el	½	o	R	S. Amer.	1818.	D p.r.w	Hook. ex. fl. 129
	Pleurothallis coccinea Hooker											
1884.	**GOME'ZA.** *R. Br.*	GOMEZA.					*Orchideæ.*	*Sp.* 1.				
12878	recúrva *B. M*	recurved	£	[△]	el	¾	my.jn	Y	Brazil	1814.	D p.r.w	Bot. mag. 1748
1885.	**CYMBI'DIUM.** *Swz.*	CYMBIDIUM.					*Orchideæ.*	*Sp* 7—11.				
12879	tripterum *W.*	triangul.-fruit.	£	[△]	cu	½	jn.jl	W	Jamaica	1790.	D p.r.w	Smith ic. pict. 14
12880	aloifólium *W.*	Aloe-leaved	£	[△]	or	1	my.jn	Br	E. Indies	1789.	D l.p	Bot. mag. 387
12881	ensifólium *W.*	sword-leaved	£	[△]	ft	2½	jn.o	Br	China	1780.	D l p	Bot. mag. 1751
12882	sinénse *W.*	Chinese	£	[△]	ft	1½	s.o	Br	China	1793.	D l.p	Bot. mag. 888
12883	lancifólium *Hook.*	lance-leaved	£	[△]	el	¾	my	Y.R	E. Indies	1822.	D l.p	Hook. ex. fl. 51
12884	depéndens *Lodd.*	hanging-down	£	[△]	cu	¾	jl	Y.G	China	1822.	D p.r.w	Bot. cab. 936
12885	xiphiifólium *Lindl.*	sword-leaved	£	[△]	pr	½	my.au	G	China	1814.	D l p	Bot. reg. 529
1886.	**BRAS'SIA.** *R Br.*	BRASSIA.					*Orchideæ.*	*Sp.* 2.				
12886	maculáta *H. K.*	spotted-flower.	£	[△]	el	1	jn.jl	Y.R	Jamaica	1806.	D p.r.w	Bot. mag. 1691
12887	caudáta *Lindl.*	long-tailed	£	[△]	el	1	jn.jl	G.Y.R	W Indies	1823.	D p r.w	Bot. reg. 832
1887.	**LISSOCHI'LUS.** *R. Br.*	LISSOCHILUS.					*Orchideæ.*	*Sp.* 1				
12888	speciósus *R. Br.*	showy	£	[△]	spl	2	my jn	Y	C. G. H.	1818.	D l.p	Lindl. coll. 31
1888.	**GEODO'RUM.** *Jacks*	GEODORUM					*Orchideæ.*	*Sp.* 3—4				
12889	purpúreum *H. K.*	purple	£	[△]	el	1	jn au	Pu	E Indies	1800	D l.p	Roxb. cor. 1.t.40
12890	citrinum *H K*	Lemon-colored	£	[△]	el	1	o.d	Y	E Indies	1800.	D l p	Bot. mag. 2195
12891	dilatátum *H. K.*	shovel-lipped	£	[△]	el	1	my.au	Pk	E. Indies	1800.	D l p	Bot. reg. 675
1889.	**CATASE'TUM** *Rich.*	CATASETUM.					*Orchideæ.*	*Sp* 5—7.				
12892	tridentátum *Hook.*	three-toothed	£	[△]	gr	2	jl.au	Y.Br	Trinidad	1822.	D p r.w	Hook. ex. fl. 90
12893	Claverin'gi *Lindl.*	Capt Clavering's	£	[△]	gr	2	jl.au	Y Br	Brazil	1822.	D p.r.w	Bot. reg. 840
12894	floribúndum *Hooker*	many-flowered	£	[△]	gr	2	n	Y.Br	Trinidad	1824.	D p.r.w	Hook. ex. fl. 151



History, Use, Propagation, Culture,

1878. *Calopogon.* From καλος, beautiful, and πωγων, a beard, in allusion to the beautiful fringe of the lip. An elegant plant, which was introduced accidentally, as Mr. Curtis informs us, by the laudable exertions of his gardener, who, in the spring of 1785, examining attentively the bog earth which had been brought over with some Dionæas, found several tooth-like knobby roots, which, upon being planted in heat, afforded this plant: on the shelf of a stove, or on a bark pit it thrives exceedingly; and seems merely to require a longer and hotter summer than our climate affords.

1879. *Pogonia.* A name with the same derivation as the last genus. The species also require the same treatment.

1880. *Epipactis.* A name given by the Greeks to a sort of Hellebore, and used by Swartz to distinguish a tribe of plants previously called Helleborine. Pretty herbaceous hardy plants. "Some of its species thrive in the borders in the common garden soil, and most of them will do well in pots, in a mixture of loam and peat; they require but little water when in a dormant state, and are increased by dividing the roots." (*Bot. Cult.* 365.)

1881. *Caleana.* Named after Mr. George Caley, a most indefatigable and acute botanical collector, who resided several years among the natives of New South Wales, where he made a valuable collection of plants. The name has been subsequently changed by Mr. Brown to Caleya: which as being too similar to Calea, a very different plant, we cannot prefer to the original designation. The species require the common treatment of the tribe, and are increased by division of the roots.

1882. *Corallorrhiza.* From κοραλλιον, coral, and ῥιζα, a root, on account of its branched roots, which much resemble coral. A plant supposed to be incapable of cultivation. It is a native of boggy places in the northern parts of the world. The three American species C. verna, multiflora, and odontorhiza, are said to have been introduced in 1824, but we have not heard of their having been cultivated with any success.

12866 Leaves plaited long linear lanceolate. The only species

12867 Root fibrous, Leaf of the scape and bractea elliptical lanceolate, Outer sepals oblong-ovate
12868 Root subpalmate, Leaf and bractea of scape linear oblong, Outer sepals lanceolate linear
12869 Leaves ovate squamiform amplexic Fls. subcernuous solitary, Middle lobe of lip obl. crisp, Stem angular

12870 Lvs. ov. amplexic. Lower bractes long. than fls. Fls. drooping, Lip entire acuminated shorter than petals
12871 Lvs. lanc. amplexic. Bractes short. than fl. Fls. slightly drooping, Lip cren. obt. rather long. than perianth
12872 Leaves ovate-lanceolate sessile, Bractes longer than the flower, Lip obtuse shorter than perianth
12873 Lvs. lanc. much acum. subdistich. Bract. very minute subul. Fls. erect, Lip obt. much short. than perianth
12874 Lvs. lanc. Bractes longer than ovary, Flowers erect, Lip acute with wavy elevated lines, Ovary smooth

12875 Leaf lanc. lin. flat, Scape with a single bract in the middle, Lip smooth narrowed and ½-ovate at each end

12876 Spur abbreviated adnate

12877 Spikes nodding 1-sided, Leaves lanceolate complicate

12878 Spikes nodding 1-sided, Leaves lanceolate flat

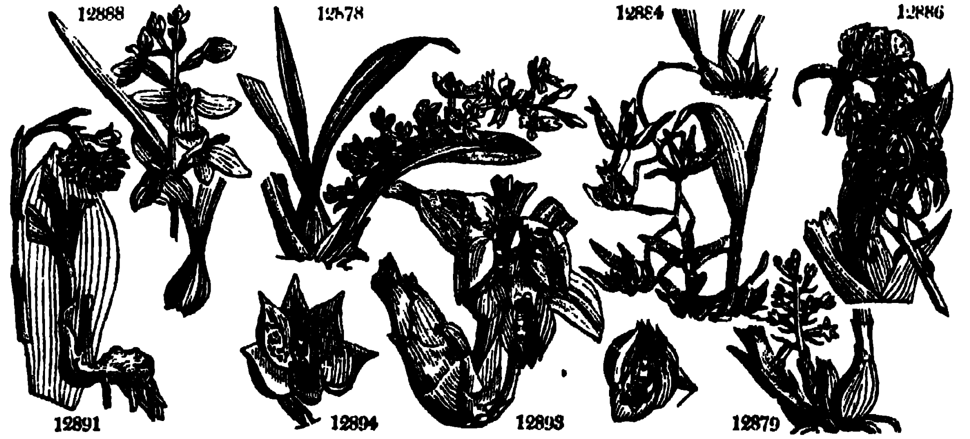
12879 Stemless, Leaves growing on a bulb: radical sheathing, Scapes many-flowered, Ovary 3-winged
12880 Leaves radical broad-linear channelled fleshy retuse at end, Scapes many-flowered pendulous
12881 Leaves radical ensiform nerved, Scape round few-flowered, Lip ovate somewhat recurved spotted
12882 Leaves radical ensiform nerved, Scape few-flowered, Flowers 1-sided, Sepals striated: 3 outer reflexed
12883 Leaves radical lanceolate nerved narrowed at base, Scape round few-fl. Lip obl. recurved at end spotted
12884 Bulbous, Leaves plaited, Racemes divaricating pendulous radical
12885 Leaves thickish lin.-subulate channelled nerved crenate as long as scape, Spike few-fl. Lip not spotted

12886 Sepals lanceolate spreading not longer than ovary
12887 Sepals linear lanceolate acuminate: the lower caudate very much longer than ovary

12888 The only species. A tall plant with long rigid linear lanceolate leaves on a bulbous base

12889 Scape longer than leaves, Raceme pendulous, Flowers alternate, Lip ovate acute painted
12890 Scape shorter than lvs. Spike pendulous, Fls. close, Lip somewhat spurred at base blunt and entire at end
12891 Scape shorter than lvs. Spike pendulous, Fls. close, Lip somew. spurred at base dilated and crenul. at end

12892 Two inner sepals spotted, Lip galeate 3-toothed
12893 Spike shorter than leaves, Leaves galeate fleshy 3-toothed at end, Sepals oblong: inner spotted
12894 Spike short. than lvs. Lip gal. blunt. 3-tooth. Two inner sep. mott. with purple, others as well as col. green



and Miscellaneous Particulars.

1883. *Rodriguezia.* Named by the authors of the Flora Peruviana, after Emanuel Rodriguez, a Spanish physician, and, as it is said, of considerable botanical merit. A beautiful herbaceous plant, growing upon decayed wood. Its flowers are placed in cernuous racemes of a lively pink color.

1884. *Gomeza.* So called by Mr. Brown, in honor of Senor Gomes, a Spanish apothecary. Mr. Lindley thinks it not distinct from the last. A bulbous epiphyte, with drooping spikes of yellow flowers.

1885. *Cymbidium.* From *κυμβη*, a little boat, in allusion to the form of the labellum. All the genuine species of Cymbidium are terrestrial, and rarely are found growing upon trees. In cultivation the species grow in loam, chips of wood, potsherds, and other rubbish, broken small, and put in well-drained pots They are increased by dividing at the root.

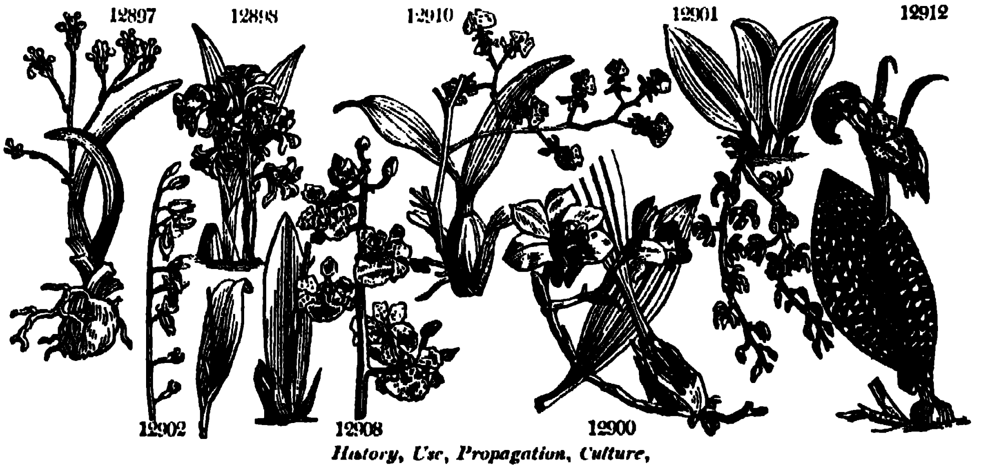
1886. *Brassia.* Named after Mr. Brass, an intelligent gardener, who collected seeds and plants in Africa for the Kew Garden. The two species now known are among the most beautiful of the various tribes of Epidendrums. Brassia maculata has large pale yellow flowers, elegantly spotted with brown; B. caudata has similar flowers, with long tails to their lower segments.

1887. *Lissochilus.* From *λισσος*, smooth, and *χειλος*, a lip, in reference to the absence of callosity or crests from that part. An exceedingly rare and very noble plant, which grows freely in sandy loam with a little peat. The flowers grow in long spikes of a bright yellow color.

1888. *Geodorum.* From *γης*, the earth, and *δωρον*, a gift, in reference to the beauty of the blossoms lying on the earth. Handsome plants, succeeding with the treatment of Cymbidium.

1889. *Catasetum.* Apparently a word of hybrid extraction, from *κατα*, and *seta*, a bristle, in allusion to the two long bristles or horns of the columna, which constitute one of the most remarkable characters of the genus.

12895 Hookéri *Lindl.*	Hooker's	£ [△] or	1½	n	Y.Br	Brazil	1818.	D p.r.w	Lind. coll. bot.
12896 cristátum *Lindl.*	crested	£ [△] cu	2	o.n	G	Brazil	1823.	D p.r.w	
1890. TRIZEUX'IS. *Lindl.* TRIZEUXIS.				*Orchideæ.*		*Sp.* 1.			
12897 falcáta *Lindl.*	falcate	£ [△] cu	½	f.mr	G	W. Indies	1820.	D p.r.w	Lindl. coll. 2
1891. XYLO'BIUM. *Lindl.* XYLOBIUM.				*Orchideæ.*		*Sp.* 1—*uncertain.*			
12898 squálens *Lindl.*	dingy-flower'd	£ [△] cu	½	my.jn	Y.Br	Brazil	1822.	D p.r.w	Bot. reg. 732
1892. MAXILLA'RIA. *Fl per.* MAXILLARIA.				*Orchideæ.*		*Sp.* 2—*uncertain.*			
12899 Barringtóniæ *Lindl.*	large-flowered	£ [△] cu	1½	jn.au	Y.o	W. Indies	1790.	D p.r.w	Hook. ex. fl. 119
12900 Harrisóniæ *Lindl.*	Mrs. Harrison's	£ [△] spl	1½	s	Y.u	S. Amer.	...	D p.r.w	Bot. reg. 897
1893. NOTY'LIA *Lindl.* NOTYLIA.				*Orchideæ.*		*Sp.* 1—2.			
12901 punctáta *Lindl.* *Pleurothallis punctata* B reg. *Gomeza tenuiflora* Bot. cab.	dotted	£ [△] cu	½	au.s	G	Trinidad	1822.	D p.r.w	Bot. reg. 759
1894. PLEUROTHAL'LIS. *R. Br.* PLEUROTHALLIS.				*Orchideæ.*		*Sp.* 2—5.			
12902 racemiflóra *Lindl.*	racemose	£ [△] cu	1	ap	G	W. Indies	1823.	D p.r.w	Hook. ex. fl. 123
12903 ruscifólia *H K.*	Butcher's-broom-lv.	£ [△] cu	½	my.jn	G	W. Indies	1791.	D p r.w	Jac. am. t. 133. f. 3
1895. ONCI'DIUM. *Sw.* ONCIDIUM.				*Orchideæ.*		*Sp.* 9—25.			
12904 altíssimum *W.*	sharp-petaled	£ [△] or	4	au s	Y	W. Indies	1793.	D p.r.w	Jac. amer. t. 141
12905 carthaginénse *W.*	Spread-eagle	£ [△] or	4	my.jn	Ol	W. Indies	1791.	D p.r.w	Bot. mag. 777
12906 bifólium *H. K.*	two-leaved	£ [△] or	¾	jl	Y	S. Amer.	1811	D p r.w	Bot. mag. 1491
12907 triquetrum *H. K.*	triangular-lvd.	£ [△] or	½	jl.au	Y	Jamaica	1793.	D p.r.w	
12908 lúridum *Lindl.*	Mr. Griffin's	£ [△] or	2	f.mr	Ol	S. Amer.	1822.	D p r.w	Bot. reg. 727
12909 barbátum *Lindl.*	bearded	£ [△] or	1½	ap.my	Y	S. Amer.	1818.	D p.r.w	Lindl. coll.
12910 flexuósum *B. M.*	zigzag	£ [△] el	1½	jn jl	Y	Brazil	1818.	D p.r.w	Bot. mag. 2203
12911 púmilum *Lindl.*	dwarf	£ [△] pr	½	jn.jl	Ol	Brazil	1824.	D p.r.w	Bot reg. 920
12912 Papilio *Lindl.*	Butterfly Plant	£ [△] gr	1½	mr	Y.R	Trinidad	1823.	D p.r.w	Bot reg. 910
1896. CYRTOPO'DIUM. *R. Br.* CYRTOPODIUM.				*Orchideæ.*		*Sp* 2.			
12913 Andersóni *H. K.*	Anderson's	£ [△] el	2	my.au	Y	W. Indies	1804.	D p.l	Bot. mag. 1800
12914 Woodfórdii *B. M.*	Woodford's	£ [△] el	2	o	Pk	S. Amer.	1814.	D p.l	Bot. mag. 1814
1897. CŒLO'GYNE. *Lindl.* CŒLOGYNE.				*Orchideæ.*		*Sp.* 3—7.			
12915 punctuláta *Lindl.*	dot-flowered	£ [△] el	¾	...	Y	E. Indies	1822.	D p r.w	
12916 nítida *Lindl.*	shining-leaved	£ [△] el	1	...	Y	E. Indies	1822.	D p.r.w	
12917 fimbriáta *Lindl.*	fringed	£ [△] pr	½	jl o	Y.Br	China	1824.	D p.r.w	Bot. reg. 868
1898 MACRADE'NIA. *R. Br.* MACRADENIA.				*Orchideæ.*		*Sp.* [illegible]			
12918 lutescens *R. Br.*	yellowish	£ [△] cu	½	d	Ol	Trinidad	1821.	D p r.w	Bot. reg. 612
1899. ANISOPE'TALUM. *Hooker.* ANISOPETALUM.				*Orchideæ.*		*Sp.* [illegible]			
12919 Careyánum *Hooker*	Dr. Carey's	£ [△] cu	½	o	Br.P	Nepal	1823.	D p.r.w	Hook. ex. fl. 149
1900 DENDRO'BIUM. *H. K.* DENDROBIUM.				*Orchideæ.*		*Sp* 9—17.			
12920 speciósum *R. Br.*	showy	£ [△] spl	1	jn.au	Pu	N. S. W.	1801.	D p.l	Exot. bot 1. t 10
12921 linguifórme *R. Br.*	tongue-leaved	£ [△] cu	½	...	Pu	N. S. W.	1810.	D p r w	Exot. bot. 1. t. 11
12922 cucullátum *R. Br.*	cucullate	£ [△] el	2	mr	Pk	E. Indies	1815.	C p.l	Bot mag. 2242
12923 Pierárdi *Roxb.*	Pierard's	£ [△] el	2	mr	Pk	E. Indies	1815.	C p.l	Hook. ex. fl. 9
12924 fimbriátum *Hook.*	fringed	£ [△] spl	2	ap	Y	E. Indies	1823.	C p.l	Hook. ex. fl. 71
12925 crumenátum *W.*	sweet-scented	£ [△] ft	2	ap my	W	Sumatra	1823.	C p.l	Ru. am. 6 t. 47. f. 2



History, Use, Propagation, Culture,

Very fine epiphytes, with large bulbous roots, plaited leaves, and fine, often spotted, flowers of a greenish purple color. The bulbs contain a quantity of viscid juice, which is used, when fresh, in Brazil, for the purpose of sealing letters. The plants are there called *Cebolleta.*

1890. *Trizeuxis.* So called by Mr. Lindley without explanation. We suppose the name has been formed from τρεις, three, and ζευξις, union, in allusion to the remarkable union of three segments into one, which takes place in this genus. A very singular epiphyte, which is with difficulty kept alive in the stove by being placed in finely pulverised decayed wood.

1891. *Xylobium.* From ξυλον, wood, in allusion to the substance upon which it grows. A curious Brazilian bulbous epiphyte with plaited leaves. This is of easy cultivation.

1892. *Maxillaria.* So called by the authors of the Flora Peruviana, as they inform us, because the labellum when looked at sideways, resembles the *Maxillæ* of some insects. All fine South American plants, with plaited leaves and showy flowers. They are cultivated like other epiphytes, and not with much difficulty.

1893. *Notylia.* So called, we presume, from νωτος, the back, and τυλος, a hump, in reference to a singular callosity at the back of the stigma, which Mr. Lindley, the author of the genus, considers very curious. An unostentatious epiphyte without bulbs, and with solitary leaves, out of the bosom of which grows a pendulous raceme.

1894. *Pleurothallis.* From πλευρα, a rib, and θαλλω, to flower, in allusion to the one-sided disposition of the flowers. Singular little epiphytes with solitary leaves, no bulbs, and flowers of a green color. They grow rarely in decomposed wood.

12895 Spike length of leaves erect, Flowers globose, Sepals rounded
12896 Perianth. spreading, Lip opened out saccate crested

12897 The only species. Flowers very small in little heads upon a branched scape

12898 Bulbs conical truncate, Flowers close, Leaves lanceolate plaited about 3-nerved twice as long as scape

12899 Leaves about 3 oblong nerved seated on a bulb, Scape about 1-flowered sheathed
12900 Lvs. solitary lanc. plaited, Raceme 2-fl. Perianth. very large wavy spreading, Lobes of lip recurved crisp

12901 Spikes pendulous lax as long as the narrow oval nerved leaves

12902 Stem long 1-leaved, Scape erect longer than obl. emarginate leaf, Fls. racemose 1-sided
12903 Stem long 1-leaved, Leaf ovate-lanceolate, Flowers clustered in the bosom of the leaf

12904 Sepals 5 lanceolate longer than lip, Scape panicled
12905 Sepals 5 obovate unguiculate a little shorter than lip, Scape panicled
12906 Sepals 4 obov. wavy, Lip long. than sep. : midd lobe dilated reniform ½-bifid, Scape racem. Bulbs 2-leaved
12907 Sepals 4 acute, Middle lobe of lip roundish undivided, Scape racemose, Leaves 3-cornered
12908 Leaves ellipt. acute, Scape upright branched, Sepals wavy retuse spreading nearly equal, Lip reniform
12909 Lvs. flat obl. lanc. Sepals 5 obovate undulate blunt, Lip transverse shorter than seg. bearded in the middle
12910 Lip 2-lobed spotted much longer than the sepals, Bulbs ovate comp leafy at base and end, Scape panicled
12911 Lvs. rigid oval oblique, Panicle thyrsoid length of lvs. Sep. obov. Lip 3-lobed crested, Wings of col. ent.
12912 Lvs. solitary oval dotted spread. Scape jointed 2-edged few-fl. Upper sepals lin. very long, Col. 2-horned

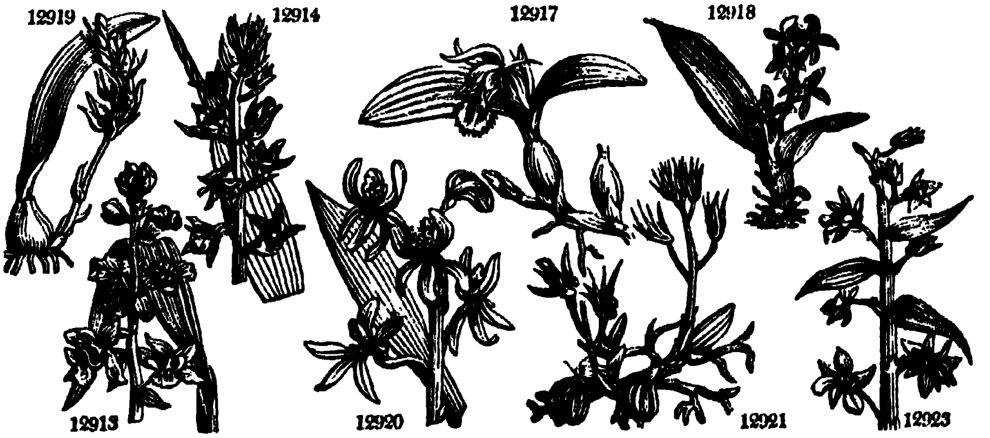
12913 Lip narrow clawed : lateral lobes divaricating longer than the middle which is hollowed out
12914 Lip ventricose : lateral lobes shorter than middle which is crested and callous

12915 Bulbs fascicled, Lvs. lanc. atten. at base, Sepals lanc. finely dotted, Midd lobe of lip acute, Crest obsolete
12916 Bulbs and leaves coriaceous and shining
12917 Lvs. twin obl. lanc. spreading, Fls. terminal solitary, Inner sepals filiform, Lip fringed with two crests

12918 Bulbs 1-leaved : leafy at base, Leaves oblong 3-nerved, Spike erect shorter than leaves

12919 Leaves lanceolate keeled solitary on their bulb, Spike imbricated radical very little longer than the bulb

12920 Stems erect 2-3-leav. at end, Lvs. oval obl. shorter than many-fl. terminal raceme, Sepals narrow oblong
12921 Stems creep. Lvs. oval blunt depressed fleshy several times shorter than raceme, Sepals long linear acute
12922 Stems pendul. Lvs bifarious lanc. acum. Ped. opp the leaves about 2-fl. Lip undivided ov. cucul. at base
12923 Stems pendul. Lvs. bifarious broadly lanc. Pedunc. about 2-fl. Lip undivid. tubul. oblique almost truncate
12924 Leaves lanc. striated, Racemes many-fl. Lip undivided obliquely campanulate fringed
12925 Stem branched somewhat compr. tuberous at base, Leaves ovate-lanc. Spikes erect, Fls. remote alternate



and Miscellaneous Particulars.

1895 *Oncidium.* From ογκος, a tumour, on account of the callosities with which the disk of the labellum is covered. Among the most beautiful of epiphytous plants, conspicuous by their long loose panicles of olive-colored or yellow flowers. Oncidium altissimum grows to the height of three or four feet. O. Papillo, the curious Butterfly-plant of Trinidad, has large yellow and red blossoms poised on slender footstalks, and dancing about in the air like some gaudy insects. All the species are cultivated without any difficulty in almost any soil, with plenty of heat and moisture.

1896. *Cyrtopodium.* From κυρτος, convex, and πους, a foot, in allusion to the labellum of the original species These are handsome bulbous plants, growing either upon the ground or upon trees. They are rather difficult to manage well, and are seldom seen in collections. Their flowers, which are handsome, are rarely produced.

1897. *Cœlogyne.* So named by Mr. Lindley, from κοιλος, hollow, and γυνη, a female, on account of the form of the stigma, which is peculiar for an Epidendrum. Some of the species, natives of Nepal, which have not yet been introduced into our gardens, are most beautiful bulbous epiphytes, with shining fleshy leaves, and spikes of gorgeous flowers proceeding from a rigid imbricated scaly base.

1898. *Macradenia.* From μακρος, long, and αδην, a gland, on account of the long subulate process to which the pollen-masses are attached. A singular little epiphyte with yellowish brown flowers.

1899. *Anisopetalum.* From α, without, ισος, equal, and πεταλον, a petal, on account of the inequality of the sepals, or petals as they commonly called. A curious Nepal plant, with bulbous roots, and little erect spikes of brownish flowers.

1900. *Dendrobium.* From δενδρον, a tree, with reference to the habit of the species in growing upon trees. In the woods of the East Indies they climb and twist themselves about the branches of live trees, or throw

12926	émulum *R. Br.*	aspiring	£ ⊠	pr	½	...	...	N. S. W.	1824.	D p.r.w	
12927	monilifórme *W.*	glassy	£ ⊠	pr	¾	...	Pu	China	1824.	D p.r.w	Kæmpf. t.865
12928	rigidum *R. Br.*	rigid	£ ⊠	cu	½	...	...	N. Holl.	1824.	D p.r.w	

1901. CAMARI′DIUM. *Lindl.* Camaridium. *Orchideæ.* *Sp.* 1.

12929	ochroleúcum *Lindl.* *Dendróbium álbum* Hook.	pale-yellow	£ ⊠	pr	1	jl	W	Trinidad	1823.	C p.r.w	Bot. reg. 844

1902. ORNITHI′DIUM. *Salisb.* Ornithidium. *Orchideæ.* *Sp.* 1.

12930	coccíneum *H. K.*	scarlet-flowered	£ ⊠	or	2	ja.d	R	W. Indies	1790.	C p.r.w	Bot. mag. 1437

1903. ISOCHI′LUS. *R. Br.* Isochilus. *Orchideæ.* *Sp.* 2—5.?

12931	lineáris *R. Br.*	linear	£ ⊠	pr	¾	my.jl	R	W. Indies	1791.	D p.r.w	Bot. reg. 745
12932	prólifer *R. Br.*	proliferous	£ ⊠	pr	½	...	W	W. Indies	1793.	C p.r.w	Bot. reg. 825

1904. PHOLIDO′TA. *Lindl.* Pholidota. *Orchideæ.* *Sp.* 1—2.

12933	imbricáta *Lindl.*	imbricated	£ ⊠	or	1½	...	Br.w	Nepal	1824.	D p.r.w	Hook. ex. fl. 138

1905. BROUGHTO′NIA. *R. Br.* Broughtonia. *Orchideæ.* *Sp.* 1.

12934	sanguínea *R. Br.*	blood-colored	£ ⊠	spl	1½	jn.jl	Sc	Jamaica	1793.	D p.r.w	Bot. cab. 793

1906. CATT′LEYA. *Lindl.* Cattleya. *Orchideæ.* *Sp.* 3—4.

12935	labiáta *Lindl.*	dark-lipped	£ ⊠	spl	1	jl.au	Vi	S. Amer.	1818.	D p.r.w	Lindl. coll. 33
12936	Loddigésii *Lindl.*	pale-lipped	£ ⊠	el	1	jl.au	Vi	S. Amer.	1816.	D p.r.w	Bot. cab. 337
12937	For′besii *Lindl.*	yellow	£ ⊠	or	¾	jl.au	Y	S. Amer.	1823.	D p.r.w	

1907. EPIDEN′DRUM. *L.* Epidendrum. *Orchideæ.* *Sp.* 14—67.

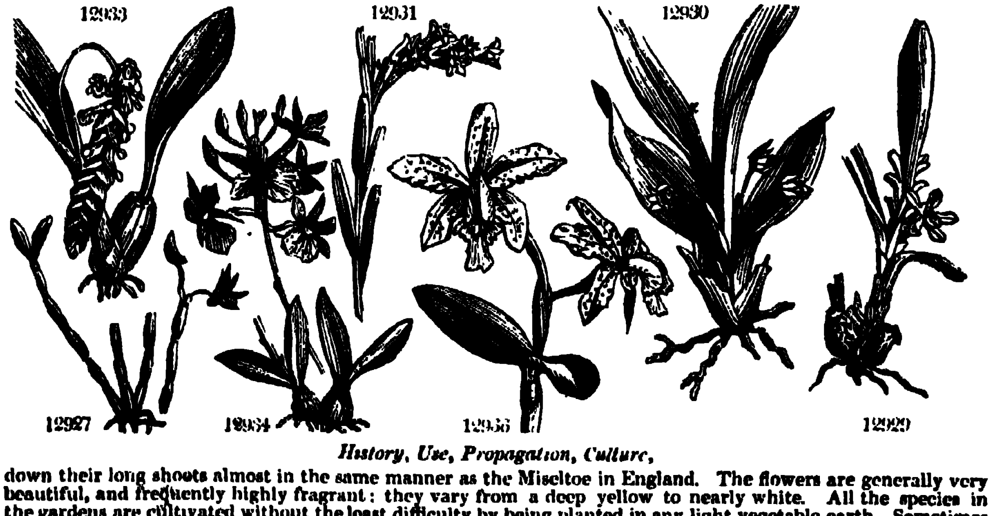
12938	cochleátum *W.*	dark-purple	£ ⊠	cu	1	f.d	Br.P	W. Indies	1786.	D s.p	Bot. mag. 572
12939	frágrans *W.*	sweet-scented	£ ⊠	ft	¾	o	Y.o	Jamaica	1778.	D s.p	Bot. mag. 1669
12940	secúndum *W.*	side-flowering	£ ⊠	or	2	jn.jl	R	W. Indies	1793.	C p.r.w	Jac. amer. t. 137
12941	fuscátum *W.* *E. anceps* Jacq.	brown	£ ⊠	cu	¾	jn.jl	Br	W. Indies	1790.	D p.r.w	Bot. reg. 67
12942	elongátum *W.*	long-stalked	£ ⊠	or	2	my.au	R	W. Indies	1798.	C p.r.w	Bot. mag. 611
12943	umbellátum *W.*	umbelled	£ ⊠	cu	¾	jn.jl	G	Jamaica	1793.	D p.r.w	Bot. reg. 80
12944	nútans *W.*	nodding	£ ⊠	or	1	jn.jl	G	Jamaica	1793.	D p.r.w	Bot. reg. 17
12945	conópseum *H. K.*	Florida	£ ⊠	pr	¼	au	Y	Florida	1775.	D p.r.w	
12946	ciliáre *W.*	fringed	£ ⊠	or	1	mr.au	W	W. Indies	1790.	D p.r.w	Bot. reg. 784
12947	cuspidátum *Lodd.*	pointed	£ ⊠	or	1	′n	W.y	W. Indies	1808	D p.r.w	Bot. reg 783
12948	diffúsum *W.*	diffuse	£ ⊠	pr	¾	o	G	Jamaica	1816.	D p.r.w	Bot. cab. 846
12949	noctúrnum *W.*	night	£ ⊠	or	1	o	G	Jamaica	1816.	D p.r.w	Bot. cab. 713
12950	monophýllum *Hook.*	one-leaved	£ ⊠	cu	¼	d	G	Jamaica	1823.	D p.r.w	Hook. ex. fl. 109
12951	polybul′bon *Sw.*	many-bulbed	£ ⊠	cu	¼	d	W	Jamaica	1822.	D p.r.w	Hook. ex. fl. 112

1908. POLYSTA′CHYA. *Hooker.* Polystachya. ... *Sp.* 2—5.

12952	lutéola *Hook.*	smooth	£ ⊠	cu	¾	jl.au	Y.G	W. Indies	1818.	D p.r.w	Lindl. coll.
12953	pubérula *Lindl.*	downy	£ ⊠	cu	½	o	Y.G	S. Leone	1822.	D p.r.w	Bot. reg. 851

1909. CRYPTARRHE′NA. *R. Br.* Cryptarrhena. *Orchideæ.* *Sp.* 1.

12954	lunáta *R. Br.*	crescent-lipped	£ ⊠	de	½	my.au	Y	W. Indies	1815.	D p.r.w	Bot. reg. 153



History, Use, Propagation, Culture,

down their long shoots almost in the same manner as the Misseltoe in England. The flowers are generally very beautiful, and frequently highly fragrant: they vary from a deep yellow to nearly white. All the species in the gardens are cultivated without the least difficulty by being planted in any light vegetable earth. Sometimes they are put in baskets among damp moss, but they do not succeed so well under that treatment as when planted in earth.

1901. *Camaridium.* Named by Mr. Lindley, from καμαρα, an arched roof. The stigma of this genus has the upper lip vaulted in a remarkable degree. An inelegant leafy caulescent bulbous epiphyte, with solitary white flowers.

1902. *Ornithidium.* From ορνιθις, a bird, in allusion to the resemblance which exists between the cuspidate upper lip of the stigma, and a bird's beak. The habit of this plant is like that of the last, but the flowers are red. They are both cultivated without difficulty in a stove, by being planted among rotten wood, or tan.

Mr. Salisbury says, Ornithidium coccineum is a parasite on old trees, near torrents, in the island of Martinico; its fibrous roots insinuating themselves into the crevices of their moist bark. Here it thrives exceedingly, in pots filled with the same, flowering at various seasons, but chiefly in October and November. During summer it should be placed in a shady part of the stove, and often sprinkled with water, but it requires little or none in winter, especially when plunged.

1903. *Isochilus.* From ισος, equal, and χειλος, a lip, because the lip and the other divisions of the flower are of nearly equal breadth. The species grow in baskets of moss and old tan, or planted in pots of sandy soil, and chips of wood, and other dry rubbish. They are increased by divisions at the root.

1904. *Pholidota.* A singular bulbous epiphyte, native of Nepal, remarkable for the close manner in which the flowers are covered over by the imbricated scale-like bracteæ, from which circumstance (φολις, a scale), we

12926 Stems erect 2-3-leaved at end, Leaves oval obl. entire shorter than terminal many-fl. raceme
12927 Stem round jointed striated moniliform naked quite simple, Leaves oblong lanceolate
12928 Stems creeping, Leaves obl. lanceolate acute fleshy the length of the few-flowered spreading raceme

12929 The only species

12930 Flowers small and appearing in the axillæ of the long leaves, Stems branched bulb-bearing

12931 Spike terminal, Leaves distichous linear blunt emarginate, Stem simple
12932 Flowers axillary, Leaves distichous lanceolate oblong, Stem proliferous, Bulbs axillary 2-leaved

12933 Lvs. solitary on a truncated conical naked bulb: lanceolate plaited, Raceme pendulous densely imbricated

12934 Leaves twin oblong seated on a bulb, Scape divided

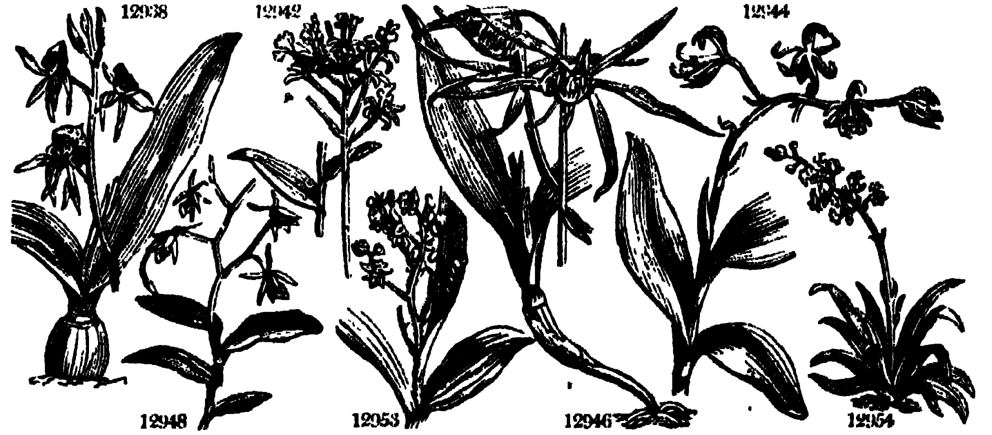
12935 Outer sepals linear lanceolate acute 3 times as narrow as inner, Lip undivided
12936 Sepals nearly equal obtuse, Lip 3-lobed with the middle lobe saddle-shaped
12937 Sepals lanceolate: inner narrower wavy obtuse, Middle lobe of lip cordate lunate

12938 Leaves twin oblong seated on a bulb, Scape long, Lip cordate blunt
12939 Leaf lanceolate seated on a bulb, Scape short many-flowered, Lip cordate acuminate
12940 Stem simple, Leaves oblong emarginate, Peduncle terminal very long, Spike lax 1-sided
12941 Stem simple, Leaves obl. o[illegible]uminate, Peduncle terminal long, Spike globose, Col. shorter than sepals

12942 Stem simple, Leaves oblong, Peduncle terminal long, Spike lax, Lip toothed ciliated
12243 Stem simple, Leaves obl. somewhat emarginate, Flowers clustered in the bosom of a terminal leaf
12944 Stem simple, Leaves ov. lanc. amplexicaul. Flowers spiked nodding, Lip 3-lobed: middle lobe 3-toothed
12945 Stem simple, Fls. spiked erect, Lip 3-lobed: middle lobe retuse, Inner sepals narrower, Leaves lanceol.
12946 Stem simple, Lvs. twin oblong veinless, Lip 3-parted: middle seg. subulate longest; lateral fringed
12947 Stem simple, Leaves 3, Spike remote few-fl. Lip 3 parted: middle segm. linear; lateral cut fringed
12948 Stem simple 2-edged, Leaves oblong, Panicle terminal much branched, Lip cordate acuminate
12949 Stem simple, Leaves obl. veinless, Flowers terminal, Lip 3-parted entire: intermediate segm. linear long
12950 Stem 1-leafed, Leaf ellipt. lanc. obt. Raceme few-fl from the bosom of the leaf, Two inner sepals small
12951 Stem creeping bulbiferous, Bulbs 2-leaved 1-flowered, Lip cordate

12952 Spike compound: spikelets alternate erect, Flowers smooth
12853 Spike panic. thyrsiform, Leaves lanc. 7-nerved longer than scape, Fls. and ovaries downy, Bulbs ovate

12954 Leaves tufted lanceolate nerved shorter than erect spike



and Miscellaneous Particulars.

presume, Mr. Lindley has constructed the name. No explanation, however, of his names is ever given by this author, who seems to attach too little importance to the etymology of botany.

1905. *Broughtonia.* Named by Brown, in the Hortus Kewensis, without explanation. A handsome plant, with fine scarlet flowers. It is very rare, and cultivated with little success.

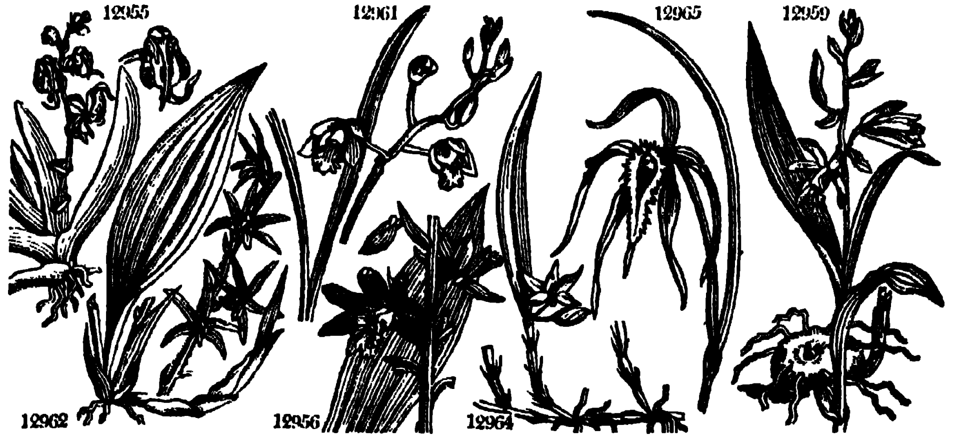
1906. *Cattleya.* Named by Mr. Lindley, after William Cattley, Esq. a munificent encourager of botany, and his early friend. A superb genus of bulbous epiphytes, with fleshy leaves growing in pairs, and large violet or yellow flowers.

1907. *Epidendrum.* From ἐπι, upon, and δενδρον. All the species are found naturally growing upon trees, not however, as De Theis tells us, sucking their sap, by insinuating their little roots beneath the bark, but vegetating in the soil which collects upon the forks of the branches. Many of the species have singular flowers, but none of those in the gardens are remarkable for their beauty. They are generally cultivated with less difficulty than most other epiphytes. Salisbury tells us, Epidendrum ciliare should be planted in pots, filled with porous stones, a few decayed leaves, and knobs of bark taken fresh from the woods: but it requires very little water; and if the leaves turn yellow, it is a sign that they have either too much wet, or too much sun. With such treatment. by keeping four or five pots of it, the stove will be enlivened with their long tubular flowers, slowly succeeding one another, at most periods of the year. It is easily propagated by dividing its stems.

1908. *Polystachya.* From πολυς, many, and σταχυς, a spike, on account of the compound nature of the inflorescence. Inconspicuous plants, requiring the treatment applied to similar kinds.

1909. *Cryptarrhena.* A pretty little stemless epiphyte with distichous leaves, and neat yellow flowers. It was named by Mr. Brown, from κρυπτος, concealed, and ἀῤῥην, a male, on account of the hooded apex of the column which covers up the anther. The plant is believed to be now lost to the gardens.

No.	Name	English name		Ht.	Fl.	Col.	Native	Intr.		Figure
1910.	**ORNITHOCE'PHALUS.** *Hook.*	Ornithocephalus.		*Orchideæ.*	*Sp.* 1.					
12955	gladiátus *Hook.*	sword-leaved	£ ⍍ cu	¼	...	G	Trinidad	1828.	D p.r.w	Hook. ex. fl. 127
1911.	**BLE'TIA.** *Fl. per.*	Bletia.		*Orchideæ.*	*Sp.* 6—8.					
12956	Tankervilliæ *H. K.*	Tankerville's	✱ ⍍ spl	2	mr.ap	W.Br	China	1778.	R p.l	Bot. mag. 1924
12957	verecúnda *H. K.* *Limodorum altum* B. M.	tall	✱ ⍍ el	3	ja.my	Pu	W. Indies	1733.	R p.l	Bot. mag. 930
12958	flórida *H. K.*	purple	✱ ⍍ el	2	jl.au	Pu	W. Indies	1786.	R p.l	Redouté lil. 83
12959	hyacinthina *H. K.*	hyacinthine	✱ ⍍ el	1	mr.jn	Pu	China	1802.	R p.l	Bot. mag. 1492
12960	capitáta *R. Br.*	headed	✱ ⍍ el	...	jn.jl	...	W. Indies	1795.	R p.l	
12961	pállida *Lodd.*	pallid	✱ ⍍ el	2	f	Pk	W. Indies	1820.	R p.l	Bot. cab. 629
1912.	**E'RIA.** *Lindl.*	Eria.		*Orchideæ.*	*Sp.* 2—4.					
12962	stelláta *Lindl.*	stellate	£ ⍍ el	2	f	Br.Y	E. Indies ?	...	D p.r.w	Bot. reg. 904
12963	pubéscens *Lindl.* *Dendróbium pubéscens* Hooker.	downy	£ ⍍ el	1½	mr	Y	E. Indies	1820.	D p.r.w	Hook. ex. fl. 124
1913.	**OCTOME'RIA.** *R. Br.*	Octomeria.		*Orchideæ.*	*Sp.* 1.					
12964	gramínifólia *R. Br.*	Grass-leaved	£ ⍍ cu	½	jn.jl		W. Indies	1793.	D p.r.w	Plum. ic. 176. f.1
1914.	**BRASAVO'LA.** *R. Br.*	Brasavola		*Orchideæ.*	*Sp.* 1—2.					
12965	cuculláta *R. Br.*	single-flowered	£ ⍍ el	½	jn.s	W	W. Indies	1793.	D p.r.w	Bot. mag. 543
1915.	**SARCAN'THUS.** *Lindl.*	Sarcanthus.		*Orchideæ.*	*Sp.* 3—5.					
12966	paniculátus *Lindl.*	panicled	£ ⍍ el	2½	my.au	Y	China	...	C p.r.w	Bot. reg. 220
12967	teretifólius *Lindl.*	slender-leaved	£ ⍍ cu	1½	n	Y.Pu	China	1819.	C p.r.w	Lindl. coll. 6
12968	rostrátus *Lindl*	rostrate	£ ⍍ pr	1	n	Y.R	China	1819.	C p.r.w	Lindl. coll. 39
1916.	**VAN'DA.** *R. Br.*	Vanda.		*Orchideæ.*	*Sp.* 3—6.					
12969	multiflóra *Lindl.*	many-flowered	£ ⍍ el	2	jn	Y	China	1800.	C p.r.w	Lindl. coll. 38
12970	Roxbúrghi *R. Br.*	Roxburgh's	£ ⍍ el	1½	n	W pu	China	1810.	C p.r.w	Bot. reg. 506
12971	trichorhiza *Hooker*	hairy-rooted	£ ⍍ pr	¾	au	Pu G	E. Indies	1822.	C p.r.w	Hook. ex. fl. 72
1917.	**A'ERIDES.** *Sw.*	Air-Plant.		*Orchideæ.*	*Sp* 2—11.					
12972	odorátum *H. K.*	fragrant	£ ⍍ ft	1¼	...	Pk	China	1800.	C p.r.w	
12973	aráchnites *Sw.*	spider	£ ⍍ or	1	...	Br.P	Japan	1793.	C p.r.w	Kæmpf.t.869.f.1
1918.	**RENANTHE'RA.** *Lour.*	Renanthera.		*Orchideæ.*	*Sp.* 1.					
12974	coccínea *Lour.*	scarlet	£ ⍍ spl	5	...	Sc	China	1816.	C p.r.w	
1919.	**IONOP'SIS.** *Kunth.*	Ionopsis.		*Orchideæ.*	*Sp.* 1—3.					
12975	utricularioides *Lindl.* *Jántha pallidiflora* Hooker.	small-flowered	£ ⍍ pr	½	o.n	W.pu	W. Indies	1822.	D p.r.w	Hook. ex. fl. 113
1920.	**EULO'PHIA.** *R. Br.*	Eulophia.		*Orchideæ.*	*Sp.* 2—...					
12976	grácilis *Lindl.*	slender	✱ ⍍ pr	2	my.n	G	S. Leone	1822.	R p.l	Bot. reg. 742
12977	guineénsis *R. Br.*	shovel-flower'd	✱ ⍍ el	1	my.n	Pk	S. Leone	1822.	R p.l	Bot. reg 686



History, Use, Propagation, Culture,

1910. *Ornithocephalus.* A very curious little plant, only an inch or two in height, found in Trinidad growing upon rotten sticks in the woods. It bears two or three green flowers, which contain a column, the upper extremity of which is lengthened out into a fine subulate process, resembling a snipe's bill in miniature, whence the name, from ορνιθις, a bird, and κεφαλη, a head. No successful method of cultivating this plant has yet been discovered

1911. *Bletia.*. Dedicated to Luis Blet, a Spanish apothecary, who has always, as we are informed by the authors of the Flora Peruviana, distinguished himself in his botanical studies. Very noble plants, growing in the earth.

Bletia Tankervilliæ is a common but beautiful species. The first plant which flowered in this country, was cultivated at Apperly Bridge, near Bradford, in Yorkshire, in May 1776, and had been sent there to Mrs. Hird, by her uncle, Dr Fothergill, in a black Chinese pot full of stiff loam, in which it had been imported. Many small bulbs, with leaves like those of a snow drop, grew near the edge of the same pot in a regular circle, and these afterwards proved to be Amaryllis Aurea. The Bletia Tankervilliæ delights in warmth, fresh loam, and plenty of water, by which treatment, and attention to fecundate the stigma, it will ripen fruit abundantly.

1912. *Eria.* From εριον, wool, on account of the woolliness of the flower of all the known species. Curious epiphytous plants, with bulbous roots, and flowers usually of a yellowish color. They differ from Dendrobium chiefly in the number of their pollen-masses, and in habit. E. stellata is a fine free-growing plant, with long broad fleshy leaves, and spikes of beautiful brown-yellow flowers nearly a foot and half in length.

1913. *Octomeria.* So called by Mr. Brown, with reference to the eight parts, οκτω, and μερος, into which the pollen is divided. A singular little plant, with filiform leaves and small nearly solitary flowers. The true limits between this genus and the last remain to be determined. The two seem to be separated by nature.

1914. *Brasavola.* Named after Antonio Musa Brasavola, an Italian botanist, born at Ferrara in 1500. Plants with long subulate fleshy leaves, and large white flowers. They are cultivated without difficulty in peat and sand, if good decomposed wood is not to be procured.

1915. *Sarcanthus.* A curious genus of plants not remarkable for their beauty. Their habit is various, but always caulescent; their flowers either yellow or yellowish, marked with various shades of purple. The name

12955 Leaves distichous obtuse compressed

12956 Lip spurred undivided: spur short, Leaves radical ovate lanceolate
12957 Lip not spurred: ribs of the disk branched; middle lobe broader than long, lateral narrower upwards

12958 Lip not spurred: ribs of the disk simple; middle lobe somewhat cuneiform, lateral broader at end
12959 Lip not spurred beardless, Pollen-masses 4, 2-lobed, Stem leafy, Flowers racemose
12960 Lip not spurred with a callus in the inside near the base, Stem leafy, Flowers capitate
12961 Leaves linear-lanceolate plaited, Sepals connivent, Scape higher than leaves

12962 Lvs. lanc. fleshy 5-nerved, Sep. ov. lanc. acum: midd. lobe of lip acum. Ovary and outer sep. ferruginous
12963 Bulb obl.-ov. Lvs. distich. lanc. smooth, Fls. loosely spik. Lip obl. 3-lobed, Three exterior sep. unit. at base

12964 Stem long 1-leaved, Leaf lanceolate, Peduncles twin 1-flowered, Root creeping

12965 Stem 1-flowered, Lip ciliated

12966 Stem panicled, Spur straight hanging down scarcely so long as ovary, Leaves bifid and unequal at end
12967 Leaves subulate, Lip spurred 2-celled, Raceme shorter than leaves
12968 Leaves lanc. flat somewhat recurved, Spike simple horizontal, Lip and anther rostrate

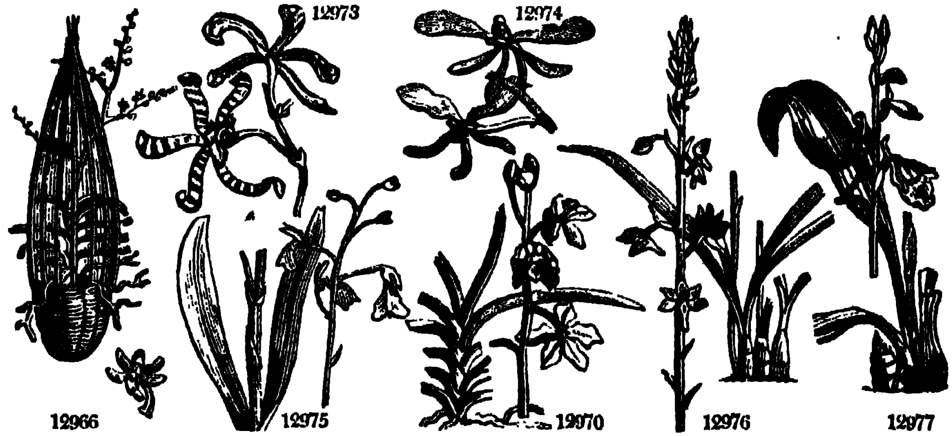
12969 Caulescent, Leaves remotely distichous broad linear channelled obtuse, Spikes opp. the leaves
12970 Sepals oblong obovate wavy, Leaves obliquely 3-toothed at end
12971 Lip without a spur, Sepals linear-lanceolate nearly equal, Leaves cylindrical

12972 Spur ascending conical subulate, Middle lobe of lip shorter than lateral ones, Leaves blunt
12973 Stem branched rooting, Leaves lanceolate, Sepals revolute dilated at the end, Lip bifid in front

12974 The only species

12975 Leaves lanceolate lined flat, Scape panicled, Sepals shorter than the lip

12976 Scape very slender 3 times as long as the lanceol. 3-nerved leaves, Spur clavate, Midd. lobe of lip obsolete
12977 Leaves lanceolate nerved, Spur ascending, Lip membranous complete



and Miscellaneous Particulars.

has been given by Mr. Lindley, from σαρξ, flesh, and ανθος, a flower, in allusion to the texture of the sepals and labellum.

1916. *Vanda.* The Hindoo name of the original species. Noble caulescent plants adhering to old decayed arms of trees or fallen wood, by means of their tendril-like fleshy tortuous roots. The flowers of all the species are large and shewy. Their treatment is the same as the next.

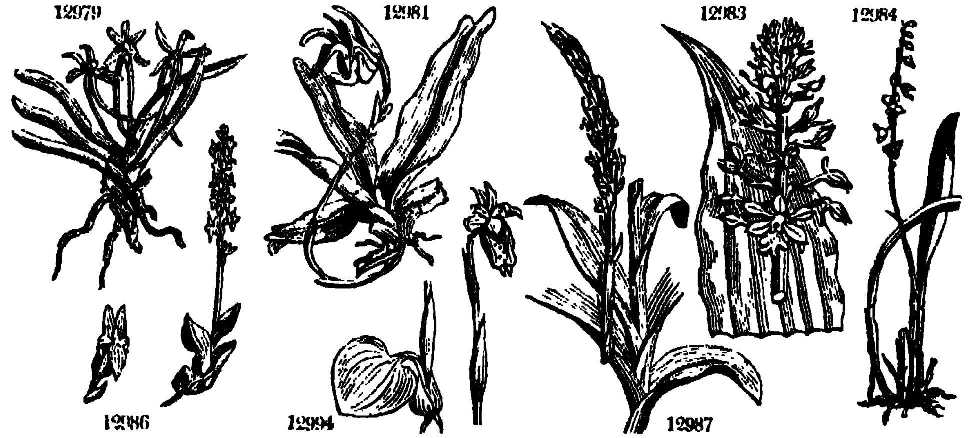
1917. *Acrides.* Derived from *aer*, the air; in allusion to the peculiar property the species possess of existing many months suspended in that element. This genus and the two last are those to which the name of Air-plant is most properly applied, very few others being capable of enduring for any considerable period such a removal from their natural places of growth. The true species of this genus are beyond all comparison the most delightful productions of the vegetable world. Their flowers are arrayed in long spikes or racemes of delicate colors and delicious fragrance. Hung up in a room in their native country, a little before flowering, they continue to unfold their blossoms in gradual succession for many weeks. In this country they are rarely seen in flower. The only genuine species, the A. odoratum, should be planted in rotten wood with a little peat, or a few decayed leaves, or any light black vegetable mould, and kept in the hottest and dampest place of the stove. If put in baskets among moss and kept very damp, the plants will succeed for a short time, but they soon languish, and put on a yellow appearance, the certain indication of unhealthiness.

1918. *Renanthera.* A name contrived by Loureiro, to express the kidney-form or reniform shape of the pollen-masses. This plant is not uncommon in good collections, where it has sometimes acquired the height of six or eight feet; but it has never yet produced its flowers. These appear, in the native country of the plant, in large loose panicles, and are individually of considerable size and of a rich crimson color, a little mottled with yellow.

1919. *Ionopsis.* So called by Mr. Kunth, from ιον, a violet, and οψις, resemblance. I. utricularioides is a pretty little epiphyte, with purplish falcate leaves. It succeeds ill under any management which has hitherto been applied to it.

1920. *Eulophia.* From ευλοφος, well crested, with reference to the surface of the middle lobe of the lip. The two species in the gardens are terrestrial tender stove plants, with bulbous roots, plaited leaves, and flowers, in E. exaltata, green and inconspicuous, in E. guineensis, whitish pink, and very handsome. They should be treated like Cymbidium.

1921. ANGRÆ'CUM. *Pet. Th.*		ANGRÆCUM			*Orchideæ.*	*Sp.* 3—41.				
12978	maculátum *Lindl.*	spotted	£ ⊠ pr	1	o.n	Pk	Africa	1819.	D p r.w	Lindl. coll. 15
12979	falcátum *Lindl.*	falcate	£ ⊠ pr	½	n.d	W	China	1815.	D p.r.w	Bot. mag. 2097
12980	lúridum *Lindl.*	lurid	£ ⊠ pr	1½		Br	S. Leone	1822.	D p.r.w	
1922. AERAN'THES. *Lindl.*		AERANTHES.			*Orchideæ.*	*Sp.* 2—3.				
12981	grandiflóra *Lindl.*	large-flowered	£ ⊠ or	¾		G.Y	Madagasc.	1823.	D p.r.w	Bot. reg. 817
12982	sesquipedális *Lindl.*	long-horned	£ ⊠ spl	1		W	Madagasc.	1823.	D p.r.w	P.Th.or.afr.t.66
1923. CALAN'THE. *R. Br.*		CALANTHE.			*Orchideæ.*	*Sp.* 1—7.				
12983	veratrifólia *R. Br.*	plaited-leaved	£ ⊠ or	2	jn.jl	W	E. Indies	1819.	R p.l	Bot. reg. 720
1924. STE'LIS. *Sw.*		STELIS.			*Orchideæ.*	*Sp.* 2—10.				
12984	ophioglossoides *W.*	Adder's-tong.-lv.	£ ⊠ cu	¼	my.jn	G	W. Indies	1791	D p.r.w	Bot. cab. 442
12985	micrántha *W.*	small-flowered	£ ⊠ cu	¼	n.d	G	Jamaica	1805.	D p.r.w	Hook. ex. fl. 158
1925. MALAX'IS. *L.*		MALAXIS.			*Orchideæ.*	*Sp.* 1—3.				
12986	paludósa *W.*	marsh	⚘ △ de	¼	jl	Y.G	England	tur.bo.	R p.s	Eng. bot. 72
1926. PRESCO'TIA. *Lindl.*		PRESCOTIA.			*Orchideæ.*	*Sp.* 1—2.				
12987	plantaginea *Lindl.*	plantain-leaved	£ ⊠ cu	1½		G	Brazil	1822.	R p.l	Hook. ex. fl. 115
1927. MICRO'STYLIS *Nutt.*		MICROSTYLIS.			*Orchideæ.*	*Sp.* 1—2.				
12988	ophioglossoides *N*	Snake's-tongue-lv.	⚘ △ de	¼	jl	Y.G	N. Amer.	1824.	R p.s	Plu.am. t.434.f.4
1928. LI'PARIS. *Rich.*		LIPARIS.			*Orchideæ.*	*Sp* 5—9.				
12989	liliifólia *Rich.*	Lily-leaved	⚘ △ pr	½	jn.jl	G.Pu	N. Amer.	1758.	R p.s	Bot. mag. 2004
12990	Lœséli *Rich.*	Loesel's	⚘ △ cu	¼	jl	Y	England	sa.ma.	R p.s	Eng. bot. 47
12991	bituberculáta *Lindl.*	long-leaved	£ ⊠ cu	¾	jl	G	Nepal	1822.	D p r.w	Hook. ex. fl. 116
12992	foliósa *Lindl.*	leafy	£ ⊠ cu	½	au	G	Isl. France	1823.	D p.r.w	Bot. reg. 882
12993	refléxa *Lindl.*	reflexed	£ ⊠ cu	1	au	G	N. Holl	1824.	D p.r.w	
1929. CALYP'SO. *Salisb.*		CALYPSO.			*Orchideæ.*	*Sp.* 1—2.				
12994	boreális *Salisb.*	northern	⚘ △ pr	¼	my.jn	Y.R	N. Amer.	1805.	R s.p	Hook. ex. fl. 12
1930. VANIL'LA *Sw.*		VANILLA.			*Orchideæ.*	*Sp.* 2—3.				
12995	aromática *H. K.*	aromatic	L ☐ ec	10	jn.au	W	S. Amer.	1739.	C p.l	Plu. ic. 183. t. 188
12996	planifólia *H. K.*	fragrant	L ☐ or	10	ap.jn	W	W. Indies	1800.	C p.l	Bot. cab. 733



History, Use, Propagation, Culture,

1921. *Angræcum.* A latinized form of the Malay appellation *angrec*, which is bestowed upon all epiphytous plants. This is a pretty genus, remarkable for the distinct spur to the lip. A. maculatum has handsome flat fleshy spotted leaves, and varies with flowers of a delicate pink and of a pale green color. A luridum is an exceedingly rare species, with plaited leaves and conical bulbs covered with the vestiges of former leaves. A. falcatum is a little Japanese plant, whose flower has a spur nearly as long as the plant itself. It is easily grown among loose moss in a warm damp place, but there should always be some bits of rotten wood mixed among the moss for the tender roots to adhere to.

1922. *Aeranthes.* A word with the same meaning as Aerides. Fine Madagascar plants. A. sesquipedalis, which has not yet blossomed, bears in its own country very large white flowers, with a spur a foot and half in length. The species are not caulescent as in Aerides, and the flowers appear singly, or two or three together, not in long racemes.

1923. *Calanthe.* From καλος, beautiful, and ανθος, a flower. The genus consists of robust terrestrial, not epiphytous, plants, with long plaited leaves, and fine white flowers, remarkable for the curious conformation of the labellum. They are easily cultivated as Cymbidium.

1924. *Stelis.* This was the Greek name of some parasitical plant found growing upon trees. The modern genus consists of little inconspicuous West Indian plants, with solitary leaves, and minute green flowers disposed in long filiform axillary spikes. They are not very easily managed; the best mode of cultivation is to plant them in very rotten wood with a little moss about them, and to keep them in a hot damp stove.

1925. *Malaxis.* From μαλαξις, softness, in allusion to the delicate texture of the genuine species. They are natives of moist places in marshes, and are scarcely capable of successful cultivation.

1926. *Prescotia.* So called by Lindley in compliment to his friend John Prescot, Esq., an English gentleman resident at St. Petersburgh, and highly distinguished for his botanical acquirements. A curious little plant, with long spikes of green flowers. It is easily cultivated in peat and sand.

1927. *Microstylis* From μικρος, little, and στυλος, a column, on account of the minuteness of the columna. Little bog plants, resembling Malaxis in habit and manner of growth.

1928. *Liparis* Probably derived from λιπαρος, unctuous, in allusion to the surface of the leaves of the original species, L. Lœselii. This genus consists of plants varying somewhat in habit, but agreeing in having pale green or greenish purple flowers, in terminal spikes or racemes. Part of the species are terrestrial, requiring the treatment of Malaxis; the remainder are epiphytes.

1929. *Calypso.* A poetical name, from καλυπτω, to conceal; not merely alluding to the covering of the stigma, but preserving an analogy between this botanical beauty, so difficult of access, and the secluded goddess, whose isle was fabled to be protected miraculously from the observation of navigators.

1930. *Vanilla.* An alteration of *vaynilla*, which is a diminutive of *vaina*, a Spanish word, signifying a sheath. The fruit is a long cylindrical pod, very like the sheath of a knife. Vanilla aromatica produces the fruit of that name, which is used in England to flavor chocolate, and in Spanish America for that purpose, for perfuming snuffs, and as a medicine. The Spaniards have three different sorts, which they distinguish in com-

12978 Leaves lanceolate spotted flat entire
12979 Leaves somewhat radical ensiform channelled falcate, Scapes few-fl. Spur filiform very long
12980 Stem compr. sheathing panicled, Branches quite simple spreading, Lip 3-lobed, Spur inflex. blunt emarg.

12981 Leaves 2-lobed and very unequal at end shorter than the weak radical sheathed scape, Spur emarginate
12982 Spur very long filiform, Spikes sheathed axillary

12983 Leaves lanc. plaited nerved, Spike dense many-flowered, Bractes small lanceolate

12984 Stem 1-leaved, Leaves oblong lanceolate the same length as raceme, Flowers 3-cornered
12985 Stem long 1-leaved, Leaf broad-lanceolate shorter than raceme, Flowers 6-cornered

12986 Lvs. about 4 at the base of the stem scabrous at the extremity, Scape pentagonal, Lip concave acute

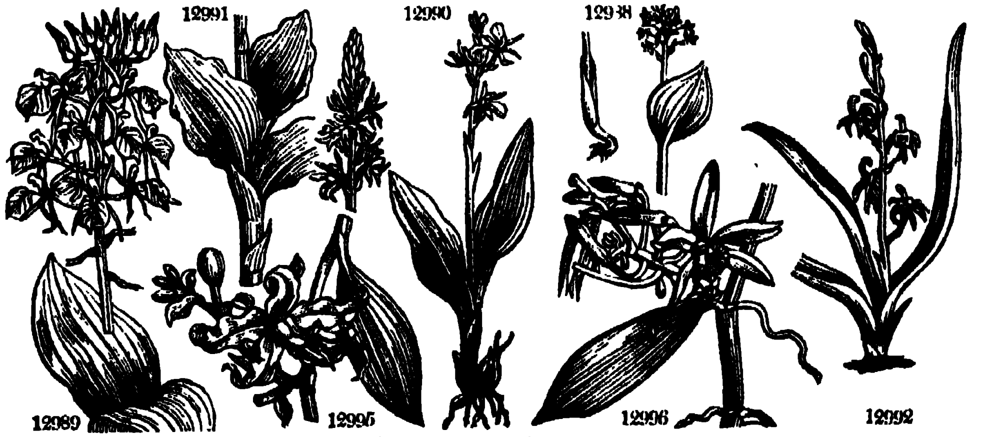
12987 Leaves oblong cæsious flat nerved, Flowers in a long dense spike

12988 Scape 1-leaved, Leaf amplexicaul. Lip truncate emarginate

12989 Lvs. twin ovate-lanc. Scape 3-cornered, Inner sepals reflexed discolored, Lip concave obov. acute at end
12990 Leaves twin ovate-lanceolate, Scape 3-cornered, Lip ovate at end recurved
12991 Somewhat bulbous, Leaves 4-ovate plaited striated wavy, Lip reflexed with two tubercles at base
12992 Radical leaves unequal lanceolate entire acute fleshy about the same length as raceme, Lip oblong retuse
12993 Leaves lanceolate ensiform keeled, Raceme many-flowered, Lip 3-toothed at end

12994 Lip narr. at base somew. clawed, Spur ½-bifid long. than lip with acute teeth, Pedunc. longer than ovary

12995 Leaves ovate oblong nerved, Sepals wavy, Lip acute, Caps. cylindrical very long
12996 Leaves oblong lanceolate flat obsoletely striated, Lip retuse



and Miscellaneous Particulars.

merce, viz ; the *pompona*, the *ley*, and the *simarona*. When the fruit begins to turn yellow, it is gathered and fermented in small heaps, in the same manner as is practised with the cocoa or chocolate pods (Theobroma); it is then spread in the sun to dry, and when about half dried, pressed flat with the hand and rubbed over with the oil of Palma Christi, or of the cocoa; it is then exposed to the sun to dry, the oiling repeated, and the pods covered with the leaves of the Indian reed to preserve them. The fruits which are brought to Europe are of a dark brown color, about six inches long, and scarce an inch broad; they are wrinkled on the outside, and full of a vast number of black seeds, like grains of sand, of a pleasant smell, resembling Balsam of Peru.

The species of this genus, like many other Epidendreæ, are falsely called parasitical; but are no more so than our Polypodium vulgare, which is often found growing on the trunks of old trees, especially pollards, rooted in the decaying bark. The Vanillæ shoot out roots at every joint like the Ivy, and may be either grown on a piece of a rotten trunk of a tree, or planted in a pot of rotten tan mixed with rubbish, and the stem trained against any surface which it can root into. Like all the tribe, these plants require very little water.

Mr. Salisbury has the following observations upon Vanilla planifolia. "It was discovered by Father Plumier, in the island of St. Domingo, where it grows wild, climbing to the tops of the highest trees; and is easily preserved in our stoves, throwing out one or more roots at every leaf; but as it seldom flowers here, I would recommend the following treatment: — plant it at one end of a low bark stove, the temperature of which must be kept constantly hot and damp, never below sixty degrees of Fahrenheit in the night, during winter. Let the earth be fat loam, taken about an inch deep from the surface, in some old wood: mix this with a few decayed leaves and small pieces of rotten sticks, either in a tub bored full of holes, and sunk at the back corner of the bark pit; or pale off a space of two square feet for it, draining the bottom a foot in depth very effectually with hollow tiles and porous stones. Select a healthy young plant to place in this earth, and as soon as it pushes vigorously, divide the stem, by pinching off its top, into three or four principal branches, which train backwards and forwards over that end of the bark pit, at two inches and a half distance from each other, on stout rods of a rough-barked elm nailed firmly across; the roots which issue from the bottom of the stem or branches, must be suffered to penetrate into the earth, where they will swell and nourish the plants; but if those beyond attempt to strike downwards, wind them gently along the elm rods, to which they will soon cling by small fibres, like those of Ivy. When the principal branches have extended to fifteen or twenty feet in length, divide them again by pinching their tops, as you find it necessary, into about a dozen branches in all, which must be left to flower, guiding them first horizontally, and afterwards in every possible direction, upon smaller rods of rough-barked elm, stuck into the bark pit at various angles. From the twentieth of March to the twentieth of September, shade that end of the stove by the light foliage of a Passiflora, trained all over the top, but pruned so thin as to admit the rays of the sun to play on the bed underneath: I prefer this method to a mat, for many reasons. Let the earth be always damp by gentle sprinklings of water, but never very wet, except in the great heats of summer, when I should be inclined to give the plant two or three drenching showers all over from a fine-nosed watering-pot, shutting up the house at night full of steam."

DIANDRIA.

1931. CYPRIPE'DIUM. *W.* Ladies-Slipper. *Orchideæ.* *Sp* 8—14.

12997	Calcéolus *W*	common	⚘	△	or	1	my.jl	Y	England woods.		R	s.p	Eng. bot. 1
12998	parviflórum *W.*	small-flowered	⚘	△	or	1	my.jn	Y	N. Amer.	1759.	R	s.p	Bot. mag. 911
12999	pubéscens *W.*	yellow downy	⚘	△	or	1	my.jn	Y	N. Amer.	1790.	R	s.p	Bot. cab. 895
13000	spectábile *W.*	white-petalled	⚘	△	or	1½	jn.jl	W	N. Amer.	1731.	R	s.p	Bot. mag. 216
13001	húmile *W.*	two-leaved	⚘	△	or	½	my.jn	R.w	N. Amer.	1786.	R	s.p	Bot. mag. 192
13002	arietinum *H. K.*	Ram's-head	⚘	△	or	½	my	W	N. Amer.	1808.	R	s.p	Bot. mag. 1569
13003	venústum *Wall.*	handsome	¥	[△]	el	½	jl.au	G.Pu	Nepal	1816.	D	s.p	Bot. reg. 788
13004	insigne *Wall.*	noble	¥	[△]	el	1	jl.au	G.Pu	Nepal	1819.	D	s.p	Lindl. coll. 32

1932. STYLI'DIUM. *R. Br.* Stylidium. *Stylideæ.* *Sp.* 5—45.

13005	graminifólium *R. Br.*	Grass-leaved	¥	⊔△	or	1	ap.au	Pk	N. S. W.	1803.	S	s.p	Bot. reg. 90
13006	fruticósum *R. Br.*	shrubby	⚘	⊔	or	1½	my.o	Pk	N. Holl.	1803.	S	s.p	Par. lond. 77
13007	scándens *R. Br.*	climbing	¥	⊔△	or	2	jl.au	Pk	N. Holl.	1803.	S	s.p	
13008	tenuifólium *R. Br.* *laricifólium* Rich.	fine-leaved	¥	⊔△	or	1	jl.au	Pk	N. Holl.	1818.	S	s.p	Bot. mag. 2249
13009	adnátum *R. Br.*	adnate		⊔○	or	½	jl.au	Pk	N. Holl.	1824.	S	s.p	Bot. reg. 914

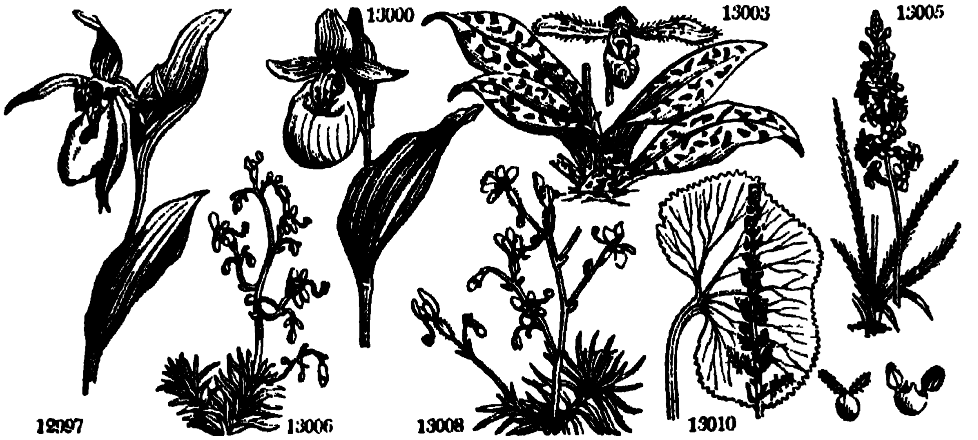
1933. GUNNE'RA. *W.* Gunnera. *Urticeæ.* *Sp.* 1—2.

13010	perpénsa *W.*	Marsh-marygold-lv.	¥	⊔△	un	2	jl.au	Y	C. G. H.	1688.	R	p.l	Bot. mag. 2376

HEXANDRIA.

1934. ARISTOLO'CHIA. *W.* Birthwort. *Aristolochiæ.* *Sp.* 21—69.

13011	trilobáta *W.*	three-lobed	£	▭	or	6	jn.jl	Pu	S. Amer.	1775.	C	p.l	
13012	máxima *W.*	greatest	£	▭	or	20	jl	Pu	New Spain	1759.	C	l.p	Jac. amer. t. 146
13013	Sipho *W.*	broad-leaved	£		or	30	jn.jl	Y.Br	N. Amer	1763.	L	s.p	Bot. mag. 534
13014	tomentósa *B. M.*	downy-leaved	£		or	20	jn.jl	Pu	N. Amer.	1799.	L	s.p	Bot. mag. 1369
13015	odoratissima *W.*	sweet-scented	£	▭	or	10	jl	Pu	Jamaica	1737.	C	p.l	Slo. ja. 1. t. 104. f. 1
13016	barbáta *W.*	bearded	£	[△]	or	10	...	Pu	Caraccas	1796.	R	s.l	Jac. ic. 3. t. 608
13017	indica *W.*	Indian	£	▭	or	10	jn.jl	Pu	E. Indies	1780.	C	s.l	Rhee. mal. 8. t 25
13018	bæ'tica *W.*	Spanish	£	△	or	6	my.jn	Pu	Spain	1596.	R	l.p	Mor. s. 12. t. 17. f 6
13019	glaúca *W.*	glaucous-leav.	£	⊔	or	6	jl	Pu	Barbary	1785.	C	p.l	Bot mag. 1115
13020	sempervirens *W*	evergreen	£	⊔	or	4	my.jn	Pu	Candia	1727.	C	p.l	Bot. mag. 1116
13021	lónga *W.*	long-rooted	*	△	or	1½	jn.o	Pu	S. Europe	1548.	R	co	Mill. ic t. 51 f. 2
13022	Serpentária *W.*	Snake-root	*	△	or	1	jn.jl	D.Pu	N. Amer.	1632.	R	s.p	Jac. schœ. 3. t. 385
13023	bracteáta *W.*	bracteated	£	[△]	or	3	jl	Pu	E. Indies	1793.	R	s.l	
13024	Pistolóchia *W.*	small	*	△	or	2	jn.jl	Pu	S. Europe	1597.	R	s.l	
13025	rotúnda *W.*	round-rooted	¥	⊔△	or	2	mr.o	D.Pu	S. Europe	1596.	R	co	
13026	pállida *W.*	pale-flowered	⚘	△	or	2	my.au	W.pu	Italy	1640.	R	s.l	Mor. s. 12. t. 18. f. 2
13027	hirta *W.*	hairy	¥	⊔△	or	2	my.jn	Pu	Chio	1759.	R	s.l	Tourn. it 1. t. 147
13028	Clematítis *W.*	common	⚘	△	or	2	my.au	Y	England woods.		R	co	Eng. bot. 398
13029	arbores'cens *W.*	tree	♣	⊔	or	20	jn.jl	Y.Pu	America	1737.	C	l.p	
13030	labiósa *B. Reg.*	speckled	£	▭	or	20	jl.au	Gr	Brazil	1821.	C	l.p	Bot. reg. 689
13031	acumináta *W.*	long-pointed	£	▭	or	10	...	Pu	Mauritius	1822.	C	l.p	



History, Use, Propagation, Culture,

1931. *Cypripedium.* From Κυπρις, Venus, and ποδιον, a slipper, in allusion to the elegant slipper-like form of the labellum. Handsome plants "which will only thrive in a shady border in peat soil. The American species should be covered with some dry straw in very severe frosts, or if there should be too much wet; they are not easily increased, but will sometimes perfect seeds in favorable situations, particularly if pains be taken to apply the pollen to the stigma." (*Bot. Cult.* 358.)

1932. *Stylidium.* From στυλος, a column, in reference to the manner in which the stamen and style are united into one columnar mass. Beautiful little New Holland plants with pink flowers, remarkable for the singular elasticity of their column, which, being touched with a pin, starts with violence from the side to which it was turned when stimulated. The species grow in sandy loam and peat, and are increased by seeds, or dividing at the root; some of them by cuttings.

1933. *Gunnera.* So called after Ernest Gunner, bishop of Norway, who published a Flora of his country from 1766 to 1772. An uninteresting plant with orbicular leaves. May be planted in a pot of loam and peat, and plunged in water; it is increased by dividing at the root.

1934. *Aristolochia.* From αριστος, excellent, and λοχὸς, a female in child-birth; the plant was considered formerly to possess considerable powers in aiding the expulsion of the placenta, and in exciting the lochial

DIANDRIA.

12997 Stem leafy, Lobe of column elliptical blunt, Lip shorter than sepals compressed
12998 Stem leafy, Lobe of column triangular acute, Lip shorter than sepals compressed
12999 Stem leafy, Lobe of column triangular oblong blunt, Lip shorter than sepals compressed
13000 Stem leafy, Lobe of column elliptical cordate blunt, Lip longer than blunt sepals, Spike in front
13001 Stem leafless 1-flowered, Leaves 2 radical oblong blunt, Scape scarcely longer than leaves
13002 Flowers with 5 sepals, Lip saccate spurred, Stem leafy
13003 Leaves distichous fleshy nerveless spotted, Scape little longer than leaves
13004 Leaves cartilaginous ligulate not spotted twice as short as the hairy scape

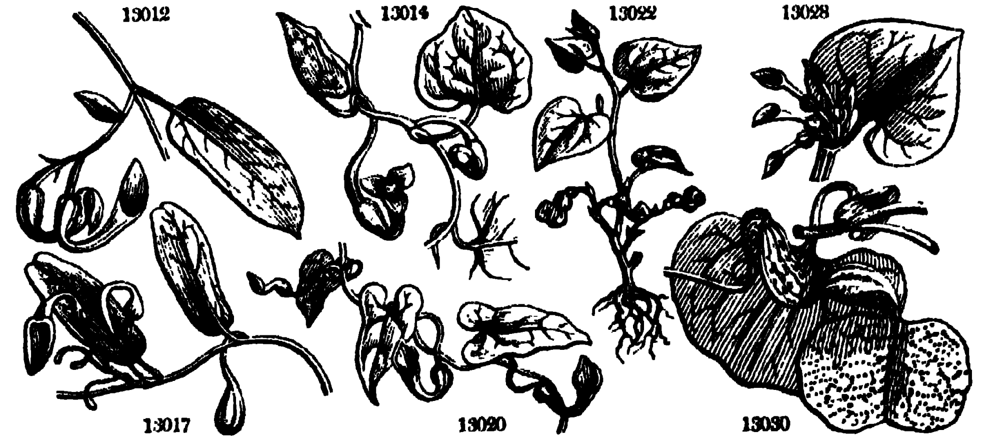
13005 Leaves linear toothletted at edge, Raceme spiked simple and scape glandular
13006 Leaves narrow linear decurrent smooth, Throat ½-crowned, Lip with an appendage
13007 Stem scandent, Leaves linear cirrhose, Throat crowned, Lip with an appendage, Column downy upwards
13008 Leaves setaceous linear sessile somewhat hairy, Orifice naked, Lip with an appendage

13009 Leaves linear, Spike subsessile divided : partial few-fl. Capsules adnate at base linear 1-celled

13010 Leaves reniform toothed shorter than the scape in fruit

HEXANDRIA.

13011 Leaves 3-lobed, Stem twining, Corollas cylindrical broken saccate at base, Lip cordate cuspidate
13012 Lvs. obl. acum. 3-nerved, Stem twining, Peduncles many-flowered, Cor. incurv. Lip ovate mucronate
13013 Lvs. cord. acute, Stem twining, Pedunc. 1-flowered with an ovate bract. Cor. ascend. : limb trifid equal
13014 Stem twining, Lvs. stalked cord. downy beneath, Pedunc. sol. without bractes, Tube of cor. twisted back
13015 Lvs. cordate ovate, Stem twining, Pedunc. 1-fl. longer than leaf, Lip cordate lanceolate longer than cor
13016 Leaves cordate obl. Stem twining, Cor. straight : limb spreading, Lip spatulate bearded at end
13017 Leaves elliptical blunt somewhat emarginate slightly cordate, Pedunc. many-fl. Cor. erect
13018 Leaves roundish cordate acute, Stem twining, Peduncles about 3, Cor. incurved, Lip ovate
13019 Leaves cordate ovate blunt glaucous beneath, Stem twining, Cor. incurved, Lip ovate retuse
13020 Leaves cordate oblong acuminate, Stem prostrate flexuose somewhat climbing, Cor. incurved
13021 Leaves cordate ovate retuse, Stem prostrate flexuose somewhat climbing, Cor. erect, Lip lanc. acute
13022 Leaves cordate oblong acuminate, Stem flexuous ascending, Pedunc. radical, Lip of cor. lanceolate
13023 Leaves cordate blunt, Stem weak, Flowers solitary, Bractes cordate stalked
13024 Lvs. cordate ovate crenate scabrous netted beneath, Stem branched at base flexuose prostrate, Cor. erect
13025 Lvs. cordate ovate blunt subsess Stem nearly erect and simple, Pedunc. sol. 1-fl. Cor. erect
13026 Lvs. cordate ovate blunt emarginate stalked, Stem flexuose nearly erect, Pedunc. sol. 1-fl. Cor. erect
13027 Lvs. cordate ovate blunt downy stalked, Stem erect hairy, Pedunc. sol. 1-fl. Cor. recurved
13028 Lvs. roundish cordate bluntish stalked, Stem erect, Pedunc. 1-fl. heaped, Cor. erect
13029 Leaves cordate lanceolate, Stem erect shrubby
13030 Leaves reniform roundish cordate amplexicaul. Corolla incurved at base saccate : 2-lipped in the middle
13031 Leaves cordate acuminate, Flowers in racemes, Capsules acutely hexangular



discharge. The root of A serpentaria is said to be the substance which the Egyptian snake-jugglers chew, for the purpose of stupifying the snakes by the introduction of their saliva into the reptiles' mouths. A. clematitis (from *κλημα*, a young shoot of the vine, in allusion to its appearance) is a species which furnishes one of the roots employed in European medicine. It is stimulant, stomachic, and emmenagogue ; use has been made of it for various purposes, as for paleness of the countenance, fistula, sarcoma, &c. A. pistolochia is also employed for the same purposes. It grows upon the dry stony places of Languedoc and Provence. It is used in cases of obstructed perspiration, and in disorders of the lungs. The roots should be chosen of a plump texture, and a yellowish color. They should be newly dried, and possess an aromatic flavor and a bitter taste.

Aristolochia trilobata and odoratissima have strong smelling roots, which are looked upon in Jamaica as powerful medicines, and used as stomachics by the slaves. The first species is called Contrayerva of the north side, from its growing in that part of the island ; and the other Contrayerva of the south side, for a corresponding reason. The root of A. serpentaria retains a place in the Materia Medica. The dried root is imported into this country from North America ; it has an aromatic odor, not unlike that of Valerian ; and a sharp, warm, bitter, pungent taste, resembling in some degree that of camphor. Medicinally, it is stimulating, diaphoretic, and tonic.

Class XXI. — MONŒCIA.

Male and female organs in distinct flowers, but upon the same plant.

This class consists of a variety of plants of all kinds, natures, and affinities, combined by the character of having their flowers unisexual, but upon the same plant, in which respect Monœcia is distinguished from the next class, Diœcia. It contains nearly all the most important timber-trees of the temperate countries of the world, such as the oak, the pine, the birch, the beech, the walnut, the plane, the cypress, and many others. The bread-fruit, so important an article of food in some parts of the world, is placed in Monandria. Various palms occupy a station in other parts of the class. The dangerous Manchineel-tree, and many poisonous or medicinal plants, are also placed here. To Monœcia Polyandria belongs the famous Upas-tree of Java, to which so many fables are attached. It is described in Rumphius's Herbarium Amboinense (2. 87.), under the name of Ipo, and is now ascertained to be a species of Antiaris. From Siphonia elastica, a plant of Monœcia Monadelphia, and native of Brazil, one of the kinds of Caoutchouc or gum elastic of commerce is obtained.

Sprengel, and others, refer most of the genera of Monœcia to other classes, considering those only to be truly referable to it, of which the male and female flowers have some differences of structure.

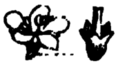
Order 1. MONANDRIA. Stamen 1.

1935. ***Artocarpus.*** Male. A cylindrical catkin. Cal. O. Petals 2. Filament the length of cor. Female. Cal. O. Cor. O. Ovaries numerous, collected in a globe. Style filiform. Drupe compound.

1936. ***Casuarina.*** Male. Catkin filiform. Calyx 2-valved. Cor. O. Female. Catkin globose. Calyx an ovate scale. Cor. O. Caps. 2-valved, 1-seeded. Seed winged at end.

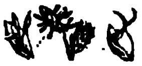
1937. ***Ceratocarpus.*** Male. Cal. 2-parted. Cor. O. Filament long. Female. Calyx 1-leaved, 2-horned, attached to the superior ovary. Cor. O. Style 2. Seed 1, tightly enclosed in the calyx.

1938. ***Zannichellia.*** Barren fl. Perianth. none. Fertile fl. Perianth. single of 1 leaf. Germens 4 or more. Style 1. Stigma peltate. Capsules sessile.

Order 2. DIANDRIA.  Stamens 2

1939. ***Lemna.*** Male. Cal. 1-leaved. Cor. O Female. Calyx 1-leaved. Cor O. Style 1. Capsule 1-celled, 2-seeded.

1940. ***Anguria.*** Male. Calyx 5-fid. Petals 5. Female Cal. 5-fid Petals 5. Fruit inferior, 2-celled, many-seeded.

Order 3. TRIANDRIA.  Stamens 3.

1941. ***Comptonia.*** Male. A catkin. Calyx a scale. Petals 2. Filaments 2-forked. Female. A catkin. Calyx a scale. Petals 6. Styles 2. Nut ovate.

1942. ***Hernandia.*** Male. Calyx 3-parted. Petals 3. Female. Calyx truncate, entire. Petals 6. Drupe hollow, open at orifice, with a moveable kernel.

1943. ***Axyris.*** Male. Calyx 3-parted. Cor. O. Female. Calyx 5-leaved. Cor. O. Styles 2. Seed 1

1944. ***Tragia.*** Male. Calyx 3-parted. Cor. O. Female. Calyx 5-parted. Cor. O. Style 3-fid. Caps of 3 pieces, and 3 cells. Seed solitary

1945. ***Typha.*** Flowers collected into cylindrical dense spikes or catkins. Barren fl. Perianth. O. Stam 3. together, upon a chaffy or hairy receptacle, united below into 1 filament. Fertile fl. Perianth. O. Pericarp pedicellate, surrounded at the base with hairs resembling a pappus.

1946. ***Sparganium.*** Flowers in spherical dense heads. Barren fl. Perianth single, of 3 leaves. Fertile fl. single, of 3 leaves. Drupe dry, with 1 seed.

1947. ***Carex.*** Flowers collected into an imbricated catkin. Barren fl. Calyx of 1 scale, glumaceous. Cor O. Fertile fl. Calyx of 1 leaf, glumaceous. Cor. of 1 leaf, urceolate, ventricose. Stigm 2.3. Nut triquetrous, included within the persistent cor.

1948. ***Cobresia.*** Flowers in an imbricated catkin. Male. Calyx a solitary scale. Cor. O. Female. Cal. generally a double scale; one flat, the other involving the ovary. Cor. O. Stigmas 3. Nut somewhat three-cornered, naked.

1949. ***Uncinia.*** Flowers in an imbricated catkin, androgynous. Male. Cal. a solitary beardless scale Female. Cal. bearded; beard hooked from the base of the inside of scale. Stigmas 3.

1950. ***Zea.*** Male in distinct spikes Cal. a two-flowered blunt glume. Cor. a blunt glume. Female. Cal a 2-valved glume. Cor. a 2-valved glume. Style 1, filiform, pendulous. Seeds solitary, immersed in an oblong receptacle.

1951. ***Coix.*** Male in remote spikes. Cal. a 2-flowered blunt glume. Cor. a blunt glume. Female. Calyx a 2-flowered glume. Cor. a blunt glume. Style 2-parted. Seed covered by the ossified calyx.

1952. ***Tripsacum.*** Male. Glume 2-flowered: outer male; inner neuter. Cor. a membranous glume. Female. Calyx a 1-fl. glume, surrounded by a 1-leaved involucrum, perforated at the recesses. Cor. a 2-valved glume. Styles 2. Seed 1.

1953. ***Heteropogon.*** Spike simple, monœcious. Flowers male on one side, female on the other. Male. Cal. 2-valved. Cor. 2-valved, beardless: the inner valve setaceous. Nectary 2-lobed, turgid. Female. Cal. two-valved. Cor. 2-valved, one thickish and bearded. Beard very long and hairy.

1954. ***Olyra.*** Male. Calyx a 1-flowered somewhat awned glume. Cor. O. Female. Cal. a 1-fl. spreading, ovate, awned glume. Cor. a 2-valved blunt glume. Style bifid. Seed cartilaginous.

Order 4. TETRANDRIA. Stamens 4.

1955. ***Alnus.*** Flowers collected into imbricated catkins. Barren fl. Scale of the catkin 3-lobed, with three flowers. Perianth. single, 4-partite. Fertile fl. Scale of the catkin subtrifid, with 2 flowers. Perianth. O Styles 2. Fruit compressed.

1956. ***Betula.*** Barren flower in a cylindrical catkin, its scales 3-fl. Perianth. O. Stam. 10-12. Fertile fl. Scale of the catkin imperfectly 3-lobed, 3-flowered. Perianth. O. Styles 2. Germens compressed, 2-celled, one abortive. Nuts compressed, with a membranaceous margin, 1-seeded.

1957. *Buxus.* Male. Calyx 3-leaved. Petals 2. Rudiment of an ovary. Female. Calyx 4-leaved. Petals 3. Styles 3. Caps. with 3 beaks and 3 cells. Seeds 2.

1958. *Cicca.* Male. Calyx 4-leaved. Cor. O. Female. Cal. 4-leaved. Cor. O. Styles 4. Capsule 4-coccous, not splitting, somewhat fleshy.

1959. *Morus.* Male. Cal. 4-parted. Cor. O. Female. Calyx 4-leaved. Cor. O. Styles 2. Calyx berried. Seed 1.

1960. *Bœhmeria.* Male. Cal. 4-parted. Cor. O. Nut O. Female. Cal. O. Cor. O. Style 1. Seed 1.

1961. *Pilea.* Male. Cal. 4-parted membranous. Stamens 4 elastic. Female. Calyx 3-leaved, with one sepal fleshy and gibbous. Stigma sessile fringed.

1962. *Urtica.* Barren fl. Perianth. single, of 4 leaves, containing the cup-shaped rudiment of a germen. Fertile fl. Perianth. single, of 2 leaves. Pericarp 1-seeded, shining.

1963. *Pachysandra.* Male. Calyx 4-leaved. Cor. O. Female. Calyx 4-leaved. Cor. O. Styles 3. Caps. 3-horned, 3-celled. Seeds 2.

1964. *Diotis.* Male. Calyx 4-leaved. Cor. O. Female. Calyx 1-leaved, 2-horned. Style 2-parted. Seed 1, villous at base, covered with the 2-horned calyx.

1965. *Empleurum.* Male. Calyx 4-fid. Cor. O. Female. Cal. 4-fid, inferior. Cor. O. Stigma cylindrical, seated on a lateral tooth of the ovary. Caps. splitting at side. Seed 1, with an arillus.

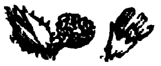
1966. *Aucuba.* Male. Cal. 4-toothed. Petals 4. Recept. with a square hole. Female. Cal. 4-toothed. Petals 4. Ovary inferior. Style 1, short. Nut ovate, 1-celled.

1967. *Littorella.* Barren fl. Calyx of 4 leaves. Cor. 4-fid. Stam. very long. Fertile fl. Calyx O. Cor. unequally 3-cleft. Style very long. Nut 1.

1968. *Serpicula.* Male. Cal. 4-toothed. Petals 4. Female. Cal. 4-parted. Pericarp a downy nut.

1969 *Maclura.* Male. A catkin. Female. Cal. O. Corolla O. Style 1, filiform, villous. Ovaries numerous, coalescing into a compound globose berry of many cells; cells 1-seeded. Seed obovate, compressed.

Order 5. PENTANDRIA. Stamens 5.



1970. *Exocarpus.* Male. Cal. 5-leaved. Cor. O. Stamens inserted in calyx. Female. Style simple, short. Stigma peltate. Drupe 1-seeded, placed on a fleshy receptacle.

1971. *Nephelium.* Male. Cal. 5-toothed. Cor. O. Female. Cal. 4-fid. Cor. O. Ovaries 2. Styles two to each. Drupes 2, dry, muricated, 1-seeded.

1972. *Schizandra.* Male. Cal. 9-leaved in a triple row. Cor. O. Anthers subsessile, cohering at end. Female. Cal. of male. Cor. O. Ovaries numerous, capitate. Berries 1-seeded, inserted on a long filiform receptacle.

1973. *Franzeria.* Male. Cal. common, 1-leaved, many-toothed. Cor. 1-petalous, tubular, 5-toothed. Recept. naked. Female. Calyx many-leaved. Cor. O. Styles 4. Drupe dry, 4-celled, setose.

1974. *Xanthium.* Male. Common calyx imbricated. Cor. monopetalous, 5-fid, funnel-shaped. Female. Cal. a 2-leaved, 1-flowered involucrum. Cor. O. Drupe dry, muricated, 2-fid. Nut 2-celled.

1975. *Amaranthus.* Male. Cal. 3-5-leaved. Cor. O. Stamens 3-5. Female. Cal. of the male. Cor. O. Styles 3. Caps. 1-celled, cut round about.

1976. *Luffa.* Male. Cal. 5-parted. Cor. 5-parted, attached to calyx. Female. Cal. and cor. of male. Filaments 5, sterile. Ovary inferior. Stigma clavate. Gourd with a lid, 3-celled, furrowed.

1977. *Ambrosia.* Male. Common cal. 1-leaved. Cor. 1-petalous, 5-fid, funnel-shaped. Recept. naked. Female. Cal. 1-leaved, entire, 5-toothed beneath, 1-flowered. Cor. O. Nut formed by the indurated calyx, 1-seeded.

1978. *Securinega.* Male. Cal. 5-parted. Cor. O. Stamens 5, inserted under a rudiment of a pistillum. Female. Capsule 3-celled.

Order 6. HEXANDRIA. Stamens 6.

1979 *Zizania.* Male. Cal. O. Cor. a 2-valved blunt glume, mixed with the females Female. Cal. O. Cor. a 2-valved glume, cucullate, and awned. Style 2-parted. Seed 1, enveloped in the plaited corolla.

1980 *Pharus.* Male. Cal. a 2-valved 1-fl. glume. Cor. a 2-valved glume. Female. The cal. of the male. Cor a long involute 2-valved glume. Seed 1.

1981. *Guettarda.* Male. Cal. cylindrical. Cor. 4-7-fid, funnel-shaped. Female. Cal. cylindrical. Cor. 4-7-fid. Ovary 1. Drupe dry.

1982. *Sagus.* Common spatha 1-valved. Spadix branched. Male. Cal. 3-leaved. Cor. O. Filam. dilated. Female. Cal. 3-leaved, with two of the leaves bifid. Cor. O. Style very short. Stigma simple. Nut tessellated-imbricated, 1-seeded.

1983. *Cocos.* Common spatha 1-valved. Spadix branched. Male. Cal. 3-leaved. Cor. 3 petals. Female. Cal. 2-leaved. Cor. 6 petals. Style O. Stigma a depression. Drupe fibrous.

1984. *Elate.* Common spatha 2-valved. Spadix branched. Male. Cal. 3-toothed. Petals 3. Anthers sessile. Female. Cal. 3-toothed. Petals 3. Stigmas 3. A drupe.

1985. *Bactris.* Common spatha 1-valved. Spadix branched. Male. Cal. 3-parted. Cor. 3-fid. Female. Cal. 3-toothed. Cor. 3-toothed. Style very short. Stigma capitate. Drupe fibrous, succulent.

Order 7. POLYANDRIA. Stamens more than 6.

1986. *Ceratophyllum.* Barren fl. Cal. multipartite. Cor. O. Stam. 16-20. Fertile fl. Cal. multipartite. Cor O. Stigma nearly sessile, oblique. Nut 1-seeded.

1987. *Myriophyllum.* Barren fl. Cal. of 4 leaves. Petals 4. Stamens 8. Fertile fl. Cal. of 4 leaves Petals 4. Stigmas 4, sessile. Nuts 4, subglobose, 1-seeded.

1988. *Sagittaria.* Male. Cal. 3-leaved. Petals 3. Stamens about 24. Female. Cal. 3-leaved. Petals 3. Ovaries many. Seeds many, naked.

1989. *Begonia.* Male. Cal. O. Petals 4: the two opposite the largest. Stamens numerous. Female. Cal. O. Petals 4 or 6, like the male. Styles 3, bifid. Caps. inferior, 3-angular, winged, 3-celled, many-seeded.

1990. *Poterium.* Barren fl. Cal. of 4 leaves. Cor. 4-partite. Stamens 30-40. Fertile fl. Cal. of 4 leaves. Cor. 4-partite. Germens 2. Fruit 2-celled, invested with the cal.

1991. *Ambiola.* Male. Calyx 5-fid: lower segm. cut down to the base. Cor. O. Stamens 8, declinate. Female as in the male. Style incurved. Caps. 3-coccous, inflated, 3-valved. Seeds globose.

1992. *Acidoton.* Male. Cal. 5-leaved. Cor. O. Stamens 35-40. Female. Cal. 6-leaved. Cor. O. Style 3-fid. Caps. 3-coccous.

1993. *Thelygonum.* Male. Cal. 2-fid. Cor. O. Stamens about 12. Female. Cal. 2-fid. Cor. O. Ovary 1. Caps. coriaceous, 1-celled, 1-seeded.

1994. *Castanea.* Barren fl. in a very long cylindrical catkin. Perianth. single, of 1-leaf, 6-cleft. Stamen 5-20. Fertile fl. 3, within a 4-lobed, thickly muricated involucrum. Perianth. single, urceolate, 5-6-lobed, having the rudiments of 12 stamens. Germen incorp. with the perianth. 6-celled, with the cells 2-seeded, 5 of them mostly abortive. Styles 6. Nut 1-2-seeded, invested with the enlarged involucre.

1995. *Ostrya.* Male, an imbricated catkin. Cal. a scale. Cor. O. Filaments branched, Female, a naked catkin. Cal. O. Cor. O. Caps. inflated, imbricated, 1-seeded at base.

1996. *Carpinus.* Barren fl. in a cylindrical catkin, its scales roundish ciliated at the base. Stamens 8-20 Fertile fl. in a lax catkin, its scales large, foliaceous, 3-lobed, 1-flowered. Invol. O. Perianth. of 1 leaf, urceolate, 6-dentate, incorporated with the 2-celled germen, of which 1 cell is abortive. Styles 2. Nut ovate, striated, 1-seeded.

1997. *Fagus.* Barren fl. in a globose catkin. Perianth. single, of 1 leaf, campanulate, 6-cleft. Stamens 5-12. Fertile fl. 2, within a 4-lobed prickly involucre. Perianth. single, urceolate, with 4-5 minute lobes. Germen incorporated with the perianth., 3-celled, two of them becoming abortive. Styles 3. Nuts 1-seeded, invested with the enlarged involucre.

1998. *Corylus.* Barren fl. in a cylindrical catkin, its scales 3-cleft. Perianth. O. Stamens 8. Anthers 1-celled. Fertile fl. Perianth. obsolete. Germens several, surrounded by a scaly involucre. Stigmas 2. Nut 1-seeded, surrounded at the base with the enlarged united coriaceous scales of the involucre.

1999. *Juglans.* Male, an imbricated catkin. Cal. a scale. Cor. 6-parted. Filaments 4-18. Female. Cal. 4-fid, superior. Cor. 4-fid. Styles 2. Drupe coriaceous, with a furrowed nut.

2000. *Quercus.* Barren fl. in a lax catkin. Perianth. single, somewhat 5-cleft. Stamens 5-10. Fertile fl. Invol. cup-shaped, scaly. Perianth. single, incorporated with the germen, 6-lobed. Germen 3-celled, 2 of them abortive. Style 1. Stigmas 3. Nut (acorn) 1-celled, 1-seeded, surrounded at the base by the enlarged cup-shaped involucre.

2001. *Liquidambar.* Male, a conical catkin, surrounded by a 4-leaved involucre. Cal. O. Cor. O. Filaments numerous Female, a globose catkin, surrounded by a 4-leaved involucrum. Cal. 1-leaved, urceolate, 2-flowered. Cor. O. Styles 2. Capsules 2, surrounded at base by calyx, 1-celled, many-seeded.

2002. *Platanus.* Male, a globose catkin. Cal. O. Cor. scarcely any. Anthers growing about the filament. Female, a globose catkin. Cal. many-leaved. Cor. O. Styles with a recurved stigma. Seeds roundish, mucronate with the style, pappose at base.

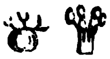
2003. *Salisburia.* Male, a naked catkin. Cal. O. Cor. O. Anthers imbricated. Female. Cal. 4-fid. Drupe with a 3-cornered nut.

2004. *Carludovica.* Common spatha 4-leaved. Spadix cylindrical. Male. Common calyx a cubical 4-flowered receptacle: proper calyx many-toothed. Female. Cal. an edge. Styles 4, very long. Stigmas anther-like. Berry cubical, many-seeded.

2005. *Caladium.* Male. Cal. and cor. O. Anthers peltate, many-celled, disposed in a spike at the end of the spadix. Female. Cal. and cor. O. Ovaries inserted at base of spadix. Style O. Berry 1-celled, many-seeded.

2006. *Arum.* Spatha of 1 leaf, convolute at the base. Perianth. O. Spadix with germens at the base. Stem (sessile) near the middle of the spadix, which is naked above. Berry 1-celled, 1-seeded.

2007. *Caryota.* Common spatha compound. Male. Cal. 3-leaved. Petals 3. Female. Cal. 3-leaved. Cor. 3-parted. Style 1. Berry 1-celled, 2-seeded.

Order 8. MONADELPHIA.  Stamens united into a single body.

2008. *Nipa.* Palm. Male. Cal. O. Petals 6. Filament 1, 12-fid. Female. Stigma a lateral furrow. Drupe angular, 1-seeded.

2009. *Areca.* Common spatha 2-valved. Male. Cal. 3-parted. Petals 3. Stamens 6, cohering at base, Female. Cal. 3-leaved. Petals 3. Nect. 6-toothed. Styles 3, very short. Drupe 1-seeded.

2010. *Belis.* Male. Anthers 2-celled. Female. Scales imbricated in a lupuliform cone, very short, crested, bracteate at back, trigynous. Lateral pericarps auricled, middle cuneate, deciduous with the cone

2011. *Agathis.* Male. Anthers many-celled. Female. Scales imbricated in a round cone, naked at back, persistent monogynous. Pericarps winged, united to the inside of scale. Cotyledons 2.

2012. *Pinus.* Male. Anthers 2-celled. Female. Scales in a conical cone, bracteate at base, digynous. Pericarps attached to the inside of scale, more or less winged, deciduous. Stigmas 2-3-fid. Cotyledons 4-8.

2013. *Abies.* The same as Larix, excepting its habit and stigma, which is that of Pinus. Cotyledons 3-9.

2014. *Larix.* Male. Anthers 2-celled. Female. Scales imbricated in a round cone, bracteate at base, digynous. Pericarps attached to inside of scale, winged, deciduous. Stigma hemispherical, cupped, glandular. Cotyledons 5-9.

MONANDRIA.

1935. ARTOCAR'PUS *W.* Bread Fruit. *Urticeæ.* *Sp.* 2—

13032 incisa *W.*	true	♀ □	clt	30	...	W.o	S. Sea Isl.	1793.	Sk	r m	Rum.amb.1.t.33
13033 integrifólia *W.*	Jaca Tree	♀ □	clt	30	in	W.o	E. Indies	1778.	C	r.m	Rh.mal.3.t.26.28

13032

History, Use, Propagation, Culture.

1935. *Artocarpus.* From *ἄρτος*, bread, and *καρπός*, fruit, in allusion to the well-known name and uses of the bread-fruit. *Rime* or *Fruit-à-pain*, Fr., *Brodbaum*, Ger., and *Albero di pane*, Ital. A. incisa grows in the South Sea Islands to the size of a moderate sized oak, with alternate leaves, deeply gashed, glaucous, and two feet long. The whole tree and the fruit before it is ripe, abound in a very tenacious milky juice. The fruit is about the

2015. *Schubertia.*

2016. *Podocarpus.* Male. Cal.-leaflets of the bud imbricated. Anthers many, adnate, bilocular, rostrate, fixed to the lengthened column of the filament. Female. An ovate 1-celled nut, half immersed in a firm receptacle.

2017. *Cupressus.* Male, an imbricated catkin. Cal. a scale. Cor. O. Anthers 4, sessile, without filaments. Female, a cone-like catkin. Cal. a 1-fl. scale. Cor. O. Stigma 2 concave dots. Nut angular.

2018. *Thuja.* Male, an imbricated catkin. Cal. a scale. Pet. 4. Anthers 4. Female, a cone-like catkin. Cal. a 2-fl. scale. Cor. O Nut 1, surrounded by an edged wing.

2019. *Trichosanthes.* Male. Cal. 5-toothed. Cor. 5-parted, ciliated. Filaments 3. Female. Cal. 5-toothed. Cor. 5-parted, ciliated. Style 3-fid. Gourd oblong.

2020. *Momordica.* Male. Cal. 5-fid. Cor. 5-parted. Filaments 3. Female. Cal. 5-fid. Cor. 5-parted. Styles 3-fid. Gourd dropping off with elasticity.

2021. *Cucurbita.* Male. Cal. 5-toothed. Cor. 5-fid. Filaments 3. Female. Cal. 5-toothed. Cor. 5-fid. Ovary 3-fid. Seeds of gourd with a tumid edge.

2022. *Cucumis.* Male. Cal. 5-toothed. Cor. 5-parted. Filaments 3. Female. Cal. 5-toothed. Cor. 5-parted. Ovary 3-fid. Seeds of gourd with a sharp edge.

2023. *Sicyos.* Male. Cal. 5-toothed. Cor. 5-parted. Filaments 3. Female. Cal. 5-toothed. Cor. 5-parted. Style 3-fid. Gourd 1-seeded.

2024. *Bryonia.* Barren fl. Cal. 5, dentate. Cor. 5-cleft. Filaments 3. Anthers 5. Fertile fl. Calyx 5-dentate. Cor. 5-cleft. Style trifid. Berry inferior, globose, many-seeded.

2025. *Andrachne.* Male. Cal. 5-leaved. Petals 5. Stamens 5, inserted into the rudiment of a style. Female. Cal. 5-leaved. Cor. O. Styles 3. Caps. 3-celled. Seeds 2.

2026. *Stillingia.* Male. Cal. hemispherical, many-fl. Cor. tubular, eroded. Female. Cal. 1-flowered, inferior. Cor. superior. Style 3-fid. Caps. 3-coccous.

2027. *Phyllanthus.* Male. Cal. 6-parted. Cor. O. Filament columnar. Anthers 3. Female. Cal. 6-parted. Cor. O. Disk with 12 angles. Styles 3. Capsule 3-coccous.

2028. *Aleurites.* Male. Cal. 3-fid. Petals 5. Scales 5. Filament columnar. Anthers numerous. Female. Cal. 3-fid. Petals 5. Scales 5. Style O. Stigmas 2. Berry dicoccous.

2029. *Omphalea.* Male. Cal. 4-parted. Cor. O. Disk a fleshy ring. Filament columnar. Anthers 2-3. Female. Cal. 4-parted. Cor. O. Style very short. Stigma trifid. Caps. 3-coccous, 3-celled: cells with a solitary nut.

2030. *Hippomane.* Male. Cal. campanulate, emarginate. Cor. O. Filament columnar. Female. Cal. 3-leaved. Cor. O. Style very short. Stigma 7-fid. Drupe with a 7-celled nut.

2031. *Sapium.* Male. Cal. 2-fid. Cor. O. Filament 2-fid. Female. Cal. 3-toothed. Cor. O. Style very short. Stigma 3-fid. Caps. 3-coccous.

2032. *Croton.* Male. Cal. cylindrical, 5-toothed. Petals 5. Stamens 10-15. Female. Ca[illegible]any-leaved. Cor. O. Styles 3, bifid. Caps. 3-celled. Seed 1.

2033. *Jatropha.* Male. Cal. O, or 5-leaved. Cor. monopetalous, funnel-shaped. Stamens 10, alternately shorter. Female. Cal. O. Cor. 5-petalous, spreading. Styles 3, bifid. Caps. 3-celled. Seed 1.

2034. *Ricinus.* Male. Cal. 5-parted. Cor. O. Stamens numerous. Female. Cal. 3-parted. Cor. O. Styles 3, bifid. Capsule 3-celled. Seed 1.

2035. *Hura.* Male. An imbricated catkin. Perianth. truncate, 2-leaved. Cor. O. Filament cylindrical, peltate at end, surrounded by many double anthers. Female. Cal. cylindrical. Cor. O. Style funnel-shaped. Stigma 12-fid. Caps. 12-celled. Seed 1.

2036. *Sterculia.* Male. Cal. 5-parted. Cor. O. Filament columnar, surmounted by numerous anthers. Female. Cal. 5-parted. Cor. O. Anthers sterile, surrounding the base of the stalked ovaries. Follicles 5, many-seeded.

2037. *Heritiera.* Male. Cal. 5-toothed. Cor. O. Filament columnar, surmounted below the end with anthers. Female. Cal. 5-toothed. Cor. O. Sterile anthers at base of ovaries. Drupes 5, dry, 1-seeded.

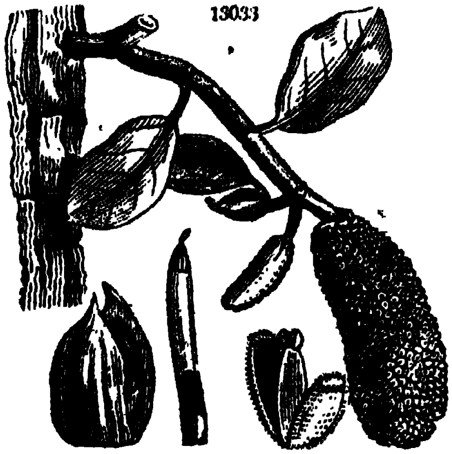
2038. *Acalypha.* Male. Cal. 3-4-leaved. Cor. O. Stamens 8-16. Female. Cal. 3-leaved. Cor. O. Styles 3. Caps. 3-coccous, 3-celled. Seed 1.

2039. *Dalechampia.* Common involucre outside, with 4 leaflets: inside with 2, trifid. Male. Umbel 10-fl.; with a 2-leaved involucre and numerous paleæ. Cal. 5-leaved. Cor. O. Filaments many, connate. Female. Florets 3, with a 3-leaved involucre. Cal. 11-leaved. Cor. O. Style filiform. Caps. 3-coccous.

2040. *Plukenetia.* Male. Cal. 4-parted. Cor. O. Stamens 20. Female. Cal. 4-parted. Cor. O. Style very long, with a peltate 4-lobed stigma. Caps. 4-coccous.

MONANDRIA.

13032 Leaves pinnatifid sinuated scabrous downy beneath
13033 Leaves oblong undivided narrowed at base scabrous beneath



and Miscellaneous Particulars.

size and shape of a child's head, and the surface is reticulated, not much unlike a truffle; it is covered with a thin skin, and has a core about as big as the handle of a small knife; the eatable part lies between the skin and the core; it is as white as snow, and somewhat of the consistence of new bread. It must be roasted before it is eaten, being first divided into three or four parts; its taste is insipid, with a slight sweetness, somewhat

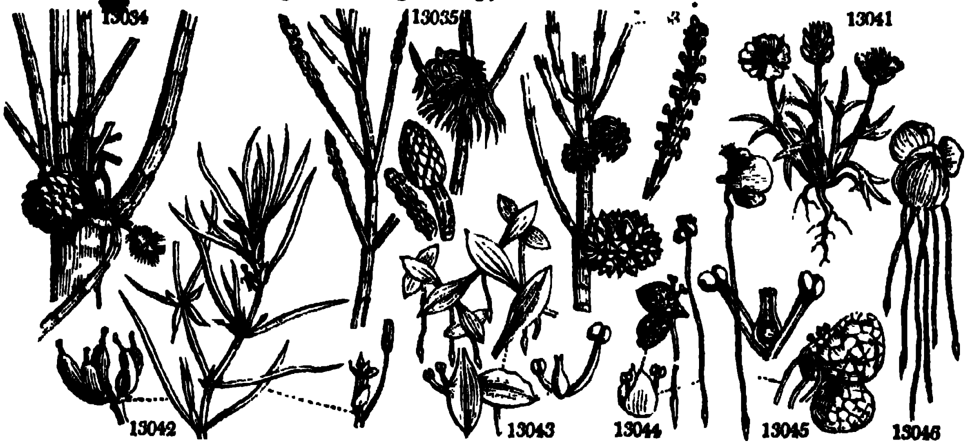
1936. CASUARI'NA. *W.*	Casuarina.					*Casuarineæ.*		*Sp.* 7—10.				
13034 equisetifólia *W.*	Horse-tail	♣	⊔	or	15	o.n	Ap	S. Sea Isl.	1776.	S	s.p	Bot. cab. 607
13035 stricta *W.*	upright	♣	⊔	or	15	f.n	Ap	N. S. W.	1775.	S	s.p	Bot. rep. 346
13036 distyla *W.*	two-styled	♣	⊔	or	15	...	Ap	N. Holl.	1812.	S	s.p	Ve.des.pl. n. t.62
13037 torulósa *W.*	Cork-barked	♣	⊔	or	15	...	Ap	N. S. W.	1772.	S	s.p	
13038 quadriválvis *P. S.*	four-valved	♣	⊔	or	18	...	Ap	N. S. W.	1812.	S	s.p	La.no.ho.2.t.218
13039 muricáta *Roxb.*	muricated	♣	⊔	or	15	...	Ap	E. Indies	1822.	S	s.p	
13040 nodiflóra *W.*	knot-flowered	♣	⊔	or	15	...	Ap	N. Caled.	1823.	S	s.p	
1937. CERATOCAR'PUS. *W.*	Ceratocarpus.					*Chenopodeæ.*		*Sp.* 1.				
13041 arenárius *W.*	sand		○	un	½	jn.jl	G	Tartary	1757.	S	s	Bu.in.ac.pe.1.t.9
1938. ZANNICHEL'LIA. *W.*	Pond Weed.					*Naiadeæ.*		*Sp.* 1—3.				
13042 palústris *W.*	marsh	≋	○	w	2	jl	Ap	Britain	dit.	S	aq	Eng. bot. 1844

DIANDRIA.

1939. LEM'NA. *W.*	Duck Weed.					*Aroideæ.*		*Sp.* 4—11.				
13043 trisúlca *W.*	Ivy-leaved	≋	○	w	...	my.jn	Ap	Britain	sta.wa.	S	l.p	Eng. bot. 926
13044 minor *W.*	lesser	≋	○	w	...	jn.jl	Ap	Britain	sta.wa.	S	l.p	Eng. bot. 1095
13045 gibba *W.*	gibbous	≋	○	w	...	jn.jl	Ap	Britain	sta.wa.	S	l.p	Eng. bot. 1233
13046 polyrhiza *W.*	greater	≋	○	w	...	my.s	Ap	Britain	dit.	S	l.p	Eng. bot. 2458
1940. ANGU'RIA. *W.*	Anguria.					*Cucurbitaceæ.*		*Sp.* 1.				
13047 trilobáta *W.*	three-lobed	ʆ	⊿	or	20	jn.jl	Pk	Carthag.	1793.	R	l.p	Jac. amer. t. 156

TRIANDRIA.

1941. COMPTO'NIA. *W.*	Comptonia.					*Myriceæ.*		*Sp.* 1.				
13048 aspleniifólia *W.*	Fern-leaved	♠		or	4	mr.my	Br	N. Amer.	1714.	Sk	s.p	Dend. brit. 166
1942. HERNAN'DIA. *W.*	Jack in a Box.					*Laurineæ.*		*Sp.* 2—3.				
13049 sonóra *W.*	peltate-leaved	♣	□	or	20	...		E. Indies	1693.	C	p.l	Rum.amb.2. t.85
13050 ovígera *W.*	egg-fruited	♣	□	or	20	...		E. Indies	...	C	p.l	Rum.am.3. t.123
1943. AXY'RIS. *W.*	Axyris.					*Chenopodeæ.*		*Sp.* 3—5.				
13051 amaranthoídes *W.*	simple-spiked		○	un	1½	jn.jl	G	Siberia	1758.	S	co	Gmel.sib. t.2. f.2
13052 hýbrida *W.*	bastard		○	un	1½	jn.au	G	Siberia	1780.	S	co	Gmel.sib. t.4. f.1
13053 prostráta *W.*	trailing	✱	○	un	½	jl.au	G	Siberia	1798.	S	co	Gmel.sib. t.5. f.2



History, Use, Propagation, Culture,

resembling that of the crumb of wheaten bread mixed with Jerusalem Artichoke. The plant was first brought to England by the unfortunate Captain Bligh. A fresh supply has been more than once received, and there are now a number of plants in the nurseries about London The bread-fruit, according to Sweet, is generally supposed to be difficult of cultivation in this country. He considers that the plants have been, in general, treated too tenderly, and not allowed sufficient air. "They appear," he says, "to be of the same nature as the Fig, to which they are nearly allied. Large cuttings root freely in a pot of sand, plunged under a hand-glass, in a moist heat, with all their leaves entire: if the leaves are shortened, it is a great chance if they succeed." (*Bot. Cult.* 19.)

There are several varieties of the bread-fruit, as of all plants that have been long in cultivation. The principal of these varieties are without seeds; the natives of Otaheite reckon at least eight, differing in the form of the leaf and fruit. A. integrifolia is also by many considered a variety of the other; for the leaves are sometimes lobed, and the situation of the fruit varies with the age of the tree, being first borne on the branches, then on the trunk, and finally on the roots.

The bread-fruit is ripe in December, and is used boiled, or fried in Palm oil. Besides the use of the fruit, the economical purposes to which the other parts of the tree are applied are various. The wood is used in building boats and houses; a cloth is made of the inner bark; the male catkins serve for tinder; the leaves for wrapping up food, and for wiping the hands instead of towels; and the juice for making bird-lime, and a cement for filling up the cracks of vessels for holding water. According to Forster, three trees are supposed to yield sufficient nourishment for one person.

The bread-fruit tree is distributed very extensively over the East Indian continent and islands, as well as the innumerable islands of the South Seas. In 1793 it was introduced to the West Indies, and subsequently to different parts of South America. Much has been said in praise of it by Europeans, and certainly, to the inhabitants of the South Sea Islands, it may be a valuable food, as the acorn was to the inhabitants of Britain, when they were in a certain state of civilisation. But whether a civilised and refined people would esteem this fruit for their own use as highly as they do for the use of the semi-barbarians of the South Seas, is a point which may reasonably be doubted.

1936. *Casuarina.* The name under which the tree is described by Rumphius, who probably called it so from the resemblance its foliage bears to the plumage of the *casoar* or *cassowary* of the same country. By the Malays it is called *filao*, and by the South Sea Islanders *club-wood*, on account of the use of it for warlike weapons. Casuarina equisetifolia is a large spreading and lofty tree, with leaves, or rather branchlets, hanging down in bunches from twelve to eighteen inches in length, like a long head of hair, or a horse's tail, all jointed from top to bottom. The appearance of the whole tree is very remarkable. It was introduced by the first Lord Byron.

13034 Branchlets flaccid round, Scales of cones unarmed villous
13035 Diœcious, Branchlets erect furrowed, Scales of cones unarmed smoothish
13036 Diœcious, Branchlets ovate round, Scales of cones unarmed ciliated
13037 Diœcious, Branchlets flaccid, Scales of cones villous and rough with tubercles
13038 Diœcious, Young branches somewhat flaccid, Scales of cones villous, Male sheaths submultifid ciliated
13039 Branches erect, Scales of cones mucronate pubescent, in which it chiefly differs from C. stricta
13040 Monœcious, Branchlets erect square, Scales of cones unarmed smooth

13041 Stem much branched diffuse making globose tufts

13042 Anthers 4-celled, Stigmas entire, Pericarps toothed on the back

DIANDRIA.

13043 Fronds thin elliptical-lanceolate caudate at one extremity, at the other serrate, Roots solitary
13044 Fronds nearly ovate compressed, Roots solitary
13045 Fronds obovate nearly plane above hemispherical beneath, Roots solitary
13046 Fronds obovate rotundate compressed, Roots numerous clustered

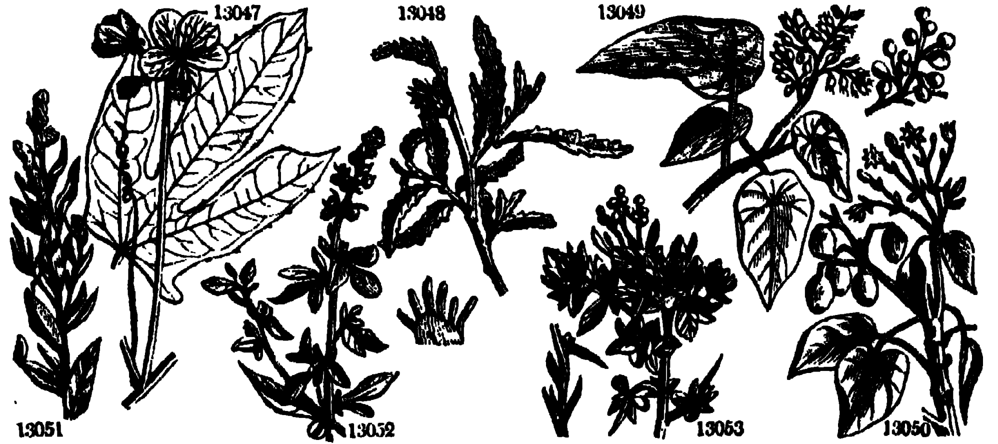
13047 Fruit small, Leaves 3-lobed

TRIANDRIA.

13048 Leaves oblong alternately sinuated

13049 Leaves peltate
13050 Leaves cordate ovate acuminate flat stalked at base

13051 Leaves ovate, Stem erect, Spikes simple
13052 Leaves ovate, Stem erect, Spikes panicled
13053 Leaves obovate, Stem somewhat divided, Flowers capitate



and Miscellaneous Particulars.

1937. *Ceratocarpus.* Named from κερας, a horn, and καρπος, fruit, because the seeds have two horns. Useless weeds.

1938. *Zannichellia.* So called in honor of John Jerome Zannichella, a Venetian apothecary, who died in 1729. He left behind him a few works of little consequence. A plant found abundantly in the marshes of some parts of England.

1939. *Lemna.* Said to have been so called from λεπις, a scale, in allusion to the form of the plants. Theophrastus describes under the same name an aquatic plant. Annual weeds, which float on stagnant water, their flowers are very obscure, and not produced freely in northern climates. L. trisulca has dichotomous, filiform, divaricated stems, having a lanceolate leaf at the angle of the branches, but proliferous ones terminating the branches; where these leaves are conjoined, there shoots out a pendant radicle, with a conical papilla at its base. Linnæus observes, that the stems are flatted and proliferous, crossing each other, and thus resembling in the mode of growth the opuntia or Indian fig. The leaves of L. minor are very small, of a roundish ovate form, collected into heaps by twos or threes, and forming extensive green plats on stagnant waters; each leaf drops a single radicle. This plant affords nourishment not only to ducks, but to the fresh water polype, to Phalæna Lemnata, &c. Its quick and extensive propagation makes it troublesome in some cases, but at the same time it is considered valuable as converting hydrogen gas into air adapted to respiration. L. polyrhiza is distinguished by its dropping bundles of thick black fibres from the lower surface of the leaves. The plants sink in the water in the winter season, and either these or new ones appear again in the spring.

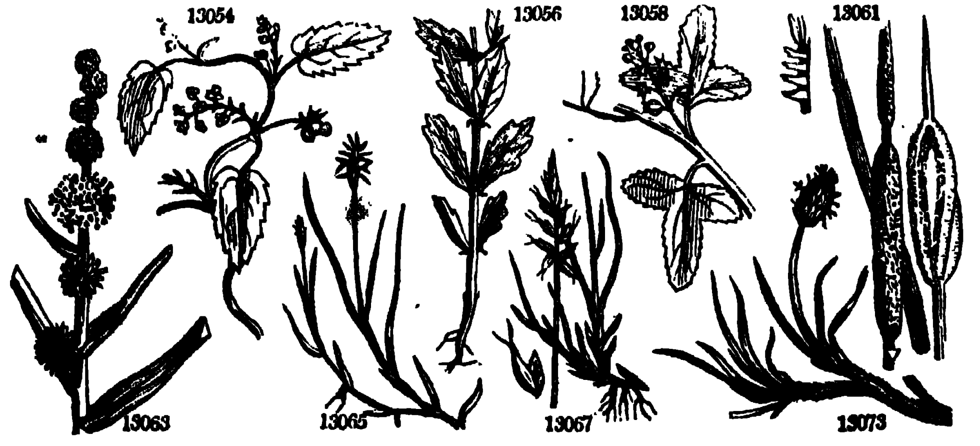
1940. *Anguria.* One of the Greek names for the Cucumber. The plant now so called is also a kind of gourd. The species grow freely on light soil, and are propagated by seeds or roots.

1941. *Comptonia.* Named in honor of Henry Compton, Lord Bishop of London, by whom the fine collection of plants attached to the episcopal palace at Fulham was formed. A handsome shrub, which thrives in peat soil, or sandy loam, and is increased by suckers or layers.

1942. *Hernandia.* So called in honor of Francisco Hernandez, a Spanish botanist, and first physician to Philip the second of Spain, by whom he was sent to Mexico for the sake of investigating the natural history of that country. Linnæus is said to have named it in allusion to the large leaves and little flowers of the plant, which may be supposed to represent the great means and small advantages which attended the expedition of Hernandez. This is an upright lofty tree, with an elegant head. The fruit is a nut, sustained and partly enveloped by a yellow persisting calyx. The nuts are very large, and as they move in the wind, produce sound enough to alarm unwary travellers. In our stoves the plants grow freely in loamy soil, and ripened cuttings, with their leaves on, root in sand under a hand-glass.

1943. *Axyris.* A word of unknown meaning. Plants of little beauty and the easiest culture.

1944. TRA'GIA. *W.*	Tragia.					*Euphorbiaceæ.*	*Sp.* 5—9.					
13054 volúbilis *W.*	twining	ʆ	□	un	6	jn.jl	G	W. Indies	1739.	S	co	Tre.pl.rar.2. t.15
13055 involucráta *W.*	involucred	ʆ	▣	un	3	jn.jl	G	E. Indies	1759.	S	co	Jac. ic. 1. t. 190
13056 úrens *W.*	stinging	ʆ	○	un	3	au	G	Virginia	1699.	S	co	Pluk.al. t.107.f.5
13057 Chamælèa *W.*	lance-leaved	ʆ	▣	un	2	jn.jl	G	E. Indies	1793.	D	l.p	Rhee mal.2. t.34
13058 cannabina *W.*	Hemp-leaved	ʆ	⊠	un	2	jn.jl	G	E. Indies	1699.	C	l.p	Bur.ind. t.63. f.4
1945. TY'PHA. *W.*	Cat's-Tail.					*Aroideæ.*	*Sp.* 3—7.					
13059 latifólia *W.*	great	Ш	△	ec	6	jl	Br	Britain	dit.	S	l.p	Eng. bot. 1455
13060 minor *W.*	dwarf	Ш	△	ec	2	jl	Br	England	mar.	S	l.p	Eng. bot. 1457
13061 angustifólia *W.*	lesser	Ш	△	ec	3	jn.jl	Br	Britain	pools.	S	l.p	Eng. bot. 1456
1946. SPARGA'NIUM. *W.*	Bur Reed.					*Aroideæ.*	*Sp.* 3—5.					
13062 ramósum *W.*	branched	≛	△	un	2	jl.au	Ap	Britain	dit.	S	l.p	Eng. bot. 744
13063 simplex *W.*	unbranched	≛	△	un	1½	jl.au	Ap	Britain	sta.wa.	S	l.p	Eng. bot. 745
13064 nátans *W.*	floating	⏚	△			jl		England	fens.	S	l.p	Eng. bot. 272
1947. CA'REX. *W.*	Carex.					*Cyperaceæ.*	*Sp.* 106—235.					
13065 dioica *W.*	diœcious	Ш	△	cu	½	my.jn	Ap	Britain	sp bo.	Sk	s.p	Eng. bot. 543
13066 Davalliána *W.*	Davall's	Ш	△	cu	¾	my.jn	Ap	Britain	mar.	Sk	s.p	Eng. bot. 2123
13067 pulicáris *W.*	Flea	Ш	△	cu	1½	jn.jl	Ap	Britain	mar.	Sk	co	Eng. bot. 1051
13068 pyrenáica *W.*	Pyrenean	Ш	△	un	1½	jn.jl	Ap	Pyrenees	1820.	Sk	co	S.ca.n.5. t.D.f.15
13069 pauciflóra *W.*	few-flowered	Ш	△	cu	1½	jn	Ap	Britain	bgs.m.	Sk	s.p	Eng. bot. 2041
13070 cyperoides *W.*	Bohemian	Ш	△	un	2	jn jl	Ap	Bohemia	1801.	Sk	co	Schk.car.t.A.f.5
13071 stenophýlla *W.*	narrow-leaved	Ш	△	un	2	jn.jl	Ap	Austria	1822.	Sk	co	Sc.ca. t.G.Ii.f.32
13072 chordorhiza *W.*	chord-rooted	Ш	△	un	1	jn.jl	Ap	Sweden	1823.	Sk	co	Sc.ca. t.G.Ii.f.31
13073 incúrva *W.*	curved	Ш	△	un	½	jl.au	Ap	Scotland	san.sh.	Sk	co	Eng. bot. 927
13074 fœ'tida *W.*	stinking	Ш	△	un	¾	jl.au	Ap	Switzerl.	1791.	Sk	co	Sch.ca.t.Hh.f.96
13075 arenária *W.*	sand	Ш	△	ec	1	jn.jl	Ap	Britain	san.sh.	Sk	co	Eng. bot. 928
13076 intermédia *W.*	soft-brown	Ш	△	un	1½	my.jl	Ap	Britain	mar.	Sk	co	Eng. bot. 2042
13077 schœnoides *W.*	rush-like	Ш	△	un	1	my.jl	Ap	Germany	1823.	Sk	co	
13078 Schrebéri *W.*	Schreber's	Ш	△	un	1½	jn jl	Ap	Germany	1800.	Sk	co	Host. gra. 1. t 46
13079 brizoides *W.*	Briza-like	Ш	△	un	2	my jl	Ap	Germany	1815.	Sk	co	Host.gra.36.t.47
13080 ovális *W.*	oval-spiked	Ш	△	un	2	jn jl	Ap	Britain	mar.	Sk	co	Eng. bot. 306
13081 lagopodioides *W.*	Hare's Foot	Ш	△	un	2	jn jl	Ap	N. Amer.	1805.	Sk	co	Sc. c. t.Yyy.f.177
13082 scopária *W.*	Broom	Ш	△	un	2½	jn.jl	Ap	N. Amer.	1812.	Sk	co	Sc.c. t.Xxx.f.175
13083 nemorósa *W.*	wood	Ш	△	un	3	jn jl	Ap	Germany	1824.	Sk	co	
13084 vulpina *W.*	great-spiked	Ш	△	un	3	my.au	Ap	Britain	mar.	Sk	co	Eng. bot. 307
13085 stipáta *W.*	propped	Ш	△	un	3	my.au	Ap	N. Amer.	1825.	Sk	co	Sc.c.t.Hhh.f.132
13086 divisa *W.*	bracteated	Ш	△	un	2	my.jl	Ap	Britain	sal.m.	Sk	co	Eng. bot. 1096
13087 muricáta *W.*	greater-prickly	Ш	△	un	2	my.jn	Ap	Britain	moi.p.	Sk	co	Eng. bot. 1097
13088 norvégica *W.*	Norway	Ш	△	un	1½	my.jn	Ap	Norway	1822.	Sk	co	Schk.car.t.8.f.66
13089 divúlsa *W.*	gray	Ш	△	un	2	my	Ap	Britain	m.s.pl.	Sk	co	Eng. bot. 629
13090 stelluláta *W.*	little prickly	Ш	△	un	½	my.jn	Ap	Britain	mar.	Sk	co	Eng. bot. 806
13091 rósea *W.*	Rose	Ш	△	un	2	my.jn	Ap	N. Amer.	1812.	Sk	co	Sc.ca.t.Zzz.f.179
13092 axillária *W.*	axillary	Ш	△	un	2½	my.jn	Ap	England	bogs.	Sk	co	Eng. bot. 993
13093 remóta *W.*	remote	Ш	△	un	2	my.jn	Ap	Britain	groves.	Sk	co	Eng. bot. 832



History, Use, Propagation, Culture,

1944. *Tragia.* In honor of a German botanist named Jerome Bock, born in 1498, and died in 1554; *Tragus*, which was the name he bore in science, being a Greek translation of his real name, both signifying a goat. He published a history of plants, or Kræuterbuch, and several other works. Twining plants of no interest.

1945. *Typha.* From τυφος, a marsh, in which all the species naturally grow. T. latifolia is one of the handsomest aquatics of the reed kind; its leaves are of a bluish color, an inch in width, and three feet long; the pollen of the flower is very abundant, and a light being applied to it, a flash of fire is produced. Haller says, that the roots are eaten in salads, that cattle eat the leaves, and that the downy seeds serve for stuffing pillows. The leaves are sometimes used by coopers, and introduced between the staves of their casks; they are frequently used for making mats, baskets, chair bottoms, and sometimes for thatch. Rubens, and other

13054 Leaves cordate ovate acuminate serrated smoothish, Petioles ciliated, Female sepals hairy entire
13055 Leaves hispid ovate-acuminate serrated, Female sepals pinnatifid setose hispid
13056 Leaves lanceolate sessile blunt somewhat toothed at end; and stem, which is erect and branched, downy
13057 Leaves linear lanceolate stalked blunt mucronate, Stem branched diffuse
13058 Leaves deeply 3-lobed toothed, Middle lobe long

13059 Leaves linear nearly plane, Sterile and fertile catkins close together
13060 Leaves linear plane twice as short as culm, Male and female catkins remote
13061 Leaves linear convex below, Sterile and fertile catkins a little distant from each other

13062 Leaves triangular at the base their sides concave, Common flower-stalk branched, Stigma linear
13063 Leaves triangular at the base their sides plane, Common flower-stalk simple, Stigma linear
13064 Lvs. floating plane, Common fl.-stalk simple, Stigma ovate very short, Head of sterile fls mostly solitary

§ *Spikes diœcious.*

13065 Spike simple diœcious, Fruit ascending ovate shortly acuminated striated rough at the margin upwards
13066 Spike simple diœcious, Fruit ovate much acuminated recurvate-deflexed smoothish at the margin

§ 2. *Spikes androgynous.*

* 1. *Spike simple.*

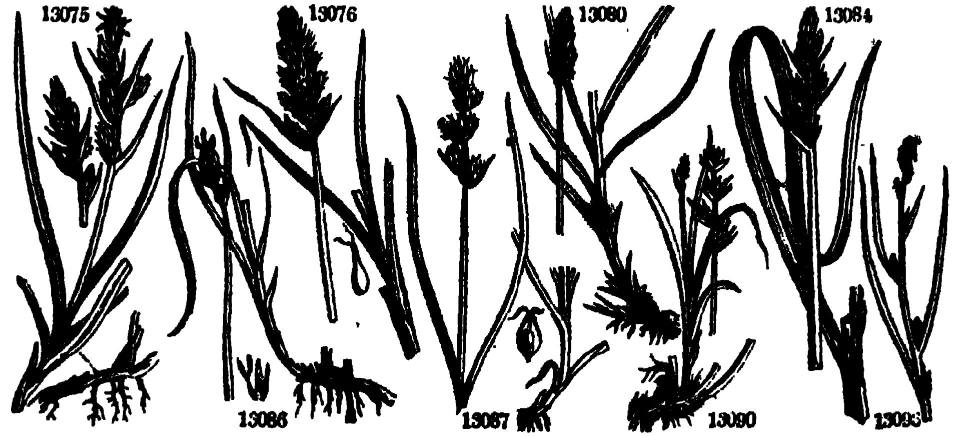
13067 Spike simple androgynous, Flowers few, Fruit distant oblongo-lanceolate acuminate reflexed, Stigmas 2
13068 Spike simple androgynous male at top, Stigmas 3, Fruit oblong with a short beak horizontal
13069 Spike simple androgynous of very few fls. Fruit distant lanceolate subulate patenti-reflexed, Stigmas

* 2. *Spikelets capitate.*

13070 Spikes androgynous male below collected in globose involucrated heads, Stigm. 2, Fr. lanc. with 2 points
13071 Spikes androgynous male above collected in an oblong head, Stigm. 2, Fr. ovate comp. nerved with 2 teeth
13072 Spikes androgynous male above collected in an ovate form, Stigm. 2, Fr. ov. acumin. Culm branched at base
13073 Spikl. ster. at extrem. collected into a roundish head, Fruit broad. rotund.-ov. short acum. swell. on both sides nearly entire at the point, Culm obt. angular, Leaves channelled
13074 Spikes androgynous male above collected into an oval head, Stigm. 2, Fruit ellipt. roundish acuminate bifid

* 3. *Spikelets spiked, many-flowered.* [Culm triang. Lvs. plane

13075 Lower spikel. fert.: upp. ones ster. all crowd. Fr. with membr. marg. Bract. membranc.: low. ones subfoli.
13076 Inferior and term. spikelets fertile: intermediate ones sterile, Fruit acutely margined, Culms triangular
13077 Spike androgynous comp. Spikelets obl. altern. clust. male above, Stigmas 2, Fr. round. ov. edged 2 toothed
13078 Spike androgynous comp. Spikelets ovate alternate clustered male below, Stigmas 2, Fr. ovate 2-toothed
13079 Spike androg. comp. somew. distich. Spikel. about 5 altern. cun. obl. lanc. male bel. Stig. 2, Fr. ov. edg bifid
13080 Spikel. ster. at the base oval about 5 approxim. Fruit as long as the cal. ovato-acumin. convex on one side, concave on the other, with a membranaceous margin bifid at the point
13081 Spike androg. comp. Spikel. 12 altern. ellipt. blunt approxim. male below, Stigma 2, Fr. ov. lanc. edg. bicusp.
13082 Spike androgynous comp. Spikel. about 5 altern. ellipt. blunt somewhat approxim. male below, Stigmas 2, Fruit ovate lanceolate edged bicuspidate
13083 Spike androgynous comp. Spikel. numer. collected in 3s or 5s ovate clustered male above, Stigmas 2, Fruit spreading ovate acuminate 2-toothed edged compressed
13084 Spikel. ster. at their extremities thrice comp. collected into a cylind. crowded spike, Fruit ovate acuminat. convexo-plane acutang.-diverg. Stem very acute triang. Leaves rather broad
13085 Spike androg. comp. Spikel. about 5 obl. male above clust. Stigm. 2. Fr. spread. ov. acum. with 2 points nerv.
13086 Spikel. ster. at their extremities crowded into a somewhat ovate head: lower ones with a leafy erect bractea at their base, Fruit roundish ovate convex on one side slightly concave on the other
13087 Spikel. ster. at their extremities subcomp. collected into a rather long more or less interrupted spike, Fruit convexo-plano ovato-acuminate acutangular divergent rough at the margin upward
13088 Spike androg. comp. Spikel. 4 altern. obl. male below somewhat approxim. Stigmas 2, Fr. obl. acutish compr.
13089 Spike long somew. decompound branched at the base: lower spikelets remote, Fruit erect smooth at edge
13090 Spikel. ster. at base 3 or 4 dist. Fr. ov. much attenuat. convexo-plane acutangul. divaricat. rough at margins
13091 Spike androg. comp. Spikel. about 4 remote male above, Stigm. 2, Fr. ov. acum. 2-tooth. horiz. ciliat. at base
13092 Spikes subternate remote sessile, Bractes long, Fruit bifid at end
13093 Spikel. ster. at base dist. Fruit longer than cal. obl.-ovate acuminate convexo-plane subacutang. obtuse at the marg. the point bifid, Bract. very narr. reaching beyond the culm



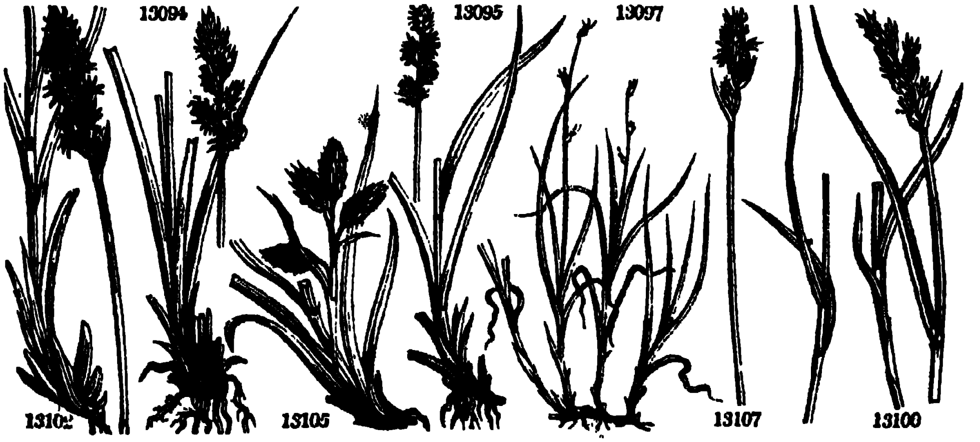
and Miscellaneous Particulars.

Italian painters after him, have put it into the hand of Christ as a sceptre, when he was saluted as a king in mockery by Herod's soldiers. The plant appears to be a native of every part of the world, in ponds, ditches, and by the sides of rivers and brooks.

1946. *Sparganium.* From *σπαργανον*, a band, in reference to the long ribbon-like leaves of the plants. Sparganium ramosum is the commonest species: it has a strong creeping root, and soon fills up a ditch or pond, if suffered to remain unmolested. It is common not only in Europe, but in Barbary, Siberia, and North America.

1947. *Carex.* From the Latin *carere*, to want. The upper spikes of these plants are constantly without seeds, consisting only of male flowers. This numerous family of plants grow mostly in wet swampy grounds,

13094 elongáta *W.*	elongated	ʬ	△	un	1	my.jn	Ap	England	mar.	Sk co	Eng. bot. 1920
13095 cúrta *W.*	white	ʬ	△	un	1	jn	Ap	Britain	pools.	Sk co	Eng. bot. 1386
13096 fœ'nea *W.*	fodder	ʬ	△	un	2	jn	Ap	N. Amer.	1818.	Sk co	
13097 loliácea *W.*	ray-grass-like	ʬ	△	un	2	jn	Ap	Sweden	1810.	Sk co	Sc.ca.t.P.p. f.104
13098 straminea *W.*	slender-stalked	ʬ	△	un	2	jn.jl	Ap	N. Amer.	1803.	Sk co	S.ca.t.Xxx.f.174
13099 multiflóra *W.*	many-flowered	ʬ	△	un	1	my.jn	Ap	N. Amer.	1812.	Sk co	Sc.ca. t. Lll.f.144
13100 teretiúscula *W.*	lesser panicled	ʬ	△	un	2	my.jn	Ap	Britain	bogs.	Sk co	Eng. bot. 1065
13101 paradóxa *W.*	paradoxical	ʬ	△	un	1½	my.jn	Ap	Austria	1823.	Sk co	Host. gra.1. t 57
13102 paniculáta *W.*	greater panicl.	ʬ	△	un	3	jn.jl	Ap	England	bogs.	Sk co	Eng. bot. 1064
13103 appréssa *R. Br.*	close-spiked	ʬ	△	un	2	my.au	Ap	N. S. W.	1802.	Sk co	
13104 bicolor *W.*	two-colored	ʬ	△	un	1½	my.jn	Ap	M. Cenis	1810.	Sk co	S.c. t. Aaaa.f 181
13105 atráta *W.*	black	ʬ	△	un	1½	jn.jl	Ap	Britain	al.me.	Sk co	Eng. bot. 2044
13106 thuringiaca *W.*	Thuringian	ʬ	△	un	1½	my.jn	Ap	Germany	1810.	Sk co	S.ca.t.P.pp. f.155
13107 Buxbaúmii *W*	Buxbaum's	ʬ	△	un	1	my.jn	Ap	Sweden	1821.	Sk co	S.ca. t.X.Gg.f.76
13108 glareósa *W.*	sandy	ʬ	△	un	1	my.jn	Ap	Norway	1816.	Sk co	
13109 álba *W.*	white	ʬ	△	un	1	my.jn	Ap	Austria	1818.	Sk co	Sch.car. t.O.f.55
13110 clandestina *W.*	dwarf silvery	ʬ	△	cu	¼	ap.my	Ap	England	sun.ro.	Sk co	Eng. bot. 2124
13111 digitáta *W.*	fingered	ʬ	△	un	½	my.jn	Ap	England	woods.	Sk co	Eng. bot. 615
13112 plantaginea *W.*	broad-leaved	ʬ	△	un	½	my.jn	Ap	N. Amer.	1805.	Sk co	Sch. car. t.U.f.70
13113 Fraseriána *H. K.*	Fraser's	ʬ	△	or	½	ap.jn	Ap	N. Amer.	1809.	Sk s.p	Bot. mag. 1391
13114 pilulifera *W.*	round-headed	ʬ	△	un	1	ap.jn	Ap	Britain	hea.	Sk co	Eng. bot. 885
13115 lucórum *W. en.*	grove	ʬ	△	un	1½	ap.jn	Ap	N. Amer.	1825.	Sk co	
13116 collina *W.*	hill	ʬ	△	un	1	ap.jn	Ap	Germany	1824.	Sk co	Sch.car. t.F. f.29
13117 ciliáta *W.*	ciliated	ʬ	△	un	1½	ap.jn	Ap	Germany	1812	Sk co	Sch. car. t.I. f.42
13118 præ'cox *W.*	vernal	ʬ	△	un	1	ap	Ap	Britain	dr.pa.	Sk co	Eng. bot. 1099
13119 tomentósa *W.*	downy-fruited	ʬ	△	un	1	jn	Ap	England	mea.	Sk co	Eng. bot. 2046
13120 exténsa *W.*	long-bracted	ʬ	△	un	¾	jn	Ap	Britain	sea co.	Sk co	Eng. bot. 833
13121 fláva *W.*	yellow	ʬ	△	un	1	my.jn	Ap	Britain	bogs.	Sk co	Eng. bot. 1294
13122 Œdéri *E. B.*	Œrder's	ʬ	△	un	½	jn.jl	Ap	England	m.me.	Sk co	Eng. bot. 1773
13123 fúlva *W.*	tawny	ʬ	△	un	¾	jn.jl	Ap	Britain	mar.	Sk co	Eng. bot. 1295
13124 distans *W.*	loose	ʬ	△	un	1½	jn	Ap	Britain	mar.	Sk co	Eng. bot. 1234
13125 binérvis *W.*	green-ribbed	ʬ	△	un	2	jn	Ap	Britain	dr.he.	Sk co	Eng. bot. 1235
13126 saxátilis *W.*	rock	ʬ	△	un	½	jn	Ap	Greenland	1812.	Sk co	S.ca.t.I.&Tt.f.40
13127 púlla *W.*	russet	ʬ	△	un	1	jl	Ap	Scotland	sc.mo.	Sk co	Eng. bot. 2045
13128 ferruginea *W.*	rusty	ʬ	△	un	1	jl	Ap	Austria	1822.	Sk co	Sch.car. t.M.f.48
13129 Mielichhóferi *W.*	loose-spiked	ʬ	△	un	1	jl.au	Ap	Scotland	al.roc.	Sk co	Eng. bot. 2293
13130 umbrósa *W.*	shady	ʬ	△	un	1½	my.jn	Ap	Austria	1810.	Sk co	S.ca. t.Uuu.f.165
13131 pilósa *W.*	hairy	ʬ	△	un	1	my.jn	Ap	Europe	1820.	Sk co	Sch.car.t.M.f.49
13132 granuláris *W.*	grain-seeded	ʬ	△	un	1½	jn.jl	Ap	N. Amer.	1807.	Sk co	S ca. t.Vvv.f.169
13133 panícea *W.*	Pink-leaved	ʬ	△	un	½	my.jl	Ap	Britain	mo.p	Sk co	Eng. bot. 1505
13134 conglobáta *W.*	clustered	ʬ	△	un	1	my.jl	Ap	Hungary	1812.	Sk co	



History, Use, Propagation, Culture,

in bogs, fens, marshes, or in moist woods, where they yield a very coarse grass scarcely touched by cattle. With the exception of two or three species, they are of little use or beauty. Some unfortunately situated husbandmen have recourse to them as cattle fodder, or as thatch or fuel. In Kent, the leaves of the larger

13094 Spikes numerous obl. remotish naked, Fruit acuminate bifid recurved many-nerved longer than glumes
13095 Spikel. ster. at base about 5 rather dist. ellipt. Bracteas very minute, Caps. broadly ov. acum. conv. on one side and nearly plane on the other subobtusang. with 2 teeth at the extremity
13096 Spike androg. comp. Spikelets about 4 male below and close together, Fruit ovate acumin. edged 2-tooth.
13097 Spike androg. comp. Spikel. about 4 male below and close together, Stigmas 2, Fruit elliptical blunt nerved
13098 Spike androg. comp. Spikel. about 5 roundish male below somew. approximated, Stigm. 2, Fr. round. ovate beaked 2-toothed ciliated at edge

* 4. *Spikelets panicled.*

13099 Spikes androg. narrow. panicl. male above obl. blunt, Stig. 2, Fr. ov. acum. with 2 points, Scales ov. mucron.
13100 Spike supradecompound contracted acutish, Spikelets clustered, Fruit spreading gibbous, Culm roundish
13101 Spikes androg. narr. panic. male above, Low. branch. remote, Stig. 2 round. ov. beak. 2-tooth. cil. ser. at base
13102 Spikel. ster. at extrem. thrice comp. and collect. into a panic. spike, Fr. broad. ov. acum. gib. on both sides
13103 Spike decomp. longish, Scales acute, Fruit ovate plano-convex nerved on each side

* 5. *Spikelets racemose..*

13104 Spikes androg. in threes stalked terminal male below erect, Stigmas 2, Fr. obov. blunt, Scales ov. obtuse
13105 Fertile spikes pedunculated ovate pendulous: the terminal one with sterile flowers at the base, Fruit roundish ovate depressed with a short beak bifid at the point

§ 3. *Terminal spikes male: the others androgynous.*

13106 Male spike solitary stalked: androg. male above about 5 ellipt. remote sessile with a leafy bract, Stigm. 3, Fruit roundish 3 cornered downy

§ 4. *Terminal spike androgynous: the others female.*

13107 Spike androg. pedunc. obov. male below: female about 3 remote somewhat stalked, Stigm. 3. Fr. ellipt. 3-cornered blunt slightly 2-toothed
13108 Spike androg. pedunc. obl. male below: female 2 sessile close obl. Stigm. 2, Fr. oblong narrowed with an undivided mouth as long as ovate scale

§ 5. *Spikes of distinct sexes.*

* 1. *Male solitary: female sessile and subsessile.*

† 1. *Scape sheathed, with membranous bractes.*

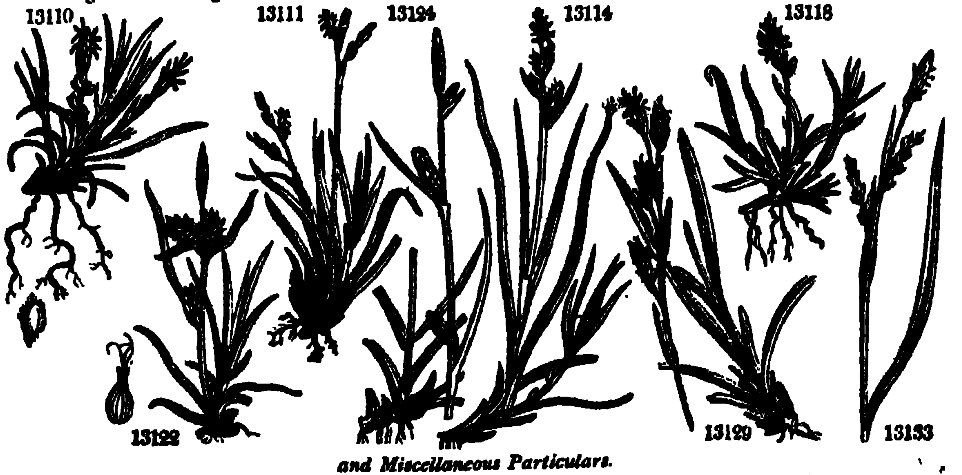
13109 Male spike solit. stalk.: fem. twin stalk. about 5-fl. Stigm. 3, Fr. obov.-glob. furrow. beak. obliq. truncate
13110 Bractes membran. nearly leafless sheath. Fem. spikes remote few-fl. included in sheath, Lvs. channelled
13111 Bractes membranous nearly leafless sheathing, Spikes linear lax erect: male shorter, Leaves flat
13112 Male spike sol. stalk.: fem. 4 dist. stalk. Stig. 3. Fr. ellipt. 3-corner. stalk. smth. short. than obov. cusp. scale
13113 Leaves oblong lanceolate with a white scarious margin, Heads oblong, Scape not longer than leaves

† 2. *Culm leafy.*

13114 Fertile spikes sess. roundish approxim. Scales mucron. Fr. obov.-glob. acute pubesc. Culms weak scabrous
13115 Female spikes 2-3 ellipt. sess. supported by a foliaceous bract, Fruit somewhat downy with a long beak
13116 Male spike solit.: fem. about 2 close ellipt. sess. Stig. 3, Fr. obl. with a short beak downy as long as ov. scale
13117 Male spike solit.: fem. about 2 close obl. sess. Stig. 3. Fr. roundish-obov. downy larg. than obl. blunt scale
13118 Sheaths short scarcely any equal to the flower-stalks, Fertile spikes oblong approximate, Scales elliptico-oblong, Fruit obovate subtriquetrous acute pubescent
13119 Sheaths very short, Female spikes subsessile cylindrical blunt, Glumes elliptical acute, Fruit downy
13120 Fertile spikes subsess obl. Fr. ov. scarcely beaked striated bifid at point, Lvs. very narrow, Culm glabrous
13121 Bracteas long foliaceous, Fert. spikes roundish oval, Fr. obov. with a long recurved beak bifid at the point
13122 Sheaths and peduncles very short, Female spikes roundish, Fruit spreading on each side globose, Beak straight, Culm smoo[illegible]
13123 Bracteas foliaceous, Spikes oblongo-ov. distant rotundo-ov. inflated rostrate bifid at point, Culm scabrous

* 2. *Male spike solitary: upper female sessile and subsessile; lower stalked.*

13124 Fertile spikes oblong erect, Scales mucronate, Fruit ovate somewhat inflated subtriquetrous depressed with rather a short beak bifid at the point
13125 Sheaths long shorter than peduncle, Spikes cylindrical remote somewhat compound, Fruit 2-nerved
13126 Male spike solit.: female twin; lower stalked obl. Stigmas 2, Fruit ellipt. blunt as long as blunt scale
13127 Fertile spikes ov.: the lower one pedunculated, Scales obl. Fruit subglob. apiculate with a short bifid beak
13128 Male spike solitary: female 3 distant; two lower stalked, Stigmas 3, Fr. oblong compressed 3-cornered hispid at edge, Mouth membranous 2-lobed
13129 Fertile spikes 1-3 somewhat drooping, Fruit scarcely longer than the scale lax especially the lower ones ovate with a short beak bifid at the point
13130 Male spike sol. obov.: female about 3 close; 2 lower on long stalks, Stigmas 3, Fruit compress. obov. downy beaked 2-toothed at end
13131 Male spike sol.: female about 3 distant; two lower remote, Stig. 3, Fr. ov. beaked with a membr[illegible] mouth
13132 Male spike sol.: fem. 3 rem.: two lower stalked, Stigmas 3, Fr. glob. ovate nerved ventric. sho[illegible] beaked
13133 Fert. spikes subcylind. with dist. fls. Bract. foliaceous, Fr. subglob. somew. inflated obt. glab entire at point
13134 Male spike sol.: female about 4 remote; lower on a long stalk. the stalks of the others enclosed, Stigm. 3, Fr. globose shining with a short beak 2-toothed at end



and Miscellaneous Particulars.

species are used for tying the vines of hops to the poles; in Italy they are put between the staves of wine casks to make them tight, woven over Florence flasks, or in chair bottoms. The Laplander combs and dresses some species of sedge, as we do flax, and in winter stuffs his shoes and gloves with it, as a defence against the

13135 **rostráta** *W.*	beaked	ψ	△	un	1	my.jl	Ap	N. Amer.	1816.	Sk	co	S.ca.t.Hhh.f.134
13136 **nítida** *W.*	glossy	ψ	△	un	1	my.jn	Ap	Austria	1905.	Sk	co	Host. gra. 1. t.71
13137 **ánceps** *W.*	two-edged	ψ	△	un	1	jl.au	Ap	N. Amer.	1805.	Sk	co	Sc.ca. t.Fff. f.128
13138 **alpéstris** *W.*	Alpine	ψ	△	un	¾	my.jn	Ap	Europe	1804.	Sk	co	Sch.car. t.G. f.35
13139 **cæspitósa** *W.*	tufted bog	ψ	△	un	1½	my.jn	Ap	Britain	bogs.	Sk	co	Eng. bot. 1507
13140 **stricta** *W.*	straight-leaved	ψ	△	un	1	ap.my	Ap	Britain	mar.	Sk	co	Eng. bot. 914
13141 **péndula** *W.*	great-pendulous	ψ	△	un	4	my.jn	Ap	Britain	woods.	Sk	co	Eng. bot. 2315
13142 **rígida** *W.*	rigid	ψ	△	un	½	jn.jl	Ap	Britain	moun.	Sk	co	Eng. bot. 2047
13143 **capilláris** *W.*	capillary	ψ	△	un	½	jl.au	Ap	Britain	sc.mo.	Sk	co	Eng. bot. 2069
13144 **palléscens** *W.*	pale	ψ	△	un	1	ap.jn	Ap	Britain	moi.p.	Sk	co	Eng. bot. 2185
13145 **ustuláta** *W.*	scorch. Alpine	ψ	△	un	½	jn.jl	Ap	Scotland	al.riv.	Sk	co	Eng. bot. 2404
13146 **rariflóra** *E. B.*	loose-flowered	ψ	△	un	½	jn	Ap	Scotland	sc al.	Sk	co	Eng. bot. 2516
13147 **limósa** *W.*	green and gold	ψ	△	un	1½	jn	Ap	Britain	sp.bo.	Sk	co	Eng. bot. 2043
13148 **Pseudo-Cypérus** *W.*	Bastard Cyperus	ψ	△	un	3	jn.jl	Ap	Britain	mar.	Sk	co	Eng. bot. 242
13149 **flexuósa** *W.*	bending	ψ	△	un	2	jn.jl	Ap	N. Amer.	1807.	Sk	co	S.ca. t.Ddd.f.124
13150 **sylvática** *E. B.*	wood	ψ	△	un	3	my.jn	Ap	Britain	woods.	Sk	co	Eng. bot. 995
13151 **júncea** *W. en.*	rushy	ψ	△	un	2	my.jn	Ap	N. Amer.	1820.	Sk	co	
13152 **strigósa** *W.*	loose pendulous	ψ	△	un	2	ap.my	Ap	England	woods.	Sk	co	Eng. bot. 904
13153 **recúrva** *W.*	glaucous Heath	ψ	△	un	1	my.jn	Ap	England	hea.	Sk	co	Eng. bot. 1506
13154 **nútans** *W.*	nodding	ψ	△	un	2	jn.jl	Ap	Austria	1815.	Sk	co	Host. gra. I. t. 83
13155 **acumináta** *W.*	acuminated	ψ	△	un	1½	jn.jl	Ap	Istria	1818.	Sk	co	Host. gra. 1. t.97
13156 **filifórmis** *W.*	slender-leaved	ψ	△	un	2	jn.jl	Ap	Britain	bogs.	Sk	co	Eng. bot. 904
13157 **aquatílis** *W.*	water	ψ	△	un	1½	jn.jl	Ap	Lapland	1813.	Sk	co	
13158 **acúta** *W.*	slender-spiked	ψ	△	un	2	my.jn	Ap	Britain	wat.pl.	Sk	co	Eng. bot. 580
13159 **paludósa** *W.*	lesser common	ψ	△	un	2	my.jn	Ap	Britain	wat.pl.	Sk	co	Eng. bot. 807
13160 **ripária** *W.*	great common	ψ	△	un	2	ap.jn	Ap	Britain	riv.ba.	Sk	co	Eng. bot. 579
13161 **vesicária** *W.*	short-spiked	ψ	△	un	2	my jn	Ap	Britain	mar.	Sk	co	Eng. bot. 779
13162 **ampullácea** *W.*	slender-beaked	ψ	△	un	2	my.jn	Ap	Britain	bogs.	Sk	co	Eng. bot. 780
13163 **secalína** *W.*	rye-like	ψ	△	un	2	my.jn	Ap	Austria	1824.	Sk	co	Schk.car.t.5.f.65
13164 **hordeifórmis** *W.*	Barley-formed	ψ	△	un	2	jn.jl	Ap	France	1805.	Sk	co	S.ca. t.Ddd.f.121
13165 **hírta** *W.*	hairy	ψ	△	un	2	my.jn	Ap	Britain	wat.pl	Sk	co	Eng. bot. 685
13166 **lævigáta** *W.*	smooth-stalked	ψ	△	un	3	my jn	Ap	Britain	bogs.	Sk	co	Eng. bot. 1387
13167 **crinita** *W.*	haired	ψ	△	un	1½	jn.jl	Ap	N. Amer.	1807.	Sk	co	Sc.ca.t.Eee.f.125
13168 **salína** *W.*	salt-marsh	ψ	△	un	1	jn	Ap	Norway	...	Sk	co	
13169 **ambleocárpa** *W.*	short-fruited	ψ	△	un	1½	jn.jl	Ap	Britain	...	Sk	co	Mi.g.62. t 32.f.12
13170 **bulláta** *W.*	blistered	ψ	△	un	1½	jn	Ap	N. Amer.	1811.	Sk	co	S.ca. t.Uuu.f.166
1948. COBRE'SIA. *W.*	Cobresia.					*Cyperaceæ.*		*Sp.* 1.				
13171 **caricína** *W.*	sedge-like	ψ	△	un	½	jl	Ap	Switzerl.	1820.	Sk	co	Sc.ca.t.Rrr.f.161
1949. UNCI'NIA. *Rich.*	Uncinia.					*Cyperaceæ.*		*Sp.* 1—4.				
13172 **phleoídes** *Rich.*	Cat's-tail-like	ψ	△	un	1	jl	Ap	S. Amer.	1821.	Sk	co	Cav. ic. t.464. f.1
1950. ZE'A. *W.*	Indian Corn.					*Gramineæ.*		*Sp.* 2.				
13173 **Maÿs** *W.*	common	ψ	○	ag	2	jn.jl	Ap	America	1562.	S	r.m	Lam. ill. t. 749
13174 **Curagúa** *Mol.*	Valparaiso Cross-corn	ψ	○	ag	1	jn.jl	Ap	Chili	1824.	S	r.m	
1951. CO'IX. *W.*	Job's Tears.					*Gramineæ.*		*Sp.* 2—4.				
13175 **Láchryma** *W.*	common	ψ	⍍	cu	2	jn.jl	Ap	E. Indies	1596.	S	l.p	Bot. mag. 2479
13176 **agréstis** *W.*	round-fruited	ψ	⍍	cu	2	jn.jl	Ap	E. Indies	1812.	S	l.p	Ru. am.6. t.9. f.1

History, Use, Propagation, Culture,

extreme rigour of his climate. C. remota is a very elegant plant. C. paniculata grows in bogs in immense tufts, making a firm support for the heaviest bodies. C. Fraseri is the handsomest species of the genus, resembling at a short distance when in flower, one of the Liliaceæ. C. riparia has leaves half an inch wide, and from one to three feet long; in Italy the leaves are used by the glass-makers to bind their wine flasks; by the chair-makers to bottom chairs; and by the coopers to place in the junctures in the heads of casks, in the same manner as the leaves of the Typha are used in the same country, and the stalks of Scirpus lacustris in England. C. arenaria increases rapidly in loose sand, and is sometimes planted with a view of fixing soils of this description, along with Elymus and Arundo.

1948. *Cobrésia.* Named by Willdenow, after a German nobleman of the name of De Kobres, who is said to have been a great promoter of natural history. The plants resemble Carex.

13135 Male spike sol. Scales obl. with very long beaks : female cylind. 2 ; stalk of the lower exserted, Stigm. 3, Fr. ovate inflated 5-nerved beaked
13136 Male spike sol. : fem. 2 obl. close ; low. stalk. Stigm. 3, Fr. ellipt. glob. shin. bifid at end larg. than ov. scale
13137 Male spike sol. : fem. 3-rem. ; lower stalk. Stigm 3, Fr. ov. nerv. memb. at mouth long than mucron. scale
13138 Male spike sol. : fem. 3 few-fl. 2 close sessile ; lower rad. on a very long stalk, Stigm. 3, Fr. obov. obl 3-cornered with a very short beak
13139 Sheaths none, Bracteas foliaceous auric. at base, Spikes sess. obl. or subcylind. obt. Fruit broadly elliptical
13140 Fertile spikes nearly sessile cylindric. filif. acumin. Fr. ovate somewhat acute plane above on each side, Culm acutely angular straight
13141 Fert. spikes cylind very long droop. Fr. ov. short. acum. bif. at extremity closely imbricated, Leaves broad
13142 Digynous, Sheaths none, Spikes ovate : upper sessile, Leaves somewhat recurved rigid, Fruit compressed

* 3. *Male spike solitary, female all stalked.*

13143 Fert. spikes few-fl. lax drooping, Fr. as long as ovate membranac. decid. scales oblongo-ovate acuminate
13144 Fert. spikes pedunculated oblongo-cylind. subpendul. Bract. subfoliac. Fruit ov.-ellipt. tumid obt. glabrous
13145 Sheaths elongated shorter than the flower-stalk, Fruit elliptical ovate beaked (black) bifid at the point
13146 Fert. spikes narrow obl. very few-fl. lax pendul. Bract. subsetaceous, Scales acute longer and broader than the fruit, Fruit ovate somewhat acumin. striated
13147 Fert. spikes oblongo-ovate pendulous, Bracteas subsetaceous, Scales acute as long as the fruit, Fruit ellipt. rotundate striated shortly mucronate
13148 Fertile spikes upon long footstalks cylind. pendul. Bract very leafy, Scales setaceous, Fruit oblong very much acuminate cloven at the tips striated
13149 Male spike sol. : fem. about 4 remote filiform stalked cernuous, Stigm. 3, Fr. dist. altern. obl. beaked bifid
13150 Fert. spikes filif. rather slender slightly drooping, Fr. broadly ov. much acumin. cleft at point, Lvs. narrow
13151 Male spike solit. : fem. usually twin stalk. filif. Stigm 3, Fr lanc. hisp. scabr. 2-toothed long. than obl. scale
13152 Fert. spikes slend. filif. nearly erect, Fruit ov.-lanc. nerved slightly recurv. loose. imbric. Lvs. rather broad

* 4. *Male spikes more than one.*

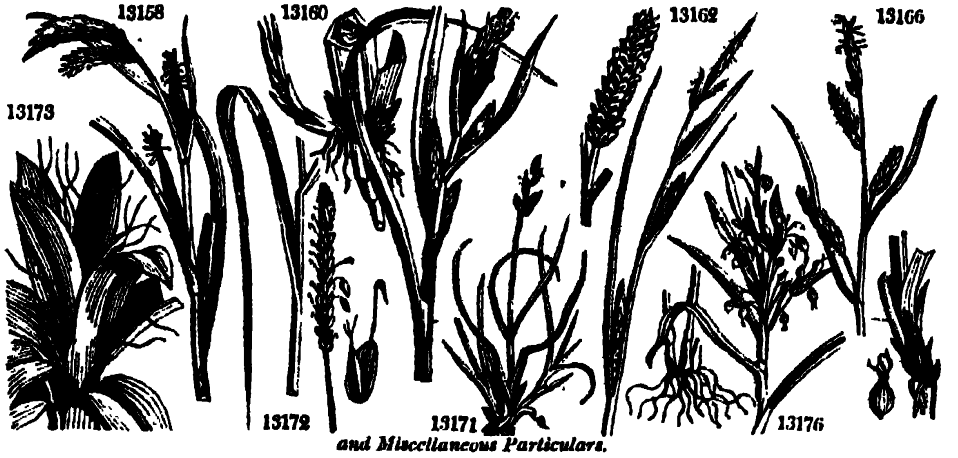
13153 Fertile spikes subcylindrical drooping, Fruit obovato-globose obtuse rather downy entire at the point
13154 Male spikes twin : fem. twin obl. sess. rem. Stigm 3, Fr. ov. nerved forked ventric. larg. than ov. lanc. scale
13155 Male spikes 3 ; fem. twin on short stalks nodd. cylind. Stigmas 3, Fr. ellipt. ventricose with a short ent. beak
13156 Fert. spikes short. peduncul. oblongo-cylind. their cal. subcusp. Fr. ov. short. beak. bif. at point very pubes.
13157 Lvs. subsessile sublin. thickened, Stigmas 2, Fr. ellipt with short beak ent. at end as long as rounded scales
13158 Fert. spikes long cylind. acum. slender erect when in fruit, Fr. oval swelling subacum. entire at point, Culm acutely angular scabrous
13159 Scal. of sterile spike obtuse, Fertile spikes cylind. obtuse, Fruit oblongo-ovate acute bifid at point striated
13160 Foliaceous, Scal. of sterile spike acum. Fertile spikes scarcely peduncul. broadly cylindrical acute, Fruit ovate subacum bifid at the point
13161 Fert. spikes cylind. slightly droop. Scal. lanc. Fr. broadly ovate inflat. subulato-rostrate deeply bifid at point
13162 Fert. spikes cylind. long near erect, Scal. lanc. Fr. crowd. subglob. inflat. setaceo-rost. slightly bif. at point
13163 Male spikes 2 : female 3 obl. remote subsessile, Stigmas 3, Fr. obl. compr. rostr. bifid ciliate serrat. at edge
13164 Male spikes 2 : female 3 obl. remote subsessile ; lower subrad. Stigmas 3, Fr. ovate comp. 2-toothed hairy
13165 Bracteas long foliac. Fertile spikes short cylind. distant their scal. cuspidate, Fr. ov. with long beak hairy
13166 Fert. spikes droop. cylind. all the scal. acum. or mucr. Fr. ov. triang. with rather long acum beak bif. at point
13167 Male spikes twin : fem. 4 dist. stalk. pendul. cylind. Stigm. 2, Fr. round. ellipt ventric. with very short beak
13168 Male spikes 2 : fem. 2 rem. on very long stalks erect obl. Stigm 2, Fruit ellipt. with short beaks ent. at end
13169 Male spikes about 4 : female 2 erect stalked cylind Stigmas 3, Fr. obov. obt. shorter than obl. blunt scale
13170 Male spikes 3 : female 2 cylindr. stalked erect, Stigm. 3, Fr. ov. glob. beaked with 2 forks, Beaks hispid

13171 Spikes 3 or 4 alternate male above

13172 Fruit oblong 3-cornered smooth at edge

13173 Leaves entire
13174 Leaves serrated

13175 Culm half round at top and obtuse, Flowers naked, Fruit ovate
13176 Culm round, Flowers naked, Fruit nearly round



and Miscellaneous Particulars.

1949. *Uncinia.* So called from *ογκος*, a hook, in allusion to the hooked awn, which in the fruit becomes hardened. Plants with the habit of Carex.

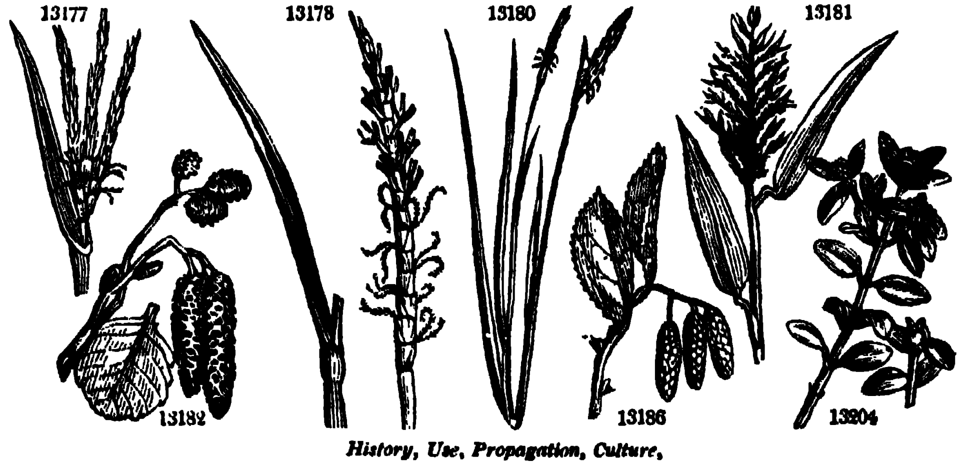
1950. *Zea.* The Greek name of corn of some kind. It is derived from *ζαω*, to live, and applied to this nutritive plant with propriety. The word *Maize* is the denomination of the vegetable among the South Americans. Zea Curagua is the curious Valparaiso corn, to which a sort of religious reputation is attached, on account of the grains, when roasted, splitting regularly into the form of a cross. Of the well known Indian corn, Z. Mays, there are numerous varieties, some of which are sufficiently hardy to thrive in this climate.

1951. *Coix.* A name used by Theophrastus to designate a kind of grass. C. Lachryma, commonly called Job's tears, derives its name from the appearance of its shining pearly fruit, which, when suspended on its slender pedicels, resembles in no inconsiderable degree a falling tear. Tropical grasses, which flower and seed plentifully in rich light soil.

1952. TRIP'SACUM. *W.*	TRIPSACUM.					*Gramineæ.*		*Sp.* 3—4.				
13177 dactyloides *W.*	rough-seeded	ш	△	un	4	au	Ap	Virginia	1640.	D	p.l	Lam. ill. t. 750
13178 monostáchyon *W.*	single-spiked	ш	△	un	2	au	Ap	N. Amer.	1815.	D	p.l	W. hort. ber. t.1
13179 hermaphroditum *W.*	hermaphrodite	ш	⊡	un	2	au.s	Ap	Jamaica	1776.	D	p.l	
1953. HETEROPO'GON. *Rich.*	HETEROPOGON.					*Gramineæ.*		*Sp.* 1—2.				
13180 gláber *Rich.*	smooth	ш	△	un	2	au	Ap	Switzerl.	1800.	D	co	All. ped. t.91. f.4
1954. OLY'RA. *W.*	OLYRA.					*Gramineæ.*		*Sp.* 1—4.				
13181 paniculáta *W.*	broad-leaved	ш	⊠	un	3	jl	Ap	W. Indies	1783.	Sk	s.p	Sl. jam. 1.t.64.f.2

TETRANDRIA.

1955. AL'NUS. *W*	ALDER.					*Amentaceæ.*		*Sp.* 6—9.				
13182 glutinósa *W.*	common	‡		ec	25	mr.ap	Ap	Britain	wat.pl.	L	m.s	Eng. bot. 1508
β laciniáta	*cut-leaved*	‡		or	25	mr.ap	Ap	Britain	...	L	m.s	Willd. arb. 44
13183 oblongáta *W.*	oblong-leaved	‡		or	20	jl	Ap	S. Europe	1730.	L	m.s	
β elliptica	*elliptic-leaved*	‡		or	20	jl	Ap	......	...	L	m.s	
13184 incána *W.*	hoary-leaved	‡		or	20	jn	Ap	Europe	1780.	L	l.p	
β anguláta	*Elm-leaved*	‡		or	20	jn	Ap	......	...	L	l.p	
13185 unduláta *W.*	curl-leaved	‡		or	20	my.jn	Ap	N. Amer.	1782.	L	l.p	
13186 serruláta *W.*	notch-leaved	‡		or	20	mr	Ap	N. Amer.	1769.	L	l.p	Abb. ins. 2. t. 92
13187 cordifólia *Ten.*	heart-leaved	‡		or	20	my.jn	Ap	Naples	1818.	L	co	
1956. BE'TULA. *W.*	BIRCH.					*Amentaceæ.*		*Sp.* 15—19.				
13188 álba *W.*	common	‡		tm	40	ap.jn	Ap	Britain	moi.w.	S	co	Eng. bot. 2198
13189 pen'dula *Roth.*	weeping	‡		or	40	ap.jn	Ap	Britain	woods.	S	co	
13190 populifólia *W.*	Poplar-leaved	‡		or	30	jl	Ap	N. Amer.	1750.	L	co	Mich. arb. 2. t. 2
13191 excélsa *W.*	tall	‡		tm	60	my	Ap	N. Amer.	1767.	S	co	Dend. brit. 95
13192 daúrica *W.*	Daurian	‡		tm	30	jl	Ap	Siberia	1786.	L	co	Pall. ross. 1. t.39
13193 nigra *W.*	red	‡		tm	60	jl.au	Ap	N. Amer.	1736.	L	co	Dend. brit. 153
13194 lanulósa *Mich.*	woolly	‡		tm	70	jl.au	Ap	N. Amer.	1817.	L	co	
13195 papyrácea *W.*	paper	‡		tm	50	jn	Ap	N. Amer.	1750.	L	co	Willd. arb.t.2 f.1
13196 lénta *W.* *carpinifolia* Ehr.	soft	‡		tm	50	jl	Ap	N. Amer.	1759.	L	co	Dend. brit. 144
13197 nána *W.*	smooth-dwarf	♣		cu	8	my	Ap	Scotland	moi h.	L	co	Eng bot. 2326
13198 púmila *W.*	hairy-dwarf	♣		or	6	ap my	Ap	N. Amer.	1762.	L	s.p	Jac. vind.2.t.122
13199 póntica *Hort.*	Pontic	‡		or	12	ap.my	Ap	Turkey	...	L	s.p	Dend. brit. 94
13200 ováta *W.*	ovate	‡		or	15	ap.my	Ap	Hungary	1820.	L	co	Dend. brit. 96
13201 fruticósa *W.*	shrubby	♣		or	6	ap.my	Ap	Siberia	1818.	L	co	Dend brit. 97
13202 pubéscens *Ehr.*	pubescent	‡		or	30	ap.my	Ap	Germany	1812.	L	co	
1957. BUX'US. *W.*	BOX TREE.					*Euphorbiaceæ.*		*Sp.* 3.				
13203 baleárica *W.*	Minorca	♣		or	8	jl	Y.u	Minorca	1780.	C	co	
13204 sempervirens *W.*	common	♣		or	8	ap	Y.u	England	ch.hil.	C	co	Eng. bot. 1341
β angustifólia	*narrow-leaved*	♣		or	8	ap	Y.u	......	...	C	co	
γ suffruticósa	*dwarf*	♣		or	1	...	Y.u	......	...	Sk	co	
13205 chinénsis *Link.*	Chinese	♣	⊔	or	3	n	Y.u	China	1802.	C	co	



History, Use, Propagation, Culture,

1952 *Tripsacum.* So called by Linnæus, from τρίβω, to bruise or crush, in allusion to the purpose to which its grain may be applied. Forage grasses of the West Indies.

1953. *Heteropogon.* From ἑτερος, various, and πωγων, a beard; in allusion to the various kinds of awns with which the flowers are furnished.

1954. *Olyra.* A name under which Homer speaks of a grain which was used as the food of horses, and which has been thought analogous to Barley. The plant now so called is a native of America, and has no resemblance to that of the ancients.

1955. *Alnus.* From the Celtic word *al*, near, and *lan*, the edge of a river, in reference to the places where the species grow. A. glutinosa, *Aulne*, Fr., *Eller*, Ger., and *Alno*, Ital., is a well known timber tree, which will grow in marshy situations. The timber is applied to a variety of purposes, and in general for all works intended to be constantly under water, for turnery and furniture. The bark is used by dyers and tanners; the sap being of a yellow color and very astringent. There is a variety with cut leaves sold by the nurserymen as an ornamental tree, though it is more curious than showy.

1956. *Betula.* *Betu* is the Celtic word for the Birch. *Bouleau*, Fr., *Birchenbaum*, Ger., and *Betulla*, Ital. B. pendula is the most graceful tree of the genus; it grows both in mountainous situations and bogs, from Lapland to the subalpine parts of Italy and Asia. B. lenta, the mahogany birch, mountain mahogany, or cherry birch of Canada, abounds in the middle states of Pennsylvania, New York, and the Jerseys; but disappears altogether in the higher latitudes of the northern states. It is thought a very fit tree for planting in the valleys of the mountainous districts of Britain. Its growth is rapid, and the timber is close grained, beautifully variegated, and well adapted for cabinet work. The leaves, which appear early in spring, possess

13177 Spikes 3 clustered : male above ; female below
13178 Spike solitary : male above ; female below
13179 Spike solitary hermaphrodite flexuose, Spikelets somewhat distant

13180 Culm nearly simple, Sheath of leaves bearded at edge, Spike smooth

13181 Culm branched, Panicle terminal

TETRANDRIA.

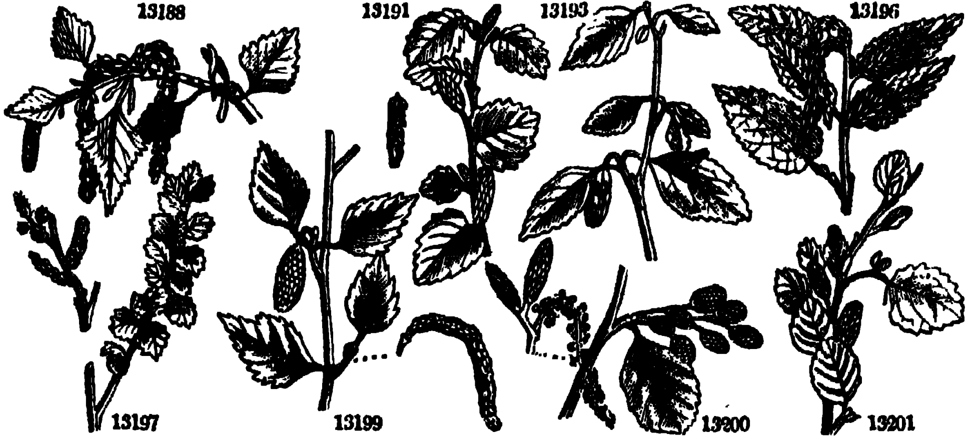
13182 Lvs. roundish cuneiform obt. lobed at margin and serrat. somew. glutin. downy in axils of veins beneath
β Leaves oblong pinnatifid, Segments cut
13183 Leaves oblong bluntish glutinous, Axils of the veins naked
β Leaves elliptical
13184 Leaves oblong acute downy beneath, Axils of the veins naked, Stipules lanceolate
β Leaves green beneath, Petioles green
13185 Lvs. obl. acute rounded at base, Petioles and veins hairy beneath, Axils of veins naked, Stipules ov.-obl.
13186 Leaves obovate acuminate, Veins and axils of veins beneath hairy, Stipules elliptical blunt
13187 Leaves cordate acuminate entire lucid above

13188 Leaves ovato-deltoid acute doubly serrated glabrous
13189 Leaves ovate acuminate cut serrate smooth, Branches scabrous pendulous [smooth
13190 Lvs. delt. with long points unequal. serrat. quite smooth, Scales of cones with lat. lobes roundish, Petioles
13191 Leaves ovate acute serrated, Scales of cones with lat. lobes rounded, Petioles downy shorter than pedunc.
13192 Leaves ovate narr. at base ent. unequally toothed smooth, Scales of cones ciliated : lateral lobes rounded
13193 Lvs. rhomb. ov. doubly serr. acute downy beneath entire at base, Scales of cones vill. with lin. uneq. lobes
13194 Leaves deltoid ovate small, Scales of female catkin densely woolly on the outside
13195 Leaves ovate acuminate doubly serrate, Veins hairy beneath
13196 Leaves cordate-ovate finely serrated acuminate, Scales of cones with blunt equal lobes and elevated veins

13197 Leaves orbicular crenate
13198 Leaves orbicular obovate serrated beneath with the branches downy, Female catkins cylindrical
13199 Petiole downy, Leaves rhomboid cut-toothed obtuse nearly smooth with tufts of hair in the axillæ beneath
13200 Lvs. ovate doubly serr. smooth, Fem. peduncles branched, Scales of cones with equal trunc. nerved lobes
13201 Leaves roundish ovate nearly equally serrate smooth, Female catkins oblong
13202 Lvs. deltoid acute subcord. doubly serr. beneath with branches pubesc. Scales of cones with lateral lobes
[rounded

13203 Leaves oblong, Petioles smooth, Anthers sagittate linear
13204 Leaves ovate, Petioles hairy at edge, Anthers ovate sagittate

13205 Leaves opposite oblong : younger downy ; old ones smooth, Fl. axillary solitary

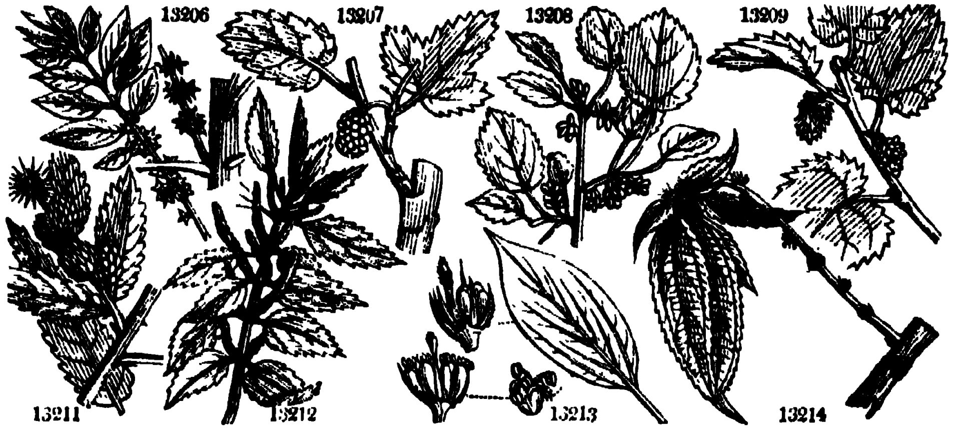


a peculiar fragrance, which they retain after being dried in a stove, affording by infusion an agreeable diluent, superior to some of the common teas of commerce.

B. populifolia and papyracea are elegant rapid growing trees, well deserving culture for their timber. All the species are ornamental, and more or less fragrant ; and B. pumila and nana are pretty little shrubs. Of the Betula papyracea the North American Indians construct their large portable canoes, from which circumstance that species is known by the name of canoe birch. Betula lenta is the most interesting of the genus, on account of the excellence of its wood. It is known by the names of mountain mahogany, black birch, cherry birch, and sweet birch. This last appellation it has from the sweet scent the branchlets give when bruised.

1957. *Buxus.* An alteration of πύξος, its Greek name. B. sempervirens, *Buis*, Fr., *Buchsbaum*, Ger., and *Bosso*, Ital. is one of the most useful of evergreen shrubs ; edgings of the dwarf variety are of universal use in the walled gardens of Europe ; and what is called the tree box is not less valuable as an evergreen shrub, which will grow under the shade and drip of trees. The box is a native of most parts of Europe, from Britain southwards, and is very abundant in different parts of France and Switzerland. It abounds in many countries of Asia, as about Mount Caucasus, in Persia, China, Cochin China, and America. It was formerly very common in England, but has gradually disappeared as agriculture extended. Box-Hill in Surrey, Boxley in Kent, and Boxwell in Gloucestershire, are named from their abounding in this tree. The timber of the box tree is of considerable value. It is sold by weight, and being very hard and smooth, and not apt to warp, is very well adapted to a variety of nicer works. It is as extensively employed now as it appears to have been in the days of Evelyn, " for the turner, engraver, carver, mathematical instrument maker, comb and pipe or

1958. CIC'CA. *W.*	Cicca.					*Euphorbiaceæ.*	*Sp.* 1.					
13206 dísticha *W.*	long-leaved	♀	□	fr	10	...	G	E. Indies	1796.	C	p.l	Jac.schœ.2.t.194
1959. MO'RUS. *W.*	Mulberry.					*Urticeæ.*	*Sp.* 5—7.					
13207 álba *W.*	white	♣		clt	30	jn	Ap	China	1596.	L	co	Schk.han.3.t.290
13208 tatárica *W.*	Tartarian	♣		or	20	jn	Ap	Tartary	1784.	L	co	Pall. ros. 2. t. 52
13209 nigra *W.*	common	♣		fr	30	jn	Ap	Italy	1548.	L	co	Dend. brit. 159
13210 rúbra *W.*	red	♣		or	10	jn.jl	Ap	N. Amer.	1629.	L	r.m	
13211 tinctória *W.*	Fustick-wood	♀	□	or	20	...	Ap	W. Indies	1739.	C	r.m	Plum. ic. t. 204
1960. BŒHME'RIA. *W.*	Bœhmeria.					*Urticeæ.*	*Sp.* 4—13.					
13212 cylíndrica *W.*	cylindrical	⚘	△	un	4	jn.au	G	Virginia	1759.	Sk	s.p	Slo.jam.1.t.82.f.2
13213 rubéscens *W.*	tree	♣	□	or	10	f.my	G	Canaries	1779.	C	s.p	Jac. frag. t. 5. f 1
13214 ramiflóra *W.*	branch-flower.	♣	□	un	8	f.my	G	Jamaica	1823.	C	co	Jacq. amer.t.157
13215 lateriflóra *W.*	side-flowering	⚘	△	un	1½	f.my	G	N. Amer.	1820.	Sk	co	
1961. PI'LEA. *Lindl.*	Pilea.					*Urticeæ.*	*Sp.* 1—3.					
13216 muscósa *Lindl.*	small-leaved	⚘	⍍	pr	½	ap.my	G	W. Indies	1793.	C	co	Lind. coll. 4.
1962. URTI'CA. *W.*	Nettle.					*Urticeæ.*	*Sp.* 32—67.					
13217 pilulífera *W.*	Roman		○	w	1½	jn.au	G	England	rub.	S	co	Eng. bot. 148
13218 baleárica *W.*	Balearic		○	w	1½	jn.jl	G	Balearic I.	1733.	S	co	Blackw. t.321.f.1
13219 convéxa *Hort.*	convex		○	w	1½	jn.jl	G	......	1824.	S	co	
13220 Dodártii *W.*	Dodart's		○	w	1½	jl.au	G	S. Europe	1683.	S	co	
13221 púmila *W.*	dwarf		○	w	½	jl.au	G	N. Amer.	...	S	co	
13222 involucráta *B. M.*	involucred	⚘	□	un	1	jl.au	G	W. Indies	1821.	C	co	Bot. mag. 2481
13223 grandifólia *W.*	great-leaved	⚘	□	un	3	jl.au	G	Jamaica	1793.	C	co	Slo.jam.1.t 83.f.2



History, Use, Propagation, Culture,

flute maker; and the roots for the inlayer, and cabinet maker Of box are made wheels and shivers, pins, pegs for musical instruments, nut-crackers, button-moulds, weavers' shuttles, hollar-sticks, bump-sticks, and dressers for the shoemaker, rulers, rolling-pins, pestles, mall-balls, beetles, tops, tables, chessmen, screws, bobbins for bone-lace, spoons, knife-handles, but especially combs."

The English wood is esteemed inferior to that which comes from the Levant, and the American box is said to be preferable to ours, for most purposes; but the English is superior for the purpose of the engraver.

The ancients made combs of box, and musical instruments to be played upon by the mouth The Romans likewise clipped it into form, for which nothing, says Pliny, is more fit. And Martial mentions clipped box trees in the gardens at Bassus's country-house.

The tree box was second to the yew with us in former times for the purpose of being clipped into the shape of animals, &c.; but the dwarf box stood unrivalled "for bordering up a knot, and was esteemed a marvellous fine ornament to the flower garden."

The branches were in request among our ancestors for decking up houses; they are still seen among other evergreens in churches at Christmas, and in some countries they are borne by attendants at funerals.

Box has been much celebrated as a medicine in the venereal disease, colicks, intermittent fevers, and even madness. According to Dr. Blaine, it is the principal ingredient in Well's Watford Drink, which is given as a preventive to canine madness.

Pliny affirms, that no animal will touch the seed of box. Gmelin relates, that the branches are fatal to the camels that eat them None of our animals seem to touch this tree. Corsican honey was supposed by the ancients to owe its infamy to the bees feeding on the box.

1958. *Cicca* A word of unknown meaning. Cicca disticha thrives in light loamy soil, and is increased by cuttings with their leaves on, planted in sand, and covered with a hand-glass.

1959. *Morus.* *Μορέα* was the Greek name of the Mulberry; it is derived from the Celtic *mor*, which signifies black. *Murier*, Fr, *Maulbeerbaum*, Ger., and *Moro*, Ital M. alba is commonly cultivated in France and other countries for its leaves, to feed silk-worms; though in some parts of Spain and in Persia they are said to prefer the black mulberry. In China, it appears that both sorts are grown for the same purpose. The most valuable variety of M. alba is one grown in Italy, and especially in Lombardy, with vigorous shoots, and much larger leaves than the other. A number of plants of this variety have been lately imported for the purpose of making a plantation in the south of Ireland, with a view to try the growth of silk in that country. In France the white mulberry is grown as pollard elms are in England; in Lombardy it is grown exactly in the same way as we grow willows for baskets, and in similar soil; in China it is also grown in moist loamy soil, and both there and in the East Indies as low bushes, and the plantation rooted up and renewed every three or four years. In many parts of the continent, when the leaves are wanted for the worms, they are stript off the young shoots, which are left naked on the tree; in other places the shoots are cut off, which is not so injurious to the tree, while the points of the shoots, as well as the leaves, are eaten by the worms. The plants are sometimes raised by seed, but more commonly by layers; the Italian variety is frequently grafted on seedling stocks of the common sort, in order to preserve it from degenerating. In the East Indies, the plants are raised from cuttings, three or four of which are placed together where they are finally to remain. (*Encyc. of Agr.* 834.)

The fruit of the white mulberry is white, and less acid than that of the black species.

M. nigra is naturally a stronger tree than the other; the fruit is of a dark blackish red, and of an agreeable aromatic and acid flavor. It has a place in the Materia Medica, as cooling and laxative, allaying thirst, and being grateful in febrile diseases. Young trees, like most others of the Monœcious class, often produce

13206 Leaflets oblong, Racemes lateral

13207 Leaves deeply cordate unequal at the base ovate lobed unequally serrated smoothish
13208 Leaves slightly cordate equal at base ovate or lobed equally serrated smooth
13209 Leaves cordate ovate or lobed unequally toothed scabrous
13210 Leaves cordate ovate acuminate or 3-lobed equally serrate scabrous soft beneath, Fem. spikes cylindrical
13211 Leaves oblong unequal at base, Spines axillary solitary

13212 Leaves opp. ovate-obl. acum. toothed smooth, Fl. diœcious, Male spikes clust. interrupt. : fem. cylindrical
13213 Lvs. altern. obl. narrow. at each end entire, Spikes axill. clustered interruptedly branched, Branches hairy
13214 Lvs. altern. broadly lanc. acum. serrated rugose, Fl. cluster. axill. and lateral monœcious, Males 3-androus
13215 Lvs. altern. ovate-lanceolate acuminate serrated scabrous, Fl. clustered lateral, Stem herbaceous

13216 Leaves ovate acute entire, Stem simple ascending

13217 Leaves opposite ovate or somewhat heart-shaped deeply serrated, Heads of fruit globose
13218 Leaves opposite cordate serrate, Fruit-bearing catkins globose
13219 Leaves opposite entire convex oblong, Fruit-bearing catkins globose
13220 Leaves opposite ovate nearly entire, Heads of fruit globose
13221 Leaves opp. ovate blunt-pointed 3-ribbed serrated, Fl.-stalks somewhat corymbose shorter than footstalks
13222 Leaves opposite ovate rugose obtuse, Flower-stalks in the axillæ of the upper leaves
13223 Leaves opposite ovate pointed copiously serrated, Stipulas elliptical entire glauc. Corymbs much branched axillary longer than the footstalks

and Miscellaneous Particulars.

only male blossoms for many years after they are planted, and yet afterwards become fruitful. As the tree increases in age, it increases in fruitfulness; and in full grown trees the fruit is much larger and better flavored than in young ones. In some of the old gardens near London, there are mulberry trees of a great age, which are very healthy and fruitful. Bradley says, that most of these were planted in the times of James I., who attempted unsuccessfully to set up a silk manufacture in England. The fruit of the mulberry, like that of the strawberry and raspberry, is said not to undergo the acetous fermentation in the stomach, and therefore it may be safely eaten by gouty and rheumatic persons. It is a mistake, however, to suppose that these fruits are lighter than others which have not the same antifermentative qualities.

The mulberry is generally propagated by layers, but it may also be increased by seeds, cuttings, or grafting. It is generally grown as a standard in orchards; but will produce fruit sooner as an espalier or wall tree.

M. rubra has black shoots, rougher leaves than the black mulberry, and a dark reddish fruit, longer than the common sort, and of a very pleasant taste. The tree is cultivated in China for feeding silk-worms, but not so generally as the white mulberry. M. indica is also cultivated for the same purpose. M. tatarica bears pale red berries of an insipid taste, but eaten in Russia fresh, conserved, or dried; a wine and a spirit are also made from them, and the leaves are used for feeding silk-worms.

M. tinctoria is a tall branching tree, with a fine head, smooth leaves, and awl-shaped solitary spines. The whole plant abounds in a slightly glutinous milk of a sulphureous color. The timber is yellow, and a good deal used in dying that color, for which it is chiefly imported into Europe, under the name of Fustick-wood. The berries are sweet and wholesome, but not much eaten, excepting by birds.

All the species of Morus are remarkable for putting out their leaves late; so that when they appear, gardeners may safely set out their greenhouse plants, taking it for granted, that all danger from frost is over.

1960. *Bœhmeria.* Named after George Rudolph Bœhmer, a German botanist, and a member of the academy of Wittemberg. He published several works, besides an academical dissertation upon the cellular tissue of vegetables. Plants of little beauty, and easy cultivation and propagation.

1961. *Pilea.* So called by Mr. Lindley, from πιλος, a cap; in allusion to the nature of one of the divisions of the perianthium. A neat little creeping plant, which makes a good cover to hide the earth of large pots of tropical plants.

1962. *Urtica.* A word formed from *uro*, to burn, in allusion to the stinging properties of most of the species. The English term *Nettle* seems to be the Anglo-Saxon *Netel*, which is itself an alteration of *nædl*, a needle, in the same language. U. dioica grows all over Europe, in Barbary, Siberia, and Japan, in hedges, neglected fields, gardens, and pastures. This species, U. urens, and pilulifera, with one or two others, are furnished with stings. The small projecting bristles or prickles with which they are covered are tubular, and stand on a bag filled with a poisonous juice; they are perforated at the point, and when they are gently pressed vertically, the pressure at once forces the poison to ascend the tube, and enables the point to lodge it in the skin. The tops of the tender shoots of U. dioica are sometimes used as a pot herb early in spring, and they have even been forced for that purpose. A strong decoction of the plant salted, will coagulate milk very readily and without any disagreeable flavor. The stalk is found to have a texture somewhat like that of hemp, and to be capable of being manufactured into cloth, ropes, and paper. The leaves are the only food of the caterpillars of three of our most beautiful butterflies, Atalanta, Paphia, and Urticæ, the principal food of the Io, and the occasional food of the Comma album; the caterpillars also of the urticata and verticalis moths feed on it: a great number of other indiscriminate feeders devour its foliage; and the bases of the leaves in autumn are frequently disfigured by tubercles, which contain small maggots, probably producing Musca Urticæ. As a remedy for the

13224 reticuláta *W.*	net-leaved	♄	□	un	2	jn.au	G	Jamaica	1793.	C	co	Bot. mag. 2567
13225 rúfa *W.*	rusty	♄	□	un	1	jn.s	G	Jamaica	1793.	C	co	
13226 úrens *W.*	small		○	w	1	jn.s	Ap	Britain	clt gr.	C	co	Eng bot. 1236
13227 dioica *W.*	common	⚘	△	w	1½	jl.s	Ap	Britain	wa.gr.	C	co	Eng. bot. 1750
13228 membranácea *W.*	membranous	⚘	△	un	1½	jl.s	Ap	Spain	1820.	C	co	
13229 crassifólia	thick-leaved	♃	□	un	2	jl.s	Ap	S. Amer.	1822.	C	co	
13230 árdens *Link.*	burning		○	un	1	jl.s	Ap	Nepal	1821.	S	co	
13231 cannabina *W.*	Hemp-leaved	⚘	△	un	3	jl.s	Ap	Siberia	1749.	S	co	Am rut 249.t.25
13232 rugósa *W.*	rough-stalked	♃	⊡	un	2	my.jl	Ap	Jamaica	1793.	C	co	
13233 nudicaulis *W.*	naked-stalked	♄	□	un	3	my.jl	Ap	Jamaica	1793.	C	co	
13234 grácilis *W.*	slender-stalked	⚘	△	un	3	jn.au	Ap	Huds. B.	1782.	C	co	
13235 Parietária *W.*	Pellitory-leav'd	♄	□	un	1	jl.s	Ap	Jamaica	1793.	C	co	Slo.jam.1.t.93.f.1
13236 ciliáta *W.*	ciliated	♄	□	un	1	jl.s	Ap	Jamaica	1815.	C	co	
13237 pulchélla *Link.*	pretty	♄	□	un	1½	jl.s	Ap	E. Indies	1820.	C	co	
13238 scabrélla *Rox.*	rough	♄	□	un	1	...	Ap	E. Indies	1815.	C	co	
13239 æ'stuans *W.*	Surinam	♃	⊡	un	1	jn jl	Ap	Surinam	1803.	C	co	Jac.schœ.3 t.388
13240 canadénsis *W.*	Canada	⚘	△	un	3	au.o	Ap	Canada	1656.	C	co	Pl. alm. t. 237.f.2
13241 nivea *W.*	white-leaved	⚘	△⌋	un	2	au.s	Ap	China	1739.	C	p.l	Jac. vind. 2.t.166
13242 baccífera *W.*	berry-bearing	♄	□	un	4	jl.au	Ap	S. Amer.	1793.	Sk	s.p	Bot. rep. 454
13243 caracásana *W.*	Caraccas	♄	□	un	8	jl.au	Ap	Caraccas	1824.	C	co	Jacq. schœ.f.386
13244 caravellána *Schrk.*	long-stalked		○	un	4	jl.au	Ap	S. Amer.	1825.	S	co	
13245 elongáta *Link.*	lengthened		○	un	3	jl au	Ap	Philipp.Is.	1823.	S	co	
13246 diversifólia *Link.*	various-leaved		⊔	un	3	au s	Ap	E. Indies	1823.	S	co	
13247 hórrida *Link.*	horrid		○	un	3	au s	Ap	Nepal	1821.	S	co	
13248 arboréscens *Link.*	arborescent	♄	□	un	8	au.s	Ap	Manilla	1822.	C	co	
1963. PACHYSAN'DRA. *Mi.*	PACHYSANDRA.					*Euphorbiaceæ.*	Sp. 2.					
13249 procúmbens *W.*	trailing	⚘	△	pr	½	mr ap	W	N. Amer.	1800.	D	s.p	Bot. reg. 33
13250 coriácea *Hooker.*	coriaceous	♄	□	pr	4	jn.jl	W	Nepal	1822.	C	co	Hook. ex. fl. 148
1964. DIO'TIS. *W.*	DIOTIS.					*Chenopodeæ.*	Sp. 1.					
13251 ceratoides *W.*	shrubby	☗		or	2	mr	Ap	Siberia	1780.	L	s.p	Jac. ic. 1. t 189
1965. EMPLEU'RUM. *W.*	EMPLEURUM.					*Diosmeæ.*	Sp. 1.					
13252 serrulátum *W.*	Cape	☗	⊔	or	3	jn.jl	Pk	C. G. H	1774.	C	p.l	Exot. bot. 2. t 63
1966. AU'CUBA. *W.*	AUCUBA.					*Loranthеæ.*	Sp 1.					
13253 japonica *W.*	blotch-leaved	☗		or	6	my.jl	Ap	Japan	1783.	C	co	Bot. mag. 1197
1967 LITTOREL'LA. *W.*	SHORE WEED.					*Plantagineæ.*	Sp. 1.					
13254 lacústris *W.*	Plantain-leav'd	⚘	△	pr	¼	jn au	W	Britain	w.sa.p.	S	p.l	Eng. bot. 468
1968. SERPI'CULA. *W.*	SERPICULA.					*Onagrariæ.*	Sp. 1—3.					
13255 répens *W.*	creeping	♣	⌊△⌋	pr	¼	jl.au	W	C. G. H.	1789.	D	p.l	Lam. ill. t. 758
1969. MACLU'RA. *Nutt.*	OSAGE ORANGE.					*Urticeæ.*	Sp. 1.					
13256 aurantiaca *Nutt.*	common	♆		fr	20	...	Ap	N. Amer.	1818.	C	p.l	Lamb.pin. supp.

History, Use, Propagation, Culture,

sting of the nettle, its own juice, or that of the dock, may be applied. The exotic species are of easy culture.

1963. *Pachysandra.* From παχυς, thick, and ανης ανδρος, signifying, in botanical language, a stamen; the stamens are very stout. A plant of easy culture in common light soil, and freely increased by suckers from the roots.

1964. *Diotis.* From δις, double, and ες ωτος, an ear, on account of the two appendages which exist at the base of the florets. A shrub of no great beauty, which thrives in light soil, and is easily increased by layers or cuttings under a hand-glass.

1965. *Empleurum.* From εν, in, and πλευρον, the pleura, or membrane which envelopes the lungs. The seeds of this plant are attached to a sort of coriaceous membrane.

1966. *Aucuba.* The Japanese name of the plant. It is a well known laurel-like evergreen shrub, with leaves mottled with yellow Female flowers only have been produced in the gardens; but according to Kœmpfer,

13224 Leaves opposite elliptic-oblong acute serrated towards the point reticulated beneath, Stipulas ovate-entire, Clusters panicled about the length of the footstalks
13225 Leaves opposite elliptical acute serrated triple-ribbed their veins hairy, Stipulas roundish permanent, Clusters slightly branched, Stem shrubby shaggy with rusty hairs
13226 Leaves opposite elliptical with about 5 ribs, Clusters of flowers nearly simple
13227 Leaves ovate acuminate cordate at the base, Clusters of flowers much branched in pairs mostly diœcious
13228 Leaves opposite broadly ovate somewhat heart-shaped coarsely serrated, Fls. monœcious: male in twin upright unbranched stalked spikes with winged recept.: fem. in nearly sess. spikes shorter than footst.
13229 Leaves opposite ovate obl. acute 3-ribbed serrated thickish reticulated and pale beneath, Corymbs stalked forked longer than the leaves, Flowers tufted
13230 Stem petioles and lvs. covered with rigid dense stimuli, Lvs. ov. acum. doubly serrat. Spikes comp. whorled
13231 Leaves opposite in three deep pinnatifid segments, Clusters cylindrical in pairs erect
13232 Leaves opposite elliptical serrated 3-ribbed rugged, Clusters short dense terminal, Stem simple erect
13233 Lvs. chiefly term. opposite ellipt.-lanc. pointed 3-ribbed entire nearly smth. Stem angul. leafl. below, Cluster lateral diœcious
13234 Leaves opposite ovato-lanc. serr. heart-shaped at the base, Stem and footstalks hispid, Flowers diœcious, Clusters in pairs somewhat branched about as long as the footstalks
13235 Leaves opposite ovato-lanc. entire, Stem much branched, Flowers diœcious
13236 Leaves opposite ellipt. 3-ribbed crenate fringed acute at each end entire at the base, Stem divaricated, Flowers aggregate on axillary stalks about the length of the footstalks
13237 Leaves long lanc. very rugose: glabrous above; beneath having a fine white down
13238 Stem downy roughish, Lvs. on long stalks ov. acute crenat. downy roughish 3-nerv Stip. lanc. acute scar.
13239 Lvs alternate ov. serrat. minutely heart-shap. at the base, Clusters axill. forked, Fruit in orbicular corymbs
13240 Lvs. alternate ovate somewhat hairy serrated, Stipulas obtuse, Clusters axill. compound spreading shorter than the leaves: the lower ones male sessile; upper female stalked
13241 Leaves alternate roundish-ovate pointed toothed 3-ribbed snow white and downy beneath, Clusters axill. repeatedly compound, Fl fasciculate
13242 Leaves alternate heart-shaped toothed prickly as well as the shrubby stem, Calyx of the fruit pulpy
13243 Leaves altern. heart-shaped acutely crenate rough above soft and downy beneath, Panicles lateral leafless forked divaricated, Flowers capitate diœcious, Stem arboreous
13244 Leaves on long stalks cordate acuminate acutely serrated stinging, Spikes panicled
13245 Leaves stalked cordate acuminate serrated stinging, Racemes axillary
13246 Leaves cordate entire and 3-lobed coarsely tooth-serrated, Petioles and stem with long strigose prickles
13247 Stem with very long stimuli, Leaves pinnatifid with finely toothed segments, Spikes axillary compound
13248 Stem downy, Leaves on long stalks ovate-lanceolate acuminate subcrenate rough above soft beneath

13249 Stem procumbent, Leaves short oval crenate toothed above, Calyx minutely ciliated
13250 Leaves ovate lanceolate acuminated nerved

13251 Leaves lanceolate downy, Female flowers woolly

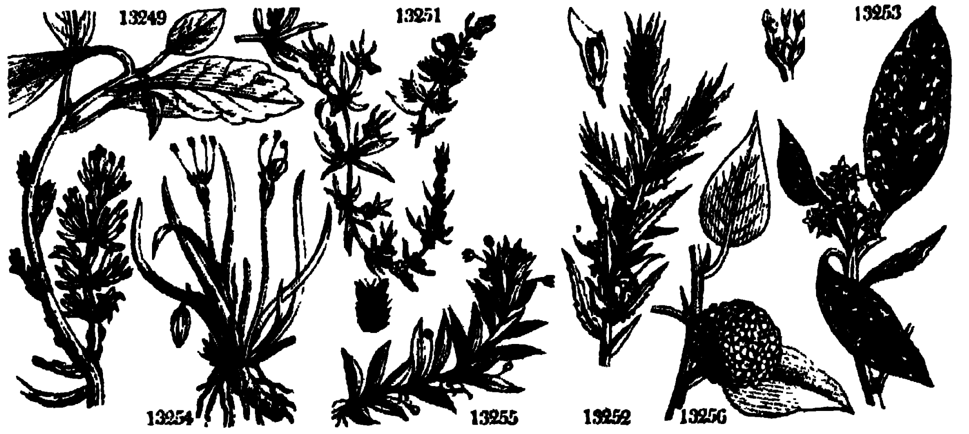
13252 Leaves lanceolate ensate crenate smooth, Capsules 1-celled

13253 The only species

13254 The only species

13255 Flowers tetrandrous, Leaves alternate linear lanceolate entire rough

13256 A small lactescent tree with alternate entire leaves and spiny branches



and Miscellaneous Particulars.

the fruit is a red oblong drupe, like a laurel berry, with a white sweetish pulp, and a kernel with a bitter taste.

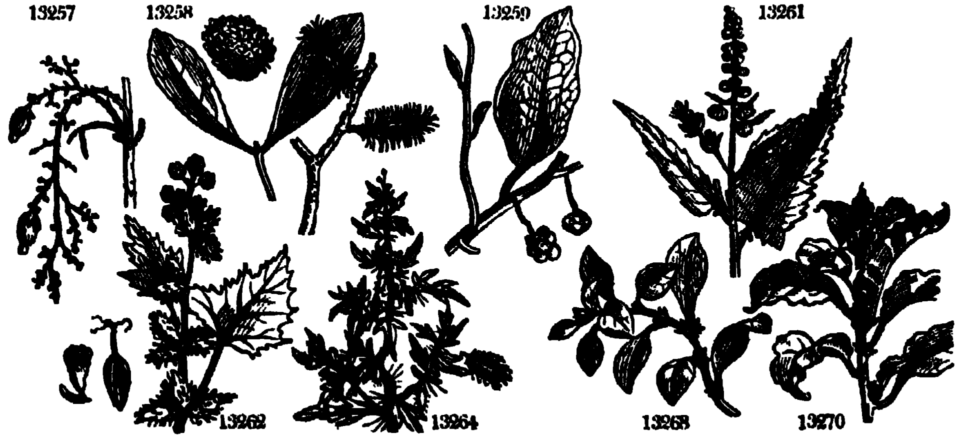
1967. *Littorella.* From *littus*, the shore, in allusion to the places where it grows. A pretty little delicate plant, with long tremulous white stamens.

1968. *Serpicula.* From *serpo*, to creep, on account of the habits of the species.

1969. *Maclura.* Dedicated by Nuttall, to William Maclure, Esq. of the United States, a philosopher, whose devotion to natural history, and particularly to the geology of North America, has scarcely been exceeded by Ramond or Saussure in Europe. A spreading deciduous tree, about twenty or thirty feet high, with a yellow axillary berry the size of an orange, but not so succulent, and said to be as agreeable when fully ripe. It was originally found by Hunter and Dunbar, on the banks of the Little Missouri or Washita river, also near Natchitoches, and upon the banks of the Arkansa.

PENTANDRIA.

1970.	EXOCAR'PUS. *Lab.*	EXOCARPUS.					*Coniferæ.*		*Sp.* 1.				
13257	cupressifórmis *Lab.*	Cypress-like	♀	⊔	tm	40	...	Ap	V. Di. L	1824.	C	p.l	Lab.voyage.t.14
1971.	NEPHE'LIUM. *W.*	RAMBUTAN.					*Sapindaceæ.*		*Sp.* 1.				
13258	lappáceum *W.*	Bur-seeded	♀	□	fr	20	...	G	E. Indies	1809.	C	s.p	Lam. ill. t. 764
1972.	SCHIZAN'DRA. *W.*	SCHIZANDRA.					*Menispermeæ.*		*Sp.* 1.				
13259	coccinea *W.*	scarlet-flower'd	⌇	⊔	or		jn.jl	Sc	N. Amer.	1806.	L	s.p	Bot. mag. 1413
1973.	FRANZE'RIA. *Cav.*	FRANZERIA.					....		*Sp.* 2—4.				
13260	artemisioides *W.*	Mugwort-leav.	☗	⊔	un	6	jl.s	G	Peru	1759.	C	p.l	W. hort. ber. 2
13261	ambrosioides *W.*	Ambrosia-leav.	☗	⊔	un	4	jl.s	G	Mexico	1796.	C	p.l	Cav. ic. 2. t. 200
1974.	XAN'THIUM. *W.*	XANTHIUM.					....		*Sp.* 4—5.				
13262	Strumárium *W.*	Small Burdock		○	un	3	jl.s	G	England dungh.		S	co	Eng. bot. 2544
13263	orientále *W.*	oriental		○	un	4	jl.s	G	China	1685.	S	co	Sch.hand.3.t.291
13264	spinósum *W.*	spiny		○	un	3	jl.s	G	S. Europe	1713.	S	co	Herm.parad.246
13265	echinátum *W.*	hedgehog		○	un	3	jl.s	G	......	...	S	co	Co.got.1784 c.ic.
1975.	AMARAN'TUS. *W.*	AMARANTH.					*Amarantaceæ.*		*Sp.* 37—45.				
13266	tenuifólius *W.*	fine-leaved		○	un	1	jl.s	G	E. Indies	1801.	S	co	
13267	angustifólius *W.*	narrow-leaved		○	un	1½	jl.s	G	Levant	1723.	S	co	
13268	álbus *W.*	white		○	un	1½	jl.s	G	N. Amer.	1778.	S	co	W. ama.9.t.1.f.2
13269	græcizans *W.*	Pellitory-leaved		○	un	1½	jl.s	G	N. Amer.	1759.	S	co	W. ama.8.t.4.f.7
13270	melanchólicus *W.*	melancholy		○	or	1½	jn.s	Pu	E. Indies	1731.	S	co	W.am.15.t.9.f.18
13271	tricolor *W.*	three-colored		⊡	or	2	jn.s	R.Y	E. Indies	1548.	S	r.m	Kn. th. 2.t.A.3.6
13272	bicolor *W.*	two-colored		○	or	1½	jl.s	R.Y	E. Indies	1802.	S	r.m	
13273	polýgamus *W.*	hermaphrodite		○	un	2	jl.s	G	E. Indies	1780.	S	co	Rum.amb.5.t.82
13274	gangéticus *W.*	oval-spiked		○	un	2	jl.s	G	E. Indies	1778.	S	co	W.am.16.t.6.f.11
13275	mangostánus *W.*	rhomb-leaved		○	un	2	jl.s	G	E. Indies	1801.	S	co	W. amar.13.t.12
13276	polystáchyus *W.*	many-spiked		○	un	½	jl.s	G	E. Indies	1816.	S	co	
13277	tristis *W.*	round-headed		○	un	2	jn.au	Pu	China	1759.	S	co	W.am.21.t.5.f.10
13278	inamœ'nus *W.*	unpleasant		○	un	2	jn.au	G	Japan,	1820.	S	co	Hout. pfl.t.72.f.1
13279	incom'tus *W. en. s.*	shabby		○	un	2	jn.au	G	......	1823.	S	co	
13280	lividus *W.*	livid		○	un	5	jl.s	R	N. Amer.	1759.	S	co	W. am. 20.t.1.f.1
13281	oleráceus *W.*	eatable		○	clt	6	jl.au	Pa.R	E. Indies	1764.	S	co	W. am. 17.t.5.f.9
13282	bullátus *Besser.*	blistered		○	un	4	jl.au	G	......	1822.	S	co	
13283	Blitum *W.*	wild	⁎	○	un	2	jn.au	G	England dungh.		S	co	Eng. bot. 2212
13284	prostrátus *W.*	trailing	⁎	○	un	2	jl.s	G	France	1739.	S	co	
13285	spicátus *P. S.*	spiked		○	un	3	jl.s	G	Europe	...	S	co	
13286	viridis *W.*	green		○	un	3	au.s	G	Brazil	1768.	S	co	W.am.18.t.8.f.16
13287	polygonoides *W.*	spotted-leaved	⁎	○	un	1½	jl.au	G	Jamaica	1778.	S	co	W.am.11.t.6.f.12
13288	scándens *W.*	climbing	‡	○	un	2	jl.au	G	America	1796.	S	co	
13289	defléxus *W.*	bending	⁎	○	un	1	jl.au	G	......	1805.	S	co	W. a.10.t.10.f.20
13290	caulifiórus *Link.*	stem-flowering		○	un	4	jn.s	G	Nepal	1821.	S	co	
13291	hýbridus *W.*	clustered		○	un	4	jn.s	G	N. Amer.	1656.	S	co	W.am.26.t.9.f.17
13292	strictus *W.*	upright		○	un	2	jl.s	G	......	1793.	S	co	W. am.27.t.3.f.5
13293	paniculátus *W.*	panicled		○	or	6	jl.s	G	N. Amer.	1798.	S	co	W. am.32.t.2.f.4
13294	sanguineus *W.*	spreading		○	or	3	jl.s	R	Bahama I.	1775.	S	co	W. am. 31.t.2.f.3
13295	retrofléxus *W.*	hairy		○	un	2	jl.s	G	Pensylva.	1759.	S	co	W. a 33.t.11.f.21
13296	læ'tus *W.*	blunt-leaved		○	un	2	jl.s	R	......	1799.	S	co	W.am.28.t.8.f.15
13297	flávus *W.*	pale		○	or	4	jl.s	L.Y	India	1759.	S	co	W. am. 35.t.3.f.6
13298	chlorostáchys *W.*	nodding		○	un	3	jl.s	G	......	1796.	S	co	W. a. 34.t.10.f.19
13299	hypochondriacus *W.*	Prince's Feather		○	or	5	jl.s	D.R	Virginia	1684.	S	co	
13300	cruéntus *W.*	various-leaved		○	or	3	jn.au	D.R	China	1728.	S	r.m	
13301	hécticus *W.*	oval-leaved		○	or	3	au	Pk	......	1796.	S	co	W.am.25.t.7.f.13
13302	caudátus *W.*	Love lies bleeding		○	or	4	au.s	R	E. Indies	1596.	S	co	
	β máximus	*tree*		○	or	6	au.s	R	......	1820.	S	co	



History, Use, Propagation, Culture.

1970. *Exocarpus.* So called from ἐξω, outside, and καρπος, fruit, because the nut appears to be seated on the outside of the pericarp, on account of the great receptacle on which it is placed.

1971. *Nephelium.* According to Dodoens, *Nephelion* was a name anciently given to the Burdock. The modern plant bears bristly fruit like the involucrum of the Burdock. It is an excellent fruit, known in the islands of the Indian Archipelago by the name of Rambutan; grows in rich light loam, and is struck in pots of sand under a glass.

1972. *Schizandra.* From σχιζω, to cut, and ανηρ, a stamen; its stamens are split. A handsome plant, which grows in light loam and peat, and ripened cuttings root in sand under a hand-glass.

PENTANDRIA.

13257 The only species

13258 Leaves alternate pinnated, Racemes erect shorter than leaves

13259 Leaves lanceolate oval acute at each end end, rarely somewhat toothed

13260 Leaves bipinnatifid toothed, Petioles winged
13261 Leaves ovate-lanceolate cordate toothed, Petioles with an appendage

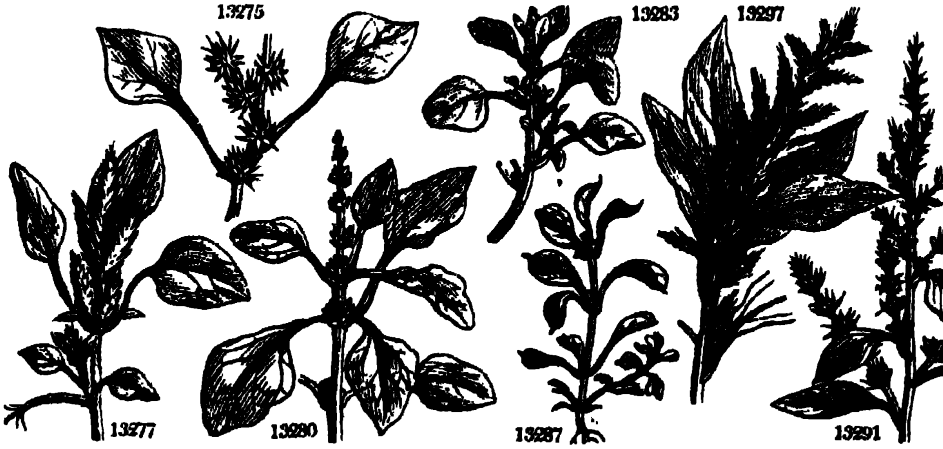
13262 Stem unarmed, Leaves cordate 3-nerved
13263 Stem unarmed, Leaves cuneiform ovate somewhat 3-lobed
13264 Spines ternate, Leaves 3-lobed
13265 Stem unarmed, Fruit oval aculeate, Prickles hooked echinate at base

1. *Triandrous.*

13266 Clusters axillary, Leaves linear-lanceolate cuneate retuse, Stem branched diffuse
13267 Clusters axillary, Leaves linear-lanceolate acute mucronate, Stem branched erect
13268 Clusters axillary, Leaves obovate retuse, Stem square simple
13269 Clusters axillary, Flowers trifid, Leaves obovate emarginate, Stem roundish branched
13270 Clusters axillary stalked roundish, Leaves ovate-lanceolate colored
13271 Clusters sessile, Leaves oblong lanceolate colored
13272 Clusters sessile capitate, Leaves ovate acuminate blunt colored
13273 Clusters in short spikes, Cal. and bract. with hooked bristles, Leaves oblong lanceolate emarginate
13274 Clusters shortly spiked ovate, Leaves ovate lanceolate emarginate
13275 Clusters somewhat spiked axillary solitary, Leaves rhomboid roundish
13276 Clusters spiked, Spikes axillary and terminal, Leaves ovate-lanceolate emarginate
13277 Clusters spiked loosely, Leaves subcordate ovate emarginate shorter than petiole
13278 Clusters somewhat spiked and 3-leaved: axillary in pairs, Leaves rhomboid lanceolate
13279 Clusters spiked, Leaves rhomboid-ovate acute
13280 Clusters somewhat spiked rounded, Leaves elliptical retuse, Stem erect
13281 Clusters axillary branched, Leaves rugose oblong very blunt emarginate
13282 Leaves subrhomboid acute repand bellate, Spikes terminal, Sepals mucronate pungent
13283 Clusters somewhat spiked, Flowers 3-leaved, Leaves ovate retuse, Stem diffuse
13284 Clusters spiked, Flowers 3-leaved, Leaves rhomb.-ov. bluntish retuse, Stem prostrate branched
13285 Clusters spiked terminal, Leaves ovate-oblong, Stem erect somewhat branched
13286 Clusters axillary twin triandrous, Male flowers 3-leaved, Leaves elliptical emarginate wavy at edge
13287 Clusters 3-leaved, Female flowers funnel-shaped, Leaves rhomboid ovate emarginate
13288 Leaves ovate, Spikes interrupted compound, Spikelets inflexed, Stem weak
13289 Spike very short few-fl. Leaves rhomboid lanceolate, Capsules not dehiscent

2. *Pentandrous.*

13290 Leaves oval acute somewhat wavy toothed, Clusters axillary cymose
13291 Raceme decompound clustered erect, Leaves ovate-lanceolate
13292 Raceme compound erect straight, Leaves ovate concave
13293 Racemes supradecompound, Branches spreading pubescent, Leaves ovate-lanceolate
13294 Racemes supradecompound erect, Branches spreading smooth, Leaves oblong acute
13295 Racemes supradecompound erect clustered, Branches downy, Leaves ovate wavy
13296 Racemes compound erect, Leaves ovate blunt mucronate
13297 Racemes compound nodding, Leaves ovate lanceolate
13298 Racemes compound nodding, Leaves lanceolate
13299 Racemes compound erect clustered, Leaves oblong lanceolate mucronate
13300 Racemes decompound naked spreading, Leaves lanceolate ovate
13301 Racemes simply spiked, Flowers axillary clustered, Leaves ovate acute
13302 Racemes decompound pendulous, Leaves lanceolate ovate, Stem nodding



and Miscellaneous Particulars.

1973. *Franseria.* A genus dedicated by Cavanilles to Antony Franser, a botanical physician, whose merits are forgotten. Cuttings root in loam and peat under a hand-glass.

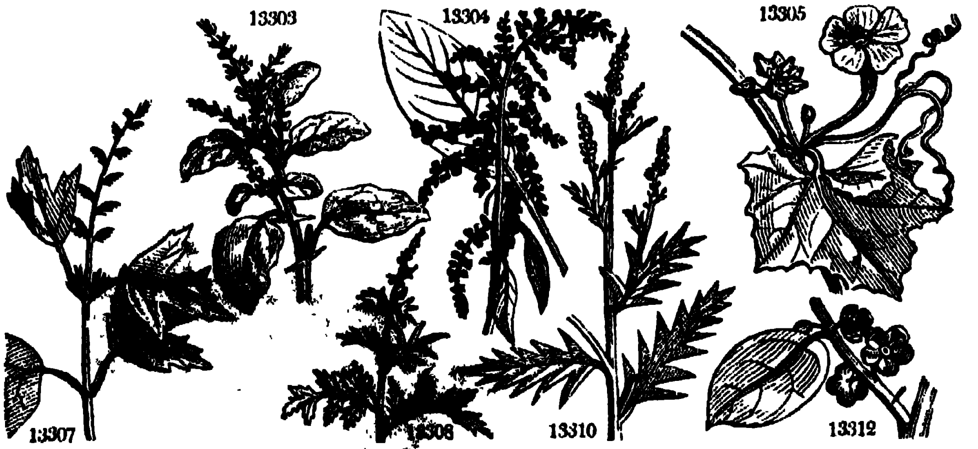
1974. *Xanthium.* From ξανθος, yellow, a color which it is asserted by Dioscorides, *lib.* 4. *cap.* 133, that an infusion of this plant communicates to the hair. Weeds of little beauty and easy culture.

1975. *Amaranthus.* From α, privative, and μαραινω, to wither, because the flowers of most of the species retain their bright colors when dead. Some of the species are very ornamental, and most of them might probably be used as spinage, as some sorts are in the East. A. polygamus is used in this way in Guiana and China, and A. oleraceus, tristis, and viridis, in India. A. melancholicus and tricolor are popular tender

13303 spinósus *W.*	prickly		○	un	2	jl.s	G	India	1683.	S	co	W.am.38. t.4. f.8
13304 speciósus *B. M.*	shewy		○	or	6	jl.au	R	Nepal	1819.	S	co	Bot. mag. 2227
1976. LUF'FA. *Cav.*	Luffa.					*Cucurbitaceæ.*		*Sp.* 1—2.				
13305 fœ'tida *Cav.*	stinking	✶	○|	or	12	jn.o		India	1812.	S	co	Bot. mag. 1638
1977. AMBRO'SIA. *W.*	Ambrosia.					....		*Sp.* 6—10.				
13306 integrifólia *W.*	entire-leaved		○	un	3	jl.s	G	N. Amer.	1816.	S	co	
13307 trífida *W.*	trifid-leaved		○	un	6	jl.s	G	N. Amer.	1699.	S	co	Moris. s.6. t.1. f.4
13308 elátior *W.*	tall		○	un	8	jl.au	G	N. Amer.	1696.	S	co	Herm. lugd. t.35
13309 artemisifólia *W.*	Mugwort-leav.		○	un	5	jl.au	G	N. Amer.	1759.	S	co	
13310 paniculáta *W.*	panicled		○	un	3	jl.s	G	N. Amer.	1811.	S	co	Plu.alm. t.10. f.5
13311 marítima *W.*	sea		○	un	3	jl.au	G	Italy	1570.	S	co	Sch.hand.3.t.292
1978. SECURINE'GA. *W.*	Otaheite Myrtle.					*Euphorbiaceæ.*		*Sp.* 1—2.				
13312 nítida *W.*	shining-leaved	♀	☐	tm	40	jn.jl	W	Mauritius	1793.	C	co	Lindl. coll. 9

HEXANDRIA.

1979. ZIZA'NIA. *W.*	Zizania.					*Gramineæ.*		*Sp.* 1—5.				
13313 aquática *H. K.*	Canada Rice	⚘	○	ec	6	jl.s	G	N. Amer.	1790.	S	co	Lin. trans.7. t.13
1980. PHA'RUS. *W.*	Pharus.					*Gramineæ.*		*Sp.* 1—3.				
13314 latifólius *W.*	broad-leaved	⚘	⊠	or	6	jl.au	G	Jamaica	1793.	S	r.m	Br. jam. t. 38. f.3
1981. GUETTAR'DA. *W.*	Guettarda.					*Rubiaceæ.*		*Sp.* 2—17.				
13315 speciósa *W.*	great-flowered	♀	☐	spl	30	...	Sc	E. Indies	1771.	S	p.l	
13316 rugósa *W.*	rough-leaved	‡	☐	or	20	...	...	W. Indies	1793.	S	r.m	
1982. SA'GUS. *W.*	Sago Palm.					*Palmæ.*		*Sp.* 3—4.				
13317 Rúmphii *W.*	Rumphius's	‡	☐	clt	50	...	G	E. Indies	1800.	Sk	r.m	Ru.am.1. t.17, 18
13318 Rúffia *W.*	turbinate	‡	☐	or	60	...	G	Madagasc.	1820.	S	r.m	
13319 vinífera *Hort.*	prickly	‡	☐	or	50	...	G	Guinea	1820.	S	r.m	Bea. fl. d'Oware
1983. CO'COS. *W.*	Cocoa-Nut-Tree.					*Palmæ.*		*Sp.* 3—11.				
13320 nucífera *W.*	common	‡	☐	clt	50	...	Pa.G	E. Indies	1690.	S	r.m	Roxb. cor. 1. t.73
13321 aculeáta *W.*	prickly	‡	☐	clt	50	...	Pa.G	W. Indies	1796.	S	r.m	Jac.am.278.t 169
13322 fusifórmis *W.*	Great Macaw-tree	‡	☐	clt	30	...	Pa.G	Jamaica	1731.	S	r.m	



History, Use, Propagation, Culture,

annuals, and A. sanguineus and caudatus common border flowers; like all the species, they are of easy culture in light rich soil. Most of the species are very prolific in seeds, which preserve their germinating quality several years.

1976. *Luffa.* Its name in Arabic is *louff*, according to Forskahl. A curious kind of gourd, not often seen on account of its offensive odor. It is cultivated in Arabia and China. It climbs up the Palm trees, covering and elegantly adorning their trunks. The fruit when young is pickled, like the Mango; but Europeans think it has a disagreeable taste, and is not very wholesome. L. Charantia has a fruit with a yellowish skin, but very red flesh, and when ripe, it bursts elastically. Culture as in Cucumis.

1977. *Ambrosia.* A poetical name. *Ambrosia* is the name of the food of the heathen divinities, as nectar was their beverage; of the former, the odor was delightful, whence its name has been applied to an herb, the leaves of which, when bruised, emit a grateful scent. Weedy plants of no beauty.

1978. *Securinega.* From *securis*, a hatchet. The name was given by Commerson, because the wood was so hard as to be capable of being manufactured into cutting instruments. It grows and flowers freely in loam and peat, and cuttings strike in sand under a hand-glass.

1979. *Zizania.* One of the Greek names of the rye-grass was *ζιζανιον*; according to Golius, the same plant was called by the Arabs *Zoàn*. The modern plant has no relation to the ancient, being a native of America, where it is called Canada rice. This plant has been acclimated in Middlesex and Ross-shire; it grows on the margins of ponds, and is exceedingly prolific of bland farinaceous seeds, which afford a very good meal. It abounds in all the shallow streams of North West America, where its seeds contribute essentially to the support of the wandering tribes of Indians, and feed immense flocks of wild swans, geese, and other water fowl. Pinkerton says, this plant seems intended by nature to become the bread corn of the north.

1980. *Pharus.* From *φαρος*, a covering. Brown gave this name to the plants, because their long broad leaves are employed as wrappers for various purposes by the natives of Jamaica. Fine stove grasses.

1981. *Guettarda.* Etienne Guettard was a French botanist, who published in 1747, a catalogue of the plants growing in the vicinity of Estampes. Splendid plants, which grow in loam, peat, and sand; and are increased by cuttings in sand in a moist heat and covered.

1982. *Sagus.* So named in allusion to the nutritive properties of the substance obtained from it. From this palm is produced the Sago of the shops. The wood is full of white pith, like that of elder; the pith is taken out, bruised in a mortar, and then put into a cloth or strainer, held over a trough, and water being poured in, the pith is washed through the cloth into the trough; the water being then drawn off, the sago is taken out and dried for use or transportation. The fruit is eaten by the Japanese, but the tree is chiefly esteemed for its highly nutritive pith.

1983. *Cocos.* Linnæus regards this name as of Greek origin. In that language, *κουκος* means a kind of fruit, but it does not appear that there was any relation between that and the modern cocoa nut. D'Herbelot

13303 Racemes pentandrous terminal compound, Axillæ spiny
13304 Clusters densely spiked somewhat whorled, Spikes decompound erect colored, Lvs. obl. ellipt. red beneath

13305 Leaves cordate 5-lobed, Flowers large, Gourd a span long

13306 Leaves ovate sessile acuminate serrate ciliated at base
13307 Leaves 3-lobed serrated
13308 Leaves bipinnatifid smoothish, Petioles with long ciliæ, Racemes terminal panicled
13309 Leaves bipinnatifid hoary beneath : upper pinnatifid, Racemes 3 terminal
13310 Leaves smooth bipinnatifid : upper pinnatifid, Racemes terminal solitary, Branches fastigiate
13311 Leaves bipinnatifid blunt hoary beneath, Racemes terminal solitary, Branches villous

13312 Leaves alternate ovate, Flowers axillary clustered

HEXANDRIA.

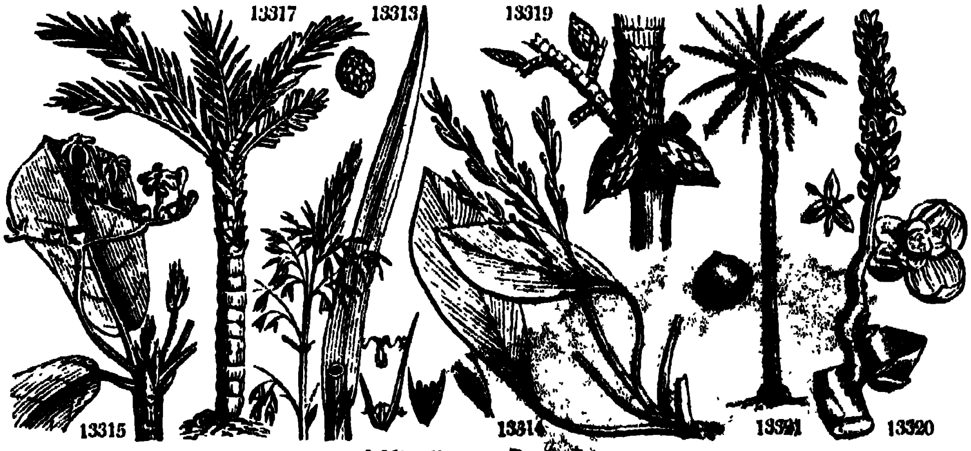
13313 Panicle effuse, Glumes aristate : male and female mixed

13314 Panicle branched, Glumes awnless smooth, Leaves ovate-lanceolate

13315 Leaves obovate acute downy beneath, Flowers 7-androus 7-fid
13316 Leaves subcordate ovate acute scabrous downy beneath, Flowers hexandrous

13317 Branchlets of the spadix smooth
13318 Branchlets of the spadix annular
13319 Pinnæ spinulose, Fruit oblong furrowed

13320 Unarmed, Fronds pinnated, Leaflets replicate ensiform
13321 Caudex cylindrical prickly upwards, Fronds pinnated prickly
13322 Aculeate spiny, Caudex fusiform, Fronds pinnated, Stems and spathes spiny



and Miscellaneous Particulars.

says, (*Bibl. Or.* 278.) that in India the fruit is called *cosi*, whence the Turkish name *coz*, for a nut: but this requires confirmation. In Malabar it is called *tenga*, in the Moluccas *calappa*, and by the Brahmins *medo*. C. nucifera is a native of, and cultivated in, most places within the tropics. The trees grow to a great height, with a straight trunk, and, like almost every species of the Palm tribe, without branches. The leaves are from twelve to fifteen feet long; the flowers come out round the top of the trunk in large clusters, inclosed in a sheath, and the nuts succeed them, commonly ten or twelve together.

There are few trees more extensively or variously useful. The leaves are employed as thatch to cover houses, and to make mats either for sitting or lying upon. The leaf, when reduced to fine fibres, is the material of which a beautiful and costly carpeting is fabricated for those in the higher ranks; the coarse fibres are made into brooms. After these useful materials are taken from this leaf the stem still remains, which is about the thickness of the ankle, and furnishes firewood.

The wood of this palm, when fresh cut, is spongy; but becomes hard after being seasoned, and assumes a dark brown color. On the top of the tree a large shoot is produced, which, when boiled, resembles brocoli, but is said to be of a more delicate taste; and though much liked, is seldom used by the natives, because on cutting it off, the pith is exposed, and the tree dies. Between this cabbage-like shoot and the leaves, there spring several buds, from which, on making an incision, there distils a juice differing little from water, either in the color or consistence. It is the employment of a certain class of men to climb to the top of the trees in the evening, with earthen pots tied to their waists, which they fix there to receive the juice, which is regularly carried away before the sun has had any influence upon it. This liquor is sold at the bazaars by the natives under the name of toddy. It is used for yeast, and forms an excellent substitute. In this state it is drank with avidity, both by the low Europeans and the natives, and is reckoned a cooling and agreeable beverage. After being kept a few hours, it begins to ferment, acquires a sharp taste, and a slight intoxicating quality. By boiling it, a coarse kind of sugar is obtained; and by distillation, it yields a strong ardent spirit, which being every where sold, and at a low price, constitutes one of the most destructive annoyances to our soldiers. The name given to this pernicious drink by Europeans, is Pariah arrack, from the supposition that it is only drank by the Pariahs, or out-casts, that have no rank.

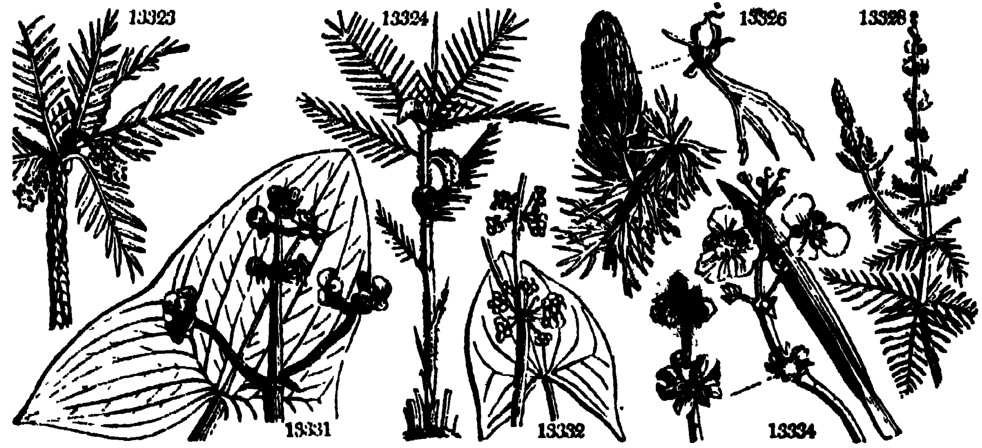
The trees from which the toddy is drawn do not bear any fruit, on account of the destruction of the buds; but if the buds be left entire, they produce clusters of the cocoa nut. This nut in the husk is as large as a man's head, and when ripe falls with the least wind. If gathered fresh, it is green on the outside; the husk and the shell are tender. The shell, when divested of the husk, may be about the size of an ostrich's egg, and is lined with a white pulpy substance, which contains about a pint and a half of a liquor like water; and though the taste be sweet and agreeable, it is different to that of the toddy.

In proportion as the fruit grows old, the shell hardens, and the liquor diminishes, till it is at last entirely absorbed by the white milky substance, which gradually acquires the hardness of the kernel of the almond,

1984.	**E'LATE.** *W.*	Elate.				*Palmæ.*	*Sp.* 1.				
13323	sylvéstris *W.*	prickly-leaved	♆ □ or	14	ap.jn	G	E. Indies	1763.	S	r.m	Rh.mal.3.t.22.25
1985.	**BAC'TRIS.** *W.*	Bactris.				*Palmæ.*	*Sp.* 2.				
13324	minor *W.*	lesser	♆ □ or	12	...	G	S. Amer.	1691.	S	r.m	Jac.am. t.171. f.1
13325	major *W.*	greater.	♆ □ or	25	...	G	Carthag.	1800.	S	r.m	Jac.am. t.171. f.2

POLYANDRIA.

1986.	**CERATOPHYL'LUM.** *W.*	Hornwort.				*Fluviales.*	*Sp.* 2—				
13326	demérsum *W.*	common	≋ △ un	1	jl.s	G	Britain	dit.	D	l.p	Eng. bot. 947
13327	submérsum *W.*	unarmed	≋ △ un	1	jl.s	G	Britain	dit.	D	l.p	Eng. bot. 679
1987.	**MYRIOPHYL'LUM.** *W.*	Water Milfoil.				*Onagrariæ.*	*Sp.* 2—5.				
13328	spicátum *W.*	spiked	≋ △ pr	1	jn.au	R	Britain	dit.	D	l.p	Eng. bot. 83
13329	verticillátum *W.*	verticillate	≋ △ pr	1	jl	G	England	ponds.	D	l.p	Eng. bot. 218
1988.	**SAGITTA'RIA.** *W.*	Arrow-Head.				*Alismaceæ.*	*Sp.* 6—16.				
13330	sagittifólia *W.*	common	≋ △ or	2	jn.au	W	England	rivers.	D	l p	Eng. bot. 84
13331	sinénsis *B. M.*	Chinese	≋ [△] or	2	s.n	W	China	1812.	D	l.p	Bot. mag. 1631
13332	obtusifólia *W.*	blunt-leaved	≋ [△] or	2	jl.au	W	China	1804.	D	l.p	Rhe. mal. 11. t.45
13333	lancifólia *W.*	lance-leaved	≋ [△] or	1½	jn.jl	W	W. Indies	1787.	D	l.p	Bot. mag. 1792
13334	rígida *B. M.*	brittle-leaved	≋ △ or	1½	jn.jl	W	N. Amer.	1806.	D	l.p	Bot. mag. 1632
13335	gramínea *W.*	Grass-leaved	≋ [△] or	1½	jl.au	W	Carolina	1812.	D	l.p	
1989.	**BEGO'NIA.** *W.*	Begonia.				....	*Sp.* 16—38.				
13336	nítida *W.*	shining-leaved	♄ □ or	1½	my.d	W	Jamaica	1777.	C	s.p	Par. lond. 72
13337	dichótoma *W.*	forked	♄ □ or	2	jl.au	W	Caraccas	1800.	C	s.p	Jac. ic. 3. t. 619
13338	díscolor *H. K.* *Evansiána* B. R.	two-colored	♄ □ or	3	my.s	W	China	1804.	R	s.p	Bot. mag. 1473
13339	macrophýlla *W.*	large-leaved	♄ □ or	3	my.s	W	Jamaica	1793.	C	s.p	Plu.ic.34.t.45. f.1
13340	tuberósa *W.*	tuberous	♄ [△] or	½	jl s	W	Amboyna	1810.	C	l.p	R.am.5. t.169. f.2
13341	acumináta *W.*	pointed-leaved	♄ □ or	1	my.d	W	Jamaica	1790.	C	s.p	Bot. reg. 364
13342	húmilis *W.*	small	♃ ▣ or	½	o	W	W. Indies	1788.	C	l.p	Lin. trans. 1. t.15
13343	hirsúta *W.*	shaggy-leaved	♃ ▣ or	1	my.jn	W	W. Indies	1789.	C	l.p	Aub. gui. 2. t.348
13344	ulmifólia *W.*	elm-leaved	♄ □ or	2	my.jn	W	S. Amer.	1822.	C	l.p	Bot. cab. 638
13345	argyrostígma *Fisch.* *maculata* Raddi	silver-spotted	♄ □ or	3	jl.o	W	Brazils	1819.	C	l.p	Bot. reg. 666
13346	spatuláta *W.*	spatulate	♃ [△] or	1½	jl.o	W	W. Indies	1819.	C	l.p	Bot. cab. 107
13347	picta *Lodd.*	painted	♃ [△] or	½	s	Pk	Nepal	1818.	C	l p	Bot. cab. 571
13348	pauciflóra *Lindley*	few-flowered	♃ [△] or	1½	jl.o	W	.....	1816.	C	l.p	Bot. reg. 471
13349	odoráta *W.*	sweet-scented	♃ [△] or	1½	jl.o	W	....	1824.	C	l.p	
13350	hirtélla *Link.*	hairy	♃ [△] or	1	jl.o	W	....	1824.	C	l.p	
13351	dísticha *Link.*	distichous	♃ [△] or	1	jl.o	W	......	1824.	C	l.p	
1990.	**POTE'RIUM.** *W.*	Burnet.				*Rosaceæ.*	*Sp* 6—7.				
13352	agrimonifólium *Cav.*	Agrimony-lvd.	♃ △ pr	3	jl	G	Spain	1822.	S	co	
13353	Sanguisórba *W.*	common	♃ △ ng	2	jl	G	England	ch.hil.	D	co	Eng. bot. 860
13354	polýgamum *W.*	Hungarian	♃ △ or	3	jl.au	Br	Hungary	1803.	D	co	Pl.rar.hu 2.t.198



History, Use, Propagation, Culture,

and is almost as easily detached from the shell. The natives use this nut as their victuals; and from it they also express a considerable quantity of the purest and best lamp oil. The substance which remains after this operation, supplies an excellent food for poultry and hogs. Cups and a variety of excellent utensils are made of the shell.

The husk of the cocoa nut is nearly an inch thick, and is, perhaps, the most valuable part of the tree; for it consists of a number of strong fibres, easily separable, which furnish the material for the greatest part of the Indian cordage; but is by no means the only substitute which the country affords for hemp. This the natives work up with much skill.

Plants of the cocoa nut tree are frequent in our stoves, being easily raised from the nuts sold in the shops, planted in rich earth, and on a moist heat; but the plants are seldom allowed room enough to come into flower; though it has been observed, that this is almost the only palm that could be cultivated in this country for perfecting its fruit; all the others being diœcious plants. Sweet observes, that they seldom succeed well in our collections; perhaps from being too much exposed to the sun: he is "informed they thrive best in the shade in the West Indies, where cultivators of them plant tall trees near them for that purpose." (*Bot. Cult.* p. 42.)

C. aculeata has a trunk the thickness of the human body; the pinnæ of the fronds are longer than in the cocoa, and prickly like the bark of the trunk. The fruit is as large as a crab, and of the same shape; under a green skin it has a thin sweetish astringent pulp; and within that, a nut full of a white sweet eatable kernel. The nut is said to yield the true palm oil. The outside of the trunk is made into laths, bows, and darts.

1984. *Elate.* This was one of the names given by the Greeks to the membrane which envelopes the female flowers of the date; that is to say, to its spatha. Modern authors have applied the word to a kind of Indian palm. The fruit of E. sylvestris resembles a wild plumb. The poorer sort of people chew it in the same manner with the Areca nut, with the leaf of the betel pepper and quick-lime. The elephants are fond of the fruit-stalks, which are very sweet. In our stoves the plants require a sandy loam, and a strong heat.

13323 Fronds pinnated, Leaflets opposite

13324 Fruit roundish
13325 Fruit ovate

POLYANDRIA.

13326 Fruit armed with three spines
13327 Fruit unarmed

13328 Sterile flowers in interrupted leafless spiked whorls
13329 Leaves pinnated capillary : upper pectinate-pinnatifid, Flowers axillary whorled

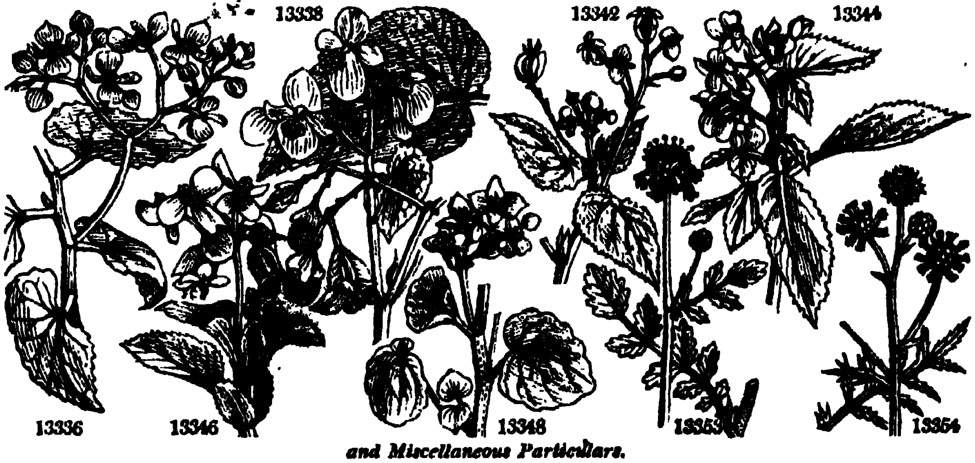
13330 Leaves lanceolate acuminate sagittate : lobes lanceolate straight, Scape simple
13331 Leaves 3-fid and 3-parted : lobes nearly equal nerved, Scape branched angular, Male fl. solitary terminal
13332 Leaves ovate rounded blunt sagittate : lobes ovate acuminate spreading, Scape panicled
13333 Leaves ovate narrowed at each end, Scape branched below
13334 Leaves lanceolata keeled, Petioles 3-cornered, Scapes simple, Female flowers sessile
13335 Leaves lanceolate linear, Female heads small

13336 Shrubby erect, Lvs. very smooth unequally cordate obsoletely toothed, Wing of caps. very large roundish
13337 Shrubby erect, Lvs. unequally cord. subangul. toothletted smooth hairy ben. at the veins, Pan. dichotom.
13338 Leaves angular serrulate crimson beneath, Stem nodose, Wings of caps. unequal rounded

13339 Caulescent, Lvs. unequally cord. cren-tooth. : lower angular, Wings of caps. with obt. ang. one very large
13340 Creeping, Leaves unequally cordate angular toothed, Wings of capsule parallel
13341 Caulescent, Leaves hispid ½ cordate acuminate unequally toothed, Largest wing of caps. obtusangular
13342 Caulescent erect, Leaves hispid ½ cordate doubly serrate, Wings of caps. rounded nearly equal
13343 Caulescent, Leaves hispid ½ cordate doubly serrated, Largest wing of caps. very large obtusangular
13344 Caulescent erect, Lvs. hisp on each side unequally oblong doubly tooth. Largest wing of caps. obtusangul.
13345 Leaves long acuminate repand spotted with white above red beneath

13346 Leaves blunt obsoletely toothletted smoothish, Stipules spatulate unequal ciliated, Wings of caps. blunt
13347 Stemless, Leaves ovate cordate hirsute finely serrulated mottled, Capsules hairy
13348 Leaves nearly equally cordate very blunt crenate downy : upper cucullate, Stipules lanceolate scariose
13349 Leaves acuminate somewhat angular unequally obsoletely toothletted smooth on each side, Stip. scariose
13350 Leaves angular unequally serrulate-ciliated hairy beneath at the veins, Stipules scariose lanceol. fringed
13351 Leaves acute crenulate smooth strigose beneath, Cyme distichous, One wing of capsule very large acute

13352 Hirsute, Leaflets lanceolate, Spikes oblong ovate
13353 Thorns none, Stem somewhat angular, Stamens much longer than the calyx
13354 Unarmed, Stems angular, Terminal flowers female : lower male ; intermediate hermaphrodite



and Miscellaneous Particulars.

1985. *Bactris.* So called by Jacquin, from βακτρον, a cane, because the small stem is made into walking-sticks, which are much valued. B. minor produces a fruit of a dark purple color, the size of a common cherry, containing an acid juice, of which the Americans make a sort of wine. It is also eaten raw, but is not pleasant. Canes are made of the stem; they are dark-colored, shining, jointed, and very light; the French call them *Cannes de Tobago.* B. major has a large nut with a solid kernel, which is eaten in Carthagena. In our stoves they form handsome plants, and grow freely in sandy loam; like other palms, they are only to be increased by seed.

1986. *Ceratophyllum.* So called from κερας, a horn, and φυλλον, a leaf, on account of the numerous horned divisions of the leaves. Aquatic weeds of no beauty.

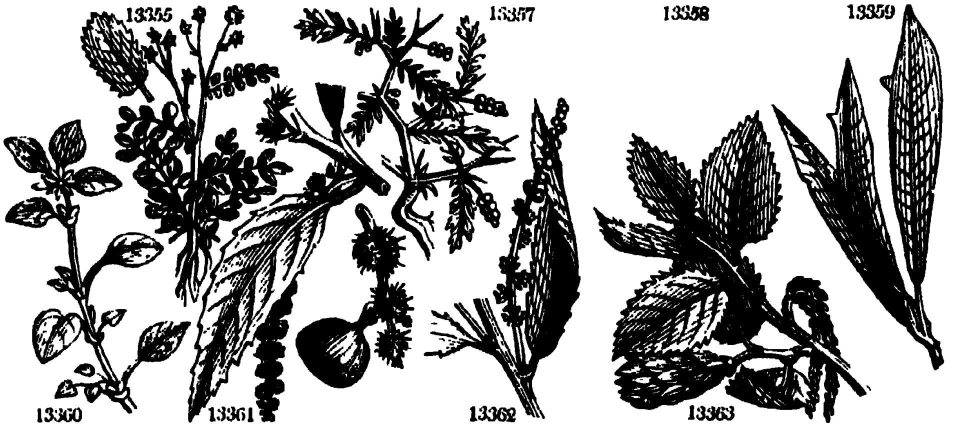
1987. *Myriophyllum.* From μυριος, a myriad, and φυλλον, a leaf, on account of the infinite number of divisions of its leaves. Aquatics of some beauty, and the easiest culture.

1988. *Sagittaria.* So called from *sagitta*, an arrow, in reference to the arrow-headed form of the leaves. S. sagittifolia is one of the handsomest of British aquatics, and is common in Siberia, China, Japan, and Virginia. The bulb, which fixes itself in the solid earth below the mud, constitutes an article of food among the Chinese, and upon that account they cultivate it extensively. The roots are larger in those countries than with us. All the species are of common culture.

1989. *Begonia.* Named in honor of Michael Begon, a Frenchman, born in 1638; he was an intendant of Marine, and a promoter of botany. These are universally plants remarkable for the neatness of their foliage, and their succulent habit. B. argyrostigma and discolor are the two most beautiful species. They are all cultivated without difficulty either from seeds or cuttings.

1920. *Poterium.* Literally, this word signifies a drinking vessel, and in the same sense, a kind of beverage. A drink was made of it, which was reckoned useful in many complaints; it is also an ingredient in cool tankards. P. sanguisorba is sometimes sown along with clover as an herbage plant; it is now, however, out of

13355 hýbridum *W.*	sweet	£	△	or	2	jn.jl	G	France	1683.	D	co	Barr. ic. t. 632
13356 caudátum *W.*	smooth shrubby		⊔	or	3	ja.ap	O	Canaries	1779.	S	p.l	
13357 spinósum *W.*	prickly shrubby		⊔	or	2	ap.au	G	Levant	1596.	S	p.l	Moris.s.8.t.18.f.5
1991. AMIRO'LA. *Pers.*	AMIROLA.					*Terebintaceæ.*		*Sp.* 1.				
13358 nitida *Pers.*	shining-leaved	■	▭	or	9	...	...	Peru	1824.	C	p.l	
1992. ACIDO'TON. *W.*	ACIDOTON.					....		*Sp.* 1.				
13359 úrens *W.*	stinging	■	▭	un	8	...	G	Jamaica	1793.	C	l.p	Slo.jam.1.t.83.f.1
1993. THELY'GONUM. *W.*	THELYGONUM.					*Urticeæ.*		*Sp.* 1.				
13360 Cynocrámbe *W.*	Dog's-cabbage	✱	○	un	½	jl	G	S. Europe	1710.	S	co	Lam. ill. t. 777
1994. CASTA'NEA. *W.*	CHESNUT.					*Amentaceæ.*		*Sp.* 2.				
13361 vésca *W.*	common	‡		tm	50	my.jn	G	England	woods.	S	s.l	Eng. bot. 886
13362 púmila *W.*	dwarf	‡		or	12	jl	G.Y	N. Amer.	1699.	S	p.l	Mich. arb. 2. t. 7
1995. O'STRYA. *W.*	HOP-HORNBEAM.					*Amentaceæ.*		*Sp.* 2—4.				
13363 vulgáris *W.*	common	‡		or	20	my	Ap	Italy	1724.	L	s.l	Dend. brit. 143
13364 virgínica *W.*	American	‡		or	20	my.jn	Ap	N. Amer.	1692.	L	s.l	Abb. Ins. 2. t. 75
1996. CARPI'NUS. *W.*	HORNBEAM.					*Amentaceæ.*		*Sp.* 3—5.				
13365 Bétulus *W.*	common	‡		tm	30	mr.my	Ap	Britain	woods.	S	co	Eng. bot. 2032
β *incisa*	*cut-leaved*	‡		or	15	mr.my	Ap	......	...	L	co	
13366 americána *W.*	American	‡		or	20	...	Ap	N. Amer.	1812.	S	co	Dend. brit. 157
13367 orientális *W.*	eastern	‡		or	12	...	Ap	Levant	1739.	L	co	Dend. brit. 98
1997. FA'GUS. *W.*	BEECH.					*Amentaceæ.*		*Sp.* 2.				
13368 sylvática *W.*	common	‡		tm	70	ap.my	Ap	Britain	woods.	S	co	Eng. bot. 1846
β *atro-rúbens* Duroi	*purple-leaved*	‡		or	30	ap.my	Ap	......	...	L	co	
γ *S. incisa* W.	*Fern-leaved*	‡		or	10	ap.my	Ap	......	...	G	s.l	
13369 ferruginea *W.*	American	‡		or	30	my.jn	Ap	N. Amer.	1766.	L	s.l	Mich. arb. 2. t. 9
1998. CO'RYLUS. *W.*	NUT-TREE.					*Amentaceæ.*		*Sp.* 5—7.				
13370 Avellána *W.*	Common Hazel	■		fr	10	f.ap	Ap	Britain	woods.	S	co	Eng. bot. 723
β *álba*	*White Filbert*	■		fr	10	f.ap	Ap	......	...	L	co	
γ *rúbra*	*Red Filbert*	■		fr	10	f.ap	Ap	......	...	L	co	
δ *grándis*	*Cob*	■		fr	8	f.ap	Ap	......	...	L	co	
ε *glomeráta*	*clustered*	■		fr	8	f.ap	Ap	......	...	L	co	
ζ *cris'pa*	*frizzled*	■		fr	8	f.ap	Ap	......	...	L	co	
13371 tubulósa *W.*	Lambert's	■		fr	10	mr.ap	Ap	S. Europe	1759.	L	co	Lam. ill. t. 780



History, Use, Propagation, Culture,

repute The leaves when bruised smell like cucumbers, and taste something like the parings of that fruit; they are sometimes put into salads. All the species are of the easiest culture.

1991. *Amirola.* A word with an unknown meaning. The Peruvians form the shining black seeds of Amirola nitida into rosaries.

1992. *Acidoton.* From ακιδωτος, pointed; in allusion to the stinging pointed hairs of the leaves.

1993. *Thelygonum.* A name under which Pliny described a plant which appears to have been Mercurialis. It was derived from θηλυς, a woman, and γονυ, a knee, because of its joints, which where thought to resemble a woman's knee. Cyno-crambe, literally interpreted dog-cabbage, was the Greek name of Mercurialis perennis.

1994. *Castanea.* A native of the territory of Castanea, a town of Thessaly, near the borders of the river Peneus, where magnificent chesnut trees still are found. The chesnut, *Châtagnier*, Fr., *Castanienbaum*, Ger., *Castagno*, Ital., is, like the walnut, both a timber and a fruit tree; some of the oldest trees in the world are of this species; as that mentioned by Brydone on Etna, and the chesnut at Tortworth, in Gloucestershire. The fruit is generally eaten roasted; abroad, it is not only boiled and roasted, but ground into meal, and puddings, cakes, and bread are made from it. The timber is thought to have been formerly in very general use for house carpentry, though some consider what is generally called chesnut in our old buildings as oak. It is one of the best trees for hop poles, and scarcely any other is now planted in Kent and other hop districts for that purpose. Some excellent fruit-bearing varieties have been lately imported from France; these are increased by grafting or budding in the usual methods, but the plants for coppice woods or timber are best raised from nuts. There is a variety with striped leaves which is very ornamental. The most esteemed of the French kinds are called *Marron*, a word which in old French literally signifies a substance, which it must be confessed the fruit is not unlike.

The American chesnut differs so little from the European, that no specific distinction can be drawn. It is one of the largest and most useful trees of the forests, the wood being extremely durable, and in high esteem for posts and rails to construct fences. The nuts are very delicious The Castanea pumila or Chinquapin nut, is a small tree, or rather shrub, growing to the height of thirty feet in the southern states, but scarcely exceeding seven or eight in cold latitudes. The fruit is very sweet and agreeable to eat.

1995. *Ostrya.* So called from οστρεον, a scale, in allusion to the scaly catkins of the fruit, which resemble those of the hop, whence the plants are called Hop-Hornbeam. The wood of Ostrya virginica is exceedingly hard and heavy, whence it is generally known in America under the name of Iron-wood. In some parts it is called Lever-wood.

1996. *Carpinus.* From the Celtic words *car*, wood, and *pin*, the head; that is to say, wood fit for the yokes of cattle. The wood is white, and of a fine close texture, which makes it peculiarly fit to be wrought into the

13355 Unarmed, Stems round striated
13356 Unarmed shrubby, Branches round villous, Spikes long loose
13357 Spiny shrubby, Spines branched, Branches villous somewhat angular, Spikes oblong loose

13358 Leaves simple and ternate ovate serrated, Petioles thickened on each side

13359 Leaves alternate lanceolate ovate, Flowers in racemes

13360 Leaves ovate, Stem diffuse

13361 Leaves oblongo-lanceolate acuminate mucronate serrate glabrous on each side
13362 Leaves oblong acute mucronate serrate white with down beneath

13363 Cones ovate pendulous, Leaves ovate acute, Buds blunt
13364 Cones oblong ovate erect, Leaves oblong ovate acuminate, Buds acute

13365 Scales or bracteas of the fruit oblong serrated with two smaller lateral lobes

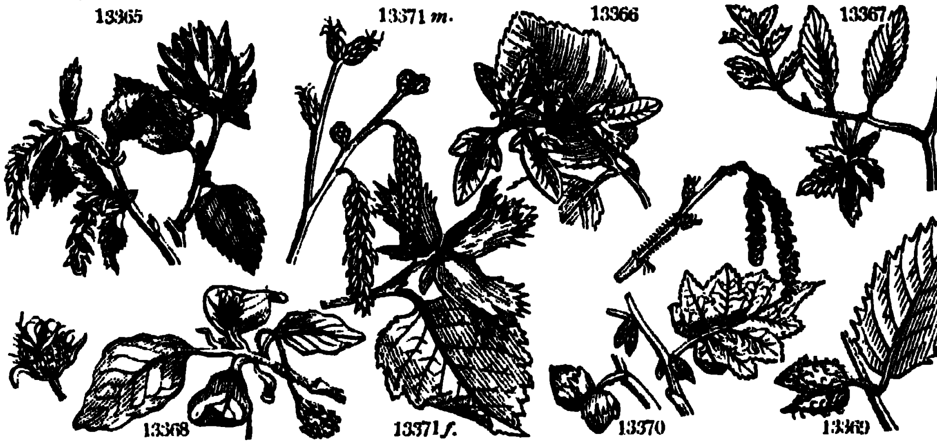
13366 Scales of cones 3-parted: middle segment oblique ovate lanceolate 1-toothed on one side
13367 Scales of cones ovate unequal at base undivided somewhat angular unequally serrated

13368 Leaves ovate glabrous obsoletely dentate, their margins ciliated

13369 Leaves ovate acuminate downy beneath coarsely toothed ciliated at edge

13370 Stip. obl. obt. Lvs. roundish-cordate pointed, Invol. of fruit campanulate rather spreading torn at margin

13371 Stip. obl. blunt, Cal. of fruit tubul. cylind. contracted at end cut toothed, Leaves roundish cord. acuminate



and Miscellaneous Particulars.

various forms with which the country people of all nations have delighted to ornament their yokes. Our English word Horn-beam has evidently the same meaning. C. Betulus is a tree of little merit or beauty, having persistent leaves like the beech; it is well adapted for hedges or separation, where the object is shelter.

1997. *Fagus.* From the Greek φηγος, which also signifies eatable. We all know that mast was the original food of man. The Fagus of Virgil, was the Quercus Æsculus. *Hêtre*, Fr., *Büche*, Ger., *Faggio*, Ital. F. sylvatica is a handsome tree in every stage of its growth. It seems to thrive best in a chalky clay or loam, rather sheltered. It is one of the handsomest single trees for parks, and is well adapted to form lofty hedges. The timber is brittle, and not of long duration; but it is much used by turners, joiners, and millwrights. The bark is remarkably thin, and has been used for making baskets and band-boxes. The leaves are used in France by the country people, on account of their elastic quality, instead of straw for the paillasse to lay under their mattrasses. The mast is readily eaten by swine and deer.

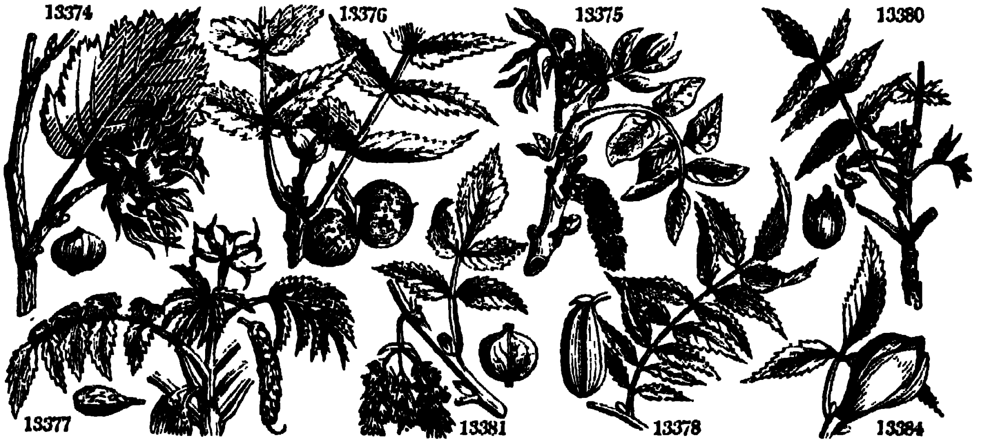
F. cuprea, the copper colored, and F. purpurea, the purple beech, are two of the most striking of timber trees, from the color of their foliage. They are propagated by grafting, and grow as freely as the common beech.

Fagus ferruginea is distinguished by the Americans from the common kind by the name of Red Beech, the wood being of a darker color.

1998. *Corylus.* From κορυς, a bonnet; to which the enwrapping calyx may be very well compared. Our word Hazel is in like manner derived from the Anglo-Saxon *Hæsel*, which signifies an head-dress. *Noisette*, Fr., *Nussbaum*, Ger., and *Avellano*, Ital. C. avellana has the specific name from Avellino, a city of the kingdom of Naples, near which, in a valley, it grows to a great extent, and in Swinburne's time, brought in an annual profit of near 12,000*l*. sterling. It is said they were originally imported into Italy from Pontus, and known among the Romans by the appellation of nux Pontica, which in process of time, was changed into that of nux Avellana, from the place where they had been propagated with the greatest success. The common Hazel-nut is wild in many woods and coppices in Britain, whence the fruit is gathered in plenty and sent to the neighbouring markets. As underwood, the plant is of some value for hoops, fishing-rods, walking-sticks, withes for faggoting, crate-making, hurdles, wattling-fences, and springles to fasten down thatch. Formerly the roots were used by the cabinet-makers; and where yeast was scarce, they twisted the twigs, steeped them in ale during its fermentation, hung them up to dry, and when they brewed put them into the wort.

There are several varieties of the cultivated filbert. What is called the frizzled filbert is esteemed the best. The plants do not require a rich soil, but one with a dry bottom. They are generally propagated by suckers, and grown as dwarf standards, each plant with a single clean stem, from six feet high down to twelve inches. When allowed to throw up suckers from the root and form a thick bush, they cease to bear fruit in any quantity. The filbert bears principally upon the sides of the upper young branches, and from small shoots which proceed from the bases of side branches cut off the preceding year. Hence the spurring-in method of

13372 americána *W.*	Dwarf Cuckold	■	fr	6	mr.ap	Ap	N. Amer.	1798.	L	co	Wa. am.t.29.f.63
13373 rostráta *W.*	Com. Cuckold	■	fr	5	mr.ap	Ap	N. Amer.	1745.	L	co	Willd. arb.t.1.f.2
13374 Colúrna *W.*	Constantinople	■	fr	10	mr.ap	Ap	Constant.	1665.	L	co	Dend. brit. 99
1999. JUG'LANS. *W.*	WALNUT.				*Terebintaceæ.*		*Sp.* 10—14.				
13375 régia *W.*	common	‡	tm	50	ap.my	Ap	Persia	1562.	S	co	Lam. ill. 781
13376 nígra *W.*	black	‡	tm	30	ap.my	Ap	N. Amer.	1629.	S	co	Dend. brit. 156
13377 cinérea *W.*	Butter Nut	‡	tm	30	ap.my	Ap	N. Amer.	1656.	S	co	Jac. ic. 1. t. 192
13378 olivæfórmis *W.*	Pekan Nut	‡	tm	30	ap.my	Ap	N. Amer.	...	S	co	Mich. arb. 1.t. 3
angustifólia H. K.											
13379 sulcáta *W.*	thick shell-bark Hickory	‡	tm	30	ap.my	Ap	N. Amer.	1804.	S	co	Mich. arb. 1. t. 8
13380 álba *W.*	shell-bark Hickory	‡	tm	30	ap.my	Ap	N. Amer.	1629.	S	co	Dend. brit. 148
13381 compréssa *W.*	flat-fruited	‡	tm	30	ap.my	Ap	N. Amer.	1730.	S	co	Mich. arb. 1. t. 7
13382 amára *Mich.*	bitter Nut	‡	tm	30	my	Ap	N. Amer.	1800.	S	co	
13383 obcordáta *W.*	obcordate	‡	tm	30	my	Ap	N. Amer.	1812.	S	co	M. arb.1.t.9.f.3,4
13384 glábra *W.*	Hog-nut	‡	tm	30	my	Ap	N. Amer.	1799.	S	co	M. arb.1.t.9.f.1,2
porcina Mich.											
2000. QUER'CUS. *W.*	OAK.				*Amentaceæ.*		*Sp.* 50—98.				
13385 Phéllos *Ph.*	Willow	⚲	tm	60	my.jn	Ap	N. Amer.	1723.	S	s.l	Mich. arb. 1.t.12
13386 marítima *Ph.*	sea	■	or	6	my.jn	Ap	N. Amer.	1811.	S	co	Mi. quer. t.13.f.1
13387 sericea *Ph.*	running	■	or	2	my.jn	Ap	N. Amer.	1724.	S	co	Mich. arb. 2.t.15
13388 virens *Ph.*	live	⚲	tm	40	my	Ap	N. Amer.	1739.	S	s.l	Mich. arb. 2. t.11
13389 cinérea *Ph.*	ash-colored	⚲	or	10	my.jn	Ap	N. Amer.	1789.	S	co	Mich. arb. 2.t 14
13390 imbricária *Ph.*	shingle	‡	tm	40	my.jn	Ap	N. Amer.	1786.	S	co	Mich. arb. 2. t.13
13391 laurifólia *W.*	Laurel	‡	tm	60	my	Ap	N. Amer.	1786.	S	co	Mich. querc.t.17
β *obtúsa* Mich.	*blunt-leaved*	‡	tm		my	Ap	N. Amer.	1786.	S	co	Mich. querc.t.18
13392 lútea *W.*	yellow	‡	tm	20	my	Ap	Mexico	1825.	S	co	
13393 Ballóta *W.*	Barbary	⚲	tm	60	my.jn	Ap	Barbary	...	S	s.l	
13394 I'lex *W.*	evergreen	⚲	tm	60	my.jn	Ap	S. France	1581.	S	s.l	Dend. brit. 90
α *integrifólia*	common	⚲	tm	60	my.jn	Ap	S. France	1581.	S	s.l	
β *serráta*	*notched-leaved*	⚲	or	60	my.jn	Ap	S. France	1581.	G	s.l	Duh. arb.1.t 123
γ *oblónga*	*long-leaved*	⚲	or	60	my.jn	Ap	S. France	1581.	G	s.l	Duh. arb.1 t.124
13395 Súber *W.*	Cork-tree	⚲	clt	20	jn	Ap	S. France	1699.	S	s.l	Dend. brit. 89
13396 coccífera *W.*	Kermes	‡	clt	10	my	Ap	S. France	1683.	G	s.l	Dend. brit. 91
13397 gramúntia *W.*	Holly-leaved	⚲	or	30	jn	Ap	France	1730.	G	s.l	



History, Use, Propagation, Culture,

pruning is the most successful in the production of fruit. C. Colurna may be treated in the same manner as the other, but the plants kept at a somewhat greater distance apart.

The nuts of the American Hazel-nut, Corylus americana, are very excellent.

1999. *Juglans.* That is to say, *Jovis glans*, the nut of Jove, on account of its excellence, which must have been great indeed, when gods had nothing but oak or beech-mast to eat. J. regia, walnut, from *gaul*-nut, the tree being introduced from France, *Noyer*, Fr., *Walnussbaum*, Ger., and *Noci*, Ital., is cultivated both as a fruit and timber-tree. The fruit in a green state, before the stone hardens, is much used for pickling, and also as an adulteration of soy sauce. An oil, which supplies the place of that of almonds, is expressed from the kernel in France. In Spain they strew the gratings of old and hard nuts, first peeled, into their tarts and other meats. The leaves strewed on the ground, and left there, annoy worms; or macerated in warm water, afford a liquor, which from [illegible] bitterness may effect their death. The unripe fruit is used in medicine for the same purpose. Pliny says, [illegible] more walnuts one eats, with the more ease will he drive worms out of the stomach." The timber is used in this country for gun-stocks, being lighter in proportion to its strength and elasticity than any other. It is used in cabinet-work in most parts of the continent: the young timber is held to make the finest colored work, but the old to be finer variegated for ornament. When propagated for timber, the nut is sown; but when fruit is the object, inarching from the branches of fruit-bearing trees is preferable. Budding has also been successfully adopted by Mr Knight; the buds succeed best when taken from the base of the annual shoots; ordinary-sized buds from the upper parts of such shoots generally fail. Walnut trees that have not been grafted or budded, may be induced to produce blossoms by ringing the bark.

Juglans nigra, the black walnut, is a tree of large size, and its nuts are eaten by men and several species of animals. The wood is put to various mechanical and economical uses. J. cathartica is known under the name of butter-nut, oil-nut, and white walnut; the nuts are used by the American Indians medicinally. The fruit of J. olivæformis, or the Pekan-nut, is delicious; sometimes it is exposed in the fruiterers' shops for sale. The nuts of J. sulcata, which is called thick shell-bark hickory, and Springfield and Gloucester nut, are large and well-tasted. The shell-bark hickory, shag-bark, or scaly-bark hickory, J. alba, is so called on account of its bark, which is torn lengthwise in long loose strips, as in J. sulcata. The wood of J. tomentosa, the Mocker-nut, white-heart hickory, or common hickory, is excellent for mechanical purposes, and particularly esteemed as fire-wood; but the nuts are hard, with but little kernel in them. The Americans make very good and durable brooms by slitting into narrow slips the very tough wood of J. glabra, which is called pig or hog-nut, also broom hickory.

13372 Cal. of fruit roundish campan. larger than nut, Limb dilated tooth serrated, Lvs. roundish cord. acumin.
13373 Stip. lin. lanc. Cal. of fruit camp. tubul. larger than nut 2-parted : seg. cut toothed, Lvs. obl. ovate acumin.
13374 Stip. lanc. acum. Cal. of fruit double : outer many-parted ; inn. 3-part. Seg. palm. Lvs. roundish ov. cordate

13375 Leaflets about nine oval smooth subserrated nearly equal, Fruit globose
13376 Leaflets numerous lanceolate serrated beneath with the petioles downy, Fruit globose dotted rough
13377 Leaflets numerous oblong lanceolate serrated soft with down beneath, Petioles viscid, Fruit oblong ovate
13378 Leaflets numerous lanceolate serrated, the odd one with a long stalk, Fruit oblong 4-cornered

13379 Leafl. about 9 lanceolate acuminate serrate downy beneath : the odd one sess. Fruit roundish with 4 keels
13380 Leaflets 7 obl. lanc. acuminate serrated rough and downy beneath : the odd one sess. Fruit squarish smooth
13381 Leafl. 7 obl. lanc. acum. serr. downy beneath and soft : the odd one sess. Fruit ov. Nuts oblique compressed
13382 Leaflets about 9 ovate-oblong acum. finely serrated smooth on each side ; the odd one with a short stalk
13383 Leaflets 7 ovate acuminate serrated smooth on each side with resinous dots beneath, Nuts obcord. smooth
13384 Leaflets 7 ovate acuminate serrated smooth on each side with resinous dots beneath, Fruit and nuts oblong

A. *Leaves entire, or little toothed.*

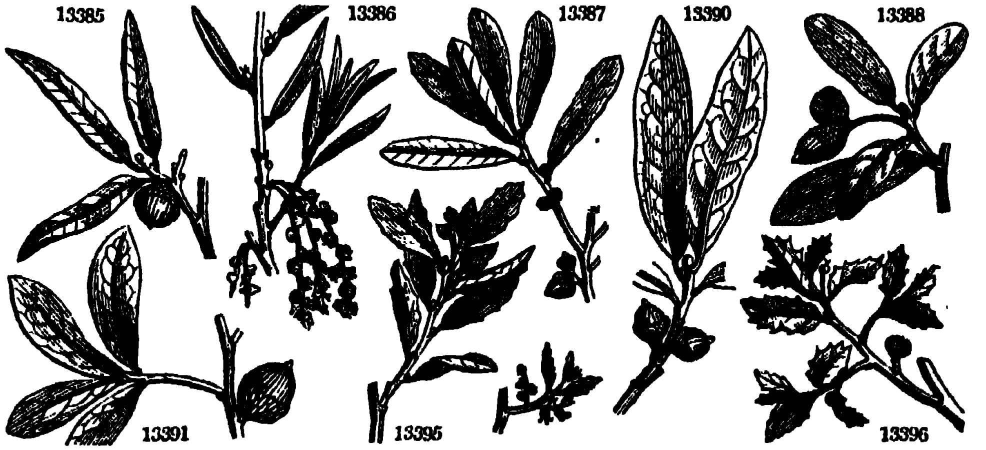
13385 Leaves membranaceous linear lanc. tapering at each end entire smooth with a small point, Nut roundish
13386 Leaves coriaceous elliptical-lanceolate entire smooth with a small point, Nut roundish
13387 Lv. lanc.-obl. somewhat wavy obt. at the base rather dilated upwards silky beneath, Nut almost globular
13388 Lvs. coriac. ellipt.-obl. revol. ent. pointless obt. at base clothed with starry down ben. Fr. stalk. Nut oblong
13389 Lvs. coriac. ellipt.-lanc. revol. ent. blunt. with a small point clothed with starry down beneath, Fruit sessile, Nut nearly globose
13390 Leaves elliptical oblong acute at each end entire almost sessile downy beneath, Nut nearly globose
13391 Leaves obovate entire smooth nearly sessile tapering at the base, Nut roundish even

13392 Leaves obovate entire shining somewhat heart-shaped at the base downy and yellow beneath

B. *Leaves toothed spiny.*

13393 Leaves elliptical coriaceous entire or serrated very downy beneath, Bark even, Nut cylindrical elongated
13394 Leaves ovate-oblong acute coriaceous entire or serrated hoary beneath, Bark even, Nut ovate

13395 Leaves ovate-oblong bluntish coriaceous entire or sharply serrated downy beneath, Bark cracked fungous
13396 Lvs. ellipt.-obl. rigid smooth on both sides with spread. brist. spin. teeth, Nut ov. Cal. with spread. point. sc.
13397 Leaves roundish ellipt. nearly sess. undulated with deep spin. divaricat. teeth densely downy beneath somewhat heart-shaped at the base



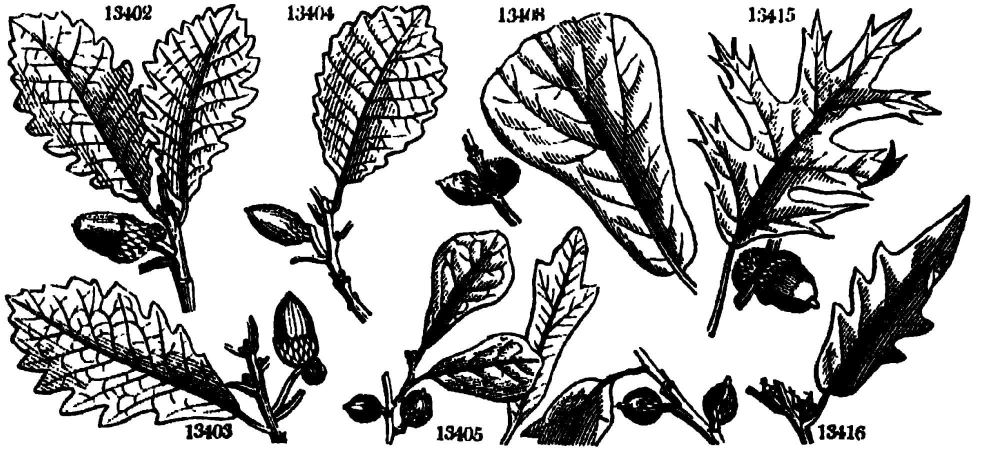
and Miscellaneous Particulars.

2000. *Quercus.* This name is derived from the Celtic *quer*, fine, and *cuez*, a tree ; it was so called, in distinction to other trees, because the holy misseltoe grew upon it : otherwise the common name of the oak in Celtic was *derw*, whence *druids*, and the Greek *δρυς*. Phellos was the Greek name of the cork, Q. suber. Gramuntia has derived its name from growing in the wood of Grammont, near Montpelier. Suber is generally thought to have been formed from the Latin *sub*, under, because the bark was used by the Roman women as sandals, both for keeping their feet dry, and increasing their stature ; but Vossius is of opinion, that it comes from *συφαρ*, the Greek name of bark of any kind. Coccifera has been so called because the little insect, coccus, which affords the well-known kermes dye, is found upon it. Kermes itself is an alteration of *germez*, which signifies in Arabic, a little worm ; the same people called the red dye *germezy*, whence our Norman-English word *cramoisye*. Robur is an alteration of *rove*, a Celtic [illegible] of the oak. Ægilops, literally goat's-beard, was so called on account of the long truss or beard-like [illegible] which were frequently found hanging suspended from it.

The oak is a genus of trees familiar to man in the temperate zones of both hemispheres. Q. Robur, now valued for its timber and bark, and formerly for its acorns, is familiar to every Briton. There are two distinct varieties or subspecies ; Q. sessiliflora and pedunculata, and another Q. pubescens. Q. pedunculata is thought to be the common oak of England, being much more frequent in natural woods than the others. The timber of this variety is said to be whitish and hard, while that of the sessile-fruited is reddish and brittle. The bark of this and all the hardy species of oak is or may be used by the tanner. Oak saw-dust is the principal indigenous vegetable used in dyeing fustian ; and different shades of drab and brown are also made from it. Oak-apples are used in dyeing as a substitute for galls ; the black got from them by the addition of copperas is more beautiful than that from galls, but not so durable. These galls are occasioned by an insect of the Cynips kind, which deposits its eggs in the substance of the leaf. When the bark of the oak has performed its office to the tanner, it is employed by the gardener to produce heat by its fermentation. Oak leaves are also used for the same purpose. When a great proportion of the island was in forest, acorns were of importance for feeding swine ; they are still valued for this purpose in districts where the oak abounds, as in Hampshire and Northamptonshire. Q. cerris is a very handsome tree, and the timber is considered nearly as valuable as that of the common oak. The Lucombe (from the name of the nurseryman who raised it) and Fulham (from the name of the nursery where it was first originated) varieties are nearly evergreens ; they retain their verdure till Christmas, and remain on the tree in a brown or withered state till April or May following.

Q. coccinea is one of the handsomest of the American oaks ; the leaves, which are six inches long, change in

13398 lusitánica *W.*	Portugal	‡	tm	40	jn	Ap	Portugal	1824.	G	s.l	Cav. ic. 2. t. 129
13399 Prinoides *W.* *Chin'quapin* Ph.	Dwarf Chesnut	♣	or	3	jn	Ap	N. Amer.	1823.	G	s.l	Mi.querc. t.9. f.1
13400 infectória *W.*	Dyer's	‡	tm	40	my.jn	Ap	Levant	1822.	G	co	N.duh.7.t.49 f.1
13401 Turnéri *W.*	Turner's	‡	tm	40	my.jn	Ap	......	...	G	co	
13402 Prinus *Ph.*	Chesnut	‡	tm	60	my.jn	Ap	N. Amer.	1730.	S	s.l	Mich. arb. 2. t. 7
13403 bicolor *Ph.*	white swamp	‡	tm	60	my	Ap	N. Amer.	1811.	S	s.l	Mich. arb. 2. t. 6
13404 montána *Ph.*	Rock Chesnut	‡	tm	50	my	Ap	N. Amer.	1800.	S	s.l	Mich. arb. 2. t. 8
13405 aquática *Ph.*	water	‡	tm	40	my	Ap	N. Amer.	1723.	S	s.l	Mich. arb.2. t.17
13406 nána *Ph.*	dwarf	‡	or	12	my	Ap	N. Amer.	1738.	S	s.l	Abb. ins. 2. t. 59
13407 Castánea *Ph*	Yellow	‡	tm	60	my	Ap	N. Amer.	1822.	S	s.l	
13408 nigra *Ph.*	black	‡	or	20	my	Ap	N. Amer.	1739.	S	s.l	Mich. arb.2. t.18
13409 triloba *Ph.*	downy-black	‡	tm	30	my	Ap	N. Amer.	1800.	S	s.l	Mich.querc. t.26
13410 stelláta *W.* *obtusiloba* Mich.	Iron	‡	tm	60	my	Ap	N. Amer.	1819.	S	s.l	Mich. querc. t. 1
13411 hemisphæ'rica *Ph.*	hemispherical	♣	or	10	my	Ap	N. Amer.	...	S	s.l	
13412 elongáta *W.* *falcata* Mich.	Spanish	‡	tm	50	my	Ap	N. Amer.	...	S	s.l	
13413 tinctória *Ph.*	Quercitron	‡	tm	70	my	Ap	N. Amer.	1800.	S	s.l	Mich.querc. t.24
13414 discolor *Ph.*	two-colored	‡	tm	60	my	Ap	N. Amer.	1763.	S	s.l	Mich.querc. t.25
13415 rúbra *Ph.*	champion	‡	tm	40	my	Ap	N. Amer.	1739.	S	s.l	Mich. arb.2. t.26
13416 heterophýlla *Ph.*	various-leaved	‡	tm	40	my	Ap	N. Amer.	...	S	s.l	Mich. arb.2. t.16
13417 coccínea *Ph.*	scarlet	‡	tm	50	my	Ap	N. Amer.	1691.	S	s.l	Mich. arb.2. t.23
13418 Catesbæ'i *W.*	barren scrub	‡	or	15	my	Ap	N. Amer.	1823.	S	s.l	Mich. querc. t.29
13419 palústris *Ph.*	marsh	‡	tm	60	my	Ap	N. Amer.	1800.	S	s.l	Mich. arb.2. t.25
13420 macrocar'pa *Ph.*	over-cup white	‡	tm	40	my	Ap	N. Amer	1800.	S	s.l	Mich. arb. 2. t. 3
13421 Banistéri *Mich.*	Banister's	♣	or	6	my	Ap	N. Amer.	1800.	S	s.l	Mich. arb.2. t.19
13422 Æ'gilops *W.*	Velonia	‡	tm	20	...	Ap	Levant	1731.	S	s.l	Mil.dic.n.7.t.215
13423 álba *Ph.*	white	‡	tm	60	my	Ap	N. Amer.	1724.	S	s.l	Mich. arb. 2. t. 1
β *repánda* Mich.	*repand-leaved*	‡	tm	60	my	Ap	N. Amer.	...	S	co	
13424 E'sculus *W.*	Italian	‡	tm	40	my	Ap	S. Europe	1739.	S	s.l	
13425 Róbur *W.* *Q. sessiliflóra* Sm.	sessile-fruited	‡	tm	60	ap.my	Ap	Britain	woods.	S	h.l	Eng. bot. 1845
13426 pedunculáta *W.*	common	‡	tm	60	ap.my	Ap	Britain	...	S	h.l	Eng. bot. 1342
13427 pubéscens *W.*	durmast	‡	tm	40	ap.my	Ap	Britain	...	S	h.l	Hayne ab.t.141
13428 fastigiáta *Lam.*	Cypress-oak	‡	tm	40	ap.my	Ap	S. Europe	1820.	G	co	N. duh. 7. t. 55
13429 Taúzin *Lam.*	hoary	‡	tm	40	ap.my	Ap	S. Europe	1822.	G	co	N. duh. 7. t. 56
13430 Cérris *W.*	Turkey	‡	tm	50	my	Ap	S. Europe	1735.	S	co	Dend. brit. 92
β *bulláta*	*rough-leaved*	‡	tm	50	my	Ap	S. Europe	...	G	co	
γ *sinuáta*	*narrow-leaved*	‡	tm	50	my	Ap	S. Europe	...	G	co	
δ *exoniénsis*	*Lucombe*	‡	tm	50	my	Ap	......	...	G	co	
ε *sempervirens*	*Fulham*	‡	tm	50	my	Ap	......	...	G	co	
ζ *dentáta*	*toothed*	‡	tm	50	my	Ap	......	...	G	co	Dend. brit. 93
13431 austríaca *W.*	Austrian	‡	tm	40	my	Ap	Austria	1824.	G	co	Clus. hist. 1. p.20



History, Use, Propagation, Culture,

autumn to a beautiful scarlet color, and unless hard frost comes on early, they do not fall off the tree till near Christmas. Q. rubra bears a near resemblance to the last species. Q. tinctoria, *Quercitron*, Fr., has been recommended to be cultivated on account of its bark, which affords a valuable yellow dye. (*Caled. Hort. Mem.* iii. 378.

Q. suber is cultivated in Spain, Portugal, and the south of France, for its cork-bark. The exterior bark is the cork, which is taken from the tree every eight or ten years; but there is an interior bark which is left on to protect the tree, so that stripping off the outer bark is so far from injuring the trees, that it is necessary to their continuation. Trees that are never barked are said to die at the age of fifty or sixty years. The bark is taken off for the first time when the tree is about fifteen years old; it soon grows again, and may be rebarked three times, the bark improving every time till the tree attains the age of thirty years. It is taken off in sheets or tables, much in the same way as oak or larch bark is taken from the standing trees in this country. After being detached, it is flattened by presenting the convex side to heat, or by pressure. In either case it is charred on both surfaces to close the transverse pores, previously to its being sold. The carbonized surface produced by this charring, may be seen in bungs and taps; but not in corks, which being cut in the lengthway of the wood, the charring is taken off in the rounding.

13398 Leaves elliptic. with deep point. serratures downy beneath, Fruit racemose, Cal. hemispherical, Nut obl.
13399 Lvs. on short stalks obov. acutely and coarsely toothed at base glaucous ben. Cup hemispheric. Acorn ov.

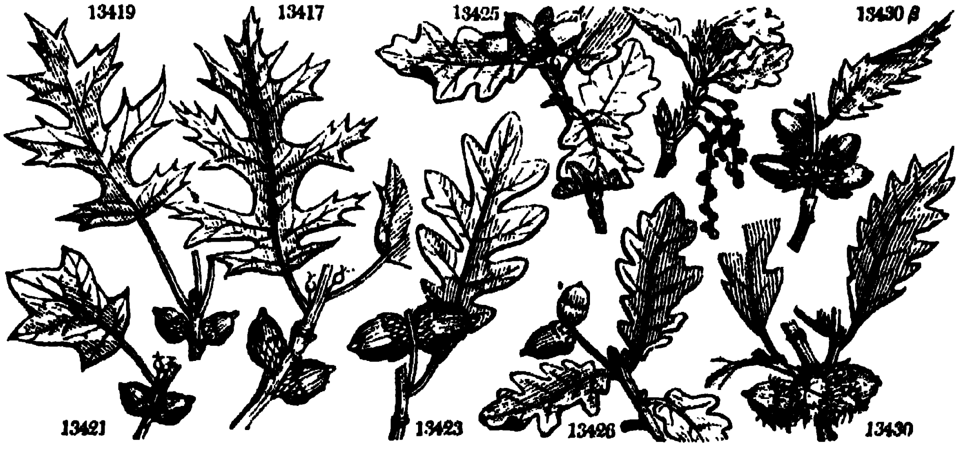
C. *Leaves sinuated.*

13400 Leaves oblong mucronate-toothed smooth on each side
13401 Leaves oblong coarsely mucronate-toothed smooth on each side cuneate at base, Branchlets hairy
13402 Lvs. on long. stalks obov. ac. somew. downy ben. with near. eq. serrat. Cal. of fr. contract. at base, Nut ov.
13403 Lvs. nearly sess. obovate downy and white beneath with very broad unequal teeth, Fruit in pairs on long bristle-pointed stalks, Calyx hemispherical, Nut oblong ovate
13404 Lvs. on shortish stalks obovate acute downy and white beneath with nearly equal dilated short blunt serr. Cal. hemispherical with rugged scales, Nut oblong ovate
13405 Lvs. wedge-shaped smooth tapering at the base dilated and obscurely 3-lobed at the end: the middle lobe largest, Calyx nearly hemispherical, Nut roundish
13406 Lvs. obl. wedge-shaped smooth somew. sinuated 3-lobed at extrem. Lobes divaricated pointed: the middle one largest, Forks of the vein downy beneath
13407 Lvs. on long footst. obl. lanc pointed somewhat downy ben. with numerous nearly equal dilated serratures, Cal. hemispherical, Nut round ovate
13408 Lvs. wedge-shaped somew. cord. dilated very slightly 3-lobed at the end, smooth above rusty beneath, Cal. hemispherical with membranous scales, Nut round ovate
13409 Lvs. wedge-shaped with 3 terminal bristly-pointed lobes: the midd. one longest downy beneath, Cal. of the fruit flattish, Nut nearly round
13410 Leaves oblong sinuated downy beneath: lobes blunt; upper dilated 2-lobed, Cups hemispherical

13411 Leaves evergreen oblong-lanceolate undivided 3-lobed or sinuated smooth on both sides, Lobes pointed
13412 Lvs. downy ben. sinuat. with 3 or more somew. falc. brist.-point. lobes: term. one elong. jagg. Cal. hemisph.
[undern. Nut globose
13413 Lvs. downy ben. obov. obl. dilat. wide. sinuat. Lobes short obt. slight. toothed bristle-point. Cal. of fruit flat
13414 Leaves downy beneath oblong pinnatifid toothed bristle-pointed, Calyx turbinate, Nut ovate
13415 Lvs. smooth obl. sinuat. on long stalks, Lobes ac. sharply tooth. bristle-point. Cal of fr. flat undorn. Nut ov.
13416 Lvs. on long stalks ovate lanc. or obl. entire or unequally lobed, Cup hemispherical, Acorn nearly globose
13417 Lvs. smooth obl. deeply and widely sinuated on long stalks, Cal. of the fruit turbinate ½ as long as the nut
13418 Lvs. smth. obl. wedge-shap. at base deeply and widely sinuat. on short stalks, Cal. of fr turbin. ½ as long as nut
13419 Lvs. smooth obl. deeply and widely sinuated on long stalks, Forks of the veins densely woolly beneath, Cal. of the fruit flattened, Nut nearly globose
13420 Lvs. obl. lyr. downy ben.: term. lobe very large 3-cleft sinuat. Cal. of fr. hemisph. scaly fring. with bristles
13421 Leaves obovate cuneiform 3-5-lobed, Lobes setaceous mucronate downy beneath [elong. spread. scales
13422 Lvs. ov. obl. with bristle-pointed tooth-like lobes hoary ben Cal. of fr. very large hemispherical with lanc.
13423 Lvs. obl. deeply pinnatif. glaucous ben. Lobes lin. obl. obt. ent. dilated upw. Fr. stalked, Cal. depress. warty
β Leaves slightly lobed green on each side [hemispherical
13424 Lvs. ov. obl. sinuat. smooth paler ben.: segm. bluntish somew. angular at base, Fruit nearly sess. Cal. scaly
13425 Lvs. decidu. oblong smooth dilated upwards stalked, Lobes obtuse, Stalks of fruit elongated, Nut oblong

13426 Leaves oblong subsessile smooth sinuated: lobes round, Fruit oblong stalked [Fruit nearly sessile
13427 Lvs. obl. obov. stalked sinuat. downy ben.: lobes obt. angul. wavy somew. heart-shap. and unequal at base,
13428 Leaves subsessile smooth oblong ovate pinnatifid sinuated blunt, Branches ascending
13429 Leaves softly villous deeply pinnatifid: segm. oblong blunt sinuated, Cups warted [hemisph. bristly
13430 Lvs. on very short stalks obl. deeply and uneq. pinnatif. hairy ben. Stip. longer than footst. Cal. of the fruit

13431 Lvs. on longish stalks ovate obl. slightly but copiously sinuated downy and hoary ben.: lobes short ovate acute entire, Stipules shorter than the footstalks, Cal. of the fruit hemispherical bristly



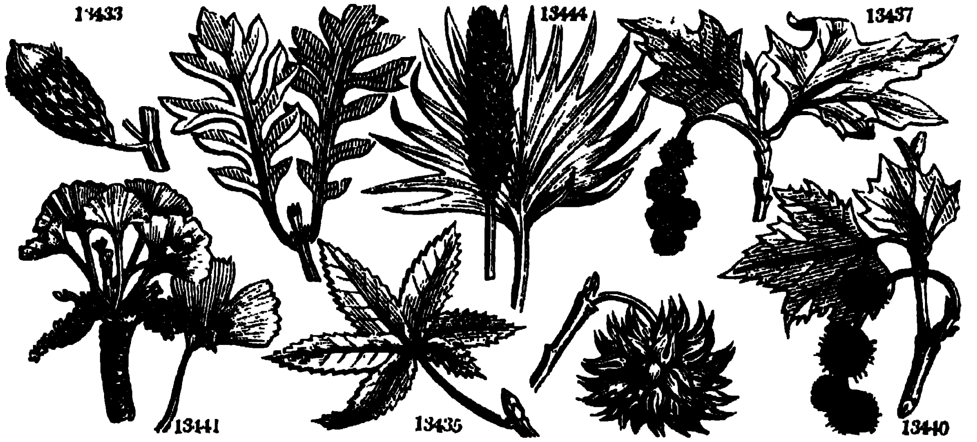
and Miscellaneous Particulars.

The uses of cork in Britain are well known It was used as sandals by the Greeks, whence our cork soles, and probably the Venetian choppings (*cioppini*, Ital.), or shoes so high heeled, as to raise the women above the men. The poor people in Spain lay broad planks of it by their bed-side to tread on, as great persons use Turkey and Persian carpets to defend them from the floor; and sometimes they line the walls and insides of their houses built of stone with this bark, which renders them very warm, and corrects the moisture of the air. Both in Spain and Barbary bee-hives are made of cork; for this purpose, they roll the bark into a cylinder of five or six feet long, and six inches in diameter, boring holes for the entrance and exit of the bees, as in the Polish hive. (*Encyc. of Gard.* 1736.)

Q. coccifera, *Cusoja*, Span., has prickly leaves like those of the holly, or Q. ilex, from this species is collected the kermes or scarlet grain, a little red gall, occasioned by the puncture of the Coccus ilicis. With these galls scarlet color was dyed, till the discovery of America, when another species of Coccus, the cochinillifer, was found in the Mexican woods upon the Cactus.

Q. phellos is remarkable for the form of the leaves, which differ in character from those of the rest of the species. Q. ilex, the holly, or holm oak, *Chêne verd*, Fr., *Elice*, Ital., and *Enzina*, Span., is a handsome evergreen tree, and the timber is supposed equal to that of the common oak. Q. gramuntia is thought by some

13432	Pseudo súber *Desf.*	false Cork	🌳		tm	40	my	Ap	S. Europe	1824.	G	co	Sant.itin.156. t.4
13433	olivæfórmis *Ph.*	mossy-cup	🌳		tm	50	my	Ap	N. Amer.	1811.	S	h.l	Mich. arb. 2. t. 2
13434	lyráta *Ph.*	Swamp-post	🌳		or	15	my	Ap	N. Amer.	1786.	S	h.l	Mich. arb. 2. t. 5
2001.	LIQUIDAM'BAR. *W.*	LIQUIDAMBAR.					*Amentaceæ.*		Sp. 2.				
13435	Styracíflua *W.*	Sweet-gum	🌳		tm	60	mr ap	Ap	N. Amer.	1683.	S	s.l	Mi.ar.3.p.194.t.4
13436	imbérbe *W.*	oriental	🌳		or	6	...	Ap	Levant	1759.	L	s.l	
2002.	PLA'TANUS. *W.*	PLANE-TREE.					*Amentaceæ.*		Sp. 4—5.				
13437	orientális *W.*	oriental	🌳		tm	50	ap.my	Ap	Levant	1548.	C	co	Dend. brit. 101
13438	cuneáta *W.*	wave-leaved	🌳		or	6	ap.my	Ap	Levant	1739.	C	co	
13439	acerifólia *W.*	Maple-leaved	🌳		tm	70	ap.my	Ap	Levant	1724.	C	co	
13440	occidentális *W.*	American	🌳		tm	70	ap.my	Ap	N. Amer.	1640.	C	co	Dend. brit. 100
2003.	SALISBU'RIA. *L. T.*	SALISBURIA.					*Amentaceæ.*		Sp. 1.				
13441	adiantifólia *L. T.*	Maiden-hair-lv.	🌳		or	20	ap.my	Ap	Japan	1754.	C	s.l	Dend. brit. 168
2004.	CARLUDO'VICA. *Fl. per.*	CARLUDOVICA.					*Pandaneæ.*		Sp. 3—5.				
13442	angustifólia *Fl. per.*	narrow-leaved	♃	◬	or	3	...	W	Peru	1818.	Sk	p.l	
13443	latifólia *Fl. per.*	broad-leaved	♃	◬	or	3	jl.au	W	Peru	1818.	Sk	p.l	
13444	palmáta *Fl. per.*	palmate	♃	◬	or	3	jl.au	W	Peru	1818.	Sk	p.l	
2005.	CALA'DIUM. *W.*	CALADIUM.					*Aroideæ.*	Sp.	16—37.				
13445	helleborifólium *W.*	Hellebore-lvd.	♃	◬	or	2	jn.jl	W	Caraccas	1796.	R	s.p	Jac. ic. 3. t. 613
13446	bicolor *W.*	two-colored	♃	◬	or	1	jn.jl	W	Madeira	1773.	R	s.p	Bot. mag. 820
13447	nymphæifólium *W.*	Water-lily-lvd.	♃	◬	or	4	...	W	E. Indies	1800.	R	s.p	Rhe.mal.11 t.22
13448	esculéntum *W.*	esculent	♃	◬	clt	2	...	W	America	1739.	R	s.p	Sl.jam.1.t.106.f.1
13449	sagittifólium *W.*	arrow-leaved	♃	◬	or	2	...	W	W. Indies	1710.	R	s.p	Jac.vind. 2. t.157
13450	pinnatifidum *W.*	pinnatifid	♃	◬	or	2	...	W	Caraccas	1817.	R	s.p	Jac.schœ.2.t.187
13451	seguinum *W.*	Dumb-Cane	♄	☐	or	6	my	W	America	1759.	R	s.p	Hook. ex. fl. 1
13452	grandifólium *W.*	great-leaved	♄	☐	or	6	my.jl	W	Caraccas	1803.	R	s.p	Jac.schœ.2.t.189
13453	arboréscens *W.*	tree	♄	☐	or	8	jn.jl	W	W. Indies	1750.	R	s.p	Plu. ame.44. t.60
13454	tripartitum *W.*	ternate-leaved	♄	☐	or	3	...	W	Caraccas	1816.	R	s.p	Jac.schœ.2.t.190
13455	auritum *W.*	ear-leaved	♄	☐	or	3	...	W	America	1739.	R	s.p	Jac.schœ.2.t.191
13456	lácerum *W.*	torn	♄	☐	or	4	...	W	Caraccas	1822.	R	s.p	
13457	odorátum *Roxb.*	fragrant	♃	◬	or	2	mr	W	Pegu	1818.	R	s.p	Bot. reg. 641
13458	maculátum *Lodd.*	spotted	♄	☐	or	6	mr	G	S. Amer.	1820.	C	s.p	Bot. cab. 608
13459	scándens *W.*	climbing	♃	☐	or	2	...	W	Guinea	1822.	R	s.p	Fl. d'Oware, t. 3
13460	xanthorhizum *Jacq.*	yellow-rooted	♄	☐	or	4	...	W	......	1822.	R	s.p	Jac.schœ.2.t.188



History, Use, Propagation, Culture,

to be only a variety of this species. The acorns of Q. esculus are sweet, and, it is said, are frequently eaten by the poor in the south of France: the tree very much resembles the common English oak.

The willow oak grows to the height of about fifty or sixty feet. The Q. virens, or live oak, grows to the height of forty or fifty feet, spreading its branches, when in open places, extremely wide; it yields the finest and most durable ship-timber of any species known; for which reason it is considered one of the most valuable trees in America. The laurel-oak, or, as it is sometimes called, swamp willow oak, is about fifty or sixty feet high; its wood, according to the elder Michaux, is very valuable, and almost preferable to that of Q. virens. The water oak, Q. aquatica, is about forty feet high when full grown: its wood is but little valued. Its leaves vary according to the soil and age, *ad infinitum*. There is scarcely one tree found having leaves like the other; and the same tree is almost as variable in its different branches. The downy black oak, Q. triloba, is from twenty to forty feet high, according to Michaux, of very rapid growth, and extremely well calculated for inclosing land. The barren oak, or black jack of the Virginians, Q. nigra, is of low growth, especially in the more northern states; it bears very abundantly, and furnishes a fine mast for hogs; the wood is small, but excellent for fuel. The black oak, or Quercitron, Q. tinctoria, is one of the largest trees of the American forest, and highly valuable on account of its timber as well as bark, which is very superior for tanning to any other oak. Q. falcata is a very large tree, commonly called Spanish oak. The wood of the upland white oak, or iron oak, is of great value in ship-building. The fruit of the Q. Prinus, known by the name of the chesnut white oak, swamp chesnut oak, and, in the southern states of North America, white oak, is large, and of a sweet taste. The bark of the rock chesnut oak, Q montana, is excellent for tanning. The yellow oak, Q. castanea, is a large and beautiful tree with eateable acorns.

2001. *Liquidambar*. From this tree flows a strong balsamic substance, which has been compared to ambergris, and named from *Ambar*, amber, and *liquidum*, fluid. L. styraciflua, in its general form and leaves, bears a considerable resemblance to the lesser Maple, (Acer campestre) as the wood is good timber and beautifully variegated. Between the wood and the bark issues a fragrant gum, which trickles from the wounded trees, and by the heat of the sun congeals into transparent drops, which the Indians chew as a preservative to their teeth. It smells like the balsam of Tolu. The species are propagated by layers, or from seeds.

The sweet gum-tree, or Liquidambar styraciflua, is sometimes found of an immense size, particularly in the southern states; its wood is of an exquisite hard texture and fine grain, and furniture made of it has a handsome appearance.

2002. *Platanus*. From πλατυς, ample, broad, in allusion to the shadow afforded by the foliage. The species are trees of peculiar grace and elegance, and from that circumstance, and the classical associations attached to them, they are eminently adapted for pleasure grounds. The chenar, or eastern plane, is very much employed

13432 Leaves oblong sinuate serrated downy beneath, Bark fungous
13433 Lvs. obl. smooth glaucous ben. deeply and unequally pinnatif. Fruit ellipt.-ovate, Cal. cup-shaped fringed
13434 Lvs. obl. deeply sinuated smooth much contracted in the middle: lobes acute; the upper ones dilated angular and abrupt, Calyx of the fruit globose muricated nearly covering the nut

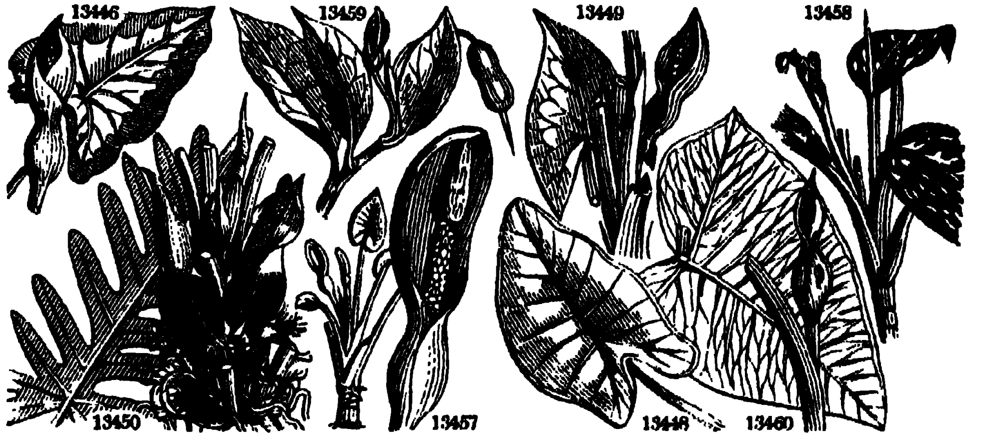
13435 Leaves palmate-lobed, Recesses at the base of the veins villous
13436 Leaves palmate-lobed, Recesses at the base of the veins smooth

13437 Leaves 5-lobed palmate cuneate at base, Segm. lanceolate sinuated, Stipules nearly entire
13438 Leaves 3-5-lobed toothed cuneate at the base smoothish
13439 Leaves cordate 5-lobed remotely toothed truncate at base
13440 Leaves 5 angular obsoletely lobed toothed cuneate at base downy beneath

13441 The only species

13442 Fronds forked: segments ensiform narrow, Stems round
13443 Fronds forked: segments lanceolate, Stems channelled
13444 Fronds flabelliform 3-5-parted

13445 Stemless, Leaves pedate entire, Spadix as long as spathe [contracted in the middle
13446 Stemless, Lvs. pelt.-cordate sagittate colored in the disk, Spadix shorter than the hooded spathe, which is
13447 Stemless, Lvs. peltate-cordate sagittate, Spadix longer than the cylindrical spathe sagittate at end
13448 Stemless, Leaves peltate-cordate, Spadix shorter than ovate-lanceolate spathe
13449 Stemless, Leaves sagittate acuminate, Spadix shorter than ovate-cucullate spathe
13450 Stemless, Leaves pinnatifid
13451 Caulescent suberect, Leaves oblong cuspidate, Spadix shorter than oblong spathe
13452 Caulescent rooting, Leaves cordate sagittate, Spadix as long as the cucullate ovate spathe
13453 Caulescent erect, Leaves sagittate, Spadix shorter than the cucullate ovate spathe
13454 Caulescent rooting, Leaves ternate, Petioles naked, Spadix as long as the cucullate ovate spathe
13455 Caules. root. Lvs. tern.: lat. leaflets eared at base on outside, Petiol. winged bel. Spad. shorter than spathe
13456 Caulescent rooting, Leaves cordate sinuate
13457 Caulescent, Leaves cordate with rounded lobes, Spadix as long as cymbiform spathe
13458 Caulescent suberect, Leaves oblong acuminate cuspidate cordate at base finely spotted with clear white
13459 Caulescent scandent, Leaves ovate oblong acuminate, Spadix longer than cucullate spathe
13460 Caules. erect, Lvs. cord. sagittate, Spadix shorter than spathe, which is cucullate and contracted in middle



and Miscellaneous Particulars.

in the gardens of Persia and India; it was highly esteemed by the Greeks and Romans, and was planted near their houses in the form of avenues and groves. Groves of these trees are still equally revered in India, and are commonly found near the native temples and burial places of the princes. The timber is considered of similar quality to that of sycamore. All the species are of easy culture by layers, and they will also grow by cuttings.

The Platanus occidentalis is known in America by the name of the button-wood, water beech, sycamore, and plane-tree; in Canada it is called cotton-tree. It is, perhaps, the largest tree in North America; on the fertile banks of the Ohio and Mississipi there are trees measuring from ten to sixteen feet in diameter.

2003. *Salisburia.* So called in honor of Richard Anthony Salisbury, F. R. S., a modern distinguished botanist. A large tree remarkable for its fan-shaped leaves, cloven like some of the Adiantum species The fruit is a pale brown drupe of a globular form; it has never been produced in this country, though there are trees of a considerable size The fruit is yellow when ripe, with a fleshy, juicy, white pulp, adhering closely to the drupe, which is like that of an apricot. The kernel is white, rather firm, sweet, with a mixture of austerity or bitterness when raw, but agreeable when roasted. Dr. Abel says, he saw the fruit exposed in the markets in China, but could not find out to what purpose it was applied.

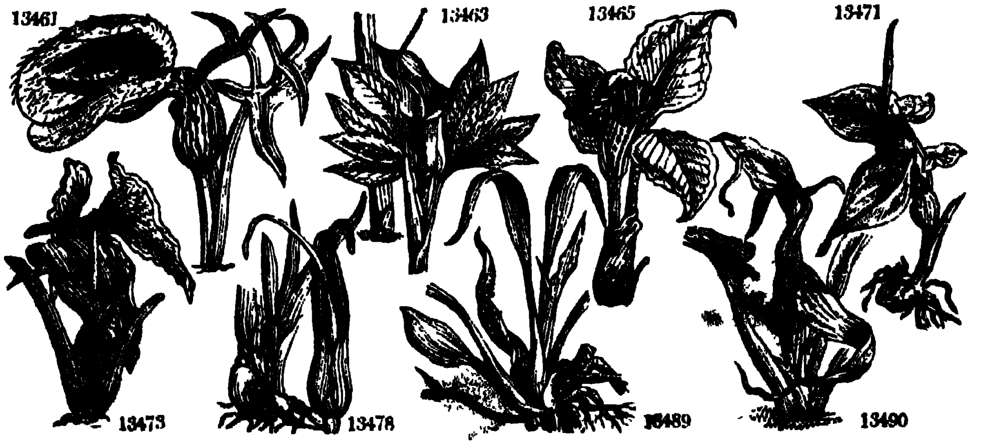
2004. *Carludovica.* Named by the authors of the Flora Peruviana, in honor of Charles IV., king of Spain, and Luiza, his queen; both of whom were noble patrons of botany, and deserving of a finer genus to commemorate their virtues. The species are low palm-like herbs, of little beauty, but of great botanical interest.

2005. *Caladium.* A name originally employed by Rumphius, to designate some species of Arum, and revived by Ventenat. Its meaning is unknown. The species have the appearance of Areca, and are only cultivated for their singularly spotted stems, or neat green leaves, which are rarely disfigured by any of the accidents to which other stove plants are liable. The species are plants of the same general appearance as Arum. C. sagittifolium, *Chou-de-Bresil*, Fr., and *Essbare Arum*, Ger., bears a near resemblance to Arum Colocasia, and is carefully cultivated in the West Indies for the leaves, which are boiled and eaten as coleworts, being extremely pleasing to the taste. The roots are also eaten there, but they are in less esteem than the leaves. This is generally supposed to be the species of the Arum family the most universally cultivated. It is found in the East and West Indies, China, Japan, New Zealand, and the South Sea Islands. The root is extremely acrid, and when eaten raw, will excoriate the mouth; but baked in hot ashes, it looses its acrimonious quality, and becomes mild and well tasted; it is, however, heavy on a weak stomach, and is apt to occasion costiveness. The leaves, which are very soft, glaucous, and covered with a very fine silky nap, are used in many places instead of plates and dishes.

2006. A'RUM. *W.*	Arum.					*Aroideæ.*		*Sp.* 30—45.				
13461 crinitum *W.*	hairy-sheathed	¥	△	cu	1	mr.ap	Br	Minorca	1777.	R	s.l	Bot. reg. 831
13462 Dracúnculus *W.*	Comm. Dragon	¥	△	or	3	jn.jl	Br	S. Europe	1548.	R	s.l	Mor. s.13.t.5.f.46
13463 Dracóntium *W.*	Green Dragon	¥	△	or	2	jn	G	N. Amer.	1759.	R	s.l	Bot. reg. 668
13464 venósum *W.*	purple-flower'd	£	⍍	cu	1½	mr	Pu	......	1774.	R	s.l	
13465 triphýllum *W.*	three-leaved	¥	△	cu	½	my.jn	Br	N. Amer.	1664.	R	s.l	Bot. mag. 950
13466 atrorúbens *W.*	purple-stalked	¥	△	cu	1	jn.jl	Br	N. Amer.	1758.	R	s.l	Pluk.al. t.148.f.6
13467 ternátum *W.*	Japan	¥	△	cu	¾	my.jl	Pu	Japan	1774.	R	s.l	
13468 Colocásia *W.*	Egyptian	✱	⍍	cul	2	...	G	Levant	1551.	R	s.p	
13469 macrorhizon *W.*	long-rooted	✱	⍍	cu	2	...	G	E. Indies	1803.	R	s.p	Herm. parad. 73
13470 divaricátum *W.*	divaricated	✱	⍍	cu	2	jn.jl	G	E. Indies	1759.	R	s.p	Rhe.mal.11. t.20
13471 trilobátum *W.*	three-lobed	✱	⍍	cu	1	my.jn	Pu	Ceylon	1714.	R	s.p	Bot. mag. 339
13472 maculátum *W.*	common	✱	△	w	1	my.jl	W	Britain	sha.pl.	R	co	Eng. bot. 1298
13473 orixénse *R. Br.*	Orixian	✱	⍍	or	1	au.o	Pu	E. Indies	1802.	R	s.p	Bot. reg. 450
13474 itálicum *W.*	Italian	¥	△	or	1½	my.jn	L.Y	Italy	1683.	R	co	Bot. mag. 2432
13475 minútum *W.*	small	✱	⍍	cu	½	my.jl	Pu	E. Indies	1812.	R	co	Rhe.mal.11. t.17
13476 virgínicum *W.*	Virginian	¥	△	cu	1	jn.jl	R	N. Amer.	1759	R	s.p	
13477 Arisárum *W.*	Friar's Cowl	¥	△	cu	1½	ap.jn	L.Y	S. Europe	1596.	R	s.l	Jac.schœ.2.t.192
13478 tenuifólium *W.*	Grass-leaved	¥	△	cu	1	ap.jn	W	S. Europe	1570.	R	s.p	Bot. reg. 512
13479 cucullátum *Lour.*	hooded	ɱ	□	cu	2	...	G	China	1824.	R	s.p	
13480 indicum *Lour.*	Indian	ɱ	□	cu	5	...	Br	China	1824.	R	s.p	
13481 obtusilóbum *Link.*	blunt-lobed	£	⍍	or	2	...	...	......	1824.	R	l.p	
13482 sagittifólium *Link.*	arrow-headed	£	⍍	or	2	...	...	......	1824.	R	l.p	
13483 viviparum *Lodd.*	viviparous	£	⍍	or	1½	my	G	......	1817.	R	l.p	Bot. cab. 281
13484 integrifólium *Link.*	entire-leaved	ɱ	□	or	3	my.jn	G	......	1825.	R	l.p	
13485 ramósum *Link.*	branched	ɱ	□	or	3	my.jn	...	......	1810.	R	l.p	
13486 hederáceum *W.*	Ivy-leaved	£	⍍	cu	6	my.jn	Pu	W. Indies	1793.	R	l.p	Jac. amer. t. 152
13487 lingulátum *W.*	tongue-leaved	£	□	cu	6	...	...	W. Indies	1793.	R	l.p	Plum. ic. 26. t 37
13488 bulbiferum *B. M.*	bulb-bearing	£	⍍	or	3	my	Pa	Bengal	1813.	R	l.p	Bot. mag. 2072
13489 spirále *W.*	spiral	£	⍍	or	1	my	Br	China	1816.	R	l.p	Bot. mag. 2220
13490 flagellifórme *Lodd.*	whip-lash	£	⍍	cu	1	my	Br	Bengal	1819.	R	l.p	Bot. cab. 396
2007. CARYO'TA. *W.*	Caryota.					*Palmæ.*		*Sp.* 2—3.				
13491 úrens *W.*	torn-leaved	⸸	□	or	20	...	W	E. Indies	1788.	S	r.m	Rhee mal.1. t.11
13492 mitis *Lour.*	unarmed	⸸	□	or		...		China	1820.	S	r.m	

MONADELPHIA.

2008. NI'PA. *Thunb.*	Nipa.					*Palmæ.*		*Sp.* 1.				
13493 frúticans *Thunb.*	shrubby	⸸	□	or	10	...	W	E. Indies	1822.	S	r.m	Rumph. 1. t. 16
2009. ARE'CA. *W.*	Cabbage-Tree.					*Palmæ.*		*Sp.* 5—9.				
13494 Cátechu *W.*	medicinal	⸸	□	clt	30	...	W	E. Indies	1690.	S	r.m	Rox. cor. 1. t. 75
13495 húmilis *W.*	dwarf	⸸	□	clt	6	...	W	E. Indies	1814.	S	r.m	Rump.amb.1.t.7
13496 oleràcea *W.*	esculent	⸸	□	clt	40	...	W	W. Indies	1656.	S	r.m	Jac. amer. t. 170



History, Use, Propagation, Culture,

2006. *Arum.* Formerly *aron;* supposed to be an ancient Egyptian word by which the A. colocasia was known. The last mentioned name is an alteration of its Arabic denomination *golqâs*, according to Forskahl. Perennial herbaceous plants, mostly natives of hot climates. The roots are fleshy, hot, and acrid, but in many species eatable; they are generally without stems, and altogether, with the Caladiums, form a very singular family. A. Dracunculus, *Serpentaire*, Fr., *Drachenwarz*, Ger., and *Dracunculo*, Ital., is a very remarkable plant; the stalks of the leaves being spotted with brown and purple, like the belly of a snake. The flower, which, like others of the genus, has a very singular appearance, smells so strongly of carrion, that few persons can endure it. It might be used in medicine and domestic economy for the same purposes as A. maculatum. A Colocasia has a tuberous thick large oblong root, and leaves resembling those of the water-lily. In Egypt and the Levant, this plant is esteemed a wholesome food, though not very delicate. The roots and petioles are boiled, and the leaves when young are sometimes eaten raw. A. trilobatum, and various others, are similarly used in the West Indies. There and in Europe the culture of all the species is of the simplest kind.

A. maculatum, *Gouet*, Fr., *Aronswartzel*, Ger., and *Aro*, Ital., has a tuberous whitish root about the size of a large nutmeg, which is used both as food and medicine. On tasting them, they seem to be merely mucilaginous and insipid, but they soon affect the tongue with a pungency as if pricked by needles; this uneasy sensation may be alleviated by milk, butter, or oil. The acrimony is lost in drying, and the roots become farinaceous, insipid, and fit for boiling or baking. In the Isle of Portland, where the plant is very abundant, the roots are generally eaten by the country people; they are macerated, steeped, and the powder so obtained is dried and sent to London, and sold under the name of Portland sago. Medicinally, the root in its recent state is stimulant, diaphoretic, and expectorant. Though retained [illegible]ria Medica, it is seldom used. The berries which succeed the flower are devoured by birds; and Mr. Curtis thinks, that even the roots are eaten by them, particularly pheasants. Dried and powdered, they are used by the French as a wash for the skin, under the name of cypress powder.

2007. *Caryota.* The Greeks gave this name to a kind of cultivated date. Pliny says, it was so called,

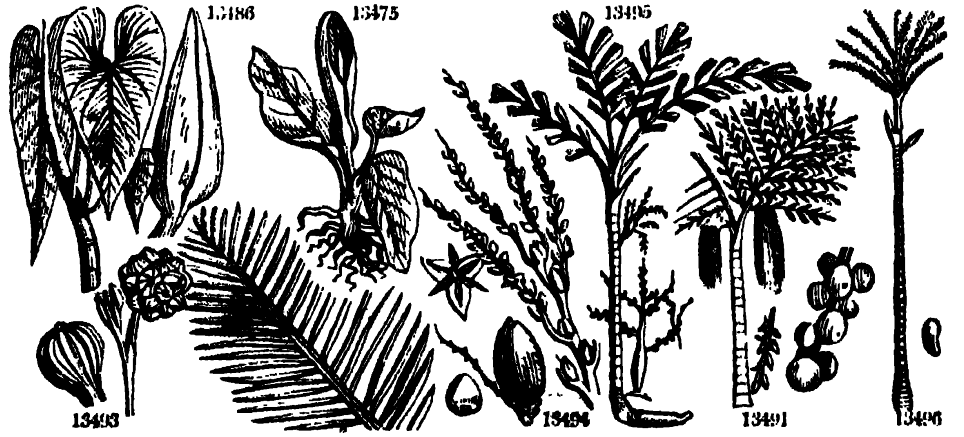
13461 Leaves pedate entire, Spadix cylindrical shorter than ovate flat spathe, which is hairy inside
13462 Leaves pedate entire, Spadix lanceolate shorter than the ovate flat smooth spathe
13463 Leaves pedate entire, Spadix subulate longer than the oblong convolute spathe
13464 Leaves pedate entire, Spadix shorter than lanceolate spathe
13465 Stemless, Leaves ternate entire, Spadix clavate shorter than ovate acuminate flat stalked spathe
13466 Stemless, Leaves ternate ovate twice as short as spadix
13467 Stemless, Leaves ternate, Spadix longer than spathe
13468 Stemless, Leaves peltate ovate repand emarginate at base
13469 Stemless, Leaves paltate cordate repand 2-parted at base
13470 Stemless, Leaves cordate hastate, Spadix subulate longer than the reflexed ovate-lanceolate spathe
13471 Stemless, Leaves sagittate 3-lobed, Flowers sessile
13472 Leaves all radical hastato-sagitate : lobes deflexed, Spadix club-shaped obtuse shorter than the spathe
13473 Leaves hastate 3-parted, Spathe stalked 2-colored longer than spadix : the end lanceolate and deflexed
13474 Stemless, Lvs. veiny with white hastate sagit. : lobes auricled divaricating, Spad. clav. shorter than spathe
13475 Stemless, Lvs hastate sagittate mucronate : lobes deflex. Petioles dotted, Spad. cylind. shorter than spathe
13476 Stemless, Leaves hastate cordate acute : angles obtuse [cucullate spathe
13477 Stemless, Lvs. hast. sagittate mucron. : lobes deflexed oblong obtuse, Spadix cylind. incurved shorter than
13478 Stemless, Leaves linear-lanceolate, Spadix subulate longer than lanceolate spathe
13479 Caulescent erect, Leaves peltate cordate: auricles cucullate
13480 Caulescent suberect, Leaves ovate bifid at base rounded, Spadices axillary
13481 Caulescent, Leaves peltate cordate acute cut out at the base with a wide recess
13482 Leaves sagittate acute rounded at base
13483 Leaves peltate cordate sagittate, Spathe roundish oblong acute, Spadix obtuse much shorter than spathe
13484 Leaves lanceolate acute entire, Edge of petiole sheathing, Spathe cucullate
13485 Leaves peltate cordate
13486 Caulescent rooting, Leaves cordate oblong acuminate, Petioles round
13487 Caulescent creeping, Leaves cordate lanceolate, Petioles with a membranous edge
13488 Stemless, Leaves decompound bulbiferous, Spadix oblong ovate shorter than the obtuse veiny spathe
13489 Stemless, Leaves linear lanceolate, Spadix lanceolate shorter than the oblong lanc. spirally twisted spathe
13490 Steml. Lvs. ov. ent. or 3-lob. Spathe urceol. at base : reflex. and taper-point. at end, Spadix length of spathe

13491 Unarmed fronds bipinnate, Leaflets cuneiform obliquely bitten off
13492 Fronds bipinnate, Petioles nodding, Fruit 1-seeded

MONADELPHIA.

13493 Frond pinnated, Female flowers terminal capitate : male lateral with dichotomous peduncles

13494 Fronds pinnated, Leaflets plaited terminal bitten off, Stems and spadices smooth
13495 Fronds pinnated, Leaflets cuneiform truncate, Fruit globose ovate acute
13496 Fronds pinnated, Leaflets linear acute, Fruit oblong incurved



and Miscellaneous Particulars.

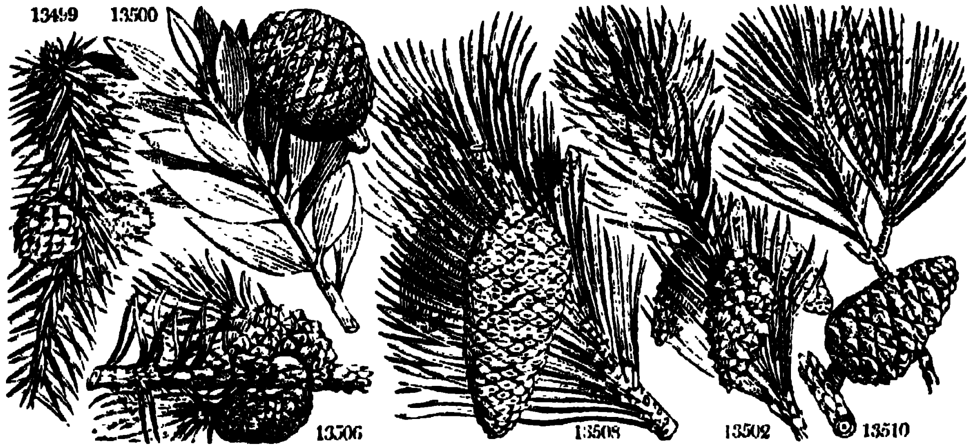
because a wine was prepared from it which soon got into the head, κάρα, head. C. urens, a fine species of palm, produces flowers in long pendulous spikes, which are succeeded by strings of succulent globular berries, dark red when ripe, with a thin skin, soft pulp, and very sharp and acrid to the taste. In Ceylon, it yields a sort of liquor, sweet, wholesome, and no stronger than water. It is taken from the tree twice or thrice a day, and an ordinary tree will yield three or four gallons. They boil this liquor, and thus make a kind of brown sugar of it, called Jaggory. The fruit is not eatable. When the tree has come to maturity, there comes out a bud from the top; this bud they cut and prepare by putting salt, pepper, lemons, garlick, leaves, &c. over it, which keep it from ripening. They daily cut off a thin slice from the end, and the liquor drops into a vessel, which they set to catch it. The buds, like those of the Cocoa and Betel-nut, are excellent in taste, resembling walnuts or almonds. C. mitis is a very beautiful palm, with fronds four feet long and a branched spike of flowers, succeeded by berries, round, coriaceous, smooth, black, the size of a musket bullet, but not eatable. Both species grow freely in sandy loam.

2008. *Nipa.* The name given to this fine palm in the Moluccas.

2009. *Areca.* The name which this palm bears in Malabar is, when it is an old tree, *Arecc;* when young it is called *Payngu.* A. Catechu produces the nut which is cut in slices, wrapped in the aromatic leaves of the betel-pepper, and chewed as we do tobacco. These leaves are previously covered with a thin layer of shell-lime (Ehunam), to preserve the flavor longer in the mouth. In most parts of the East Indies the natives are continually chewing it, swallowing their saliva tinctured with the juice, and spitting out the rest. The inside of their mouths appears as red as blood, and it gives their teeth a dark color: but it preserves the teeth, sweetens the breath, and is a stomachic and diuretic. This palm is very generally cultivated in the East Indies.

A. oleracea is the highest of the American palms, and is very distinct from the East Indian Areca. The sheaths of the leaves are very close, and form the green top of the trunk a foot and a half in length. The

13497 **crinita** *W.*	hairy-coated	‡	☐	or	20	...	W	I. France	1824.	S	r.m	
13498 **lutéscens** *W.*	yellow	‡	☐	or	20	...	W	I. France	1824.	S	r.m	
2010. **BE'LIS.** *Salisb.*	Belis.					*Coniferæ.*	*Sp.* 1.					
13499 **jaculifólia** *Salisb.*	lance-leaved	‡	⊔	or	20	...	Ap	China	1804.	C	p.l	Lam.pin.52. t.34
Pinus lanceolata												
2011. **A'GATHIS** *Salisb.*	Dammar Pine.					*Coniferæ.*	*Sp.* 2—3.					
13500 **loranthifólia** *Salisb.*	common	‡	☐	or	30	...	Ap	Amboyna	1804.	C	p.l	Rumph. 2. t. 57
Pinus Dam'mara												
13501 **austrális** *Hort.*	Kawrie Pine	‡	☐	tm	100	...	Ap	N. Zeal.	1821.	C	p.l	
2012. **PI'NUS.** *W.*	Pine					*Coniferæ.*	*Sp.* 22—27.					
13502 **sylvéstris** *W.*	Scotch	‡		tm	80	my	Ap	Scotland	sc.alp.	S	s.l	Lamb. pin.1. t. 1
13503 **Pumilio** *W.*	dwarf	‡		or	20	ap.my	Ap	Carniola	1779.	S	s.l	Lamb. pin.5. t. 2
13504 **Laricio** *P. S*	Corsican	‡		tm	80	...	Ap	Corsica	1814.	S	s.l	Lamb.pin.2.28.9
13505 **púngens** *Ph*	pungent	‡		tm	40	...	Ap	N. Amer.	1804.	L	s.l	Mi arb.1.p.61.t 5
13506 **Banksiána** *Ph.*	Scrub Pine	‡		or	12	my.jn	Ap	Huds. Bay	1785.	L	s.l	Lamb. pin 7. t. 3
13507 **Múghus** *W.*	Mugho	‡		or	10	my.jn	Ap	Switzerl.	...	S	co	Jac.ic.ra.1. t.193
13508 **Pináster** *W.*	cluster	‡		tm	60	ap.my	Ap	S. Europe	1596.	L	s.l	Lam.pin.9. t.4, 5
13509 **Pinea** *W.*	stone	‡		tm	40	my	Ap	S. Europe	1548.	L	s.l	La.pin 11.t.6,7,8
13510 **marítima** *W.*	maritime	‡		tm	40	my.jn	Ap	S. Europe	1759.	L	s.l	La.pin.13. t.9, 10
13511 **halepénsis** *W.*	Aleppo	‡		tm	40	my	Ap	Levant	1683.	L	s.l	Lam.pin.15. t.11
13512 **inops** *Ph.*	Jersey	‡		tm	50	my	Ap	N. Amer.	1739.	S	s.l	Lam.pin.18. t.13
13513 **resinósa** *Ph.*	pitch	‡		tm	50	my	Ap	N. Amer.	1756.	L	s.l	Lam.pin.20. t 14
13514 **variábilis** *Ph.*	two and 3-leav.	‡		tm	40	my.jn	Ap	N. Amer.	1739.	L	s.l	Lam.pin.22. t.15
13515 **Tæ'da** *Ph.*	frankincense	‡		tm	30	my jn	Ap	N. Amer.	1713.	L	s.l	La. pi 23. t.16,17
13516 **excélsa** *Wall.*	Nepal	‡	⊔	tm	100	...	Ap	Nepal	1823.	S	s.l	La. pi. 2. 5 3
13517 **serotina** *Ph*	Fox-tail	‡		or	60	my.jn	Ap	N. Amer.	1713.	S	s.l	Mi.arb.1 p.86.t.7
13518 **rigida** *Ph.*	three-leaved	‡		or	80	my.jn	Ap	N. Amer.	1759.	L	s l	La. pi.25. t.18,19



History, Use, Propagation, Culture,

inhabitants cut off this top, take out the white heart of two or three inches in diameter, consisting of the leaves closely folded together, and eat it, either raw with pepper and salt, or fried with butter like the artichoke.

2010. *Belis.* Named by R. A. Salisbury, in the Transactions of the Linnean Society, from βελος, a javelin, on account of the form and texture of the leaves, which are not unlike a javelin head. B lanceolata is a beautiful evergreen shrub, with distichous neat leaves, easily cultivated in any good conservatory

2011. *Agathis.* From αγαθις, a cluster, because the flowers are collected in clusters. This genus is formed of the Dammar Pines, of which the A. australis, or New Zealand Cowdie Pine, is one of the finest trees in the world, often growing perfectly straight to the height of 100 feet or more, and yielding one of best descriptions of wood for masts.

2012. *Pinus.* This name is of Celtic origin, and is the same in all the dialects of that tongue. *Pin* or *pen*, a rock or mountain, has given rise to *pin*, in Armorican; *pinge*, in Erse; *pinua*, in Welsh; *pinu*, in Anglo-Saxon; *pine*, in English; *pynbaum*, in German; all signifying the fir-tree · hence also the Appennines (Alpes pennines), Pennafiel, Pennaflor, &c. towns of Spain embosomed in mountains. The fruit of P. Pinea was formerly called Nux pinea, the pine nut. Pinaster is Pliny's name for the wild pine. Cembra is an alteration of the word *cembro* or *cirmolo*, the name given by the inhabitants of Trentin and Valteline to the plant. Tæda is derived from the Greek δας δαδος, which signifies a torch, for which the wood of P. tæda is particularly adapted. Strobus is a name employed by Pliny for an eastern tree, which was used to perfume apartments. The moderns have applied it to a noble North American species.

The trees which compose this genus are not less remarkable for their grandeur and beauty, than for their valuable timber. They are all evergreens, and of lofty and erect growth. The trunk of the Scotch pine is more generally employed and more universally applicable as timber than any other tree in the temperate zone of the northern hemisphere. P sylvestris, *Pin*, Fr, *Keifer* or *Fohre*, Ger., and *Pino*, Ital., is erroneously called a fir; and has the term Scotch applied to it, because it is the only species of the genus indigenous to Britain, and there only in the northern parts of Scotland. It is also indigenous in the Alps, in the north of Germany, Russia, and abundantly so in Sweden and Norway. The finest pine woods in Britain, are at Invercauld in Inverness-shire, and Gordon Castle in Aberdeenshire. The timber of the Scotch pine is the red or yellow deal of the north of Europe, and is the most durable and valuable of any of the genus, unless we except, in point of durability, the larch. That grown in cold elevated situations in the highlands of Scotland, is found to be not inferior in quality to any imported from Norway; but that which has been planted in the low districts, is greatly inferior in point of durability, and can seldom be used in house carpentry and joinery. The tree is of great value as a nurse plant to others less hardy. The trunk of the tree produces resin by incision, and the roots tar by distillation. Several varieties of the wild pine have been noticed by botanists. According to Sang, the variety commonly cultivated is least worth the trouble. "The P. sylvestris, var. montana," he says, "is the variety which yields the red wood: even young trees of this sort are said to become red in their wood and full of resin very soon. The late Mr. Don, of Forfar, exhibited specimens of cones of each variety to the Highland Society of Scotland, and likewise to the Caledonian Horticultural Society. The variety preferred by Don, is distinguished by the disposition of its branches, which are remarkable for their horizontal direction, and for a tendency to bend downwards close to the trunk. The leaves are broader and shorter than in the common kind, and are distinguishable at a distance by their much lighter and beautiful glaucous appearance.

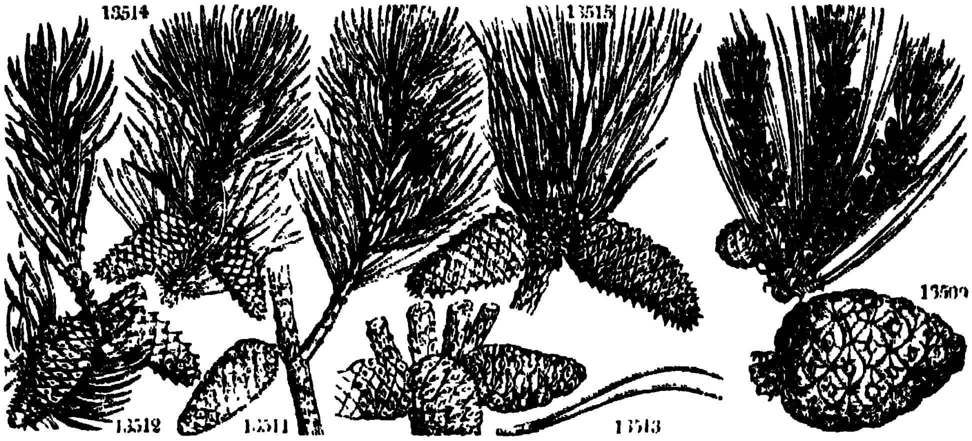
13497 Fronds pinnated, Stems hirsute, Spadixes branched spiny, Spines incurved
13498 Fronds pinnated, Leaflets plaited bitten off, Stems and spadixes branched smooth, Fruit roundish gibbous

13499 Leaves solitary lanceolate flat spreading, Cones round, Scales acuminate

13500 Leaves elliptical lanceolate striated

13501 Leaves ovate oblong smooth not striated

13502 Leaves in pairs rigid, Cones conico-ovate acute as long as the leaves, generally in pairs
13503 Leaves in pairs, Trunk ascending, Cones ovate erect
13504 Lvs. twin very long of two forms, Cones ovate, Scales narrowed at base very thickened at end not angular
13505 Leaves twin short acute, Cones ovate conical, Prickles of scales long subulate incurved: lower reflexed
13506 Leaves twin divaricating oblique, Cones recurved twisted, Crest of anthers dilated
13507 Leaves double or triple rigid, Cones oblong generally in pairs rounded at base
13508 Leaves twin roughish at edge, Cones oblong conical shorter than leaf narrowed at base, Scales echinate
13509 Leaves twin: the first ciliated, Cones ovate blunt somewhat unarmed longer than leaf, Nuts hard
13510 Leaves twin very fine, Cones ovate-conical very smooth solitary stalked
13511 Leaves twin, Cones ovate-conical rounded at base somewhat shorter than leaf, Scales blunt
13512 Leaves twin, Cones oblong-conical the length of leaves solitary rounded at base, Scales echinate
13513 Leaves twin, Cones ovate-conical rounded at base solitary half as short as leaves, Scales unarmed
13514 Leaves twin or ternate, Cones ovate-conical subsolitary, Prickles of scales incurved
13515 Leaves long, Cones deflexed, spines inflexed, Sheath of leaves long
13516 Leaves in 5s very long slender lax toothletted, Cones cylindrical smooth pendulous longer than leaves
13517 Leaves 3 very long, Cones roundish ovate mucronate
13518 Leaves 3, Cones ovate clustered, Spines of scales reflexed, Sheath of leaves short



and Miscellaneous Particulars

The bark of the trunk is smoother than in the common kind. The cones are thicker, and not so much pointed. The plant is more hardy than the common sort, grows freely in almost any soil or situation, and quickly arrives at a considerable size."

P. laricio is said to be nearly allied to the Scotch pine, but a much handsomer and finer tree. Professor Thouin considered it equally hardy with P. sylvestris, its wood is more weighty and resinous, and consequently more compact, stronger, and flexible. It grows wild on the summits of the highest mountains in Corsica. P. resinosa, the red Canadian pine, is not unlike the Scotch pine, but rather redder in the bark. The timber of this tree is frequently imported as masts, and is considered valuable. Grown on a damp and fertile soil, it is much less durable than from elevated situations; it is equally hardy with P. sylvestris. P. pinaster is a grand and picturesque tree, and is a great favorite with the Roman and Florentine painters. The timber is of less value than that of any of the others that have been mentioned, in Switzerland it is cut into shingles for covering their houses. It is highly deserving of culture as an ornamental tree, but not for timber.

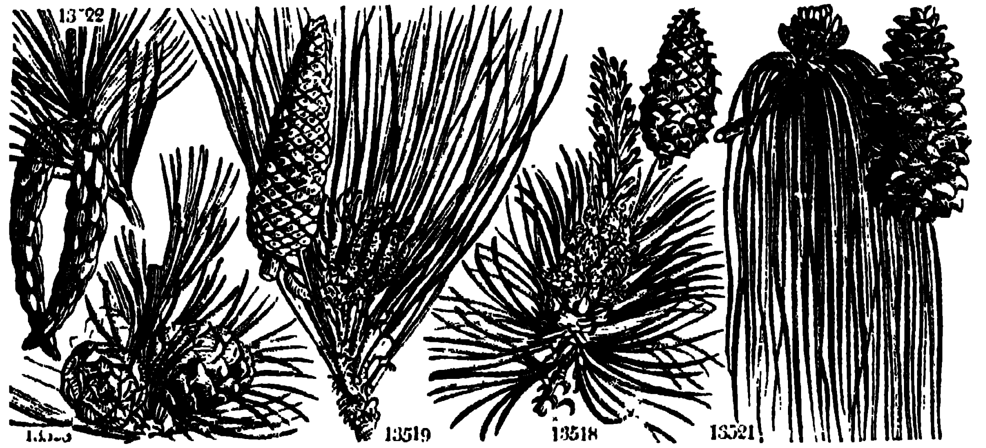
P. Pinea is very common in the south of Italy; there is an immense forest of them at Ravenna, and they are much planted in the gardens of the villas of Rome and Florence. The seeds of this and the last species are eaten throughout Italy, both by the poor and rich. They are as sweet as almonds, but with a slight flavor of turpentine. The wood is not so resinous as that of most of the other sorts, and the tree can only be considered as deserving culture for its pictorial effect. P. Cembra, the Tannenbaum of Lord Byron (Childe Harolde), and the Aphernousli pine of Harte (Essays), grows higher up the Alps than other pines, and is even found at elevations where the larch will not grow. The wood is very soft, and having scarcely any grain, is very fit for the carver. The peasants of the Tyrol, where this tree abounds, make various sorts of carved works with the wood, which they dispose of in Switzerland among the common people, who are fond of the resinous smell which it exhales.

P. Tæda has longer leaves than the wild pine, and larger cones than P. Pinea; the timber is like that of the Scotch pine, but has more resin. There are a number of these trees at Woburn Abbey, which grow as freely as the Scotch pine, and the timber, as far as it has been tried, is superior.

P. palustris is remarkable for the length of its leaves, which often exceed a foot, and hang down in tufts at the end of the branches, having a singular appearance. It grows in a warmer climate than most other pines; produces a valuable timber in America, but has been but little cultivated in this country. P. strobus forms the connecting link between the pine and the larch tribe, and is the tallest tree of the genus. The bark is smooth and elegant, and the leaves numerous, soft, and of a bluish green. The timber is imported in vast quantities under the name of white pine; it is much used in house carpentry, but is considered less durable than the red deal of Norway (P. sylvestris), or the pitch pine of Canada (P. resinosa). The tree seems to be of so delicate a habit, as to prevent our expecting it ever to become very large or valuable in Britain. It has been a good deal cultivated, having formerly been supposed the most valuable tree of the genus, next to the common pine.

The Pinus canariensis seems never to have been well described or understood. Some have taken it for the Pinus Larix, others for the Pinus tæda, whilst others had confounded it with the Pinus maritima. Von Buch, and the late Christian Smith, named it in their catalogue of the vegetation of Teneriff, Pinus canariensis, and they state, that it inhabits that island from the edge of the sea to an elevation of 6700 Parisian feet above the level of the sea; but that the region where it is most abundant may be reckoned at from 4080

13519 palústris *Ph.*	swamp	♀	tm	20	...	Ap	N. Amer.	1730.	S	s.l	Lam.pin.27. t.20
13520 canariénsis *Buch.*	Canary	♀	or	40	...	Ap	Canaries	1815.	S	s.l	Pl. r. gen. c. ic.
13521 longifólia *W.*	long-leaved	♀	or	40	...	Ap	E. Indies	1801.	G	p.l	Lam.pin.29. t.21
13522 Stróbus *W.*	Weymouth	♀	tm	50	ap	Ap	N. Amer.	1705.	L	s.l	Lam pin.31. t.22
13523 Cémbra *W.*	Siberian	♀	tm	25	my	Ap	Siberia	1746.	S	s.l	La. pi.34. t.23, 24
2013. A'BIES. *Salisb.*	Fir.				*Coniferæ.*	*Sp.* 10—12.					
13524 Fraséri *Ph.*	Double Balsam	♀	or	30	my	Ap	Pensylv.	1811.	C	s.l	
13525 Pícea *W.*	Silver	♀	tm	30	my	Ap	Germany	1603.	L	s.l	Lam.pin.46. t.30
13526 Balsámea *W.*	Balm of Gilead	♀	or	50	my	Ap	N. Amer.	1696.	S	s.l	Lam.pin.48. t.31
13527 canadénsis *Ph.*	Hemlockspruce	♀	or	30	my	Ap	N. Amer.	1736.	S	s.l	Lam.pin.50. t.32
13528 orientális *W.*	Oriental	♀	or	30	my	Ap	Levant	1825.	S	co	Lam.pin. c. ic.
13529 clanbrasiliána *Hort.*	Clanbrazil	■	or	6	my	Ap	......	...	L	co	
13530 commùnis	Norway spruce	♀	tm	100	ap	Ap	N. Europe	1548.	S	s.l	Lam.pin.37. t 25
13531 álba *Ph.*	White spruce	♀	tm	50	my.jn	Ap	N. Amer.	1700.	S	s.l	Lam.pin 39. t.26



History, Use, Propagation, Culture,

to 5900 feet, where snow falls for about a month The temperature of the zone M. Decandolle estimates to be similar to that of Scotland, or to the north of France, or of Germany. The wood is resinous, highly inflammable, and is excellent for constructing buildings, being known to continue sound for ages.

The Pinus inops, Jersey pine, pitch or scrub pine, is of middle size, straggling growth, and full of resin Its branches are tougher than those of any other pine, and might be used for many purposes if its wood were not subject to so early a decay. The pitch pine, P. resinosa, is generally known in its native country by the name of Norway pine; sometimes, particularly among the Canadian French, red pine. It grows in close forests, is very tall, and its bark remarkably smooth and red: the timber is very heavy; for which reason it is rejected for masts, though its shape and size appear to recommend it for that purpose The scrub pine, P. Banksiana, is a small straggling tree, which in some instances, when growing among barren rocks, does not rise above five or eight feet high, though it will grow to a considerable size when by accident or culture it is brought on good soil: trees of this species now in England exude a great quantity of resin from their branches The yellow pine, P. variabilis, is most in use for building houses as well as shipping. P. tæda, the loblolly or Oldfield pine, is found in large tracts in the southern states of North America: all the woods seem to be filled with its seeds; for when any piece of cleared land is neglected for any space of time, it will be covered with these pines. It is difficult, and in some cases almost impracticable, to recover lands so run over, as the ground appears to have lost all fertile properties for other vegetation. The long leaved, yellow, pitch, or brown pine, P palustris, is a beautiful as well as very useful tree. The white or Weymouth pine grows in the state of Vermont to an enormous size; it is the best timber in America for masts.

2013. *Abies.* According to Bullet, this name is derived from one of the dialects of the Celtic, *abetoa*, whence *abete*, Italian, *abeto*, Spanish, &c Hesychius, the Greek grammarian, calls it ἀβιν.

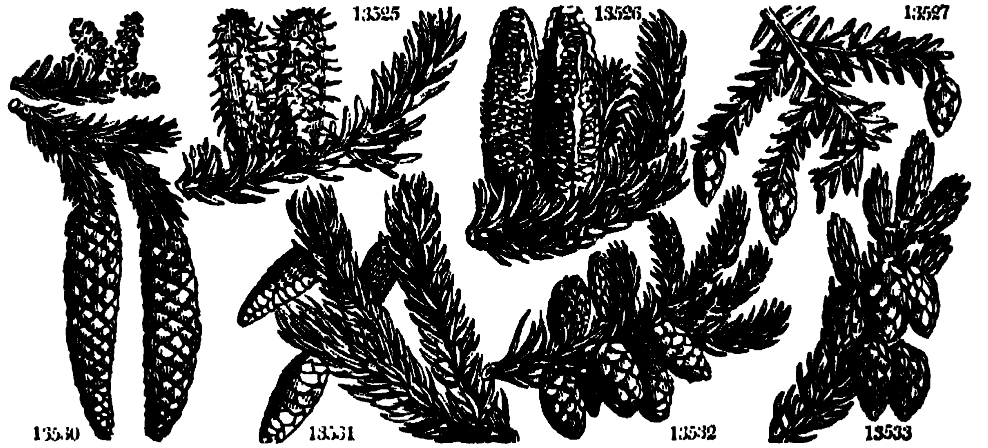
Abies communis, *Sapin*, Fr., *Fichtenbaum*, Ger., and *Abiete*, Ital., is one of the tallest of European firs, with a very straight but not thick trunk. It is a native of the north of Germany and Russia, and particularly abundant in Norway; its timber being the white deal, and, at an earlier age, the long spars imported from that country and the Baltic. The timber is inferior to that of the common pine in durability and bulk; and being often knotty, is not proportionally strong for horizontal bearings with that timber. White Norway deal, however, is used for a great variety of purposes in building; and the entire trees are more prized than any other for masts for small craft, for spars both for marine purposes and on land. What constitutes the value of this fir is, that its timber is equally durable at any age, like that of the larch, and what renders it peculiarly adapted for masts, spars, scaffolding, poles, &c is its habit, almost in every case, whether standing single or detached, of growing perfectly erect and straight. The tree may be cut for rods, stakes, and scythes, or other implement handles, when the trunk at the base is not more than two inches in diameter, and the bark being kept on it, it will prove almost as durable as the larch. Pontey says, that poles of spruce are so far inferior to those of larch, that they are more apt to crack when exposed whole to the influence of the sun and air: but in all other respects they are nearly equal to it, and in straightness surpass it. The tree is peculiarly valuable as a nurse, from being evergreen and closely covered with branches, by which radiated heat is retained; from its conical shape and rigid stem, by which it does not suffocate or whip the adjoining trees; from its being valuable at whatever age it is thinned out; and from its being an excellent shelter for the most valuable game. It will not, however, grow in elevated situations, where the common pine and larch will flourish. It is also an excellent hedge plant for shelter, but is deficient in point of defence and durability. By incision, it yields a resin, from which, by various preparations, turpentine and Burgundy pitch are formed. The tops or sprouts give the flavor to what is called spruce beer.

A alba, rubra, and nigra, are American firs of the spruce kind, resembling in their general properties those of Europe. The black spruce is reckoned the most durable: in America it is used for knees for ship-building, where neither oak nor larch can be easily obtained. These knees are not prepared from two diverging branches, as in the oak, but from a portion of the base of the trunk connected with one of the largest diverging roots The timber of the red spruce is universally preferred throughout the United States for sail yards, and, indeed, imported for this purpose into Liverpool from Nova Scotia, where it is also used for constructing casks for salted fish. It is chiefly from the decoction in water of young shoots of the black spruce, and not exclusively from those of the white species, as supposed by Lambert, that the celebrated beer is prepared by fermentation, with a due proportion of sugar and molasses. The essence of spruce of the dealers is prepared by evaporating this decoction to the consistence of honey.

A. picea displays a more stable and majestic form than any of the firs. The upper surface of the leaves is of a fine vivid green, and their under surface has two white lines running lengthwise on each side of the

13519 Leaves 3 very long, Cones subcylindrical muricated, Stipules pinnatifid ragged persistent
13520 Lvs very fine and slender of a bright glaucous green, Cones oblong pendulous, Scales obtuse spreading
13521 Leaves 3 very fine very long, Sheath long, Stipules entire deciduous, Crest of anthers convex entire
13522 Leaves quinate, Cones cylindrical longer than leaf lax
13523 Leaves quinate, Cones ovate obtuse, Scales appressed, Nuts hard

13524 Leaves solitary glaucous beneath emarginate, Cones ovate obl. erect, Bractes oblong reflexed emarginate
13525 Leaves solitary flat emarginate pectinate, Scales of cone very blunt appressed
13526 Leaves solitary flat emarginate subpectinate suberect above, Scales of the cone in fl. acuminate reflexed
13527 Leaves solitary flat toothletted somewhat distichous, Cones ovate terminal scarcely longer than leaf
13528 Leaves solitary 4-cornered, Cones ovate cylindrical, Scales rhomboid
13529 This is a stunted variety of Abies communis
13530 Leaves solitary 4-cornered, Cones cylindrical, Scales rhomboid flattened repand at end eroded
13531 Leaves solitary 4-cornered incurved, Cones subcylindrical lax, Scales obovate entire



and Miscellaneous Particulars.

midrib, giving the leaves that silvery look which has given rise to the name. The timber is reckoned much inferior in value to that of the common pine, or of the white spruce. It should not be cut till after forty or fifty years growth; at this age, if it has grown in a sheltered rocky steep or dell, it will be found to have produced a great bulk of timber. It is more prolific in resinous matter than any other tree of the fir kind.

A. balsamea is a tree of more delicate habits than the silver fir: its timber is of little value, and the balm or resin procured from it possesses no medical properties superior to those of common turpentine. During summer, the tree sends out a pleasing terebinthinate odor.

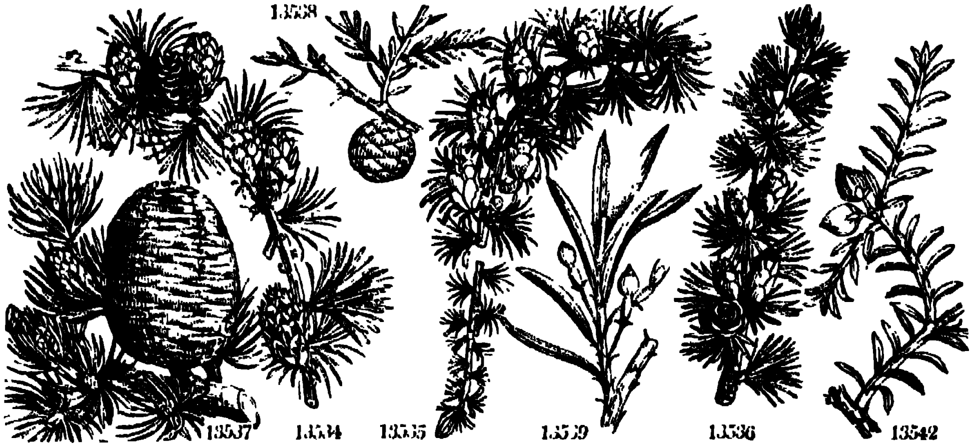
A. canadensis is a drooping low evergreen tree, elegant in appearance, and valuable as growing under the shade or drip of other trees.

All the species of the pine, fir, and larch families, with the exception of one or two, as yet rare in this country, are raised from seeds. The cones are gathered in the winter season, and exposed to the sun, or to a gentle heat on a kiln, in order to facilitate the separation of the seeds. The cones of the cedar should be kept for a year at least after they are taken from the tree, before the seed be attempted to be taken out. This is necessary on account of the soft nature of the seeds, and the great quantity of resinous matter which the cones contain when growing, and which is discharged by keeping. Cedar cones are generally imported from the Levant, and the seeds retain their vegetative powers for many years. The cones of the Scotch pine, spruce, and larch, are the principal kinds which are opened by kiln heat. The cones of the Weymouth pine, silver fir, and balm of Gilead fir, give out their seeds with very little trouble. April is the best season for sowing all the species. The soil should be soft and rich, well mellowed by the preceding winter's frost and snow, carefully dug and raked with a long toothed rake as finely as possible. The rarer sorts are generally sown in pots, but the more common in beds. The manner of sowing is by first drawing off the surface of the bed to the depth of half an inch, then drawing a light roller along it to render the surface perfectly even; next depositing the seed; and afterwards replacing the earth drawn off with a spade as evenly as possible. This is what is technically called bedding in, and is one of the nicest operations of nursery culture. The seed of the Scotch pine and Pinaster require a covering of half an inch in depth; those of the Weymouth pine, three quarters of an inch; and those of the stone pine, an inch and a quarter. The Cedar is generally sown in broad pots, or boxes of light sandy loam, and covered half an inch. The seeds of the larch require a covering of only a quarter of an inch; those of the spruce fir, an inch; those of the silver fir and balm of Gilead fir, from half to three quarters of an inch. The seeds of the American spruce fir are smaller than those of any of the preceding kinds, and therefore require a lighter covering than any of them; one-fifth of an inch is quite sufficient. The strictest attention is required, both in regard to quality of soil, and thickness of covering the seed; for though resinous trees are extremely hardy when grown up, yet they are all very tender in infancy. In sowing the seed, a considerable loss will be sustained by the suffocation of young plants if it is deposited too thick, and by the want of plants if too thin. The judicious gardener will be regulated by the goodness of the seed, and the size of the foliage of the different species. The raising regular crops of the pine family is reckoned a master piece of nursery culture in the open ground; and as it has been most extensively practised in the Scotch nurseries, it is generally considered as best understood there. (See *Sang. Plant. Kal.*)

The pine, fir, and larch families benefit less by transplanting in the nursery than the non-resinous trees. And in general, where circumstances admit, the better plan is to remove them at once from the seed-bed at two years old, to where they are finally to remain. The more delicate species, including the cedar and most of the pines, are best transplanted into pots, unless they can be placed at once where they are to remain. The more common pines and firs are transplanted at two years of age into nursery lines, about the middle of April for all the tribe, excepting the larch, which, being deciduous, should be transplanted in February. No description of tree-plants receive so much injury as this tribe from the loss of roots, from the roots being exposed to the air by being kept long out of the soil, or from compression and exclusion of air and moisture by being kept in close bundles, or thick layers. They should, therefore, be finally planted as soon as possible after removal from the nursery; and, indeed, whenever it is practicable, no more should be taken up in one day than can be planted that day or the next. Nor are any plants more easily deprived of the vital principle, by packing and carriage either by sea or land; though, being all evergreens, excepting the larch, they do not readily show it. This has been stated to us by experienced planters in Wales and different parts of England, as the reason why so few trees are finally produced from the immense numbers of Scotch pine and larch fir annually sent to the south by the Scotch nurserymen.

Abies Balsamea forms an elegant tree forty or fifty feet high. It grows in high and cold situations in the northern states of North America, where it is called balsam of Gilead fir, fir balsam, and American silver fir.

2	rúbra *Ph.*	Red spruce	⚲		tm	50	my	Ap	N. Amer.	1755.	S	s.l	Lam.pin.43. t.28
3	nigra *Ph.*	Black spruce	⚲		tm	50	my	Ap	N. Amer.	1700.	S	s.l	Lam.pin.41. t.27
14.	LA'RIX. *Salisb.*	LARCH.					*Coniferæ.*	*Sp.* 4—5.					
34	commúnis	common white	⚲		tm	50	mr.ap	Ap	Germany	1629.	S	s.l	Lam.pin.53. t.35
13535	péndula *W.*	Black	⚲		tm	30	my	Ap	N. Amer.	1739.	S	s.l	Lam.pin.56. t.36
13536	microcárpa *W.*	Red	⚲		tm	80	my	Ap	N. Amer.	1760.	S	s.l	Lam.pin.58. t.37
13537	Cédrus *W.*	Cedar of Lebanon	⚲		or	60	my	Ap	Levant	1683.	S	s.l	Lam.pin.59. t.37
2015.	SCHUBER'TIA *Mirb*	SCHUBERTIA.					*Coniferæ.*	*Sp.* 1.					
13538	dísticha *Mirb*	deciduous Cypress	⚲		or	30	my	Ap	N. Amer.	1640.	S	s.p	Mic.arb.3.p.4.t.1
	Cuprèssus dísticha L.												
2016.	PODOCAR'PUS *L'Her.*	PODOCARPUS.					*Coniferæ.*	*Sp.* 4—6.					
13539	macrophýllus *Hort*	long-leaved	⚲	⊔	or	10	jl.au	Ap	China	1804.	C	l.p	Bank.ic.Kæ.t.24
13540	verticillàtus *Hort.*	whorl-leaved	⚲	⊔	or	10	...	Ap	Japan	...	C	l.p	
13541	elongàtus *P. S.*	African	⚲	⊔	or	10	jl	Ap	C. G. H.	1774.	C	l.p	
13542	nucífer *P. S.*	nut-bearing	⚲	⊔	or	20	...	Ap	Japan	1822.	C	l.p	Kæ.amœn. t.815
2017.	CUPRES'SUS. *W.*	CYPRESS.					*Coniferæ.*	*Sp.* 5—9.					
13543	sempervirens *W.*	common	⚲		or	20	my	Ap	Candia	1548.	S	co	Dend. brit. 155
	α stricta	*upright*	⚲		or	20	my	Ap	Mediterr.	...	S	co	
	β horizontális	*spreading*	⚲		or	20	my	Ap	Mediterr.	...	S	co	
13544	lusitánica *W.*	Cedar of Goa	⚲	⊔	or	12	ap.my	Ap	Goa	1683.	C	p.l	Lam.pin.95. t.42
13545	thyoides *W.*	White Cedar	⚲		or	20	ap.my	Ap	N. Amer.	1736.	L	co	Dend. brit. 156
13546	juniperoídes *W.*	African	⚲	⊔	or	6	ap.my	Ap	C. G. H.	1756.	C	p.l	
13547	austràlis *P. S.*	slender-branch.	⚲	⊔	or	10	ap.my	Ap	N. Holl.	...	S	p.l	
2018.	THU'JA. *W.*	ARBOR VITÆ.					*Coniferæ.*	*Sp.* 4—9.					
13548	occidentális *W.*	American	⚲		or	25	my	Ap	N. Amer.	1596.	L	co	Mi.arb.3.p.29.t.3
13549	orientàlis *W.*	Chinese	⚲		or	25	my	Ap	China	1752.	S	co	Dend. brit. 149



History, Use, Propagation, Culture,

The hemlock spruce is a very elegant tree, and grows in some situations to an enormous size: its bark is a fine substitute for oak-bark in tanning.

2014 *Larix.* This has also for its root the Celtic word *lar*, which signifies fat, in allusion to the abundance of resin afforded by the plant Even Dioscorides remarks, that *Larix* is the Gallic name for resin. The authors of the Dictionary of Trevoux make the word Cedrus come from κηώδης, sweet-scented, on account of the balsamic odor exhaled by the wood when burned

L. Cedrus, *Cedre*, Fr, *Cederbaum*, Ger., and *Cedro*, Ital, is unquestionably the most celebrated tree of the genus, and not less remarkable for the irregular grandeur of its form The general character of its shoot, even when the tree is young, is singularly bold and picturesque, and quite different from that of every other species of the tribe It is a native of the coldest parts of the mountains of Libanus, Amanus, and Taurus; but it is not now to be found in those places in great numbers Maundrell, in his journey from Aleppo to Jerusalem, in 1696, could reckon only sixteen large trees, though many small ones; one of the largest was twelve yards six inches in the spread of its boughs. The forest of Libanus never seems to have recovered the havoc made by Solomon's forty score thousand hewers: so that we have now, as Professor Martyn observes, probably more cedars in England than there are in Palestine

From the branchy head of this tree, and its aversion to pruning, it is not likely ever to become valuable as timber in this country. When planted for that purpose, it should, as Sang recommends, be sown in groves, and thus by proximity drawn up with few branches. Much has been said of cedar timber, which borders on the miraculous, as far as experience has gone, it is greatly inferior to that of the common larch, or the wild pine. The great use of the cedar is to plant singly on lawns, or in the margin of plantations, where one or two specimens will give force and character to the dullest front of round-headed trees.

L. Communis, *Meleze*, Fr, *Lerchenbaum*, Ger, and *Larico*, Ital., is a deciduous tree, and there are two or three species or varieties not yet distinctly ascertained. There is a variety with red and another with white flowers; one with cinerous bark, called the Russian larch, and one with pendulous branches. L. pendula and L. microcarpa are considered species or subspecies; the timber of both is said to be harder than that of the common white larch; but these trees have never yet had a fair trial in this country. As there are a few large specimens at Dunkeld and Athol, seeds will probably soon be obtained, and from their progeny a practical estimate may be formed of their merits in this country. The red larch trees on the Athol estates do not contain one-third as many cubic feet of timber as the white larch of the same age. The wood is so ponderous that it will scarcely swim on water. (*Hort. Trans.* iv. 416.) The timber of the white larch has been as much extolled as that of the cedar, and with much more reason. The rapidity of its growth is not less remarkable than the durability of the timber. Both have been experimentally proved in the Highlands of Scotland. It is stated by the Duke of Athol, that on mountainous tracts there, at an elevation of 1500 or 1600 feet, the larch, at eighty years of age, has arrived at a size to produce six loads (300 cubic feet) of timber; appearing in durability and every other quality to be likely to answer every purpose both of civil and naval architecture. (*Hort. Trans* iv. 416.) The tree will arrive at a timber size in almost any situation or soil. Sang, a forest manager of extensive practice, has paid great attention to this tree. "It bears," he says, "the ascendancy over the Scotch pine in the following important circumstances: that it brings double the price, at least, per measureable foot; that it will arrive at a useful timber size in one-half, or a third part of the time, in general, which the pine requires; and, above all, that the timber of the larch, at thirty or forty years old,

13532 Leaves solitary subulate, Cones oblong blunt, Scales rounded somewhat 2-lobed entire at edge
13533 Leaves solitary 4-cornered erect straight, Cones ovate, Scales elliptical wavy at edge erect

13534 Leaves fascicled deciduous, Cones ovate-oblong, Edges of scales reflexed lacerated, Bractes panduriform
13535 Leaves fascicled deciduous, Cones oblong, Edges of scales inflexed, Bractes panduriform sharply acumin.
13536 Leaves fascicled deciduous, Cones roundish few-fl. Scales reflexed, Bractes panduriform bluntly acuminate
13537 Leaves fascicled rigid evergreen acute, Cones roundish, Scales truncate appressed

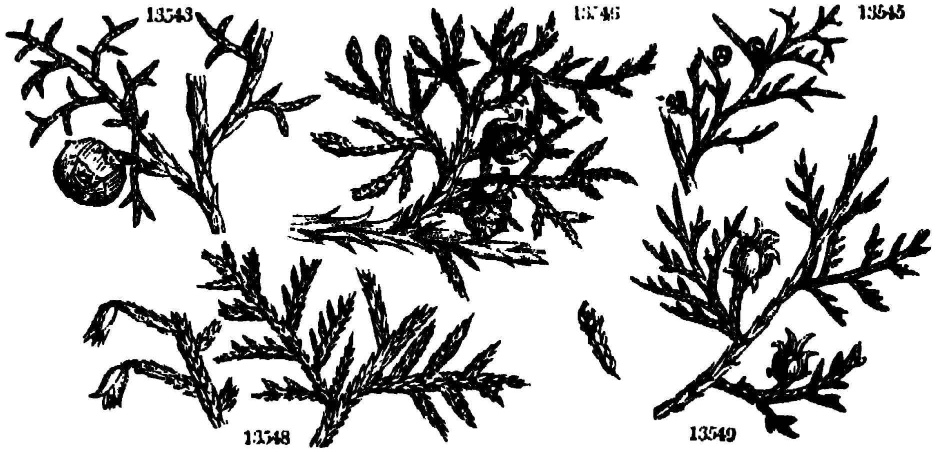
13538 Leaves distichous spreading

13539 Leaves solitary lanceolate remote
13540 Leaves whorled linear falcate
13541 Leaves lanceolate, Branches whorled
13542 Leaves solitary linear cuspidate remote

13543 Branches quadrang. Lvs. imbric. in 4 rows blunt appr. convex, Cones glob. Scales unarm. Branches straight

13544 Branches quadrang. Lvs. imbric. in 4 rows appr. glauc keel. Cones subglob. Sc. mucron. Branches pendulous
13545 Branches compressed, Leaves imbricated 4 ways ovate warted at base
13546 Leaves linear much spreading decussate
13547 Leaves linear crossing appressed, Branches very slender

13548 Branches 2-edged, Leaves imbricated in 4 rows ovate rhomboid appressed naked warted, Cones obovate
13549 Branches 2-edged, Lvs imbricat. in 4 rows ovate rhomboid appressed furrowed in middle, Cones elliptical



and Miscellaneous Particulars.

when it has been planted in a soil and climate adapted to the production of perfect timber, is in every respect superior in quality to that of the pine at 100 years old. In short, it is probable, that the larch will supersede the Scotch pine in most situations in this island, at no very distant period."

The chief objections to the timber of the larch are its liability to warp and twist; but this Monteath and others have proved may be effectually prevented by barking the trees in spring while growing, and not cutting them down till the following autumn, or even for a year afterwards This is also said to prevent the timber from being attacked by the dry rot. The bark of the larch is more than half as valuable as that of the oak in tanning; turpentine is extracted from it in the Tyrol by incision, but that being always injurious to the timber, can never be recommended for adoption in this country. See *Encyc of Gard.* 7053. *Monteath's Forester's Guide*, 2d edit. p. 254.)

Like all other trees, and especially the resinous tribe, the timber of the larch is much affected by climate and soil. A certain elevation of surface, coldness of climate, and inferiority of soil, is absolutely necessary to produce the timber in perfection. Sang has known it in many places make the most rapid progress for thirty or thirty-five years, and though there was no external signs of disorder, yet when it was felled, the wood had begun to rot in the hearts of the trees, and some were quite hollow a good way upwards. (*Plant. Kal* 59.)

Larix pendula, black larch, *Tamarack* or *Hackmatack* of the Americans, is a beautiful tree, resembling the European larch in appearance, as well as in the excellent qualities of its wood and bark

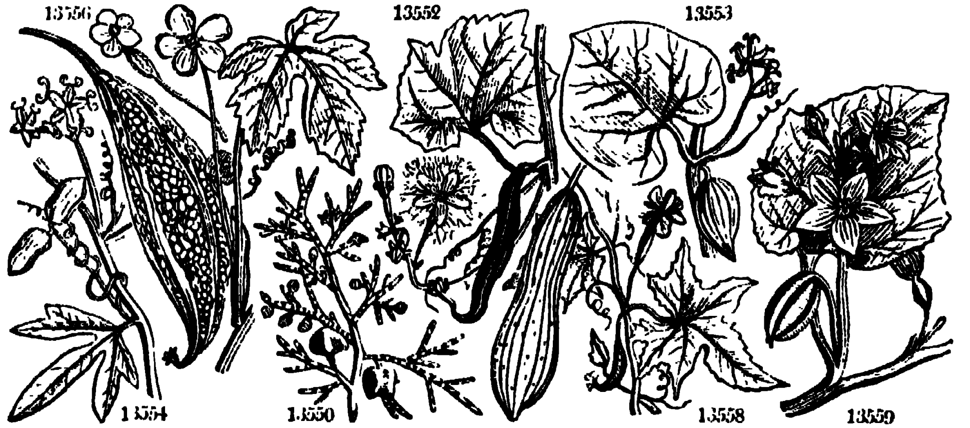
2015. *Schubertia.* Named in honor of M. Schubert, a Polish botanist. The deciduous cypress grows in extensive swamps, and on the banks of large rivers, from Indian river, Delaware, to Florida, and on the Mississipi, it is one of the largest trees of the new continent, and one of the most valuable timbers that country produces; it grows to a considerable height in this country, though the extremities of the young shoots are almost every autumn destroyed by frost. The finest specimens are at Sion-house and Blenheim.

2016. *Podocarpus* From πους ποδος, a foot, and καρπος, fruit; in allusion to the stalk of the fruit. The species are increased by ripened cuttings in sand under a hand-glass

2017. *Cupressus.* In Greek κυπαρισσος, from the isle of Cyprus, where this tree is very abundant. Cupressus sempervirens is a common timber tree in some parts of the Levant. It was employed by the Moors round their palaces, and both by the ancient and modern Romans in their villas and gardens. The timber of this tree is said to resist the worm, and to be of great durability. The doors of St. Peter's church at Rome were formed of this material, and have lasted eleven hundred years. The Greeks made their coffins of it; and the mummy chests of Egypt are many of them of this wood. In Crete, Malta, and other places, it is used for the common purposes of building, and when imported into this country it is employed by the cabinet-maker and turner. Near buildings, where the prevailing architectural lines are horizontal, it forms very suitable combinations; it is also considered an appropriate tree for burial places. C. Thyoides is an abundant tree in the swamps of New Jersey and Pennsylvania. It is used for fencing and house-building, and is in the highest esteem for shingles and pipe staves. C. lusitanica is a native both of Goa and Japan, and the handsomest tree of the genus. It is easily distinguished from all the evergreens of the Coniferæ by its abundance of very long dichotomous pendent branchlets. The culture of the hardy species of this genus, and also of Thuja, is the same as that of Pinus.

2018. *Thuja.* An alteration of *thya*, its real name; from θυω, to sacrifice. Its wood, which gives out when burnt an agreeable perfume, was used in sacrifices. Thuja occidentalis, *Cèdre blanc, Fr.*, is a well known

13550 articuláta *W.*	jointed	♀ ⊔ or	15	f.my	Ap	Barbary	1815.	S	co	Bot. cab. 844
13551 cupressoides *W.*	African	♀ ⊔ or	10	...	Ap	C. G. H.	1799.	S	p.l	
2019. TRICHOSAN'THES. *W.* Snake Gourd.				*Cucurbitaceæ.*	*Sp.* 3—12.					
13552 Anguina *W.*	common	✱ ○] or	4	my.jn	W	China	1755.	S	co	Bot. mag. 722
13553 cucumerina *W.*	Cucumber-like	✱ ○] or	4	jn.jl	Y	E. Indies	1804.	S	co	Rhee.mal.8. t.15
13554 tuberósa *W*	tuberous	‡ △] or	6	jn.jl	Y	W. Indies	1810.	D	co	Plum. ic. t. 24
2020. MOMOR'DICA. *W.* Momordica.				*Cucurbitaceæ.*	*Sp.* 5—17.					
13555 Balsámina *W.*	Balsam Apple	‡ ○] or	4	jn.jl	Y	India	1568.	S	co	
13556 Charántia *W.*	hairy	‡ ○] or	4	jn.jl	Y	E. Indies	1710.	S	co	Bot. mag 2455
13557 operculáta *W.*	rough-fruited	‡ ○] or	4	jn.s	Y	W. Indies	1731.	S	co	Comm. rar. t. 22
13558 Lúffa *W.*	Egyptian	○] or	4	jl.au	L.Y	E. Indies	1739.	S	co	Rum am.5 t.147
13559 Elatérium *W.*	Squirting Cucumber	✱ △ or	4	jn.jl	Y	S. Europe	1548.	D	r.m	Bot. mag. 1914
2021. CUCUR'BITA. *W.* Gourd.				*Cucurbitaceæ.*	*Sp.* 8—13.					
13560 ovífera *W.*	egg-shaped	✱ ○ clt	3	jl.s	Y	Astracan	...	S	co	
13561 lagenária *W.*	bottle	✱ ○ clt	10	jl.s	W	India	1597.	S	co	Rum.am.5. t.144
13562 aurántia *W.*	Orange-fruited	✱ ○] clt	3	jn.au	Y	......	1802.	S	co	
13563 Pépo *W.*	Pumpkin	✱ ○ clt	16	jn au	Y	Levant	1570.	S	co	
13564 verrucósa *W.*	warted	✱ ○ clt	12	jn.jl	Y	......	1658.	S	co	
13565 subverrucósa *W.*	pimpled	✱ ○ clt	12	jn.jl	Y	......	...	S	co	
13566 Melopépo *W.*	squash	○ clt	3	my.s	Y	......	1597.	S	co	Moris. s. 1.t.8.f.4
13567 Citrúllus *W.*	Water Melon	✱ ○] clt	6	my.s	Y	S. Europe	1597.	S	co	Rum.am.5. t.146
2022 CU'CUMIS. *W.* Cucumber.				*Cucurbitaceæ.*	*Sp.* 13—19.					
13568 Colocýnthis *W.*	bitter	✱ ○] or	6	my.au	Y	C. G. H.	1551.	S	r.m	
13569 prophetárum *W.*	globe	✱ ○] or	2	jn s	Y	Levant	1777.	S	co	Jac. vind. 1. t 9
13570 Angúria *W.*	round prickly	✱ ○] or	2	jl.au	Y	Jamaica	1692.	S	co	Mill ic. 1. t. 33
13571 africána *W.*	African	✱ ○] or	2	jl.au	Y	C. G. H.	...	S	co	Herm. par. t.1 4



History, Use, Propagation, Culture,

popular evergreen, which, though it seldom rises above the height of a shrub here, yet in Upper Canada attains the height of a timber tree, and the wood is considered more durable than any other. The trunk is sawn up into planks and boards for houses and boat-building, and the branches used for posts and fencing. The smaller branches and spray form besoms, and the leaves, made into a salve, are used by the Indians to cure the rheumatism. In England, the timber has been chiefly employed by the turner and cabinet-maker. In its native country the Arbor-vitæ succeeds best in soils where the roots have abundance of moisture. It grows tallest in swamps and marshes; in very dry places it never comes to any degree of perfection. The first tree of this species sent to Europe, was planted in the royal garden of Fontainbleau, in the reign of Francis the first. T orientalis is a shrub resembling the other in general appearance. Both these species are readily increased by seeds, cuttings, or layers

2019 *Trichosanthes* From θριξ, hair, and ανθος, a flower The limb of the flower is divided into ten parts, of which the five outer are reversed and acute, the five interior ciliated. T. Anguina is a popular annual, with the habit of the common cucumber. The flowers are cut into many small threads, and the fruit is taper, and nearly a foot long T. cucumerina has smooth fruit of a red or orange color, the size of a pear. In the popular medicine of Malabar, the seeds are used for disorders of the stomach and bowels. Culture as for the common gourd.

2020 *Momordica.* From *mordeo, momordi*, to chew; its seeds have an irregular rugose surface, and the appearance of having been chewed. M elaterium has a large fleshy perennial root, somewhat like that of Bryony The stems are thick, rough, trailing, branching, with rough leaves on long footstalks. The fruit is an inch and a half in length, swelling like a cucumber, of a grey color like the leaves, and covered with short prickles. When fully ripe, it quits the peduncles, and casts out the seed and juice with great force and to a considerable distance through the hole in the base, where the footstalk is inserted. For medicinal use, the fruit is gathered in September, just before it is ripe, and the clear juice which runs from it and that obtained by the expression of the fruit are inspissated, and form the elaterium of the shops. This fruit is a very violent cathartic. It was much employed by the ancients, who regarded every part of the plant as purgative; but Dr. Clutterbuck has proved that this is an error. (*Thomson's Lond. Disp.* 388.)

M. balsamina has a fleshy ovate fruit, remotely tubercled in longitudinal rows, smooth in the other parts, red when ripe, bursting irregularly, and dispersing the seeds with a spring. This fruit in Syria is famous for curing wounds. They cut it open when unripe, and infuse it in sweet oil, exposed to the sun for some days, until the oil is become red. It may then be applied to a fresh wound dropped on cotton. M. operculata has a green fruit, the top of which falls off when it is ripe like a lid; within it has no pulp, but is dry, and filled with netted fibres, very much interwoven.

2021. *Cucurbita.* A Latin word signifying a vessel. It is said to be derived from the Celtic *cuce*, a hollow thing. C. lagenaria has a fruit shaped like a bottle, with a large roundish belly, and a neck very smooth; when ripe of a pale yellow color, some near six feet long and eighteen inches round; the rind becoming hard, and being dried contains water; seeds quadrangular oblong, cut off and emarginate at top, three-cornered and beaked at bottom; edge keeled with a double raised line, smoothish, of a pale bay color. The Arabians call the bottle gourd *Charrah*. The poor people eat it boiled, with vinegar, or fill the shell with rice and meat, and thus make a kind of pudding of it. It grows in all parts of Egypt and in Arabia, wherever the mountains are covered with rich soil. In Jamaica, the shells are generally used for water cups, and frequently serve for bottles among the negroes and poorer sort of white people in the country. A decoction of the leaves

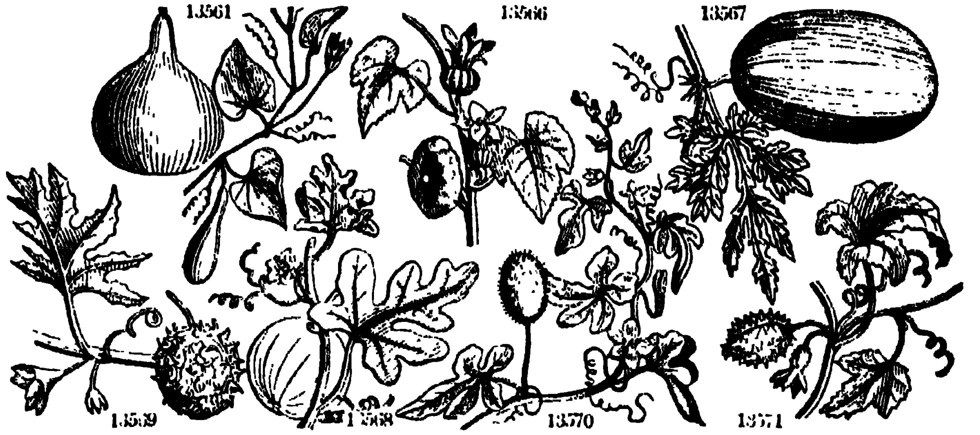
13550 Branches compressed, Lvs. imbricated in 4 rows lanc. acute appressed warted under end, Cones 4-cornered
13551 Branches round, Leaves imbricated in 4 rows oblong appressed smooth, Cones 4-cornered roundish

13552 Fruit rounded oblong incurved, Leaves cordate repand mucronate toothletted
13553 Fruit ovate acute, Leaves roundish cordate angular repand
13554 Fruit oblong acute, Leaves 5-lobed palmated entire

13555 Fruit roundish ovate narrowed at each end angul. warted, Bract cordate toothed above mid. of pedunc.
13556 Fruit oblong acuminate angular warted, Bract cordate entire below the middle of the peduncle
13557 Fruit elliptical angular warted beaked, Beak deciduous forming a lid
13558 Fruit cylindrical oblong, Furrows chain-like, Bract cordate entire at the base of the peduncle
13559 Fruit elliptical hispid, Leaves cordate hispid blunt toothed, Stem without tendrils

13560 Leaves cordate angular 5-lobed toothletted downy, Fruit obovate striped with lines lengthwise
13561 Leaves cordate roundish obtuse downy toothletted with 2 glands at base beneath, Fruit woody clavate
13562 Leaves subcordate about 3-lobed cuspidate finely toothletted rough, Fruit globose smooth
13563 Leaves cordate obtuse about 5-lobed toothletted, Fruit roundish or oblong smooth
13564 Leaves cordate deeply 5-lobed: the middle lobe narrowed at base, Fruit roundish elliptical warted
13565 Leaves cordate deeply 5-lobed: middle lobe narrowed at base toothletted, Fruit clav. ellipt. somew. warted
13566 Leaves cordate obtuse about 5-lobed toothletted, Fruit depressed umbonate tumid at edge
13567 Leaves 5-lobed, Lobes sinuate pinnatifid blunt, Fruit elliptical smooth

13568 Leaves multifid, Fruit globose smooth
13569 Leaves cordate 5-lobed toothletted blunt, Fruit globose spiny muricated
13570 Leaves palmate sinuated, Fruit round echinate
13571 Fruit oval echinate, Leaves palmate sinuated, Stem angular



and Miscellaneous Particulars.

is recommended much in purging clysters; and the pulp of the fruit is often employed in resolutive poultices: it is bitter and purgative, and may be used instead of Coloquintida.

C. pepo, *Patisson*, Fr., has hispid branchy tendril stems, which in good soil will extend forty or fifty feet in a season, and cover an eighth part of an acre. The fruit is oblong, ovate, varying in form and size; some not less than four feet in circumference. In some parts of England the pompion (corruptly pumpkin) is sometimes planted by cottagers on dunghills, and suffered to trail at length over the grass of an orchard. When the fruit is ripe, they cut a hole on one side, and having taken out the seeds, fill the void space with sliced apples, adding a little sugar and spice, and then, having baked the whole, eat it with butter, under the name of pumpkin pie. On the continent the fruit, both unripe and ripe, is used in soups, stews, and fried in oil or butter. The tender tops of the shoots boiled as greens are much more delicate than the fruit. C. aurantia is more tender than the common pompion. The fruit is small, round, of a bright yellow when ripe; and may be used like those of the other species. C. verrucosa has a small round fruit, with a woody rind. In America it is gathered when half grown, and boiled to eat as a substitute for greens, but for this purpose this and most of the species are inferior to the succade Gourd.

C. melopepo, *Potiron*, Fr., *Pfebin Kürbiss*, Ger., and *Popone*, Ital., has a large fruit, reddish yellow or yellowish-white within and without, roundish, but often flatted at top and bottom; torulose, and sometimes warted. It is cultivated in America as a culinary vegetable. C. Citrullus, *Pastèque*, Fr., *Wassermelone*, Ger., and *Cocomero*, Ital., is readily distinguished from all the other species by its deeply cut leaves. The fruit is roundish, large, smooth, often a foot and a half in length, with a white icy flesh, streaked with dark red and black seeds. It is much cultivated in the warm countries of Europe, and also in Asia, Africa, and America, for its cooling quality. It serves the Egyptians for meat, drink, and physic. It is eaten in abundance during the season, which is from the beginning of May until the overflowing of the Nile; that is, to the end of July or beginning of August. It is the only medicine the common people use in ardent fevers. For this purpose they have a variety that is softer and more juicy than the common sort: when this is very ripe, or almost putrid, they collect the juice, and mix it with rose-water and a little sugar. This fruit should be eaten by Europeans with great caution; when taken in the heat of the day, whilst the body is warm, colics and other bad consequences often ensue, and it is well known that persons are much troubled with worms at the time this fruit is in season.

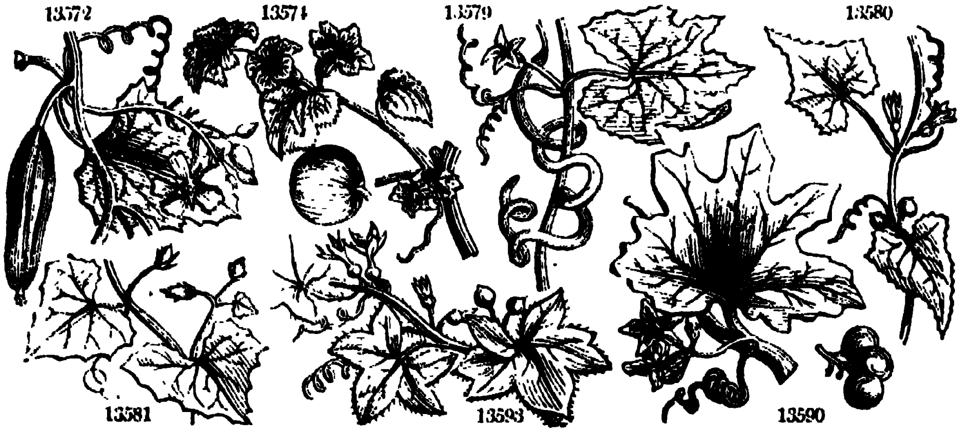
The Succade Gourd, a variety of C. ovifera, has an elliptic oblong pale-yellow fruit, by far the best for culinary purposes of any species of the genus. When very young, it is good fried with butter; when about half grown, it is excellent either boiled as a substitute for greens, or stewed in slices with rich sauce; when full grown, it is used for pies. Sabine, who has cultivated most species of Cucurbita, considers the vegetable marrow without a rival. (*Hort. Trans.* vol. ii. 255.)

All the species may be raised on a hot-bed in April, and transferred to the open garden at the end of May, under a warm aspect and in a rich soil; or they may be sown in a trench filled with hot dung, where they are finally to remain. Their after culture is of the easiest description.

It is not very generally known, that the tender tops of all the species of the Cucurbita and Cucumis families, whose fruit may be eaten, when boiled form a very tender substitute for greens.

2922. *Cucumis.* A word with the same derivation as the last. C. Colocynthis has fruit the size and color of orange; the pulp light, spungy, and white, and most intolerably bitter. When ripe, it is peeled and dried in a stove, and in this state it is imported from the Mediterranean under the name of coloquintida. Medicinally, it

13572 acutángulus *W.*	acute-angled	⚹	○	or	2	jn.s	Y	India	1692.	S	co	Jac.vin.3.t.73,74
13573 Mélo *W.*	Melon	⚹	[○]	cul	4	my.s	Y	......	1570.	S	r.m	Sabb. hort. t. 65
13574 Dudáim *W.*	Apple-shaped	⚹	[○]	or	6	jl.au	Y	Levant	1705.	S	r.m	Bot. rep. 548
13575 Cháte *W.*	hairy	⚹	[○]	or	3	jn	Y	Levant	1759.	S	co	Alp.ægypt. t.117
13576 pubéscens *W.*	pubescent	⚹	[○]	or	3	jn s	Y	......	1815.	S	co	
13577 satívus *W.*	common	⚹	○	cul	4	jl.s	Y	E. Indies	1573.	S	r.m	Sabb. hort. t. 63
13578 flexuósus *W.*	Snake	⚹	[○]	or	6	my.s	Y	E. Indies	1597.	S	r m	Ger.herb.763.f.3
13579 anguínus *W.*	Serpent	⚹	[○]	or	6	my.s	Y	E. Indies	...	S	r.m	Rumph. 5. t. 148
13580 maderaspátanus *W.*	Madras	⚹	[○]	or	3	jl.au	Y	E. Indies	1805.	S	co	Pluk.al. t.170 f.2
2023. SIC'YOS. *W.*	Single-seeded Cucumber.					*Cucurbitaceæ.*	*Sp* 2—6.					
13581 anguláta *W.*	angular-leaved	⚹	○	cul	3	jl.s	Y	N. Amer.	1710.	S	co	Plu.phyt.t.26.f.4
13582 vitifólia *W.*	Vine-leaved	⚹	○	cul	3	jl.s	Y	......	...	S	co	
2024. BRYO'NIA. *W.*	Bryony.					*Cucurbitaceæ.*	*Sp.* 18—42.					
13583 scábra *W.*	globe-fruited	⚷	[△]	un	6	s.o	W.o	C. G. H.	1774.	C	p.l	
13584 triloba *W.*	three-lobed	⚷	[△]	un	6	s.o	W.o	C. G. H.	1825.	C	p.l	
13585 verrucósa *W.*	rough	⚷	[△]	un	4	...	W.o	Canaries	1779.	D	co	
13586 grándis *W.*	great-flowered	⚷	[△]	un	8	my.au	W.o	E. Indies	1793.	C	p.l	R.am.5. t.166. f.1
13587 epigæ'a *W.*	umbel-flower'd	⚷	[△]	un	2	...	W.o	E. Indies	1815.	D	co	
13588 scabrélla *W.*	bristly	⚹	[○]	un	2	my.jl	W.o	E. Indies	1781.	D	co	
13589 latebrósa *W.*	hairy	⚷	[△]	un	3	jn	W.o	Canaries	1779.	D	co	
13590 dioíca *W*	red-berried	⚹	△	m	8	my.s	W.o	Britain	hed.	D	co	Eng. bot. 439
13591 álba *W.*	black-berried	⚹	△	m	8	jn.jl	W.o	Europe	1807.	D	co	Lam. ill. t. 796
13592 nítida *Link.*	shining	⚷	[△]	un	3	jl s	W.o	......	1824.	S	co	
13593 crética *W.*	Cretan	⚷	[△]	un	1½	jl.s	W.o	Candia	1759.	D	co	An. mus.12. t. 17
13594 quinquéloba *Th*	five-lobed	⚷	[△]	un	3	jn.o	Br	C. G. H.	...	D	co	Bot. reg. 82
13595 ficifólia *W.*	Fig-leaved	⚷	[△]	un	3	...	W.o	Buen. Ay	1726.	D	co	Dill.elt. t.50.f.58
13596 palmáta *W.*	palmated	⚷	[△]	un	4	jl au	W.o	Ceylon	1778.	D	co	
13597 laciniósa *W.*	laciniated	⚷	[△]	un	4	jl.au	W.o	E. Indies	1710.	D	co	Herm lugd t.97
13598 africána *W.*	African	⚷	[△]	un	4	jl au	W.o	C. G. H.	1759.	D	co	Herm.par. t.708
13599 disséćta *W.*	smooth-leaved	⚷	[△]	un	3	jl.au	W.o	C. G. H	1710.	C	p.l	
2025. ANDRACH'NE. *W.*	Bastard Orpine.					*Euphorbiaceæ.*	*Sp.* 1—2.					
13600 telephioídes *W.*	annual		○	w	¼	jl au	W	Italy	1732.	S	co	Lam. ill. t. 797
2026. STILLIN'GIA. *W.*	Stillingia.					*Euphorbiaceæ.*	*Sp.* 3					
13601 sylvática *W.*	wood	⚷	[△]	un	2	jl au	Y	Carolina	1787.	C	s.p	
13602 ligustrína *W.*	Privet-leaved	●		un	5	...	Y	N. Amer.	1812.	C	s p	
13603 sebífera *W.*	Tallow-tree	●	☐	ec	10	s	Y	China	1703.	C	s.p	Plu.am. t.390.f.2
2027. PHYLLAN'THUS. *W.*	Phyllanthus.					*Euphorbiaceæ*	*Sp.* 16—60					
13604 obovátus *W.*	annual		○	un	¼	jl.au	Ap	N. Amer.	1803.	C	s p	
13605 maderaspaténsis *W.*	Madras	●	☐	un	3	jl	Ap	E. Indies	1783.	C	s.p	
13606 grandifólius *W.*	great-leaved	●	☐	un	5	...	Ap	America	1771.	C	s p	
13607 virósus *W*	venomous	●	☐	pr	4	...	G	E. Indies	1802.	C	s.p	
13608 turbinátus *B. M.*	shining-leaved	●	☐	pr	2	jl	G	China	...	C	s p	Bot. mag. 1862
13609 reticulátus *Hort.*	netted	●	☐	pr	3	au.s	R	E. Indies	...	C	s p	Bot. cab. 116
13610 fraxinifólius *Hort.*	Ash-leaved	●	☐	pr	4	au.s	G	E. Indies	1819.	C	s.p	Bot. cab. 839
13611 mimosoídes *W.*	Mimosa-like	●	☐	pr	10	au s	G	Caribbees	1817.	C	s.p	Bot. cab. 721
13612 Conámi *W.*	Brazilian	●	☐	pr	6	jl	G	W. Indies	1791.	C	l.p	Aub. gui.2. t.354
13613 racemósus *W.*	racemed	●	☐	pr	1½	jl au	G	E. Indies	1793.	C	s.p	
13614 Niruri *W*	Indian annual		[○]	pr	¼	jn.s	G	E. Indies	1692.	S	s p	Rhe.mal 10 t.15
13615 polyphýllus *W*	many-leaved	●	☐	pr	3	jl.s	G	E. Indies	1805.	C	s.p	
13616 E'mblica *W.*	shrubby	●	☐	pr	12	...	G	E. Indies	1768.	C	s.p	Bot. cab. 548



History, Use, Propagation, Culture,

is a very powerful drastic cathartic, requiring to be employed with caution, on account of its violent effects. When given alone, even in moderate doses, it purges vehemently, producing violent gripings, bloody ejections, and not unfrequently convulsions and inflammations of the bowels. (*Thom. Lond. Disp.* 271.)

C. sativus and Melo (μηλον, an apple) are too well known to require farther notice in a work of this description. C. anguria has hispid angular stems, and small flowers like those of Bryony. The fruit is of the size and shape of a pullet's egg, of a dark-green color, and prickly like a hedgehog. It is eaten green, or with other herbs in soups in the West India Islands, and is esteemed an agreeable and wholesome ingredient. C. prophetarum has a striped fruit smaller than a melon; the odor nauseous, and the taste as bitter as Coloquintida. The fruit of C. acutangulus is very insipid, but in India is eaten boiled and pickled. C Chate has a roundish fruit almost like that of the melon; the taste is somewhat sweet and cool, but not so cool as the water melon. In Egypt it is eaten as the most pleasant fruit they have, and that from which delicate persons have least to apprehend. The culture of all the species is similar to that of the common cucumber.

2023 *Sicyos.* Σικυος was one of the Greek names of the cucumber, from σικχος, unpleasant. The species are trailing plants like those of Cucumis, but with much smaller fruits.

2024. *Bryonia.* From βρυω, to push or grow rapidly, in allusion to the manner of its growth. B. alba and dioica, differ in little else besides the color of the berries, and by some are considered one species. Goats are

13572 Leaves roundish angular, Fruit with 10 acute angles
13573 Angles of leaves rounded, Fruit torulose
13574 Angles of leaves rounded, Fruit spherical with a retuse nipple
13575 Hirsute, Angles of leaves entire toothed, Fruit fusiform narrowed at each end hairy
13576 Leaves cordate subangular acutish finely toothed scabrous, Fruit elliptical blunt downy
13577 Angles of leaves straight, Fruit oblong rough
13578 Leaves angular somewhat lobed, Fruit cylindrical furrowed curved
13579 Leaves lobed, Fruit cylindrical very long smooth doubled up
13580 Leaves cordate entire toothletted, Fruit globose smooth

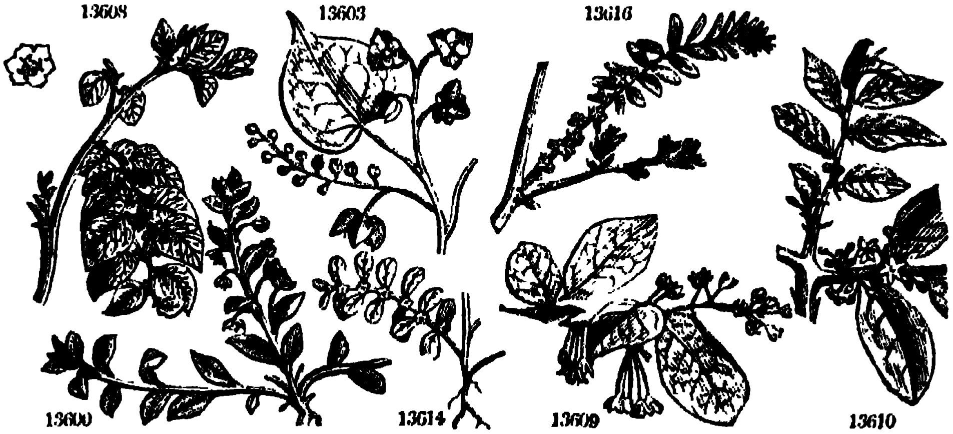
13581 Leaves cordate with an obtuse angle, 5-angular toothletted smooth
13582 Leaves roundish-cordate with a recess 5-lobed toothed hairy viscid

13583 Leaves cordate angular toothed rough with callous dots above and hairs beneath, Fl. in umbels
13584 Leaves 3-lobed smooth above rough beneath
13585 Leaves cordate angular above and the veins beneath covered with callous dots, Tendrils simple
13586 Leaves cordate angular entire smooth with callous dots above and 5 glands at the base beneath
13587 Leaves 3-lobed rough toothed, Lateral lobes angular somewhat 2-lobed, Fl. axillary somewhat umbellate
13588 Lvs 3-lobed toothed hispid on each side, Lat. lobes dilated angular: middle elong. Stem muricato-hispid
13589 Leaves somewhat 3-lobed hairy narrowed at base
13590 Leaves cordate palmate 5-lobed toothed with callous dots, Fl. racemose diœcious
13591 Leaves cordate 5-lobed toothed rough with callous dots, Flowers racemose
13592 Leaves cordate 5-lobed apiculate hairy, Peduncles in umbels
13593 Leaves cordate 5-lobed entire with callous asperities on each side
13594 Leaves 5-lobed toothletted scabrous above, Peduncles 1-flowered
13595 Leaves 5-lobed somewhat toothletted, Lobes obtuse, Petioles and stem hispid
13596 Leaves palmate smooth 5-parted: segments lanceolate repand serrated
13597 Leaves 5-parted palmate, Segm. oblong lanc. acuminate serrated, Petioles muricated, Peduncles 1-flowered
13598 Upper leaves 5 parted palmate, Segments oblong cut-toothed: lower cordate angular toothed
13599 Lvs. 5-parted palmate, Segm. pinnatifid linear revolute at edge rough, Flowers in umbels, Berries acute

13600 Procumbent herbaceous

13601 Leaves sessile oblong blunt narrowed at base serrulate, Stem herbaceous
13602 Leaves petiolate lanceolate narrowed at each end entire, Stem shrubby
13603 Leaves stalked rhomboid acuminate entire, Stem arborescent

13604 Leaves obovate bluntish, Flowers twin axillary stalked, Stem branched round erect
13605 Leaves lanceolate cuneate blunt mucronate, Flowers solitary stalked axillary, Stem shrubby branched
13606 Leaves ovate-oblong blunt mucronate, Flowers axillary in threes, Branches compressed 3-cornered
13607 Leaves elliptical ovate blunt narrowed at base, Fls. axillary aggregate diœcious, Branches square compr.
13608 Leaves simple orbicular-ovate lucid, Flowers axillary: male turbinate nodding
13609 Leaves oblong obtuse netted with red veins beneath, Flowers racemose and fasciculate
13610 Leaves elliptical acute at each end, Stipules ovate acute as long as petiole, Flowers fascicled
13611 Lvs. pinn. flower-bearing. leaflets oblong attenuated at base and narrower on one side, Fls. axill. aggreg.
13612 Lvs. ovate acute, Fls. axill. somew. umbelled, Pedunc. filiform with 2 bractes at base, Branchlets compr.
13613 Leaves lanceolate acute, Flowers terminal about 3, Branches pinnæform 2-edged
13614 Lvs. pinn. fl. bearing: leafl. elliptical obtuse, Pedunc. axill. lower usually twin and male; upp. solit. fem.
13615 Lvs. pinn. fl. bearing: leaflets linear obtuse mucronate, Flowers axillary solitary; the female uppermost
13616 Leaves pinnate fl. bearing: leaflets linear sharpish, Flowers axillary clustered, Petioles round downy



and Miscellaneous Particulars.

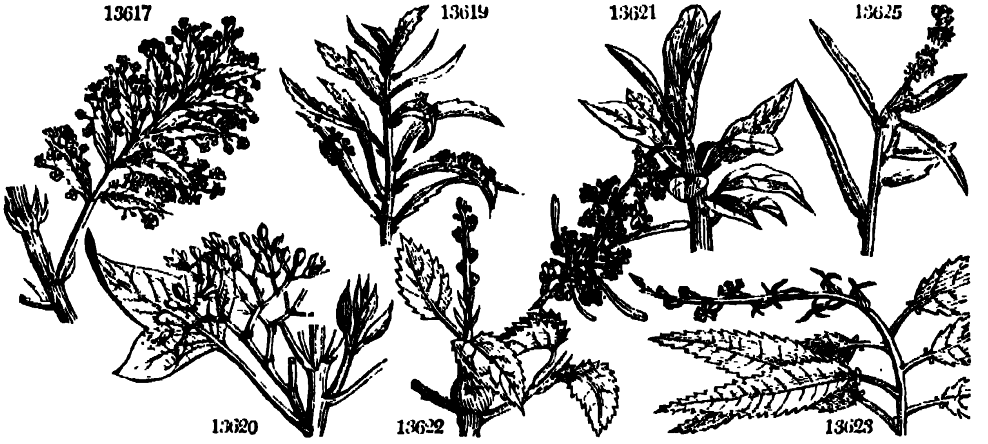
he only quadrupeds said to eat this plant. The root grows to a vast size. Gerarde says, "the queene's chiefe chirurgeon, Master William Goodorous, shewed me a roote heereof, that waied halfe an hundred waighte, and of the bignesse of a childe of a yeere old." To this Linnæus ascribes the quickness of its growth, though it springs late. The roots have been formerly by impostors brought into an human shape, carried about the country, and shewn for mandrakes to the common people. The method which these people practised, was to open the earth round a young thriving Bryony plant, being careful not to disturb the lower fibres of the root; to fix a mould such as is used by those who make plaster figures close to the root, fastening it with wire to keep it in its proper situation, and then to fill in the earth about the root, leaving it to grow to the shape of the mould, which is effected in one summer. This root is a famous hydragogue, and highly purgative and acrid.

2025. *Andrachne.* The Greek name of the Purslane. The modern plant bears some analogy to that of the Greeks, in its thick and fleshy leaf. Plants of little beauty, and the easiest culture.

2026. *Stillingia.* Named after Dr. Benjamin Stillingfleet, an English botanist. S. Sebifera is the tallow-tree of China. An oil is expressed from the kernel, which hardens by cold to the consistence of common tallow, and by boiling becomes as hard as bees' wax. Stillingia sylvatica is considered a specific in cases of syphilis.

2027. *Phyllanthus.* From φυλλον, a leaf, and ανθος, a flower, because the flowers grow upon the edges of the

13617	latifólius *W. en.*	Sea-side Laurel	♣	□	pr	2	au o	R	Jamaica	1783.	C	s.p	Bot. mag. 1021
	Xylophýlla latifolia W.												
13618	angustifólius *W. en.*	narrow-leaved	♣	□	pr	2	jl.au	R	Jamaica	1789.	C	s.p	
13619	falcátus *W. en.*	sickle-leaved	♣	□	pr	2	jl.au	R	Bahama I.	1699.	C	s.p	Bot. rep. 331
2028.	ALEURI'TES. *W.*	Aleurites.						*Euphorbiaceæ.*	*Sp.* 1—4.				
13620	triloba *W.*	three-lobed	♀	□	ft	10	...	Ap	Society Is.	1793.	S	r.m	
2029.	OMPHA'LEA. *W.*	Omphalea.						*Euphorbiaceæ.*	*Sp.* 1—3.				
13621	triándra *W.*	long-leaved	♀	□	or	15	jn.jl	G	Jamaica	1763.	C	p.l	Bot. cab. 519
2030.	HIPPO'MANE. *W.*	Manchineel.						*Euphorbiaceæ.*	*Sp.* 1.				
13622	Mancinélla *W.*	common	♀	□	p	80	...	G	W. Indies	1690.	L	r.m	Jacq. amer. t. 159
2031.	SA'PIUM. *W.*	Sapium.						*Euphorbiaceæ.*	*Sp.* 1—4.				
13623	aucupárium *W.*	two-glanded	♀	□	or	30	...	G	W. Indies	1692.	C	p.l	Jac. amer. t 158
2032.	CRO'TON. *W.*	Croton.						*Euphorbiaceæ.*	*Sp.* 20—118.				
13624	variegátum *W.*	variegated	♣	□	or	10	...	W.o	E. Indies	1804.	C	p.l	Rhee. mal. 6. t. 61
13625	lineáre *Jac.*	rosemary-leav.	♣	□	pr	6	jl	W.o	W. Indies	1733.	C	p.l	Bot. cab. 481
13626	maritimum *W.*	sea-side	♣	⊔	un	4	...	W.o	Carolina	1786.	S	co	
13627	palústre *W.*	marsh		⌼	un	3	jl.au	W.o	Vera Cruz	1731.	C	p.l	Mart. dec. 4. t. 38
13628	glabéllum *W.*	Laurel-leaved	♣	□	or	6	...	W.o	Jamaica	1778.	C	p.l	Slo. ja. 2. t. 174. f. 2
13629	tinctórium *W.*	officinal		○	dy	3	jl	W.o	S. Europe	1570.	C	p.l	Act. p. 1712. t. 17
13630	argénteum *W.*	silver-leaved		⌼	un	2	jl.au	W.o	S Amer.	1733.	S	co	
13631	Tíglium *W.*	purging	♣	□	m	10	au.s	W.o	E. Indies	1796.	S	co	Rhee. mal. 2. t. 33
13632	Eleutéria *W.*	Sea-side Balsam	♣	□	m	6	...	W.o	Jamaica	1748.	C	l.p	
13633	mícans *Sw.*	glittering	♣	□	un	3	...	W.o	Jamaica	1815.	C	l.p	Pluk. al. t. 220. f. 5
13634	púngens *W.*	pungent	♣	□	un	4	...	W.o	Caraccas	1791.	C	l.p	Jac. ic. 3. t. 622
13635	penicillátum *W.*	pencilled	♣	□	un	4	jl.au	W.o	Cuba	1799.	C	l.p	Bot. cab. 440
13636	aromáticum *W.*	aromatic	♣	□	un	6	...	W.o	Ceylon	1793.	C	p.l	Rum. am. 3. t. 126
13637	húmile *W.*	humble	♣	□	un	2	...	W.o	Jamaica	1799.	C	p.l	
13638	moluccánum *W.*	Molucca	♣	□	un	10	...	W.o	Ceylon	1803.	C	p.l	
	Aleurites ambinux P. S.												
13639	Astroítes *W.*	woolly	♣	□	un	6	jl.au	W.o	W. Indies	1782.	C	p.l	
13640	lobátum *W.*	various-leaved		⌼	un	2	jl.au	W.o	Vera Cruz	1730.	S	co	Mart. dec. 5. t. 46
13641	píctum *Roxb.*	painted	♣	□	or	4	jl.au	W.o	E. Indies	1810.	C	p.l	Bot. cab. 870
13642	tomentósum *Link.*	downy	♣	□	un	2	my.jn	W.o	......	1824.	C	co	
2033.	JA'TROPHA. *W.*	Physic-Nut.						*Euphorbiaceæ.*	*Sp.* 9—21.				
13643	napæifólia *W.*	Napæa-leaved	♣	□	un	3	jn.au	G	Antilles	1825.			
13644	gossypifólia *W.*	Cotton-leaved	♣	⍍	or	3	my.au	G	W. Indies	1690.	S	l.p	Bot. cab. 117
13645	integérrima *W.*	spicy	♣	□	or	3	my.au	R	Cuba	1809.	S	r.m	Bot. mag. 1464
13646	panduræfólia *W.*	fiddle-leaved	♣	□	or	4	my.au	S	Cuba	1800.	S	r.m	Bot. mag. 604
13647	Cúrcas *W.*	angular-leaved	♣	□	or	4	...	G	S. Amer.	1731.	S	r.m	Jac. vind. 3. t 63
13648	multífida *W.*	multifid	♣	□	or	3	jn.au	G	S. Amer.	1696.	S	r.m	Par. lond. 91



History, Use, Propagation, Culture,

leaves. Many of the species of this genus are remarkable for the neatness of their foliage and general aspect. The abolished genus Xylophylla, which is now included in Phyllanthus, is very generally cultivated on account of the pretty and at the same time singular appearance of its leafless leaf-like branches, covered over at the edges with multitudes of pink flowers. All the species require common stove culture.

2028. *Aleurites.* From αλευας, flour, all the parts of the plant seeming to be dusted with a farinaceous substance. A handsome plant of easy culture, and ripe cuttings with their leaves untouched, root in sand under a hand-glass.

2029. *Omphalea.* A curtailment of Omphalandria, a name under which Dr Patrick Browne, in his History of Jamaica, first described the plant. He formed it from ομφαλος, a navel, and ανηρ, a stamen; because the male organs are collected in a fleshy navel-like mass occupying the centre of the flowers. It grows freely in light loamy soil, and cuttings, with their leaves uninjured, root in sand under a hand-glass.

2030. *Hippomane.* From ιππος, a horse, and μανια, madness; the name was given by the Greeks to a plant which grew in Arcadia, and which possessed the dangerous property of making horses furious. This Hippomane must not, however, be confounded with that of Virgil (third Georgic), which is an animal substance.

The Manchineel-tree grows to a vast size on the sea coast of the Caribbee Islands and neighbouring continent. The leaves are ovate, serrated, acute, and very shining. The fruit fall off from the tree spontaneously, and pave all the ground with their numbers. They are highly poisonous, and are said to be eaten by the sea-crabs, which collect about the trees in vast numbers. But this is supposed by Jacquin to be a vulgar error. The whole tree abounds with a white milk, which is highly poisonous, and so very caustic, that a single drop placed upon the skin instantly causes the sensation of a hot iron, and in a short space raises a blister. It is a common belief that to sleep beneath the branches is death; but Jacquin and his companions reposed under it for three hours at a time without inconvenience. The wood is a most beautiful material for furniture, being finely variegated with brown and white, and susceptible of a high polish. The workmen who fell the trees, first kindle a fire around the stem, by which means the juice becomes so much inspissated as not to follow the blows of their axes. Whole woods on the sea-coast of Martinique have been burnt, in order to clear the country of such a dangerous pest.

13617 Leaves pinnate lanceolate acuminate subcrenate coriaceous, Flowers stalked

13618 Leaves pinnate linear-lanceolate lined crenate, Flowers stalked hermaphrodite
13619 Leaves scattered linear-lanceolate subfalcate crenate, Flowers subsessile

13620 Leaves 3-lobed

13621 Leaves oblong blunt very smooth, Flowers triandrous, Stem arborescent

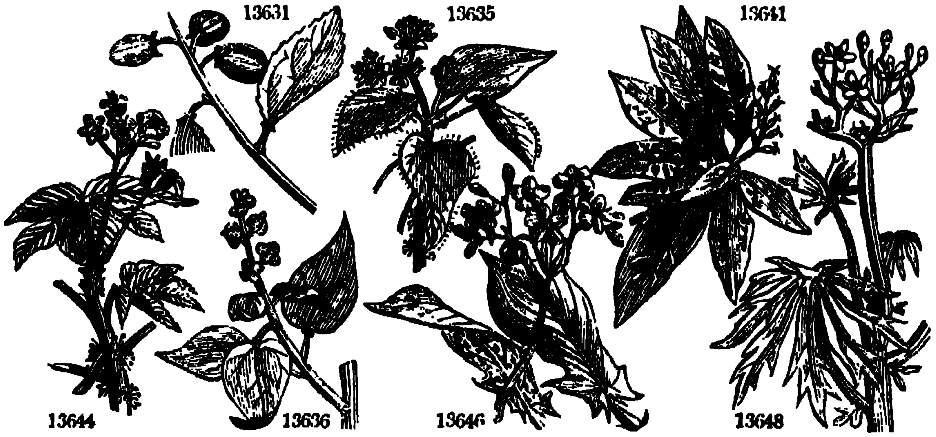
13622 Leaves ovato-serrated

13623 Leaves oblong acuminate serrulate, Petioles with 2 glands at the end

13624 Leaves lanceolate entire smooth variegated stalked
13625 Leaves linear entire stalked downy beneath
13626 Leaves elliptical entire bluntish hoary downy beneath stalked, Spikes terminal few-flowered
13627 Leaves ovate lanceolate plaited serrated scabrous
13628 Leaves ovate bluntish entire smooth, Fruit stalked
13629 Leaves ovate rhomboid repand entire at base hoary on each side, Pedunc. terminal about 3-fl.
13630 Leaves ovate serrated at end hoary downy beneath, Stipules ciliated, Spikes terminal subcapitate bracteate
13631 Leaves ovate acuminate serrated smooth with 2 glands at base, Petioles shorter than leaf, Racemes term.
13632 Leaves ovate acuminate entire smooth silvery with scales ben. Racemes comp. axillary, Stem arborescent
13633 Leaves cordate ovate attenuate somewhat toothletted warted and green above, silvery and shining beneath
13634 Leaves cordate acuminate serrulate rough above downy beneath with 4 glands at the base
13635 Lvs. round.-cord. acum. ent. glandular-ciliated downy beneath, A fascicle of stalked glands at base of lvs.
13636 Leaves oblong subcordate serrulate scabrous downy beneath with 2 glands at the base, Raceme terminal
13637 Leaves ovate acute subcordate entire scabrous above downy beneath
13638 Leaves subcordate angular blunt repand scabrous downy beneath

13639 Leaves obl.-lanc. subcordate scabrous downy beneath and with 2 glands at base, Branches densely downy
13640 Leaves 3-5-lobed serrated with hairy petioles, Stem herbaceous
13641 Leaves oblong-lanceolate obtuse at base variegated and stained with red, Spikes axillary suberect
13642 Downy, Leaves cordate roundish blunt repand greenish above hoary beneath

13643 Leaves palmate 7-lobed hispid beneath stinging: lobes pinnatifid, Petiole with 1 gland at end
13644 Lvs. cord. 5-lobed serrated fringed with glands, Branched glandular hairs in axillæ of leaves and petioles
13645 Leaves ovate acuminate entire very smooth, Racemes subcymose
13646 Leaves oblong subpanduriform acuminate entire angular at base with 2 teeth on each side
13647 Leaves cordate angular
13648 Leaves palmate 11-lobed smooth: lobes pinnatifid cuneate, Stipules setaceous multifid



and Miscellaneous Particulars.

2031. *Sapium.* A name under which Pliny indicates a sort of pine, so named from the abundance of resin which it produces; from *sap*, fat or greasy in Celtic. The Americans employ the juice of Sapium aucuparium as bird-lime, for catching parrots and other birds. For this purpose they cut off a limb of the tree, and the next day collect the sap which has flowed out and become inspissated. They call it *Mangle cautivo.* The juice is also burned in lamps. Cuttings root freely in sand under a hand-glass.

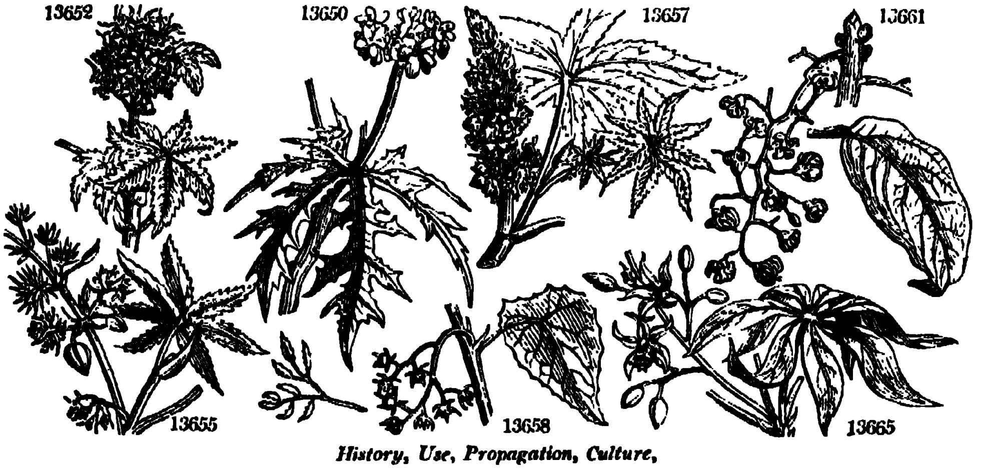
2032. *Croton.* The Greek name of a certain insect called *ricinus* by the Latins, which the fruit of Croton resembles.

Croton Tiglium affords an oil used in medicine, which is so powerfully irritating, that a small drop placed upon the tongue, has the effect of exciting an irritation along the whole intestinal canal, which does not soon subside. It is usually employed in mixture with oil of almonds, in order to weaken its too violent powers. C. lineare in its general appearance resembles rosemary, and is called wild rosemary in Jamaica. C. tinctorium is used to dye both silk and wool of an elegant blue color, and the juice is used to color wines and jellies. The substance for this purpose is called Turnsol, and is made of the juice which is lodged between the calyx and the seeds: this, if rubbed on cloths, appears at first of a lively green, but soon changes to a bluish purple; if these cloths are put into water, and afterwards wrung, they will dye the water of a claret color; the rags thus dyed are brought to England, and sold in the druggists' shops by the name of Turnsol.

C. Eleuteria furnishes the Cascarilla bark, which is chiefly imported from Eleutheria, one of the Bahama Islands. It consists of pieces of about six or eight inches long, scarcely one-tenth of an inch thick, quilled, and covered with a thin whitish epidermis. It has a pleasant spicy odor, and a bitter warm aromatic taste. It is very inflammable, and is easily distinguished from all other barks by emitting, when burnt and extinguished, a fragrant smell resembling that of musk. Medically, this bark is a valuable carminative and tonic, and is an excellent adjunct to the Cinchona bark in fevers. C. lacciferum, a plant not yet in gardens, is one among several species on which the gum lac is said to be produced. Some of the spinces we are in possession of, are much admired for their variegated leaves: all of them are freely propagated by cuttings with the leaves on, planted in sand, and plunged in moist heat under a hand-glass.

2033. *Jatropha.* From ιατρος, a remedy, and φαγω, to eat. The J. Manihot (*Mandioka*, Brazilian) or Cassa-

13649 Mánihot *W.*	Cassava	●	□	clt	3	jl.au	G	S. Amer.	1739.	S	r.m	Sloan.jam.1. t.85
13650 úrens *W.*	stinging	●	□	or	3	my.jl	G	Brazil	1690.	S	r.m	Bot. cab. 478
13651 herbácea *W.*	annual		⊡	un	1¼	jl.au	G	VeraCruz	1759.	S	r.m	Reliq hou.6. t.15
2034. RI'CINUS. *W.*	PALMA-CHRISTI.					*Euphorbiaceæ.*	*Sp.* 9—10.					
13652 commúnis *W.*	Castor-oil plant		O̲	m	6	jl.au	G	E. Indies	1548.	S	co	Bot. mag. 2209
13653 viridis *W.*	green		O̲	or	6	au	G	E. Indies	1802.	S	s.p	W. hort. ber. 49
13654 africánus *W.*	African	●	⊔	or	15	jl.au	G	Africa	...	S	s.p	
13655 lividus *W.*	livid-leaved	●	⊔	or	8	jl	Pu	C. G. H.	1795.	S	s.p	Jac. ic. 1. t. 196
13656 inérmis *W.*	smooth-capsul.		O̲	or	6	jl.au	Pu	India	1758.	S	s.p	Jac. ic. 1. t. 195
13657 armátus *B. R.*	rough-capsuled		O̲	or	6	jl.s	G	Malta	1807.	S	s.p	Bot. rep. 430
13658 Tanárius *W.*	scollop-leaved		O̲	or	4	jl.s	G	E. Indies	1810.	S	s.p	Rum.am.3. t.121
2035. HU'RA. *W.*	SANDBOX-TREE.					*Euphorbiaceæ.*	*Sp.* 2.					
13659 strépens *W. en.*	unequal-tooth.	♣	□	or	12	...	W.y	S. Amer.	...	C	l.p	
13660 crépitans *W. en.*	equal-toothed	♣	□	or	12	...	W.y	S. Amer.	1733.	S	p.l	Lam. ill. t. 793
2036. STERCU'LIA. *W.*	STERCULIA.					*Sterculiaceæ.*	*Sp.* 5—23.					
13661 Balánghas *W.*	coronet-flower.	♣	□	or	20	jn.s	G	E. Indies	1787.	Sk	p.l	Bot. reg. 185
13662 crinita *W.*	hairy-capsuled	♣	□	or	20	...	G	W. Indies	1793.	O	p.l	Aub. gui.2. t.279
13663 úrens *W.*	stinging	♣	□	or	10	...	G	E Indies	1793.	O	p.l	Rox. cor. 1. t. 24
13664 platanifólia *W.*	Plane-tree-lvd.	♣	⊔	or	30	jl	G	China	1757.	S	p.l	Cav. diss.5. t.145
13665 fœ'tida *W.*	fetid	●	□	or	8	...	G	E. Indies	1690	S	p.l	Rhee.mal.4. t.36
2037. HERITIE'RA. *W.*	LOOKING-GLASS PLANT.					....	*Sp.* 1—2.					
13666 littorális *W.*	Laurel-leaved	♣	□	or	20	...		E. Indies	1780.	C	p.l	Rhee.mal.6 t.21
2038. ACA'LYPHA. *W.*	ACALYPHA.					*Euphorbiaceæ.*	*Sp.* 14—43.					
13667 virginica *W.*	Virginian		○	un	2	jl.au	G	N. Amer.	1759.	S	co	Sch. han.3. t.311
13668 caroliniána *W.*	Carolina		○	un	2	jl au	G	N. Amer.	1811.	S	co	Lam.ill. t.789.f 2
13669 ciliáta *W.*	ciliated		⊡	un	2	jl.au	G	E. Indies	1799.	S	co	Vah.symb.1.t 20
13670 pauciflóra *W. en.*	few-flowered		○	un	2	jl.au	G	China	1816	S	co	
13671 brachystáchya *W.en*	saw-leaved		○	un	2	jl au	G	China	1816.	S	co	
13672 Indica *W.*	Indian		⊡	un	2	jl.s	G	E. Indies	1759.	S	co	Rhe.mal.10. t 81
13673 alopecuroidea *W.*	Fox-tail		○	un	2	jl.s	G	Venezula	1804.	S	co	Jac. ic. 3. t. 620
13674 diversifólia *Jacq.*	various leaved	●	□	un	2		G	Caraccas				
13675 integrifólia *W.*	entire-leaved	●	□	un	5	jn s	G	Mauritius	1823	C	co	
13676 rúbra *W.*	red	¥	[Λ]	un	1½	jl	R	......	1820.	C	co	
13677 híspida *W.*	hispid		⊡	un	3	jl.au	G	Indies	...	S	co	
13678 cuspidáta *W.*	cuspidate	●	□	un	4	jn jl	G	Caraccas	1819	C	co	
13679 virgáta *W.*	virgate	●	□	un	6	jn.jl	G	Jamaica	1823.	C	co	Bro. jam.t.36 f.2
13680 scabrósa *W.*	rough	●	□	un	6	jn jl	G	Jamaica	1820.	C	co	
2039. DALECHAM'PIA. *W.*	DALECHAMPIA.					*Euphorbiaceæ.*	*Sp.* 1—17					
13681 scándens *W.*	climbing	L	□	un	12	jn.jl	G	W. Indies	1739	C	l.p	Jac.am 252.t.160



History, Use, Propagation, Culture,

root, yields an excellent nutritious article of food when the juice has been expressed, which is a strong poison. J. gossypifolia is considered a beneficial plant in the West Indies, on account of the seeds, which are much relished by and very nourishing to poultry. J. Manihot, the Cassava of the West Indies, and the Mandioca and Tapioca of Brazil, formerly supplied the greater part of the nourishment of the natives of South America, and is now very generally cultivated there and in the West Indies. It yields an agreeable wholesome food; is of rapid growth, the roots arriving to perfection in about eight months, and it will thrive in any soil or situation. The juice of the root is sweetish, and when swallowed, or when the root is eaten without preparation, it brings on convulsions, and occasions violent retching and purging. It acts only on the nervous system; it produces no inflammation on the stomach; but the stomach of a man or other animal poisoned by it, appears to be contracted one half. A little mint-water and salt of wormwood, timely administered, will prevent all bad consequences. In preparing the roots for use as food, they are washed, scraped, and grated to a pulp: this pulp is then pressed, and when dried is a powder resembling starch or flower fit for use. It is generally baked as bread, and bears a considerable resemblance to that made from wheat flour. The roots entire, or in a powdered state, form an article of considerable export from different parts of Brazil. All the species thrive well in our stoves, and are increased by cuttings, which Sweet states, succeed best when stuck in the tan in a good heat.

2034. *Ricinus.* A name with the same derivation as Croton, No. 2032, which see. R. communis, though an annual and herbaceous plant in our gardens, becomes a tree in Africa of several years' standing. In Candia it continues many years, and, according to Belon, requires a ladder to come at the seeds. The seeds furnish the well known Castor-oil of medicine. This oil is obtained both by coction and expression. The former method is performed by tying up the seeds, previously decorticated and bruised, in a bag, which is suspended in boiling water, till all the oil is extracted and rises to the surface, when it is skimmed off. Oil so obtained is apt to become rancid, and, therefore, the better mode is to subject the seeds to the press, in the same manner as is done with almonds to procure almond oil. (See Amygdalus.) The oil obtained is equal to one fourth of the weight of the seeds employed. It is often adulterated with olive oil, linseed oil, and poppy oil. The great value of castor oil as a purgative is the mildness and rapidity with which it operates. It is peculiarly adapted for infants,

13649 Leaves undivided 3-5-lobed palmate entire glaucous beneath
13650 Leaves 5-lobed cordate toothed hispid stinging
13651 Prickly, Leaves 3-lobed, Stem herbaceous

13652 Leaves peltate palmate: lobes lanceolate serrated, Stem herbaceous frosted, Capsules prickly
13653 Lvs. pelt. palm.: lobes oblong toothed; middle obsoletely 3-lobed, Stem herbaceous frosted, Caps. prickly
13654 Leaves peltate palmate: lobes oblong serrated, Stem shrubby smooth, Stigmas 6, Caps. prickly
13655 Leaves peltate palmate colored: lobes obl. serrate-toothed, Stem shrubby smooth colored, Caps. prickly
13656 Leaves peltate palmate: lobes oblong serrated, Stem shrubby frosted, Capsules unarmed
13657 Leaves peltate deeply palmate 9 cut serrated, Petioles glandular, Caps. with herbaceous spines
13658 Leaves peltate ovate acuminate repand toothed, Caps. prickly

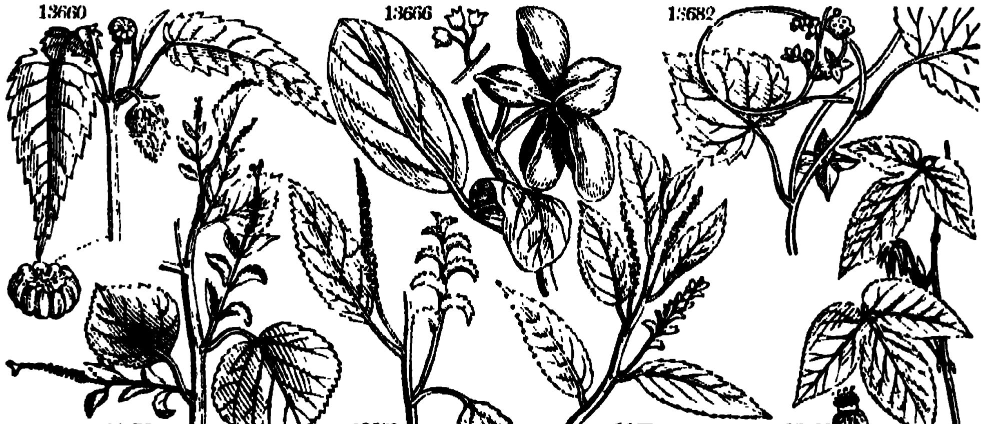
13659 Leaves ovate oblong slightly cordate toothed: lower teeth long entire at end
13660 Leaves ovate deeply cordate equally serrate, Male catkin ovate

13661 Leaves ovate lanceolate, Capsules obovate
13662 Hermaphrodite, Leaves ovate entire, Flowers panicled decandrous, Caps. smooth
13663 Leaves 5-lobed: lobes acuminate, Calyxes campanulate, Caps. ovate hispid
13664 Leaves palmate 5-lobed, Calyxes rotate reflexed
13665 Leaves digitate

13666 Leaves ovate simply veiny

13667 Female flowers at base of male spike, Invol. ovate acuminate toothed, Leaves obl. lanc. remotely toothed
13668 Fem. fls. at base of male spike, Invol. cordate toothed, Leaves subrhomboid ovate serrated entire at base
13669 Spikes axill. male upwards: female downw. Invol. cordate acuminate with imbricated serratures ciliated
13670 Female flowers solitary or twin at base of the male spike, Invol. cordate serrate, Leaves rhomboid ovate
13671 Female flowers at base of the male spike without an involucre, Leaves roundish ovate subcordate serrated
13672 Spikes axill. male above female below, Invol. smoothish serrated, Leaves ovate acum. serr. cuneate at base
13673 Female spike cylind. solitary terminal, Invol. 3-parted awned ciliated, Leaves roundish-ovate acuminate
13674 Female flowers twin axillary, Involucres entire, Leaves ovate acuminate serrulate, Stem shrubby
13675 Flowers diœcious: male spiked; female axillary, Invol. roundish entire, Leaves smooth lanc. subcord.
13676 Spikes male above; fem. below, Invol. cuneiform toothed at edge, Styles multifid, Lvs. obl subcord. serr.
13677 Spikes axillary male above; female below, Invol. cordate hispid, Leaves ovate acute hispid
13678 Male spikes axillary female at base, Invol. O, Leaves ovate cordate acuminate serrated
13679 Spikes axillary erect, Female invols. cordate toothed very large, Leaves ovate-lanceolate serrated smooth
13680 Flowers diœcious spiked, Spikes axill. Invol of females cordate cut, Leaves obl. lanceolate serrated smooth

13681 Leaves 3-lobed serrated: lobes oblong serrated, Bractes 3-lobed ciliated, Petioles shorter than peduncle



women in childbed, and persons bed-ridden. Sown in pots on heat early in the season, and transplanted as soon as the frosts are over into a mass of light rich soil, the plant makes one of the most magnificent of border annuals, often attaining the height of ten or twelve feet.

2035. *Hura.* Its American name. H. crepitans is a rapid growing tree. From the quickness of its vegetation, its parts are of so loose a texture, that a loud clap of thunder, or a sudden gust of wind, frequently causes the largest boughs to snap asunder. The wood is only fit for joists and spars: the sap of the leaves and bark is corrosive, and the seeds when roasted purge both upwards and downwards. The species are propagated by large ripened cuttings, planted in sand, plunged in heat, and covered with a hand-glass. Its fruit when ripe bursts with a loud crack, whence the specific name of crepitans; they are of a very elegant form, resembling a depressed sphere with many rounded ribs, arranged with the utmost symmetry.

2036. *Sterculia.* Sterculius was the god of the privy, from *stercus*, excrement. It has been well observed by a French author, that the Romans, in the madness of paganism, finished by deifying the most immodest objects and the most disgusting actions. They had the gods Sterculius, Crepitus, Priapus; and the goddesses Caca, Pertunda, &c. &c. The flowers of one species and the leaves of the other are highly fetid. The species are lofty trees with large leaves, and some of them very showy flowers: they all thrive in light loamy soil; and ripened cuttings, with their leaves on, root in sand, plunged in moist heat, and covered with a hand-glass. The famous Cola nut of Guinea is the produce of S. acuminata.

2037. *Heritiera.* Named in honor of Charles Louis L'Heritier de Brutelle, a distinguished French botanist, who was unfortunately assassinated in a street of Paris in 1800. He published many works, which will always have a high reputation for the excellence of their text, and the magnificence of their illustrations. A fine tree, which may be treated like Sterculia.

2038. *Acalypha.* A Greek name for the nettle, which this genus much resembles. It is compounded of α, privative, καλος, beautiful, and αφη, touch. Plants of no beauty and the easiest culture.

2039. *Dalechampia.* So called after James Dalechamp, a French botanist, born in 1513, died in 1588. He left a General History of Plants, and some commentaries upon Pliny. May be treated as Plukenetia.

2040. **PLUKENE'TIA.** *W.* Plukenetia. *Euphorbiaceæ.* *Sp.* 1—5.
15082 volúbilis *W.* twining § ⊡ un 6 jl.au G W. Indies 1739. C p.l Plu. ic.220. t.226.

History, Use, Propagation, Culture,

2040. *Plukenetia.* Named after Leonard Plukenet, an English botanist, who published some valuable works, with an immense number of copperplates, of singular merit for their time. The names of two of these works are so singular as to deserve explanation. One was called Amaltheum botanicum. This word in Greek, *Αμαλθεια*, was the name of the goat which suckled Jupiter. As its milk was exquisite and abundant, the word came to signify, among the ancients, the symbol of richness and abundance. The famous library of Atticus was called Amaltheum, on account of the number and variety of the books which it contained. In

Class XXII. — DIŒCIA.

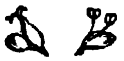
Male and female flowers upon different plants.

To this class many of the observations made upon the last are equally applicable. Like it, the genera would have been more conveniently distributed among previous classes. The genera it contains are chiefly trees, and many of them form the most valuable portion of the forests of all parts of the world.

In Monandria is found the celebrated Pandanus or screw pine, which, with its strange spiral branches, constitutes one of the most singular features of the vegetation of the Isle of France. Diandria contains the valuable Salix; Pentandria, the hop, the hemp, and the spinage. The black Bryony, and various palms have a station in Hexandria; the poplar in Octandria; the Papaw and the Bonduc tree in Decandria. Monadelphia is richly endowed with valuable trees, such as the yew, the Norfolk Island pine, the juniper, the nutmeg; and it also contains the wonderful pitcher-plant of China.

Order 1. MONANDRIA. Stamen 1.

2041. *Pandanus.* Male. Cal. O. Cor. O. Anthers cuspidate. Female. Cal. O. Cor. O. Style bifid. Drupe compound or simple.

Order 2. DIANDRIA.  Stamens 2.

2042. *Salix.* Barren fl. Scales of the catkin single-flowered, imbricated, with a nectariferous gland at its base. Perianth. O. Stam. 1-5. Fertile fl. Scales of the catkin single-flowered. Perianth. O. Stigmas 2, often cleft. Caps. 1-celled, 2-valved, many-seeded. Seeds comose.

2043. *Cecropia.* Male. Spatha falling off. Catkin cylindrical. Cal. turbinate 4-cornered scales. Cor. O. Female, as in the male. Style 1. Stigma torn. Ovaries imbricated. Berry 1-seeded.

2044. *Borya.* Male. Cal. 4-leaved. Cor. O. Stamens 2-3. Female. Stigma capitate. Berry 1-seeded.

Order 3. TRIANDRIA. Stamens 3.

2045. *Empetrum.* Barren fl. Cal. tripartite. Cor. of 3 petals (7 in E. B.). Stam. 3 (9 in E. B.), upon long filaments. Fertile fl. Cal. tripartite. Cor. of 3 petals. Style very short. Stigma with 6-9 rays. Berry superior, globose, with 6-9 seeds.

2046. *Willdenovia.* Male. Cal. of many glumes. Petals 6. Nectary fleshy, 6-parted, surrounding the corolla. Female. Ovary superior. Style 1. Stigmas 2-3. Drupe 1-seeded.

2047. *Restio.* Spike imbricated. Cal. 6 equal glumes. Cor. O. Female. Styles 2-3. Nut stony, 1-celled, 1-seeded.

2048. *Elegia.* Cal 6 unequal glumes. Female. Styles 3. Caps. 6-celled. Seeds solitary.

2040. PLUKENE'TIA. *W.* PLUKENETIA. *Euphorbiaceæ.* *Sp.* 1—5.

15682 volúbilis *W.*	twining	♄ ⊡	un	6	jl.au	G	W. Indies	1739.	C	p.l	Plu. ic.220. t.226.

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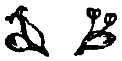
Order 1. MONANDRIA. Stamen 1.

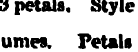
2041. *Pandanus.* Male. Cal. O. Cor. O. Anthers cuspidate. Female. Cal. O. Cor. O. Style bifid. Drupe compound or simple.

Order 2. DIANDRIA.  Stamens 2.

2042. *Salix.* Barren fl. Scales of the catkin single-flowered, imbricated, with a nectariferous gland at its base. Perianth. O. Stam. 1-5. Fertile fl. Scales of the catkin single-flowered. Perianth. O. Stigmas 2, often cleft. Caps. 1-celled, 2-valved, many-seeded. Seeds comose.

2043. *Cecropia.* Male. Spatha falling off. Catkin cylindrical. Cal. turbinate 4-cornered scales. Cor. O. Female, as in the male. Style 1. Stigma torn. Ovaries imbricated. Berry 1-seeded.

2044. *Borya.* Male. Cal. 4-leaved. Cor. O. Stamens 2-3. Female. Stigma capitate. Berry 1-seeded.

Order 3. TRIANDRIA.  Stamens 3.

2045. *Empetrum.* Barren fl. Cal. tripartite. Cor. of 3 petals (7 in E. B.). Stam. 3 (9 in E. B.), upon long filaments. Fertile fl. Cal. tripartite. Cor. of 3 petals. Style very short. Stigma with 6-9 rays. Berry superior, globose, with 6-9 seeds.

2046. *Willdenovia.* Male. Cal. of many glumes. Petals 6. Nectary fleshy, 6-parted, surrounding the corolla. Female. Ovary superior. Style 1. Stigmas 2-3. Drupe 1-seeded.

2047. *Restio.* Spike imbricated. Cal. 6 equal glumes. Cor. O. Female. Styles 2-3. Nut stony, 1-celled, 1-seeded.

2048. *Elegia.* Cal 6 unequal glumes. Female. Styles 3. Caps. 6-celled. Seeds solitary.

[illegible] Angles of capsules compressed keeled

and Miscellaneous Particulars.

this sense Plukenet applied it to a work in which a great variety of curious plants was assembled. The other work was called Almagestum. This also came originally from the Greek. Claudius Ptolomæus, an astronomer and mathematician, published about the middle of the second century a work on astronomy, called *Συνταξις μεγιστη*, which may be Englished "Great work." Ishac ben Honain translated it into Arabic at the beginning of the ninth century, by order of the Caliph Mahmoun; to its title he added the Arabic article *Al*, and so formed the word *Al-magesti* or *Almaghesti*.

2049. *Phœnix.* Cal. 3-parted. Petals 3. Ovary 1. Drupe ovate-oblong.
2050. *Stilago.* Male. Cal. tubular, 3-4-toothed. Cor. O. Stamens 2-3. Female, an annular disk at the base of the ovary. Stigmas 2, one bifid. Drupe 1-seeded.
2051. *Osyris.* Male. Cal. 3-fid. Cor. O. Female. Style 1. Stigma roundish. Berry 1-celled.

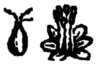
Order 4. TETRANDRIA. Stamens 4.

2052. *Aulax.* Male. Flowers racemose. Cal. O. Petals 4, staminiferous. Female. Stigma oblique. Nut exserted, ventricose, bearded.
2053. *Leucadendron.* Male. Flowers capitate. Cal. O. Petals 4, staminiferous. Female. Stigma oblique. Nut or samara 1-seeded, included in the scales of the cone.
2054. *Viscum.* Barren fl. Cal. O. Petals 4, dilated at the base, connate, resembling a cal. Anthers sessile, adnate with the petals. Fertile fl. Cal. submarginate. Petals 4, dilated at the base. Style 1. Drupe inferior, 1-seeded.
2055. *Myrica.* Barren fl. Scales of the catkin concave. Perianth. O. Fertile fl. Scales of the catkin concave. Perianth. O. Styles 2. Drupe 1-celled, 1-seeded.
2056. *Nageia.* Cal. 4-leaved. Cor. O. Style bifid. Drupe 1-seeded.
2057. *Shepherdia.* Male flowers in a catkin, 8-androus. Female racemose at the ends of the branches. Limb of calyx flat, regular, 4-parted. Disk with 8 glands. Fruit of Hippophae.
2058. *Hippophae.* Male flowers in a catkin, tetrandrous. Female solitary in the axillæ of the leaves. Calyx tubular, bifid at end, closed. Disk O. Fruit formed of a berried calyx and akenium.
2059. *Broussonetia.* Male. A cylindrical catkin. Cal. 4-parted. Female. A globose catkin. Cal. tubular, 3-4-toothed. Ovaries becoming fleshy, clavate, prominent. Style lateral. Seed 1, covered by the calyx.
2060. *Schæfferia.* Cal. 4-leaved. Petals 4 or O. Berry 2-celled. Seeds solitary.
2061. *Brucea.* Male. Cal. 4-parted. Petals 4. Disk 4-lobed. Female. Pericarps 4, 1-seeded.
2062. *Anthospermum.* Male. Cal. 4-toothed. Cor. with a short tube, and 4-parted limb. Female. Ovary inferior. Styles 2, reflexed. Fruit bipartible.
2063. *Trophis.* Male. Cal. O. Petals 4. Female Cal. O. Cor. O. Style 2-parted. Berry 1-seeded.
2064. *Montinia.* Male. Cal. 4-toothed. Petals 4. Female. Style bifid. Stigmas reniform. Capsule inferior, 2-celled, many-seeded.

Order 5. PENTANDRIA. Stamens 5.

2065. *Pistacia.* Male. Cal. 5-fid. Cor. O. Female. Cal. 3-fid. Cor. O. Styles 5. Drupe 1-seeded.
2066. *Xanthoxylum.* Male. Cal. 5-parted. Cor. O. Stamens 3-5. Female. Ovaries 5. Caps. 3-5, one-seeded.
2067. *Picramnia.* Male. Cal. 3-5-parted. Petals 3-5. Stamens 3-5. Female. Styles 2. Berry 2-celled, 2-seeded.
2068. *Antidesma.* Male. Cal. 5-leaved. Cor. O. Anthers bifid. Female. Stigmas 5. Berry cylindrical, 1-seeded.
2069. *Iresine.* Male. Cal. 2-leaved. Petals 5. Scales 5-7. Female. Stigmas 2, sessile. Caps. with downy seeds.
2070. *Spinacia.* Male. Cal. 5-parted. Cor. O. Female. Styles 4. Seed 1, within the indurated calyx.
2071. *Fluggea.* Male. Cal. 5-leaved. Cor. O. Rudiment of an ovary. Female. Style 2-parted. Stigmas recurved, bifid. Berry 4-seeded. Seeds with an arillus.
2072. *Acnida.* Male. Cal. 5-parted. Cor. O. Female. Cal. 3-parted. Styles O. Stigmas 3, sessile. Caps. 1-seeded.

2074. *Cannabis.* Male. Cal 5-parted. Female. Cal. 5-leaved, entire, opening at the side. Styles 2. Nut 2-valved within the closed calyx.
2074. *Humulus.* Barren fl. Perianth. single, of 5 leaves. Anthers with 2 pores at the extremity. Fertile fl. Scales of the catkin large, persistent, concave, entire, single-flowered. Perianth. O. Styles 2. Seed 1.
2075. *Modecca.* Cal. 5-fid. Petals 5, inserted in the calyx. Scales 5-10, rarely O. Male. Stamens 5. Anthers erect. Female. Caps. stalked, 1-celled, 3-valved, many-seeded.

Order 6. HEXANDRIA.  Stamens 6.

2076. *Xerotes.* Cor. 6-parted, somewhat colored. Male. Stamens 6. Anthers peltate. Female. Stamens abortive. Ovary 3-celled, with 1-seeded cells Caps. cartilaginous, 3-celled, 3-valved. Seeds peltate.
2077. *Elais.* Cal. 6-leaved. Cor. 6-fid Style 1. Stigmas 3. Drupe 1-seeded, fibrous. Nut 3-valved.
2078. *Chamædorea.* Cal. 3-parted. Cor. 3-parted. Stamens 6. Rudiment of a style. Female. Scales 3. Styles 3. Drupe succulent, 1-seeded.
2079. *Borassus.* Cal 3-leaved. Cor hypocrateriform, with a 3-parted limb. Female. Cal. 8-9-leaved, imbricated. Cor. O. Style O. Drupe with 3 stones.
2080. *Mauritia.* Cal cyathiform, somewhat 3-toothed. Petals 3. Drupe 1-seeded, tessellated.
2081. *Smilax.* Cal. 5-leaved. Cor. O. Styles 3. Berry 3-celled. Seeds 2.
2082. *Tamus.* Cal. 6-parted. Cor. O. Styles 3-fid. Berry 3-celled, inferior. Seeds 2.
2083. *Testudinaria.* Perianth. 6-parted, spreading: segments linear, nearly equal. Male. Stamens 6, inserted in the base of the segments. Female. Styles 3, united. Capsule membranous. Seeds winged.
2084. *Rajania.* Cal. 6-parted. Cor. O. Styles 5. Samaræ 1-seeded.
2085. *Dioscorea.* Cal. 6-parted. Cor. O. Styles 3. Capsule 3-celled, compressed. Seeds 2, membranous. Leaves generally alternate.
2086. *Maba.* Cal. 3-fid. Cor. tubular, trifid. Drupe 2-celled. Cells 2-seeded.

Order 7. OCTANDRIA. Stamens 8.

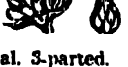
2087. *Populus.* Barren fl. Scales of the catkin lacerated. Anthers 8-30, arising from a turbinate, oblique, entire, single perianth. Fertile fl. Scales of the catkin lacerated. Perianth. turbinate, entire. Stigmas 4. Caps. superior, 2-celled, 2-valved, many-seeded. Seeds comose.

Order 8. ENNEANDRIA. Stamens 9.

2088. *Mercurialis.* Barren fl. Perianth. single, tripartite. Stam. 9-12. Anthers globose, 2-lobed. Fertile fl. Perianth. single, tripartite. Styles 2. Caps. 2-celled. Cells 1-seeded.
2089. *Hydrocharis.* Barren fl. Cal. tripartite. Petals 3, "the three interior filaments beaked." *Sm.* Fertile fl. Cal. tripartite. Petals 3. Styles 6, each with 2 stigmas. Caps. inferior, coriaceous, roundish, six-celled, many-seeded.
2090. *Triplaris.* Cal. 3-parted. Petals 3. Stamens 9. Styles 3. Capsule 1-seeded, 3-valved.

Order 9. DECANDRIA. Stamens 10.

2091. *Coriaria.* Cal. 5-parted. Cor. O. Scales 5. Anthers 2-parted. Styles 5. Caps. 5, 1-seeded, covered by the enlarged scales.
2092. *Kiggelaria.* Cal. 5-parted. Petals 5; glands 5, 3-lobed. Anthers perforated. Styles 5. Capsule one-celled, 5-valved, many-seeded.
2093. *Schinus.* Cal. 5-fid. Petals 5. Berry 3-coccous.
2094. *Gymnocladus.* Cal. 5-toothed. Petals 5. Style 1. Legumen 1-celled, pulpy inside.
2095. *Carica.* Male. Cal. hardly any. Cor. 5-fid, funnel-shaped. Filam. in the tube of the cor. Female. Cal. 5-toothed. Petals 5. Stigmas 5. Berry furrowed, 1-celled, many-seeded.

Order 10. DODECANDRIA.  Stamens 12.

2096. *Stratiotes.* Male. Spatha 2-leaved. Cal. 3-parted. Petals 3. Stamens 11-13, perfect, 20 abortive. Ovary inferior, 6-angular. Styles 6, 2-parted. Berry 6-celled, many-seeded.
2097. *Hyænanche.* Cal. 5-7-leaved. Cor. O. Stamens 10-20. Style 1. Stigmas 3. Caps. 3-celled, 3-coccous. Cells 2-seeded.
2098. *Euclea.* Cal. 5-toothed. Cor. 5-parted. Stamens 15. Ovary superior. Styles 2. Caps. berried, 3-horned, 3-celled. Seeds solitary, with an arillus.
2099. *Datisca.* Male. Cal. 5-leaved. Cor. O. Anthers sessile. Female. Cal. 2-toothed. Styles 3. Capsule 3-angular, 3-horned, 1-celled, pervious, inferior.
* 2100. *Menispermum.* Male. Cal. 2-leaved. Petals 4 or 6 on the outside, 8 inside. Stamens 16. Female. Stamens 8, sterile. Ovaries 2-3. Berries 2, 1-seeded.
2101. *Cocculus.* Sepals and petals ternate, usually in two, rarely in three rows. Male. Stamens 6, distinct, opposite the petals. Female. Drupes berried, 1-6, generally oblique, reniform, somewhat compressed, 1-seeded. Cotyledons distinct.

Order 11. ICOSANDRIA. Stamens numerous, inserted in the calyx.

2102. *Flacourtia.* Cal. 5-parted. Cor. O. Stamens 50-100. Stigma stellate, sessile. Berry many-celled, with 2-seeded cells.
2103. *Peumus.* Male. Cal. campanulate, 5-fid. Petals 5, inserted in the calyx, reflexed. Stamens about 46, glandular. Female. Scales 5, subsagittate. Ovaries 2-9. Style O. Drupes oval, acuminate.
2104. *Gelonium.* Cal. 5-leaved. Cor. O. Stamens 12. Stigmas 3, lacerated. Caps. 3-celled, 3-valved, 3-seeded
2105. *Rottlera.* Male. Cal. 2-parted. Cor. O. Stamens 30-40. Female. Cal. 4-toothed. Styles 3. Caps. 3-celled, tricoccous, 3-seeded.

Order 12. POLYANDRIA. Stamens numerous, inserted under the ovarium.

2106. *Cliffortia.* Cal. 3-leaved. Cor. O. Stamens about 30. Styles 3. Caps. 3-celled. Seed 1.

2107. *Cycas.* Male. Catkin imbricated. Cal. a spatulate scale. Cor. O. Anthers globose, sessile, on a scale. Female. Spadix compressed, 2-sided. Cal. O. Cor. O. Style 1. Drupe 1-seeded.

2108. *Zamia.* Catkin like a cone. Male. Calyx an obovate scale. Cor. O. Anthers globose, opening by a slit, sessile on the scale. Female. Cal. peltate scales. Ovaries 2. Style O. Berries 2, 1-seeded.

Order 13. MONADELPHIA. Stamens united into one body.

2109. *Latania.* Spadix many-leaved. Calyx 3-leaved. Petals 3. Stamens 15-16. Drupe coated, with three stones.

2110. *Leptocarpus.* Cal. 6-leaved, glumaceous. Cor. O. Stamens 3. Ovary superior. Style 1. Stigmas 2 or 3. Utricle or nut crustaceous, crowned by the base of the style.

2111. *Ruscus.* Cal. 6-leaved. Cor. O. Male. Rudiment of ovary ovate, perforated at end. Female. Style 1. Berry 3-celled. Seeds 2.

2112. *Araucaria.* Male. Catkin imbricated. Cal. a woody scale. Anthers 10-12, united in a scale. Female. Catkin cone-shaped. Cal. a lanceolate 2-flowered scale. Style O. Stigma 2-valved. Nut coriaceous, cuneiform, winged at end.

2113. *Juniperus.* Barren fl. Scales of the catkin subpeltate. Perianth. O. Stam. 4-8, 1-celled. Fertile fl. Scales of the catkin few, united at length, fleshy, and surrounding the 3-seeded berry.

2114. *Taxus.* Barren fl. Perianth. single at the base. Stam. numerous. Anthers peltate, 6-8-celled. Cells opening beneath. Fertile fl. Perianth. single, urceolate, scaly. Style O. Drupe fleshy, perforated at the extremity.

2115. *Ephedra.* Male. A catkin. Cal. 2-fid. Stamens 7. Anthers 4 inferior, 2 superior. Female. Cal. 2-parted, quintuple. Ovaries 2. Seeds 2, covered by the berried calyx.

2116. *Cissampelos.* Male. Cal. 4-leaved. Cor. O. Disk rotate. Stamens 5. Filaments connate. Female. Cal. 1-leaved, ligulate, roundish. Styles 3. Berry 1-seeded.

2117. *Excæcaria.* Male. Catkin cylindrical. Cal. a scale. Filament 3-parted. Female. Calyx 3 scales. Caps. 3-coccous.

2118. *Adelia.* Male. Cal. 3-parted. Cor. O. Stamens OO. Female. Cal. 5-parted. Styles 3, torn. Capsule 3-coccous.

2119. *Loureira.* Male. Cal. 5-parted. Cor. tubular, campanulate, 5-fid. Stamens 8-13, cohering at base. Female. Stigmas 3-4. Capsule dicoccous, 2-celled, with 1-seeded cells.

2120. *Myristica.* Male. Cal. O. Cor. campanulate, trifid. Filament columnar. Anthers 6-10, connate. Female. Style 1. Stigmas 2. Drupe with an arilled 1-seeded nut. Seed large, veiny, variegated in the inside.

2121. *Nepenthes.* Cal. 4-parted, spreading, colored inside. Cor. O. Filament columnar. Anthers 15-17, connate. Stigma peltate, sessile. Caps. 4-celled, many-seeded.

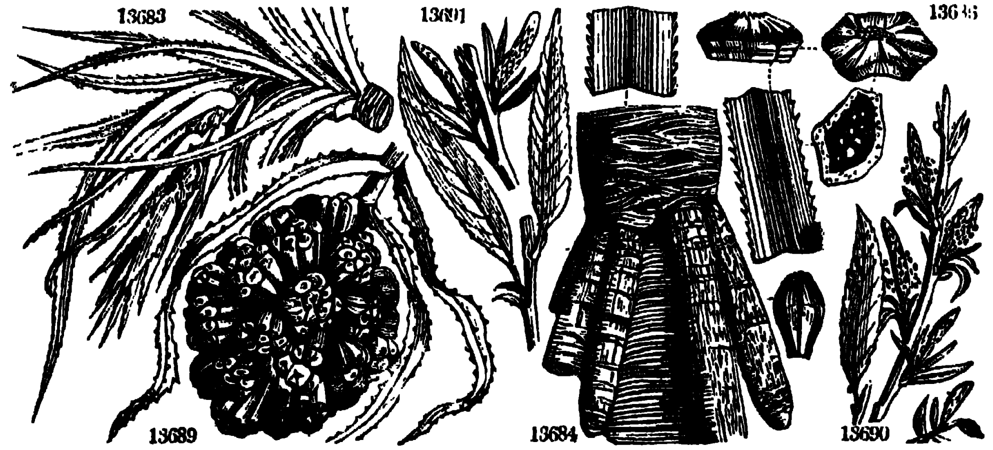
2122. *Cluytia.* Male. Cal. 5-leaved. Petals 5. Disk glandular. Stamens 5, inserted into the rudiment of an ovarium. Female. Styles 3. Capsule 3-celled. Seed 1.

MONANDRIA.

2041. PANDA'NUS. *W.*	Screw-Pine.					*Pandaneæ.*		*Sp.* 7—25.				
13683 odoratíssimus *W.*	green-spined	‡	☐	or	20	...	W	E. Indies	1771.	S	r.m	Rox.cor.1. t.94-6
13684 útilis *W. en.*	red-spined	‡	☐	or	20	...	W	Bourbon	...	S	r.m	Ja.fra. t.13,14.f.1
13685 spirális *R. Br.*	spiral	‡	☐	or	20	...	W	N. S. W.	1805.	S	r.m	
13686 húmilis *W.*	dwarf	‡	☐	or	8	...	W	Mauritius	...	S	r.m	Jac.frag. t.14. f.2
13687 amaryllifólius *Roxb.*	entire-leaved	‡	☐	or	20	...	W	E. Indies	1820.	S	r.m	
13688 candelábrum *Beauv.*	Candlestick	‡	☐	or	15	...	W	Guinea	1822.	S	r.m	Fl. d'Oware, t.21
13689 fasciculáris *W.*	fascicled	‡	☐	or	20	...	W	E. Indies	1822.	S	r.m	Rheede. 2. t. 6

DIANDRIA.

2042. SA'LIX. *W.*	Willow.					*Amentaceæ.*		*Sp.* 125—163.				
13690 triándra *W.*	long-leaved	🌳		tm	30	my.au	Ap	Britain	riv.ba.	C	m.s	Eng. bot. 1435
13691 lanceoláta	sharp-leaved	🌳		tm	30	ap.my	Ap	England	mea.	C	m.s	Eng. bot. 1436
13692 Hoppeána *W.*	Hoppe's	🌳		tm	30	ap.my	Ap	Austria	1820.	C	m.s	
13693 unduláta *W.*	wave-leaved	🌳		tm	30	ap.my	Ap	Germany	...	C	m.s	
13694 Villarsiána *W.*	Villars's	🌿		or	6	ap.my	Ap	S. France	1818.	C	m.s	
13695 amygdalina *W.*	Almond-leaved	🌿		or	6	ap.my	Ap	Britain	mar.	C	m.s	Eng. bot. 1936
13696 decipiens *E. B.*	varnished	🌿		or	8	my	Ap	England	woods.	C	m.s	Eng. bot. 1937
13697 Russelliána *W.*	Bedford	🌳		tm	40	ap my	Ap	England	mar.	C	m.s	Eng. bot. 1808
13698 Humboldtiána *W.*	Humboldt's	‡	☐	or	10	...	Ap	Peru	1823.	C	m.s	
13699 tetraspérma *W.*	four-seeded	‡	☐	or	20	...	Ap	E. Indies	1796.	C	m.s	Rox. cor. 1. t. 97
13700 nigra *W.*	black	🌳		or	20	my	Ap	N. Amer.	1811.	C	m.s	An.bot.2. t.5. f.5
13701 pentándra *W.*	Bay-leaved	🌿		or	15	mr.jn	Ap	Britain	riv.ba.	C	m.s	Eng. bot. 1805
13702 nigricans *W.*	dark broad-lvd.	🌿		or	10	ap	Ap	England	os.hol.	C	m.s	Eng. bot. 1213
13703 phylicifólia *W.*	Tea-leaved	🌿		or	1¼	my	Ap	Scotland	sc.alp.	C	m.s	Eng. bot. 1958
13704 Wulfeniána *W.*	Wulfen's	🌿		or	6	my	Ap	Carinthia	1818.	C	m.s	
13705 silesiaca *W.*	Silesian	🌿		or	6	my	Ap	Silesia	1816.	C	m.s	
13706 Pontederána *W.*	Pontedera's	🌿		or	3	my	Ap	Switzerl.	1821.	C	m.s	
13707 laurina *W.*	two-colored	🌿		or	8	ap.my	Ap	England	...	C	m.s	Eng. bot. 1806
13708 tenuifólia *W.*	thin-leaved	🌿		or	2	my.jn	Ap	Britain	sto.hi.	C	m.s	Eng. bot. 2186
13709 Ammanniána *W.*	Ammann's	🌳		or	20	my.jn	Ap	Austria	1821.	C	m.s	H. sal. t.17,18,19
13710 hastáta *W.*	halbert-leaved	🌳		or	15	my	Ap	Lapland	1780.	C	m.s	Fl. lapp. t. 8. f. g
13711 serruláta *W.*	serrulate	🌿		or	8	my	Ap	Lapland	1810.	C	m.s	Fl. dan. t. 1238



History, Use, Propagation, Culture,

2041. *Pandanus.* The Malay name of the genus is *Pandang*, which is said to signify, being interpreted, something to be regarded, and to have been so named on account of the beauty of the tree, and its exquisite odor. P. odoratissimus is a large spreading branching bush, with stem-clasping imbricated leaves, bearing some resemblance to those of the pine-apple; from three to five feet long, and placed in three spiral rows round the extremities of the branches. It grows in all soils and situations in the warmer parts of Asia, and is much employed there for hedges. It grows readily from branches, whence it is rare to find the full-grown ripe fruit. The tender white leaves of the flowers, chiefly those of the male, yield that most delightful fragrance, for which they are so generally esteemed, and for which the plant is cultivated in Japan. Of all the perfumes, it is by far the richest and most powerful. The lower pulpy part of the drupe is sometimes eaten by the natives in times of scarcity and famine. The tender white base of the leaves is also eaten raw or boiled, at such melancholy times. The taste of the pulpy part of the drupe is very disagreeable. The roots are composed of tough fibres, which basket-makers use to tie their work with; they are so soft and spongy as to serve the natives for corks The leaves are composed of longitudinal, tough, useful fibres. In the South Sea Islands, where the Pandanus is also a native, this or some other species or variety is used for making mats. The leaves are beautifully white and glossy. In the Sandwich islands these mats are handsomely worked in

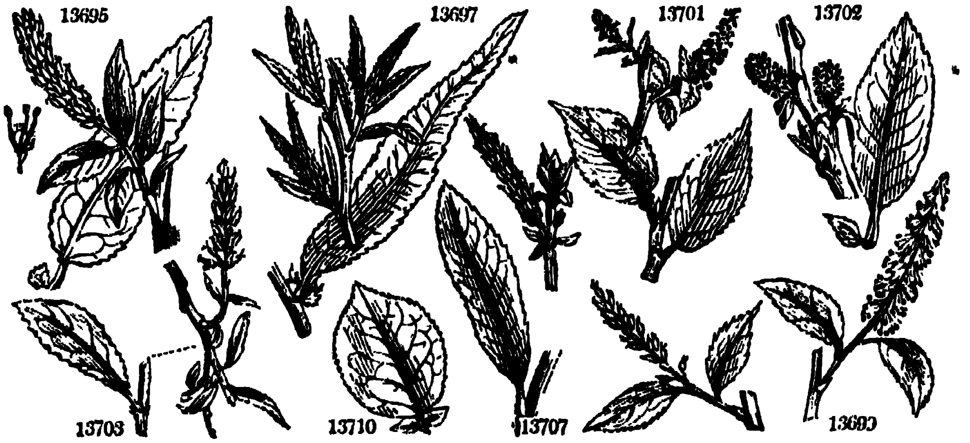
MONANDRIA.

13683 Leaves at back and edges spiny-toothed, Fruit globose solitary
13684 Leaves at back and edges spiny-toothed, Fruit globose, Branches ternate dichotomous
13685 Stem without stolones, Clust. of drupes with from 9 to 20 cells obtuse depressed and tessellate at end
13686 Leaves at back and edges spiny-toothed, Fruit globose aggregated
13687 Leaves quite entire
13688 Leaves at edge and back serrate-spiny, Branches of stem erect
13689 Leaves and edges spiny-toothed, Spines distant, Drupe oblong solitary, Fruits fascicled

DIANDRIA.

§ 1. *Leaves smooth-serrated.*

13690 Leaves lin. obl. serr. smooth rather unequally sloping at base, Catkins accompanying the leaves triandrous, Ovary stalked ovate compressed smooth, Stigma nearly sessile
13691 Leaves lanceolate tapering toward each end serrat smooth Footst. decurr. Catk. accompanying the leaves triandrous, Ovary stalked oblong constricted smooth
13692 Leaves lanceolate tapering at each end serrated glaucous beneath, Catkins accompanying the leaves triandrous polygamous, Ovary stalked oblong lanceolate smooth, Stigmas sessile
13693 Leaves lanceolate pointed obtuse at the base smooth wavy and serrated, Footstalks decurrent, Catkins accompanying the leaves triandrous, Ovary stalked elliptic oblong, Style elongated
13694 Leaves elliptical roundish at the base serrated pointed glaucous white beneath, Catkins accompanying the leaves triandrous, Ovary stalked ovate smooth, Stigmas sessile
13695 Leaves ovate unequal at the base serrated smooth, Catkins accompanying the leaves triandrous, Ovary stalked ovate compressed smooth, Stigmas nearly sessile, Young branches furrowed
13696 Lvs. lanc. serrate quite smooth, Petioles somew. glandular, Ovary narrowed stalked, Branches varnished
13697 Leaves lanceolate acuminate serrated smooth, Ovaries pedicellate subulate smooth
13698 Lvs. lin. pointed finely serrat. smooth, Stam. about 6, Ovary stalked round.-ovate smooth, Stigmas sessile
13699 Leaves elliptic-lanceolate pointed finely serrated smooth glaucous beneath, Catkins following the leaves, Stamens about 6 deflexed, Ovary stalked ovate smooth, Style elongated
13700 Leaves ovato-lanc. pointed serrated green on both sides smooth with a downy rib and footst. Catkins accompanying the leaves vill. Stam. about 5 bearded at base, Ovary stalked ov. lanc. smooth, Stigm. divid.
13701 Leaves elliptic-lanceolate or ovate pointed crenate glandular smooth, Footstalks glandular at the top, Catkins following the leaves, Stam. 5 or more hairy, Ovary ovate smooth nearly sessile
13702 Leaves ellipt. lanc. acute cren. smooth glaucous beneath, Catkins before leaves, Ovary stalked lanc. downy
13703 Leaves elliptical lanceolate with wavy serratures smooth glaucous beneath, Stipules somewhat lunate glandular on the inside, Ovary stalked silky, Style longer than the stigma
13704 Leaves obovate bluntish serrated smooth glaucous beneath, Catkins dense with fringed scales, Ovary stalked awl-shaped nearly smooth, Style longer than the stigmas
13705 Leaves elliptical acute at each end smooth serrat. green on both sides: midrib footstalks as well as young foliage downy, Catkins before the leaves, Ovary ovato-lanceolate long stalked smooth
13706 Leaves elliptical acute serrated smooth obtuse at base glaucous beneath: midrib footstalk as well as young foliage hairy, Ovary oblong downy
13707 Leaves elliptical acute tooth-serrated smoothish glaucous beneath, Ovary lanceolate silky
13708 Lvs. ellipt. acute serrat. smoothish glaucous ben. Stip. small or none, Catk. hairy, Caps. sess. very smooth
13709 Leaves oblong elliptical acute serrated smooth glaucous beneath, Footstalks elongated downy, Stipules ovate toothed permanent, Catkins before the leaves, Ovary lanceolate smooth
13710 Lvs. ovate acute serrated undulate crackling smooth heart-shaped at the base glaucous beneath, Stipules unequally heart-shaped longer than the broad footstalks, Catkins very woolly, Ovary lanc. smooth
13711 Lvs. ovate acute serrated smooth glaucous beneath, Footstalks very short smooth, Stipules ovate serrated permanent, Catkins accompanying the leaves, Ovary lanceolate nearly sessile

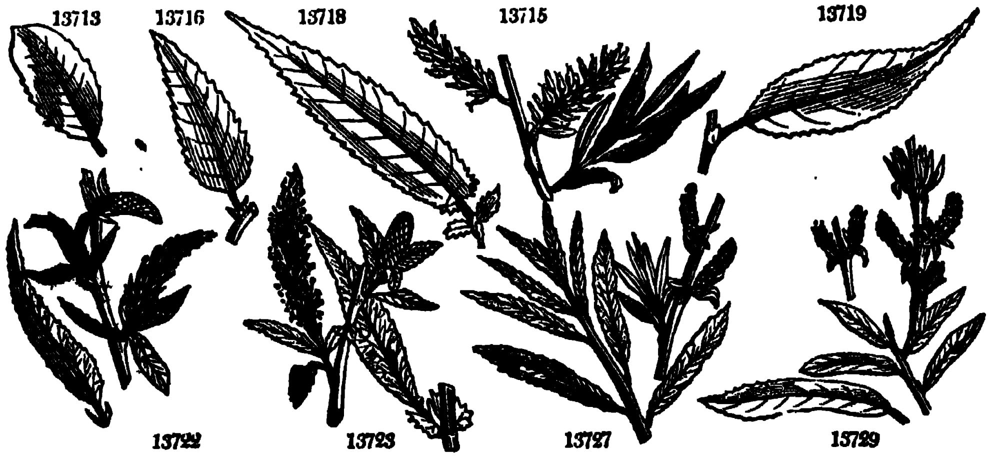


and Miscellaneous Particulars.

a variety of patterns, and stained of different colors. The branches being of a soft spongy juicy nature, cattle will eat them very well when cut into small pieces. They call it Wharra tree at Otaheite. (*Hawksw. Voy.* ii. 217.)

2042 *Salix.* From the Celtic *sal*, near. and *lis*, water Our common name osier, seems to be a slight alteration of the Greek [illegible], which means the same thing. This is a numerous and difficult genus of trees and shrubs, with one or two exceptions limited in their range to the temperate regions of Europe and America. Many of the species are distinguished by such delicate shades, that only the most acute botanists can recognize them. Soil, situation, and climate produce so considerable a change in their appearance, as to render it difficult to determine what are species and what varieties. Those species which attain a timber size, are chiefly valued for the rapidity of their growth; they produce a great bulk of trunk and lop in a short time, and the bark of most of the species has recently been used in tanning; being, at an average of sorts, about half as valuable as that of the oak. S alba is considered the most valuable timber tree of the genus; it has a branching stem, and tapering flame-shaped head. It may be seen pollarded by way-sides in most parts of Europe, in which state it is very productive of poles, fence wood, crate ware, fuel, and bark for the tanner, which is considered nearly as good as that of the oak. A variety of this species, called by Pontey, the red

13712 prinoìdes *Ph.*	Prinos-like	🌳	or	10	mr.ap	Ap	N. Amer.	1811.	C	m.s	
13713 díscolor *W.*	brown-branch.	☗	or	8	ap	Ap	N. Amer.	1811.	C	m.s	Ann.bot.2.t.5.f.1
13714 angustáta *Ph.*	narrow-leaved	🌳	or	10	mr.ap	Ap	Pensylv.	1811.	C	m.s	
13715 petiolàris *W.*	dark long-leav.	🌳	or	10	ap	Ap	England	mar.	C	m.s	Eng. bot. 1147
13716 myricoìdes *W.*	Gale-like	☗	or	8	ap	Ap	N. Amer.	1811.	C	m.s	Ann.bot.2.t.5.f.2
13717 cordáta *W.*	heart-leaved	☗	or	6	ap.my	Ap	N. Amer.	1811.	C	m.s	Ann.bot.2.t.5.f.8
13718 rígida *W.*	rigid	🌳	or	15	ap.my	Ap	N. Amer.	1811.	C	m.s	Ann.bot.2.t.5.f.4
13719 lúcida *W.*	shining	☗	or	8	my	Ap	N. Amer.	1811.	C	m.s	Ann.bot.2.t.5.f.7
13720 ambígua *Psh.*	doubtful	🌳	or	20	ap	Ap	N. Amer.	1821.	C	m.s	
13721 acutifòlia *W.*	sharp-leaved	☗	or	8	ap	Ap	Casp. Sea	1823.	C	m.s	
13722 vitellìna *W.*	yellow-branch.	🌳	clt	15	mr.my	Ap	England	mar.	C	m.s	Eng. bot. 1389
13723 frágilis *W.*	cracking	🌳	or	15	ap.my	Ap	Britain	mar.	C	m.s	Eng. bot. 1807
13724 præ'cox *W.*	early	🌳	or	20	ap.my	Ap	Austria	1820.	C	m.s	
13725 Meyeriána *W.*	Meyer's	🌳	or	20	ap.my	Ap	Germany	1822.	C	m.s	
13726 babylónica *W*	weeping	🌳	el	30	my	Ap	Levant	1692.	C	m.s	Rauw.it.183.t.25
13727 purpùrea *W.*	bitter purple	☗		8	mr	Ap	England	mar.	C	m.s	Eng. bot. 1388
13728 pomeránica *W. en.*	Pomeranian	🌳	or	10	my	Ap	Pomeran.	1822.	C	m.s	
13729 Hélix *W.*	Rose	🌳	or	10	mr.ap	Ap	Britain	mar.	C	m.s	Eng. bot. 134[illegible]
13730 Lambertiána *W.*	Boyton	☗	clt	10	mr.ap	Ap	England	riv.ba.	C	m.s	Eng. bot. 1359
13731 tetra'pla *Link.*	pretty	☗	or	4	mr.ap	Ap	......	1825.	C	m.s	
13732 rúbra *W.*	Green Osier	☗	clt	8	ap.my	Ap	England	os.hol.	C	m.s	Eng. bot. 1145
13733 Forbyána *W.*	Basket Osier	☗	clt	8	ap	Ap	England	os.hol.	C	m.s	Eng. bot. 1344
13734 Croweána *W.*	Crowe's	☗	clt	8	ap.my	Ap	England	mar.	C	m.s	Eng. bot. 1146
13735 malifòlia *W.*	Apple-leaved	☗	or	3	ap	Ap	England	moun.	C	m.s	Eng. bot 1617
13736 Houstoniána *Ph.*	Houston's	☗	or	4	ap.my	Ap	Virginia	...	C	m.s	
13737 falcáta *Ph.*	sickle-leaved	☗	or	4	ap.my	Ap	N. Amer.	1811.	C	m.s	
13738 Starkeána *W.*	Starke's	☗	or	4	ap.my	Ap	Silesia	1820.	C	m.s	
13739 prunifòlia *W.*	Plum-leaved	☗	or	3	ap.my	Ap	Scotland	sc.alp.	C	m.s	Eng. bot. 1361
13740 myrsinìtes *W.*	Whortle-leav'd	☗	or	3	ap.jn	Ap	Scotland	sc.alp.	C	m.s	Eng. bot. 1360
13741 Waldsteiniana *W.*	Waldstein's	☗	or	4	ap.jn	Ap	Croatia	1822.	C	m.s	
13742 venulòsa *E. B.*	veiny-leaved	☗	or	2	ap.my	Ap	Scotland	sc.alp.	C	m.s	Eng. bot. 1362
13743 planifòlia *Ph.*	flat-leaved	☗	or	2	...	Ap	Labrador	1811.	C	m.s	
13744 fuscáta *Ph.*	brown-stemm'd	☗	or	2	ap	Ap	N. Amer.	1811.	C	m.s	
13745 vacciniifòlia *E. B.*	Bilberry-leaved	☗	or	2	ap.my	Ap	Scotland	s. of sc.	C	m.s	Eng. bot. 2341
13746 carináta *W.*	folded-leaved	☗	or	3	ap.my	Ap	Scotland	sc.alp.	C	m.s	Eng. bot. 1363
13747 corùscans *W.*	glittering	☗	or	3	ap.my	Ap	Germany	1818.	C	m.s	Jacq. aust t. 408
13748 eriántha *Schleich.*	woolly-flower'd	☗	or	2	ap	Ap	Switzerl.	1823.	C	m.s	

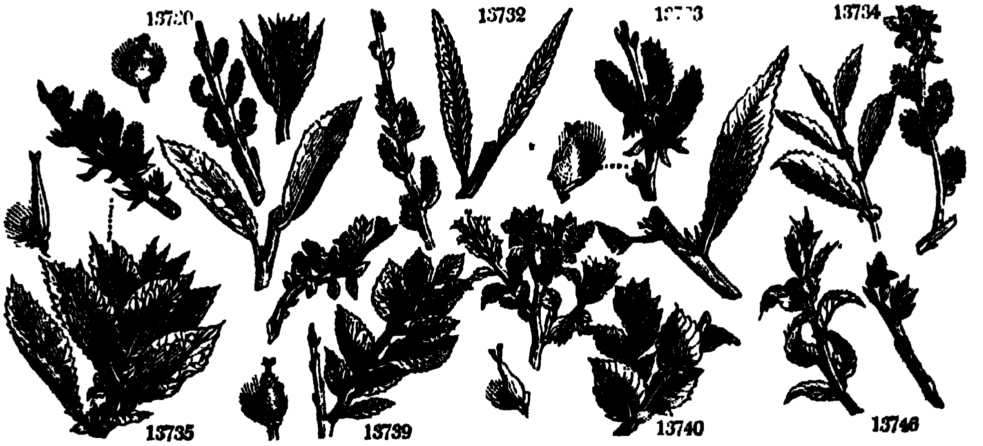


History, Use, Propagation, Culture,

twigged upland willow, and the S. Russelliana, are considered the two next best species of the tree kind, and indeed, greatly resemble each other.

The best willows for hoops and basket work are S. viminalis, stipularis, rubra, Forbyana, triandra, mollissima, and vitellina. S. triandra is the most common, and is grown both for basket work and hoops. S. Forbyana is the best for the finer sorts of basket work. S. stipularis is the species commonly cultivated in Holland for hoops and rods. S. purpurea is one of the toughest of willows, and the extreme bitterness of the leaves and twigs renders it valuable for the tanner, for withs and basket work, not being liable to be eaten by vermin, and for hedges which cattle will not brouse on. In bands for thatching, Linnæus says, it lasts above

13712 Lvs oval-obl. acute with distant wavy serratures smooth glauc. ben. Stipules ½ heart-shaped deeply toothed, Catkins villous before the leaves, Ovary stalked ovate pointed silky, Style elongated, Stigma cloven
13713 Leaves ovato-lanceolate smooth bluntly serrated glaucous beneath, Catkins before the leaves, Scales short rounded hairy, Ovary awl-shaped silky on a stalk thrice the length of the scale
13714 Lvs. lanc. acute very long gradually tapering at base finely serrated quite smooth scarcely paler beneath, Stip. ½ heart-shap. Catkins before lvs. erect smooth, Ovary stalk. ov. smooth, Style divid. Stigm. 2-lobed
13715 Leaves lanceolate serrated smooth glaucous beneath somewhat unequal at base, Stipules lunate toothed, Catkins lax, Ovary stalked ovate silky, Stigmas sessile divided
13716 Lvs. ovato-lanc. bluntly serr. smooth ac. glauc. ben. gland. at base, Stip. ov. with gland. serrat. Catk. wool. Ovary lanceolate smooth its stalk longer than the scale, Style the length of the divided stigmas
13717 Lvs. ovato-lanc. serrat. smooth paler ben. heart-shaped at the base, Stip. rounded finely toothed, Catk. accomp. lvs. mostly triand. Sca. lanc. woolly, Ovary stalked lanc. smooth, Style length of divided stigm.
13718 Lvs. ellipt. lanc rigid smooth sharply serrat. two lowest serratures elongated, Footst. hairy, Stip. dilated round. with glandul. serrat. Catk. accomp. lvs. mostly triand. Sc. woolly, Ovary lanc. smth. on long stalk
13719 Lvs. ov taper-point. smooth shining with glandul. serrat. mostly crowded at stip. tooth. Catk. accomp. lvs. mostly triand. Scales hairy at base obt. serr. and smooth at end, Ovary stalked lanc. awl-shaped smooth, Style divided, Stigma obtuse
13720 Leaves lanceolate pointed smooth green on both sides with gland. serr. Catkins accomp. lvs. Nect. double rather large: its lobes lanceolate smooth toothed at the summit; the terminal flowers triandrous
13721 Lvs. lanc. acum. uneq. and bluntly serrated smooth somew. glauc. ben. Branches dark purple with a bloom
13722 Leaves lanc. acute with cartilaginous serrat. smooth above glaucous and somew. silky ben. Stip. small and deciduous smooth on their inside. Ovary sessile ovato-lanceolate smooth, Stigmas nearly sessile 2-lobed
13723 Leaves ovato-lanc. pointed serrated throughout very smooth, Footstalks glandular, Ovary ovate nearly sessile, Male flowers with an abortive ovary
13724 Leaves broadly lanc. pointed smooth with glandular serrat. glaucous beneath, Footstalks slightly hairy without glands, Catkins before the leaves, Ovary sessile ovate smooth, Style elongated
13725 Triandrous, Stamens reflexed, Leaves about four inches long and one broad smooth and green beneath
13726 Leaves lanceolate taper-pointed sharply serrated smooth glaucous beneath, Stipules ½ ovate taper-pointed revolute, Catkins naked accompanying the leaves, Ovary ovate sessile smooth, Branches pendulous
13727 Decumb. Stam. 1, Leaves obovato-lanc. serrated smooth narrow at base, Stigm. very short ov. nearly sess.
13728 Lvs. downy serrulate acum. glaucous beneath, when old becoming smoother, Catkins before lvs. Style long
13729 Erect, Stamen 1, Leaves mostly opposite oblong lanc. pointed slightly serrated smooth linear at base, Style nearly as long as divided stigmas
13730 Erect, Stam. 1, Lvs obov. lanc. ac. serrat. smth. round. at base, Stip. none, Stig. very short ov. notched obt.
13731 Branches downy, Leaves elliptical acute glaucous beneath: the young ones downy
13732 Stam. combined below, Leaves linear lanc. elongated acute smooth with shallow serrat. green on both sides
13733 Erect, Stamen 1, Leaves alternate with small stipules lanceolate acute with shallow serratures smooth rounded at base glaucous beneath, Style nearly as long as the linear divided stigmas
13734 Stamens combined below, Leaves elliptical slightly serrated quite smooth glaucous beneath
13735 Leaves elliptic-oblong toothed waved thin and crackling very smooth, Stipules heart-shaped about the length of the footstalk, Catkins very woolly, Ovary lanceolate smooth on a short stalk
13736 Leaves linear lanceolate acute very finely serrated smooth shining and green on both sides, Stipules none, Catkins accompanying leaves cylindrical villous, Scales ovate acute, Stam. 3 to 5 bearded half way up
13737 Leaves very long linear-lanc. closely serrated tapering gradually and somewhat falcate upwards acute at the base smooth on both sides: the young ones silky, Stipules crescent-shaped toothed deflexed
13738 Leaves elliptical nearly orbicular smooth somewhat serrated in the middle rather glauc. beneath, Catk. after the leaves, Capsules ovato-lanceolate stalked downy
13739 Leaves ovate serrated naked smooth and even above glaucous beneath, Branches rather downy, Capsules ovate silky, Style as long as the stigmas
13740 Leaves elliptical serrated smooth veiny polished on both sides, Young branches hairy, Ovary awl-shaped clothed with silky hairs, Style as long as the cloven stigmas
13741 Leaves obovate-elliptical smooth rather acute serrated in the middle shining above somewhat glaucous beneath, Ovary lanceolate silky, Young branches smooth
13742 Lvs. ov. serrat. nak. reticul. with promin. veins above rather glauc. ben. Ovary ellipt. silky, Style very short
13743 Somew. erect straggling, Branches polished, Lvs. obl. lanc. acute at each end serrul. in midd. very smooth
13744 Leaves obovate lanceolate acute smooth subserrated glaucous beneath, Stipules small, Ovaries ovate silky
13745 Leaves ovate serrated smooth even above glaucous and silky beneath, Ovary ovate silky, Style as long as the stigmas, Stems decumbent
13746 Leaves ovate finely toothed smooth minutely veined folded so as to form a keel, Ovary ovate downy
13747 Lvs. ov. ellipt. ac. serrat. smooth tapering at base glauc. ben.: lower serrat. glandular, Caps. ov. lanc. smth.
13748 Leaves oblong acute serrulate whole colored beneath, when old quite smooth



a century in Scania. Few of the willow species can be considered ornamental, though the male plants of S. pentandra and amygdalina produce numerous showy catkins of a bright yellow color, and very odoriferous. The leaves of S. pentandra are also fragrant, exuding a copious yellow resin from their serrated edges. The down of the seeds of this and other species, mixed with the third part of cotton, has been found a useful adulteration, especially for stuffing cushions and forming candle-wicks. Goldfinches and other birds line their nests with this material.

The weeping-willow is generally admired; it grows wild on the coast of Persia, and is common in China. It is sometimes said to have been introduced by Pope, but the celebrated specimen of that tree which stood in

13749 arbúscula *W.*	little-tree	or	2	ap	Ap	Scotland	sc.alp.	C	m.s	Eng. bot. 1366
13750 húmilis *W.*	humble	or	1½	ap	Ap	......	1820.	C	m.s	
13751 herbácea *W.*	least	or	½	jn	Ap	Britain	sc.alp.	C	m.s	Eng. bot. 1907
13752 ulmifólia *Thuill.*	elm-leaved	or	1	my	Ap	Switzerl.	1821.	C	m.s	
13753 arbutifólia *W.*	Arbutus-leav'd	or	½	ap.my	Ap	Switzerl.	1818.	C	m.s	
13754 Kitaibeliána *W.*	Kitaibel's	or	½	ap.my	Ap	Carpathl.	1823.	C	m.s	
13755 retúsa *W.*	blunt-leaved	or	½	my	Ap	Italy	1763.	C	m.s	
13756 serpyllifólia *W.*	Thyme-leaved	or	½	my	Ap	Switzerl.	1818.	C	m.s	
13757 reticuláta *W.*	wrinkled	or	½	jn.jl	Ap	Britain	sc.alp.	C	co	Eng. bot. 1908
13758 myrtilloides *W.*	Myrtle-leaved	or	2	my	Ap	Sweden	1772.	C	m.s	Vil.da.3.t.50.f.11
13759 recurváta *Ph.*	recurved-flow.	or	3	ap	Ap	N. Amer.	1811.	C	m.s	
13760 Uva-úrsi *Ph.*	Bearberry-like	or	½	ap.my	Ap	Labrador	...	C	m.s	
13761 cordifólia *Ph.*	cordate-leaved	or	3	...	Ap	N. Amer.	1811.	C	m.s	
13762 pedicelláris *Ph.*	pedicellated	or	3	ap	Ap	N. Amer.	1811.	C	m.s	
13763 glaúca *W.*	glaucous	or	1	my	Ap	Scotland	sc.alp.	C	m.s	Eng. bot. 1810
13764 sericea *W.*	silky	or	1	my	Ap	S. Europe	1820.	C	m.s	Vil.de.3.t.51.f.27
13765 lanáta *W.*	woolly	or	2	my	Ap	Lapland	1818.	C	m.s	
13766 Lappónum *W.*	Lapland	or	2	my	Ap	Lapland	1812.	C	m.s	Fl.lappon.t.8.f.1
13767 arenária *W.*	downy mount.	or	3	my.jn	Ap	Scotland	sc.alp.	C	m.s	Eng. bot. 1809
13768 cinérea *W.*	gray	or	15	my	Ap	Britain	woods.	C	m.s	Eng. bot. 1897
13769 obtúsa *Link.*	blunt	or	4	my	Ap	Switzerl.	1820.	C	m.s	
13770 bicolor *W.*	two-colored	or	5	my	Ap	Hercynia	1820.	C	m.s	
13771 Muhlenbergiána *Ph.*	Muhlenberg's	or	3	ap	Ap	N. Amer.	1811.	C	m.s	Ann.bot.2.t.5.f.9
13772 Jacquiniána *W.*	Jacquin's	or	2	ap	Ap	Austria	1818.	C	m.s	Jac. aust.1. t.409
13773 tristis *W.*	linear-leaved	or	4	ap	Ap	N. Amer.	1765.	C	m.s	
13774 argéntea *W.*	silky sand	or	3	my	Ap	Britain	san.sh.	C	m.s	Eng. bot. 1364
13775 leucophýlla *W.*	white-leaved	or	4	my	Ap	Europe	1824.	C	m.s	
13776 elæagnoídes *Schlei.*	Elæagnus-leav.	or	4	my	Ap	Europe	1824.	C	m.s	
13777 répens *W.*	creeping	or	2	my	Ap	Britain	sa.hea.	C	m.s	Eng. bot. 183
13778 fúsca *W.*	brown	or	2	my	Ap	Britain	m.hea.	C	m.s	Eng. bot. 1960
13779 prostráta *W.*	prostrate	or	1	my	Ap	Britain	m.al.p.	C	m.s	Eng. bot. 1959
13780 Schraderiána *W.*	Schrader's		2	my	Ap	Germany	1820.	C	m.s	
13781 pyrenáica *W.*	Pyrenean		1	my	Ap	Pyrenees	1823.	C	m.s	
13782 hirta *W.*	hairy-branched	or	15	ap.my	Ap	England	woods.	C	m.s	Eng. bot. 1404
13783 Dicksoniána *W.*	Dickson's	or	1	ap	Ap	Scotland	sc.alp.	C	m.s	Eng. bot. 1390
13784 parvifólia *E. B.*	small-leaved	or	2	ap.my	Ap	England	moi.h.	C	m.s	Eng. bot. 1961
13785 adscéndens *E. B.*	ascending	or	½	ap.my	Ap	England	moi.h.	C	m.s	Eng. bot. 1962
13786 incubácea *W.*	trailing	or	3	my	Ap	Europe	1775.	C	m.s	
13787 rosmarinifólia *W.*	Rosemary-lvd.	or	2	ap.my	Ap	Britain	san.pl.	C	m.s	Eng. bot. 1365

History, Use, Propagation, Culture,

the poet's garden at Twickenham, was a cutting from some rods employed in a package which came from Spain. Pope being present when the package was opened, observed that the pieces of stick appeared as if they had some vegetation, and added, perhaps they may produce something which we have not in England. Under this idea he planted it in his garden, and it produced the willow tree that has given birth to so many others; not as the parent tree of all the willows in the country, but as an admired and celebrated specimen. S. herbacea is not properly an herbaceous plant, but possesses the Linnean character of a tree, and is the smallest yet

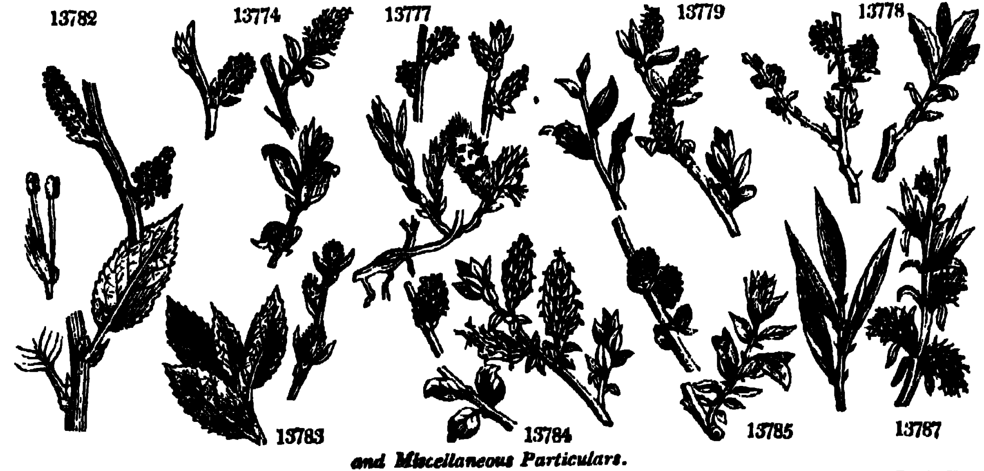
13749 Lvs. lanc. acut. serrul. smooth glauc. ben. Catkins appearing with lvs. Caps. ov. lanc. smooth, Styles twin
13750 Lvs. obl. lanc. acute crenul.-serr. glaucous beneath, Stipules obsolete, Scales short round with long hairs
13751 Lvs. orbicul. somew. retuse serrated shining on each side, Fem. catkins about 5-fl. Caps. ov. lanc. smooth
13752 Lvs. obl. and ovate acute toothletted glaucous beneath, Stipules large toothed, Catkins short, Styles long
13753 Leaves lanc. acute obscurely serrated smooth and shining on both sides reticulated with veins beneath, Ovary lanceolate hairy, Style elongated, Stigmas deeply divided

§ 2. *Leaves smooth entire.* [lanceolate smooth ovary

13754 Leaves obovato-lanc. ent. emarg. smooth shining above, Catk. cylind. many-fl. Scales shorter than ovato-
13755 Leaves obovate entire smooth shining above, Fem. catk. obl. of few-fl. Scales length of obl. smooth ovary
13756 Lvs. ov. or ovato-lanc. acute ent. smooth shin. above, Catk. obl. of few-fls. Caps. ellipt. smooth, Stigm. sess.
13757 Leaves orbicular somewhat ellipt. obt. entire coriaceous smooth with reticulated veins glaucous beneath, Stigmas nearly sessile, Capsule shaggy
13758 Lvs. ovate entire bluntish smooth glaucous beneath, Ovary ovato-lanc. smooth its stalk longer than scale
13759 Leaves obov. lanc. acute entire glandular at edge smooth glaucous ben.: young ones silky, Stipules none
13760 Stem depressed, Leaves spatulate obovate obtuse entire smooth shining above gland. at margin beneath, Stip. none, Catk. lax, Scales obl. fringed, Ovary stalked ovate smooth, Style deeply divid. Stigm. 2-lobed
13761 Stem depressed, Leaves oval rather acute entire reticulated with veins heart-shaped at the base smooth above pale with a hairy rib and margin beneath, Stipules ½ heart-shaped
13762 Stem erect, Branches smooth, Lvs. obov. lanc. acute entire smooth, Stip. none, Catk. stalked very smooth, Scales oblong scarcely hairy, Ovary ovate obl. smooth its stalk twice as long as scale, Stigm. sess. divided

§ 3. *Leaves villous.* [ovate woolly

13763 Leaves nearly entire ellipt.-lanc. even and nearly smooth above woolly ben. Footst. decurrent, Ovary sess.
13764 Leaves oblong lanceolate entire obtuse silky on each side, Caps. ovate oblong villous sessile
13765 Leaves roundish ovate acute entire shaggy on both sides hoary beneath, Capsules sessile smooth, Style four times as long as the blunt divided stigmas
13766 Leaves lanceolate entire bluntish clothed on both sides with long silky hairs, Ovary sessile very woolly, Style about the length of the deeply separated cloven blunt stigmas
13767 Leaves nearly entire ovate acute reticulated and somew. downy above veiny and densely woolly beneath, Ovary sessile very woolly, Style about the length of the deeply separated linear divided stigmas
13768 Stem erect, Lower leaves entire: upper more or less serrated obovate lanc. reticulated with veins glaucous and downy ben. Stip. half heart-shaped serr. Ovary lanc. stalked silky, Style as long as blunt stigmas
13769 Leaves ovate acute serrulate smooth above hairy beneath, Stipules minute, Catkins long
13770 Leaves elliptical acute waved and slightly serrated nearly smooth glaucous beneath, Footstalks dilated at the base, Catkins before the leaves, Ovary stalked lanceolate silky
13771 Leaves lanceolate sharpish nearly entire downy revolute veiny and rugose beneath, Stipules lanc. decid. Scales of the catk. oblong fringed, Ovary ovato-lanceolate silky stalked, Style short, Stigmas divided
13772 Leaves elliptical entire tapering at each end polished: the veins beneath as well as the margin hairy, Ovary elliptical downy, Style elongated
13773 Leaves entire elliptical somewhat revolute with a recurved point rather downy above silky and shining beneath as well as the branches, Ovary stalked ovato-lanceolate silky, Style shorter than the stigmas
13774 Leaves elliptical entire recurved acute above downy beneath silky, Ovary ovate lanceolate villous
13775 Leaves brown above downy with short hairs hoary beneath acute nearly entire
13776 Leaves obtuse brown smooth and opaque above silky beneath [ovate downy, Stem depressed
13777 Lvs. ellipt.-lanc. straight somew. point. nearly ent. almost naked above glauc. and silky ben. Ovary stalked
13778 Leaves elliptic-obl. acute straight flat with a few glandular teeth glaucous and silky beneath, Footstalks slender, Stem erect much branched, Stipules none
13779 Leaves elliptical acute convex rarely toothed glaucous rugged and silky beneath, Stem prost. Branches elongated straight, Ovary stalked ovate silky, Style shorter than the stigm.
13780 Leaves elliptical acute finely downy on both sides glaucous beneath slightly serrated towards the point, Stipules very small, Catkins rather before the leaves ovate hairy
13781 Leaves elliptical entire acute at each end reticulated with veins glaucous beneath most hairy at margin, Ovary somewhat stalked ovato-lanceolate villous, Style the length of the deeply divided stigm.
13782 Leaves elliptical heart-shaped pointed finely notched downy on both sides, Stipules half heart-shaped flat-toothed nearly smooth, Branches hairy
13783 Leaves elliptical acute slightly-toothed smooth, Young branches very smooth, Catkins ovate short erect, Ovary stalked ovate silky, Stigmas ovate obtuse nearly sessile
13784 Lvs. ellipt. nearly ent. with recurv. points glaucous and silky ben. Stem decumbent, Stipules ovate entire
13785 Lvs. ellipt.-obl. somew. serrat. with recurv. points glauc. and silky ben. Stem ascend. Stipules ovate serrated
13786 Leaves lanc. pointed straight somewhat elliptical entire convex smooth above glaucous and silky beneath, Catkins oval erect, Ovary stalked lanceolate, Style the length of the stigma
13787 Leaves linear-lanceolate pointed straight entire silky beneath, Stem erect, Stipules upright flat, Catkins recurved, Ovary stalked lanceolate silky



and Miscellaneous Particulars.

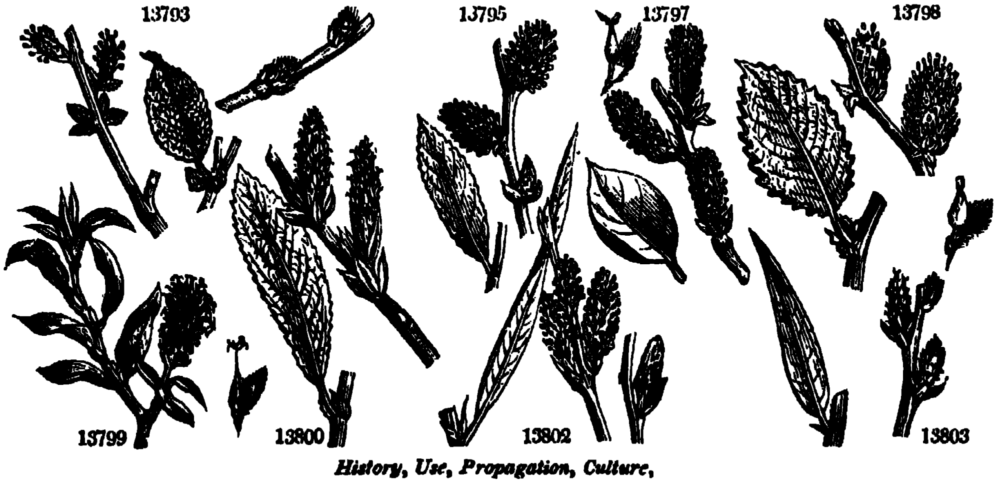
known; being only from one to three inches in height. S. retusa is nearly as little as S. herbacea. S. vitellina with its brilliant yellow bark, planted in shrubberies, contrasts well with evergreens and the purple twigged dogwood.

Almost all the willows are of the easiest propagation and culture. Plantations for basket-work or hoops should be made on deep loamy soil on the banks of rivers, within reach of water, but by no means saturated with it. Few willows are either bog or marsh plants. The cultivated species require as much attention as

13788	ripária *W.*	bank	♣		or	6	ap.my	Ap	Germany	1821.	C	m.s	
13789	angustifólia *W.*	narrow-leaved	♣		or	3	ap.my	Ap	Caspian	1825.	C	m.s	
13790	grísea *W.*	grizzly	♣		or	6	ap.my	Ap	Pensylv.	1820.	C	m.s	
13791	spatuláta *W.*	spatulate	♣		or	5	ap.my	Ap	Germany	1818.	C	m.s	
13792	aurita *W. en.*	eared	♣		clt	2	ap.my	Ap	Europe	1820.	C	m.s	Hof.sal.1.t.22.f.1
13793	uliginósa *W. en.* *aurita* E. B.	marsh	♣		or	2	ap.jn	Ap	Britain	woods.	C	m.s	Eng. bot. 1487
13794	aquática *W.*	water	🌳		or	10	ap	Ap	Britain	w.thi.	C	m.s	Eng. bot. 1437
13795	oleifólia *W.*	Olive-leaved	♣		or	4	mr	Ap	Britain	thick.	C	m.s	Eng. bot. 1402
13796	cotinifólia *W.*	Quince-leaved	♣		or	2	ap	Ap	Britain	woods.	C	m.s	Eng. bot. 1403
13797	sphaceláta *W.*	withered-point.	♣		or	2	ap.my	Ap	Scotland	sc alp.	C	m.s	Eng. bot. 2333
13798	cáprea *W.*	great round-lvd.	🌳		or	30	ap.my	Ap	Britain	dr.wo.	C	m.s	Eng. bot. 1488
13799	Stuartiána *E. B.*	Stuart's	♣		or	4	jl.au	Ap	Scotland	sc.alp.	C	m.s	Eng. bot. 2586
13800	acumináta *W.*	acuminate	🌳		or	15	ap	Ap	Britain	moi.w.	C	m.s	Eng. bot. 1434
13801	conífera *Ph.*	Cone-bearing	🌳		or	10	my	Ap	N. Amer.	1820.	C	m.s	Wa.am.t 31.f.72
13802	viminális *W.*	Common Osier	♣		clt	12	ap.my	Ap	Britain	os.gro.	C	m.s	Eng. bot. 1898
13803	mollíssima *E. B.*	Smith's	🌳		or	20	ap.my	Ap	England	os.gro.	C	m.s	Eng. bot. 1509
13804	stipuláris *W.*	auricled	♣		clt	6	mr.ap	Ap	England	os.gro.	C	m.s	Eng. bot. 1214
13805	cándida *Ph.*	hoary	🌳		or	10	ap.my	Ap	N. Amer.	1811.	C	m.s	
13806	Fluggeána *W.*	Flugge's	🌳		or	10	ap.my	Ap	S. France	1820.	C	m.s	Vi.del 3 t.51.f.28
13807	álba *W.*	common white	🌳		clt	40	ap.my	Ap	Britain	woods.	C	m.s	Eng. bot. 2430
13808	cærúlea *E. B.*	blue	🌳		or	40	ap.my	Ap	England	m.me.	C	m.s	Eng. bot. 2431
13809	rupéstris *E. B.*	silky root	♣		or	3	ap	Ap	Scotland	sc.alp.	C	m.s	Eng. bot. 2342
13810	Andersoniána *E. B.*	Anderson's	♣		or	3	ap.my	Ap	Scotland	sc.mo.	C	m.s	Eng. bot. 2343
13811	Forsteriána *E. B.*	Forster's	🌳		or	10	ap.my	Ap	Scotland	sc.wo.	C	m.s	Eng. bot. 2344
13812	finmar'chica *W.*	Finmarck	🌳		or	10	ap.my	Ap	Sweden	1825.	C	m.s	
13813	holosericea *W.*	velvety	♣		or	8	ap.my	Ap	Germany	1822.	C	m.s	
2043.	CECRO'PIA. *W.*	SNAKE-WOOD.						*Urticeæ.*	*Sp.* 1—3.				
13814	peltáta *W.*	peltated	🌲	▭	or	30	...	Ap	Jamaica	1778.	C	p.l	Lam. ill. t. 800
2044.	BO'RYA. *W.*	BORYA.						*Euphorbiaceæ.*	*Sp.* 6.				
13815	porulósa *W.*	Florida	♣		un	6	...	G	Florida	1806.	C	m.s	
13816	ligustrina *W.*	Privet-leaved	♣		un	6	...	G	N. Amer	1812.	C	m.s	
13817	acumináta *W.*	pointed	♣		un	6	...	G	N. Amer.	1812.	C	m.s	Mich.ame.2.t.28
13818	prinoídes *W.*	Prinos-like	♣	⊔	un	6	...	G	N. Amer.	1824.	C	m.s	
13819	nítida *W.*	shining	♣	⊔	un	6	...	G	N. Amer.	1824.	C	m.s	
13820	retúsa *W.*	glaucous	♣	⊔	un	6	...	G	N. Amer.	1824.	C	m.s	

TRIANDRIA.

2045.	EMPE'TRUM. *W.*	CROW BERRY.						…………………	*Sp.* 2—3.				
13821	álbum *W.*	white-berried	⌒		or	1½	ap.jn	Ap	Portugal	1774.	L	s.p	
13822	nígrum *W.*	black-berried	⌒		or	1	ap.my	Ap	Britain	m.he.	L	s.p	Eng. bot. 526



History, Use, Propagation, Culture,

young trees in a nursery, otherwise they will soon become stunted and of irregular growth. Excellent directions for their culture may be found in Sang's Planter's Kalendar.

2043. *Cecropia.* From [illegible], to cry out, a sort of translation of the English word trumpet-wood. This tree has the trunk and branches hollow every where, and sloped from space to space with membranaceous septas, and answering to so many annual marks in the surface. The leaves are large, peltate, lobed like those of Carica Papaya, and placed at the ends of the branches. The fruits rise four, five or more, from the very top of a common peduncle, and shoot into so many oblong cylindrical berries, composed of a row of little acini, something like our raspberry, which they resemble in flavor when ripe, and are agreeable to most European palates on that account. The wood of this tree, when dry, is very apt to take fire by attrition. The native Indians have taken the hint, and always kindle their fires in the woods by rubbing a piece of it against some

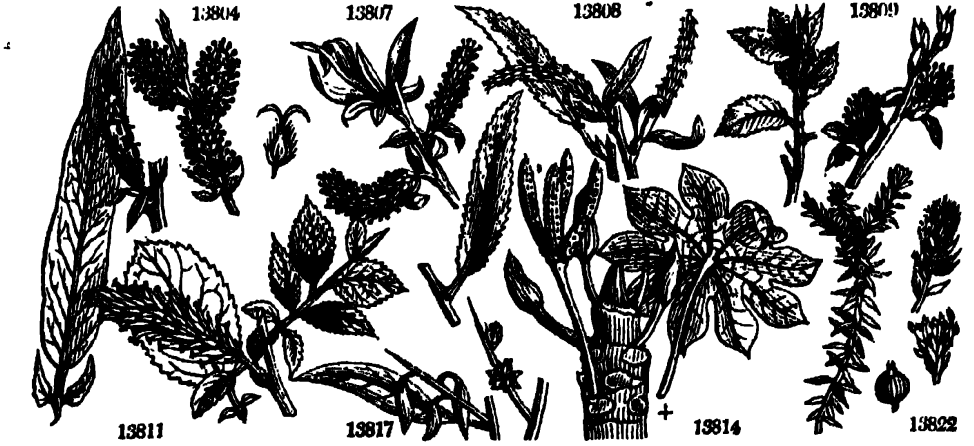
13788 Leaves linear-lanceolate with small glandular teeth entire at the base clothed with close-pressed hairs above downy and rugged with veins beneath, Ovary ovate smooth
13789 Leaves linear very narrow without stipules nearly entire ovate at the base hoary above silky beneath
13790 Leaves lanceolate pointed serr. smooth above glauc. and silky beneath, Stipules linear deflex. deciduous, Catk. before the leaves, Scales hairy, Ovary stalked oblong silky, Stigm. nearly sessile
13791 Leaves lanceolate-obovate with a recurved point serrated at the end clothed with depressed hairs above rugged veiny and downy beneath, Stipules lanceolate
13792 Leaves obovate lanceolate obtuse mucronate with a hooked point subserrate green above hoary beneath
13793 Leaves obovate with a recurved point with wavy serrat. at end green and downy above hoary and shaggy with rugged veins beneath, Stip. ½ heart-shaped toothed, Caps. lanceolate stalked, Stigm. nearly sessile
13794 Lvs. slightly serrat. obov.-ellipt. downy flat rather glauc. ben. Stipules rounded tooth. Stigm. nearly sess.
13795 Lvs. obov. lanc. flat rather rigid minute. indent. ac. undern. glauc. and hairy, Stip. small notch. Catk. ellipt.
13796 Lvs. ellipt. almost circular slightly tooth. downy with rectang. veins ben. Style as long as notched stigmas
13797 Leaves entire elliptical acute even downy on both sides somewhat withered at the point, Stipules obsol. Ovary lanceolate silky on a long hairy stalk, Stigmas nearly sessile
13798 Leaves ovate pointed serrated waved downy beneath, Stipules somewhat crescent-shaped, Ovary ovate downy on a long hairy stalk, Stigmas undivided nearly sessile
13799 Leaves nearly entire lanceolate acute shaggy above densely silky beneath, Stigmas capillary deeply divided, Style as long as the ovary
13800 Leaves lanc. oblong pointed waved slightly downy beneath, Stipules kidney-shaped, Ovary ovate silky, Style the length of the linear stigmas
13801 Leaves oblong lanceolate acute distantly serrated smooth above flat and downy beneath, Stipules lunate somewhat toothed, Ovary stalked lanceolate silky, Style elongated, Stigm. deeply cloven
13802 Leaves linear inclining to lanceolate very long pointed entire somewhat wavy silky beneath, Branches straight and slender, Ovary sessile, Style as long as the undivided linear stigmas
13803 Leaves lanceolate pointed obsoletely crenate whitish and silky beneath, Stipules crescent-shaped minute, Stigmas linear deeply divided about the length of the style
13804 Leaves lanc. pointed obscurely crenate downy beneath, Stipules half heart-shaped very large, Nectary cylindrical, Stigmas linear undivided longer than the style
13805 Leaves linear lanceolate pointed revol obscurely toothed downy above snow-white and cottony beneath, Stip. lanc. about the length of the footstalk, Scales of the catk. with hairs as long as the stamens
13806 Lvs. obl. lanc. ac. at each end nearly ent. without stipul. smooth. above downy ben. Ovary ovate lanc. silky
13807 Leaves elliptic-lanceolate acute serrated permanently silky on both sides: the lowest serratures glandular, Stamens hairy, Stigmas deeply cloven
13808 Lvs. lanc. taper-point. serrat.: under-side at length almost naked; lowest serrat. gland. Stigm. deeply cloven
13809 Leaves obovate serrated flat even silky on both sides, Stipules hairy, Branches minutely downy, Ovary stalked awl-shaped silky, Style as long as the undivided stigmas
13810 Leaves elliptic obl. acute finely notched slightly downy paler beneath, Stipulas half-ovate nearly smooth, Branches minutely downy, Ovary stalked smooth, Style as long as the cloven stigmas
13811 Leaves elliptical obovate acute notched slightly downy glaucous beneath, Stipules vaulted, Branches minutely downy, Ovary stalked silky, Style longer than the thick undivided stigmas
13812 Lvs. obl. acute entire silky on each side hoary ben. Ovaries long-pointed lax, Scales very blunt smooth
13813 Lvs. lanc. acum. toothl. at end smooth above rugose and soft beneath, Caps. downy lanc. Stigmas sessile

13814 Leaves 9-lobed: lobes oblong bluntish hispid and rough above white and downy beneath

13815 Leaves oblong lanceolate obtuse sessile coriaceous revolute at edge dotted beneath
13816 Leaves ovate-lanceolate acute subsessile somewhat membranous
13817 Leaves ovate-lanceolate narrowed at each end stalked membranous serrulated
13818 Leaves 2¼ inches long 1 broad serrated
13819 Leaves acute serrulate very smooth shining opposite and alternate
13820 Leaves alternate tapered into a short stalk retuse emarginate mucronulate very smooth glaucous

TRIANDRIA.

13821 Erect, Branches downy, Leaves linear revolute at edge roughish above
13822 Procumbent, Leaves linear oblong



and Miscellaneous Particulars.

harder wood. The bark is strong and fibrous, and is frequently used for all sorts of cordage. The trunk is very light, and for that reason much used for bark-logs and fishing-floats. The smaller branches, when cleaned of the septums, serve for wind instruments. Both trunk and branches yield a great quantity of fixed salt, which is much used among the French, to despumate and granulate their sugars. The fruit is much fed upon by pigeons and other birds, and thus the tree is much spread and propagated. (*Browne.*) It may be increased like Brosimum.

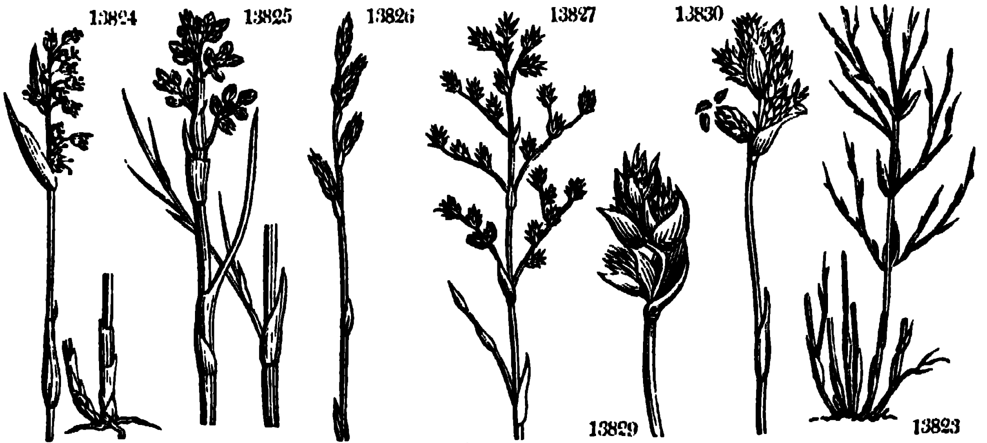
2044. *Borya.* Named in honor of M. Bory de St. Vincent, a distinguished French traveller and naturalist, known out of the scientific world by the violence of his *liberal* opinions. Small bushes of North America, of little beauty. Sir James Smith has altered the name to Bigelovia.

2045. *Empetrum.* So called from the places of its natural growth, ἐν, in, and πετρος, a stone. E. nigrum is

2046.	**WILLDENO'VIA.** *Th.*	Willdenovia.					*Restiaceæ.*		*Sp.* 1—3.				
13823	téres *W.*	round-stalked	ψ	⌊△⌋	pr	2	jn.jl	Ap	C. G. H.	1790.	R	s.p	Ac.h.1790.t.2.f.2
2047.	**RES'TIO.** *W.*	Rope Grass.					*Restiaceæ.*		*Sp.* 5—47.				
13824	tectórum *W.*	thatch	ψ	⌊△⌋	un	3	my.jn	Ap	C. G. H.	1793.	R	s.p	Ro.gra.10. t.3.f.2
13825	virgátus *W.*	twiggy	ψ	⌊△⌋	un	3	my.jn	Ap	C. G. H.	1824.	R	s.p	Rot.gra.5. t.1. f.2
13826	dichótomus *W.*	dichotomous	ψ	⌊△⌋	un	3	my.jn	Ap	C. G. H.	1823.	R	s.p	Rot.gra.4. t.2. f.1
13827	paniculátus *W.*	panicled	ψ	⌊△⌋	un	2	my.jn	Ap	C. G. H.	1824.	R	s.p	Rot.gra.4. t.2. f.3
13828	vaginátus *W.*	sheathed	ψ	⌊△⌋	un	3	my.jn	Ap	C. G. H.	1820.	R	s.p	
2048.	**ELE'GIA.** *W.*	Elegia.					*Restiaceæ.*		*Sp.* 2—3.				
13829	júncea *Thunb.*	Rush-like	ψ	⌊△⌋	un	1	jl.au	Ap	C. G. H.	1789.	C	l.p	Rot.gra.8. t.3. f.4
13830	racemósa *Lam.*	racemed	ψ	⌊△⌋	un	1	my.jn	Ap	C. G. H.	1804.	C	l.p	Lam.ill. t.804.f.4
2049.	**PHŒ'NIX.** *W.*	Date Palm.					*Palmæ.*		*Sp.* 4.				
13831	dactylífera *W.*	common	Ŧ	⊔	fr		...	W.G	Levant	1597.	S	r.m	K.amæ 686 t.1,2
13832	reclináta *W.*	reclining	Ŧ	⊔	or	10	...	W.G	C. G. H.	1792.	S	l.p	Jac.frag. 27. t. 24
13833	farinífera *W.*	small	Ŧ	☐	or	8	...	W.G	E. Indies	1800.	S	r.m	Rox. cor. 1. t. 74
13834	acaúlis *Roxb.*	stemless	Ŧ	☐	or	6	...	W.G	E. Indies	1810.	S	r.m	
2050.	**STILA'GO.** *W.*	Stilago.					………………		*Sp.* 2.				
13835	Búnius *W.*	Laurel-leaved	♣	☐	un	20	au	Ap	E. Indies	1757.	C	p.l	Rhee.mal.4. t.56
13836	diándra *W.*	diandrous	♣	☐	un	20	...	Ap	E. Indies	1800.	C	p.l	Rox. cor.2. t.166
2051.	**OSY'RIS.** *W.*	Poet's Cassia.					*Santalaceæ.*		*Sp.* 1—2.				
13837	álba *W.*	white	●	⊔	or	3	...	W	S. Europe	1739.	C	l.p	Lam. ill. t. 802

TETRANDRIA.

2052.	**AU'LAX.** *R. Br.*	Aulax.					*Proteaceæ.*		*Sp.* 2.				
13838	pinifólia *R. Br.*	Pine-leaved	●	☐	or	2	jl s	Y	C. G. H.	1780.	C	l.p	Bot. rep. 76
13839	umbelláta *R. Br.*	umbelled	●	☐	or	2	jn.au	Y	C. G. H.	1774.	C	l.p	Bot. rep. 248



History, Use, Propagation, Culture,

very common in the northern parts of Europe, in elevated situations, on dry, barren, moorish, or boggy soils. It is more patient of cold than even the common heath. The Highlanders' children eat the berries, but they are no very desirable fruit; and taken in large quantities, are said to bring on a slight head-ache. The Russian peasants, however, eat them, and the Kamtschadales gather great quantities of them to boil with their fish, or to make a sort of pudding with the bulbs of their lilies. They are esteemed antiscorbutic and diuretic. Grouse and heathcocks feed upon them, and they give the excrement a tinge of purple. Boiled in alum-water they afford a dark purple dye; and boiled with fat, they are said to be used in dying otter and sable skins black. Cattle do not seem to browse on this shrub. The French word *Camarine*, is an alteration of *Camarinhas*, the Portuguese name of E. album.

2046. ***Willdenovia.*** A rush-like plant, with long flexible slender shoots, named in honor of Charles Louis Willdenow, a celebrated Prussian botanist, whose edition of Linnæus's Species Plantarum is not only the best which has been published in modern days, but excellent in itself.

2047. ***Restio.*** From *restis*, cord; the supple shoots of many species are used as withs at the Cape of Good Hope. The houses of the Cape of Good Hope are commonly thatched with this plant both in town and country, and sometimes whole huts are built with it. A roof thatched with it will last twenty or thirty years, and would last much longer, if the south-east wind did not blow much dirt into it, which causes it to rot.

2048. ***Elegia.*** From *ἔλεγος*, lamentation, in allusion to the sad or mourning color of the whole plant. A hard rushy plant, with the habit of a Restio.

2049. ***Phœnix.*** The Greek name of the date, and probably so called from Phœnicia, whence the best dates were brought. Dactylifera is the Greek version of Palma, both signifying the hand, to the fingers of which the ancients likened the bunches of dates. P dactylifera is a lofty palm, with a rugged trunk, on account of the persisting vestiges of the decayed leaves. These leaves, when the tree is grown to a size for bearing fruit, are six or eight feet long, with pinnæ three feet long, and a little more than an inch broad. The flowers of both sexes come out in very long bunches from the trunk between the leaves, and are covered with a spatha, which opens and withers; those of the male have six short stamina, with narrow four-cornered anthers filled with farina. The female flowers have no stamina, but have a roundish germ, which afterwards becomes an oval berry, with a thick pulp enclosing a hard oblong stone, with a deep furrow running longitudinally. The fruit of this tree makes a great part of the diet of the inhabitants of Arabia and part of Persia. In Upper Egypt many families subsist almost entirely upon it. They make a conserve of it with sugar; and even grind the hard stones in their hand-mills for their camels. In Barbary they turn handsome beads for paternosters of these stones. The date is said to strengthen the stomach and intestines, to stop looseness, and promote expectoration, for which purpose it is given in pectoral decoctions. It is also recommended in the piles, given in red wine. From the leaves of the tree they make baskets or bags in Barbary. In Egypt they make fly-flaps of them, and brushes to clean their sofas or clothes. The hard boughs are used as fences to their gardens, and cages to carry their fowls to market. The trunk is split for the same purposes, and is even used in small buildings. It serves likewise for firing. The threads of the web-like integument between the

13823 Culm and branches round smooth

13824 Culm simple leafless, Spikes racemose somewhat 1-sided roundish triquetrous cernuous with bracteæ
13825 Culm dichotomous leafy, Branches compressed, Spikes panicled pendulous
13826 Culm dichotomous leafy decumbent, Branches round, Spikes solitary and alternate
13827 Culm dichotomous leafy, Branches compressed, Spikes sessile alternate erect
13828 Culm simple leafless, Spikes alternate erect, Scales acuminate

13829 Culm simple nearly naked, Spathes very large ovate nearly acute, Spikes clustered thyrsoid
13830 Culm channelled, Spathes large ovate obtuse, Spikes racemose

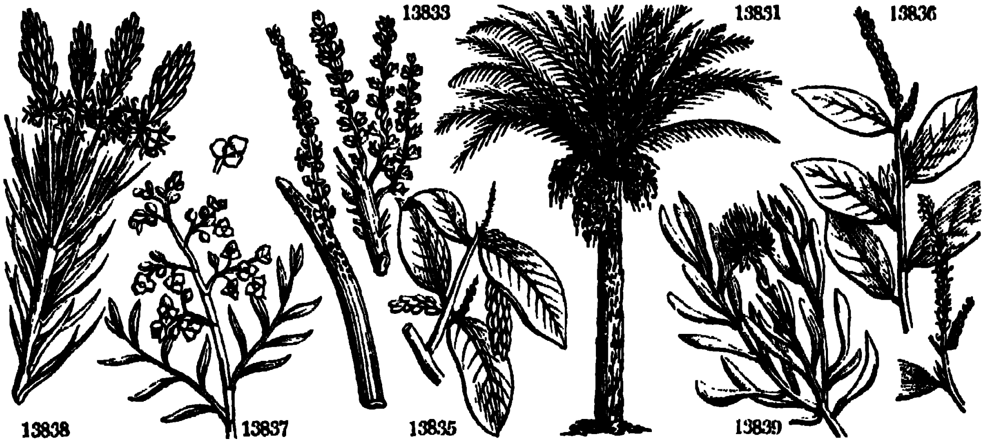
13831 Fronds pinnated unarmed, Leaflets folded together linear-lanceolate straight
13832 Fronds pinnated unarmed, Leaflets folded together linear-lanceolate loosely spreading
13833 Fronds pinnated unarmed, Leaflets linear-subulate folded together, Flowers hexandrous
13834 Pinnæ linear-ensiform folded together: lower spiny

13835 Flowers triandrous
13836 Flowers diandrous

13837 The only species

TETRANDRIA.

13838 Leaves filiform channelled
13839 Leaves flat spatulate-linear



and Miscellaneous Particulars.

boughs make ropes and the rigging of smaller vessels. The juice of the date tree is procured by cutting off the head or crown of the more vigorous plant, and scooping the top of the trunk into the shape of a basin; where the sap in ascending lodges itself, at the rate of three or four quarts a day, during the first week or fortnight; after which, the quantity daily diminishes, and at the end of six weeks or two months the tree becomes dry, and serves for timber or firewood. This liquor, which has a more luscious sweetness than honey, is of the consistence of a thin syrup, but quickly becomes tart and ropy, acquiring an intoxicating quality, and giving upon distillation an agreeable spirit or araky, which is the general name in the East for all hot liquors extracted by the alembick.

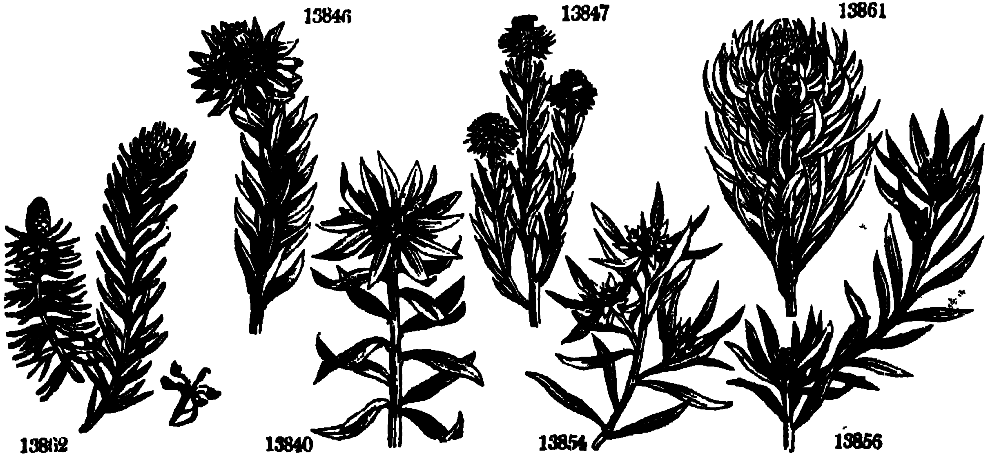
P. farinifera produces black drupes of the size of a large kidney bean; these the natives of Coromandel eat as gathered from the bush without any preparation. The leaflets are wrought into mats; the common petioles are split into three or four, and used for making ordinary baskets of various kinds; but they are not so proper for this purpose as the bamboo. The small trunk, when divested of its leaves, and the strong brown fibrous web that surrounds the trunk at their insertions, is generally fifteen or eighteen inches long, and six in diameter at the thickest part; its exterior or woody part consists of white fibres matted together, which envelope a large quantity of farinaceous substance, used as food by the natives in times of scarcity; but to separate this from the fibres, the trunk is split into six or eight pieces, then dried, beaten in wooden mortars, and afterwards sifted: the rest of the preparation consists in boiling the meal into a thick gruel, or, as it is called in India, congee. It seems to be much less nutritive than sago, and is less palatable.

2050. *Stilago.* Perhaps so called from the length of the style; but the name is unexplained by its author. S. diandra produces an eatable fruit used by the natives, but not esteemed by Europeans. The species thrive in sandy loam, and cuttings root in sand under a hand-glass.

2051. *Osyris.* The Greek name of a tree with long supple branches, which were used for brushes and similar purposes. The modern shrub has also slender flexible branches, of which packing materials are formed throughout the south of Europe

2052. *Aulax.* From αυλαξ, a furrow; in allusion, we presume, to the furrows on the under-side of the leaves of the original species. Neat shrubs with narrow leaves; nearly allied to Protea. This, Sweet observes, is "a pretty genus belonging to the Proteaceæ, which thrives best in a very sandy loam, with a great many potsherds broken small at the bottom of the pot, to let the water drain off freely, as they frequently get too much water, which makes the mould sodden, and stagnates their growth. Ripened cuttings, taken off at a joint, and planted in a pot of sand, will strike root, if placed under a hand-glass in the propagating house, and the glass to be occasionally left off, an hour or two at a time, to give them air, and keep them from damping; which should be done in a morning before the sun has much power, or it will make them flag and injure them. Plants are readily raised from seeds, which should be sown in a mixture of two-thirds loam and one-third sand: as soon as they come up, they should be planted off in small pots, in the same kind of soil, as they are very apt to die, if left too long in the seed-pot." (*Bot. Cult.* 143.)

2053.	LEUCADEN'DRON. *R. Br.*	Leucadendron.					*Proteaceæ.*		*Sp.* 24—37.				
13840	argénteum *R. Br.*	Silver Tree	♠	☐	or	15	au	Y	C. G. H.	1693.	C	l.p	Lam. ill. t.53. f.1
13841	plumósum *R. Br.*	feather-flower'd	♣	☐	or	4	jn.au	Y	C. G. H.	1774.	C	l.p	
13842	imbricátum *R. Br.*	imbricated	♣	☐	or	4	...	Y	C. G. H.	1790.	C	l.p	
13843	buxifólium *R. Br.*	Box-leaved	♣	☐	or	4	...	Y	C. G. H.	1812.	C	l.p	
13844	Levisánus *R. Br.*	short-leaved	♣	☐	or	4	ap.jn	Y	C. G. H.	1774.	C	l.p	Bur. afr. t.100. f.2
13845	linifólium *R. Br.*	Flax-leaved	♣	☐	or	4	ap.jn	Y	C. G. H.	...	C	l.p	Jac. schœ. 1. t. 26
13846	fusciflórum *R. Br.* *Prótea stelláris* B. M.	starred	♣	☐	or	4	my.jn	Y	C. G. H.	...	C	l.p	Bot. mag. 881
13847	tórtum *L. T.*	twisted-leaved	♣	⊔	or	3	mr.my	Y	C. G. H.	1790.	C	l.p	Bot. reg. 826
13848	cinéreum *L. T.*	gray	♣	⊔	or	3	jl.au	Y	C. G. H.	1774.	C	l.p	
13849	corymbósum *L. T.*	corymbed	♣	⊔	or	3	ap.jl	Y	C. G. H.	1790.	C	l.p	Bot. reg. 402
13850	decórum *L. T.*	decorous	♣	⊔	or	3	...	Y	C. G. H.	1790.	C	l.p	
13851	cóncolor *L. T.*	one-colored	♣	⊔	or	3	mr.jn	Y	C. G. H.	1774.	C	l.p	Bot. rep. 307
13852	grandiflórum *L. T.*	great-flowered	♣	⊔	or	3	ap.jn	Y	C. G. H.	1789.	C	l.p	Par. lond. 105
13853	decúrrens *L. T.*	decurrent	♣	⊔	or	3	...	Y	C. G. H.	1812.	C	l.p	
13854	strictum *L. T.*	upright	♣	⊔	or	3	ap.jn	Y	C. G. H.	1795.	C	l.p	Par. lond. 75
13855	virgátum *L. T.*	slender	♣	⊔	or	3	ap.jn	Y	C. G. H.	...	C	l.p	
13856	adscéndens *L. T.*	pale	♣	⊔	or	2	jn.au	Y	C. G. H.	1774.	C	l.p	Pl. man. t.229. f.6
13857	concinnum *L. T.*	neat	♣	⊔	or	3	...	Y	C. G. H.	1800.	C	l.p	
13858	salignum *L. T.*	Willow-leaved	♣	⊔	or	3	ap.jn	Y	C. G. H.	1774.	C	l.p	Boer. lug. 2. t.204
13859	uliginósum *L. T.*	swamp	♣	⊔	or	3	ap.jn	Y	C. G. H.	1795.	C	l.p	Breyn. cen. 21. t.9
13860	flóridum *L. T.*	florid	♣	⊔	or	3	ap.jn	Y	C. G. H.	1795.	C	l.p	Bot. rep. 572
13861	æ'mulum *L. T.*	incurved	♣	⊔	or	3	jn.s	Y	C. G. H.	1789.	C	l.p	Bot. rep. 429
13862	abietinum *L. T.*	Pine-leaved	♣	⊔	or	3	jl.s	Y	C. G. H.	1789.	C	l.p	Bot. rep. 461
13863	scábrum *L. T.*	rough	♣	⊔	or	3	...	Y	C. G. H.	1812.	C	l.p	
2054.	VIS'CUM. *W.*	Misletoe.					*Loranthеæ.*		*Sp.* 1.				
13864	álbum *W.*	common	ℰ		cu	2	my	G	England	trees.	S	[illegible]	Eng. bot. 1470
2055.	MYRI'CA. *W.*	Candleberry Myrtle.					*Amentaceæ.*		*Sp.* 12—21.				
13865	Gále *W.*	Sweet Gale	♣		or	4	my	Ap	Britain	sp. bo.	L	s.p	Eng. bot. 562
13866	cerífera *W.*	common	♣		or	8	my.jn	Ap	N. Amer.	1699.	S	s.p	Cat. car. 1. t. 69
13867	carolinénsis *W.*	broad-leaved	♣		or	4	my	Ap	N. Amer.	1730.	S	s.p	Cat. car. 1. t. 13
13868	pensylvánica *Ph.*	Pensylvanian	♣		or	3	my	Ap	N. Amer.	...	C	s.p	Du. ar. e. n. 2. t.55
13869	Fáya *W.*	Azorian	♣	⊔	or	6	jn.jl	Ap	Azores	1777.	L	s.l	Du. ar. e. n. 2. t.56
13870	æthiópica *W.*	African	♣	⊔	or	8	jn.jl	Ap	C. G. H.	1795.	L	s.l	Plu. alm. t 48. f.8
13871	serráta *W.*	saw-leaved	♣	⊔	or	3	au	Ap	C. G. H.	1793.	L	s.l	Plu. am. t.424. f.3
13872	laciniáta *W. en.*	smooth Oak-lv.	♣	⊔	or	3	jn.jl	Ap	C. G. H.	1752.	L	s.l	Jac. frag. 2. t.1. f.4
13873	quercifólia *W. en.*	hairy Oak-lvd.	♣	⊔	or	3	jn.jl	Ap	C. G. H.	1752.	L	r.m	
13874	cordifólia *W.*	heart-leaved	♣	⊔	or	4	my.jl	Ap	C. G. H.	1759.	L	p.l	Plu. alm. t.319. f 7
13875	mexicána *W.*	Mexican	♣	⊔	or	8	f	Ap	Mexico	1823.	L	p.l	
13876	segregáta *Jacq.*	netted	♣	⊔	or	6	...	Ap	S. Amer.	1824.	L	p.l	Jacq. ic. t. 625



History, Use, Propagation, Culture,

2053. *Leucadendron.* From λευκος, white, and δενδρον, a tree, in allusion to the appearance of the most common species, No. 13,840. The species are evergreen shrubs, with handsome foliage; they grow in light soil well drained and not over watered, and are increased by ripened cuttings in sand under a hand-glass.

2054. *Viscum.* From the Latin *viscus*, clammy, on account of the sticky nature of the berries. *Gui*, Fr., *Mistl*, Ger., and *Visco*, Ital. This may be considered the only true parasitical plant indigenous to Britain, as at no period of its existence does it derive any nourishment from the soil like Orobanche, or from decayed bark or wood like certain Fungi, and other epiphytes. The root of the misletoe insinuates its fibres into the woody substance of the tree; the shoots are dichotomous, round, smooth, and even; and of a pale green, like the leaves, which are tongue-shaped and entire. The whole forms a pendant bush of from two to five feet in diameter, evergreen, and in winter covered with small white very glutinous berries. The British species of misletoe is commonly found on fruit trees; but it will grow on various others, as the thorn, oak, maple, poplar, lime, ash, &c.; and in the neighbourhood of Magdebourg it is abundant on Pinus sylvestris. It is not difficult to propagate by inserting the berries in slits in the bark early in spring, and tying a shred of mat over the slit to protect them from the birds. The Druids sent round their attendant youths with branches of the misletoe to announce the entrance of the new year; and something like the same custom is still continued in France. In England branches of it are hung up in most houses at Christmas, along with other evergreens. The berries are devoured by several birds of the thrush kind, and especially by the Misletoe Thrush. Bird-lime is made from the berries, and also from the bark, boiled in water, beaten in a mortar and washed. It is, however, more commonly manufactured from the bark of the holly.

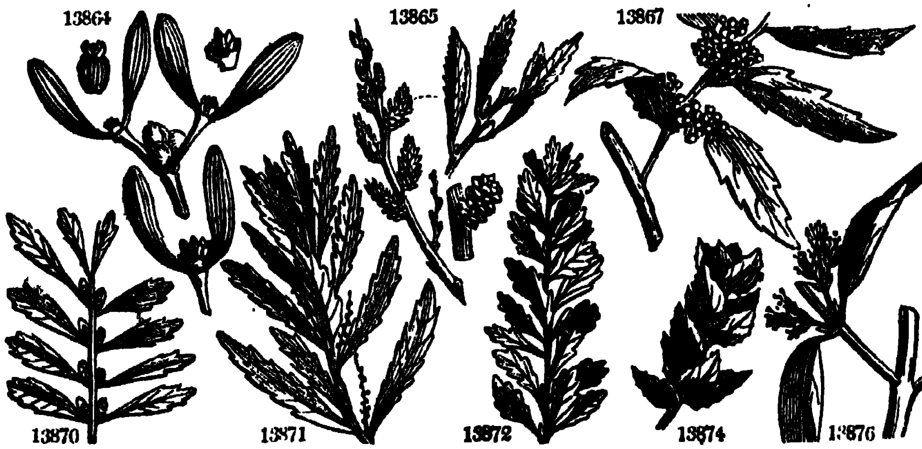
2055. *Myrica.* The Greek (μυρικη) synonym of the Tamarix. It is said to have been derived from μυρω, to flow, because the plants are always found on the banks of rivers, and in inundated spots. M. Gale has leaves of a bitter taste, but fragrant like those of the myrtle. Their essential oil rises in distillation. The northern nations formerly used this plant instead of hops, and it is still in use for that purpose in some of the western isles, and a few places in the Highlands of Scotland. Unless it be boiled a long time, it is reported to occasion head-ache. The catkins or cones boiled in water throw up a scum resembling bees' wax, which gathered in sufficient quantities would make candles. It is used to tan calf-skins. Gathered in the autumn it dyes wool

13840 Arborescent, Leaves lanceolate silky, Branches villous, Bractes short downy, Cal. silky
13841 Shrubby, Leaves linear lanceolate oblique smoothish, Male cal. smooth: female feathery, Fruit villous
13842 Lvs. lanc. lin. smooth rounded at base, Branches vill. Scales of cone silky cuneate, Fruit comose mucronate
13843 Leaves oval lanceolate: when old smooth, Scales of cone dilated-cuneate silky
13844 Leaves spatulate callous at end, and branches villous, Fruit comose pointless
13845 Leaves linear spatulate tapering at base and branches smooth, Male head sessile larger than leaves
13846 Leaves linear lanceolate smooth: the younger straight tapering at base, Female head shorter than leaves

13847 Leaves linear bluntish twisted smooth, Branchlets somewhat silky, Cal. silky, Fruit comose pointless
13848 Leaves spatulate linear silky with a callous beard at end, Cal. very shaggy, Fruit cuneate downy
13849 Lvs. lin. acute channelled imbricated erect smooth, Scales of cone acute recurved, Fruit obcord. ciliated
13850 Lvs. obl. veiny callous at end recurved smoothish: floral colored ½ scarious, Scales of cone downy outside
13851 Leaves spatulate obl. callous at end smooth, Branches downy, Scales of cone retuse ciliated downy at base
13852 Lvs. lanc. obl. callous at end smooth: floral colored, Branches somewhat downy, Scales ovate obt. smooth
13853 Lvs. spatul. lanc. call. at end subdecurrent concave and branches smooth, Scales of cone roundish smoothish
13854 Lvs. lin. lanc. mucron. finally smooth, Invol. ov. ac. longer than head, Scales of cone round. dilated smooth
13855 Lvs. lin. acute with transparent edges and branches quite smooth: floral lin. lanc. long, Fr. winged emargin.
13856 Leaves linear lanceolate acute: floral lanceolate colored concave, Shrub low with ascending branches
13857 Lvs. obl. lanceolate bluntish veinless and branches quite smooth: floral ½-colored, Fruit winged emarginate
13858 Leaves linear lanceolate cuspidate somewhat silky: floral lanceolate colored, Fruit very narrow winged
13859 Leaves lanc. lin. silky with down on each side with callous points at end, Branches downy, Calyx hairy
13860 Lvs. lanc. lin. silky with down on each side with call. points at end, Branches shag. Cal. of male hairy in lines
13861 Upp. lvs. lanc. spatul. ac. rugose, Cones ov. Scales cohering at base distinct above with recurv. beardl. edges
13862 Lvs. all filiform chann. bluntish smooth spreading incurved, Scales cohering at base distinct above 2-lobed
13863 Lvs. all filiform channelled acute imbric. straightish ciliated, Scales cohering at base distinct above 2-lobed

13864 Leaves lanceolate obtuse, Stem dichotomous, Heads of flowers axillary

13865 Leaves lanceolate broader upwards serrated, Stem shrubby
13866 Leaves oblong narrowed at base subserrate at end, Scales of male catkins acute, Berries globose
13867 Leaves oblong narrowed at base coarsely serrated, Scales of male catkins acute, Berries globose
13868 Leaves oblong acute at each end entire or slightly serrated at end revolute at edge
13869 Leaves elliptical lanceolate subserrate, Male catkins compound, Drupe with a 4 celled nucleus
13870 Leaves elliptical toothed: the lowest quite entire
13871 Leaves lanceolate unequally acuminate serrated, Catkins long lax
13872 Leaves oblong deeply sinuated smooth
13873 Leaves oblong oppositely sinuated hairy
13874 Leaves subcordate serrate sessile
13875 Leaves oblong-lanc. cuneate tapered at base nearly entire smooth shining with the middle nerve downy
13876 Leaves lanceolate entire netted with veins, Catkins few-flowered lax



and Miscellaneous Particulars.

yellow, and is used for that purpose both in Sweden and Wales. The Swedes sometimes use a strong decoction of it to kill bugs and lice, and to cure the itch. The Welsh lay branches of it upon and under their beds to keep off fleas and moths, and give it as a vermifuge in powder and infusion, applying it also externally to the abdomen. In most of the Hebrides, as well as in the Highlands of Scotland, an infusion of the leaves is frequently given to children to destroy the worms. In Isla and Jura the inhabitants garnish their dishes with it, and lay it between their linen and other garments to give them a fine scent, and to drive away moths. When it grows within reach of a port, the sailors make besoms of it for sweeping their ships. In the Isle of Ely they make faggots with it to heat their ovens. Linnæus was induced to suspect, from the smell of this shrub, that camphor might possibly be prepared from it. Horses and goats eat; sheep and cows refuse it.

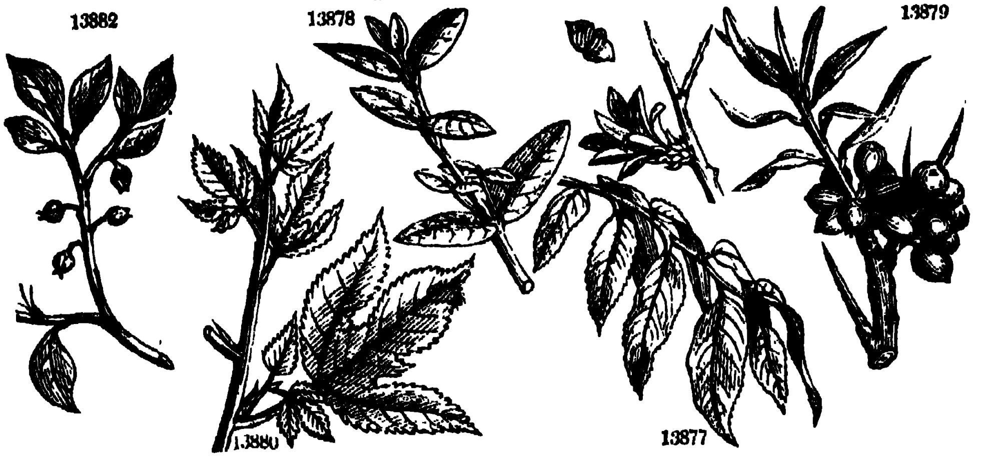
M. cerifera may be used for most of the purposes of the former species. Candles are made from the berries in North America, whence it is called there the tallow shrub or candleberry tree; some also name it the bayberry-bush. It grows abundantly on a wet soil, and seems to thrive particularly well in the neighbourhood of the sea, nor does it seem ever to be found high up in the country. The berries intended for making candles are gathered late in autumn, and are thrown into a pot of boiling water; their fat melts out, floats at the top of the water, and may be skimmed off. The fat when congealed looks like tallow or wax, but has a dirty green color; it is therefore melted again and refined, by which means it acquires a fine and pretty transparent green color. It is dearer than common tallow, but cheaper than wax. They usually mix some tallow with it. Candles of this kind do not easily bend or melt in summer as common candles do; they burn better and slower, nor do they cause any smoke, but rather yield an agreeable smell when they are extinguished. At present not many candles of this kind are used, the animal tallow is readily come at, it being very troublesome to gather the berries. They are chiefly used by poor people, who live near where the bushes grow, and have not cattle enough to supply them. A soap is made from the fat which has an agreeable scent, and is excellent for shaving; and it is used by surgeons for plasters. In Carolina they likewise make sealing-wax from these berries. The root is accounted a specific in the tooth-ache.

All the species grow well in peat soil or sandy loam, in a moist situation. They are increased by seeds or layers, but not readily by cuttings.

2056.	NAGE'IA. *Gærtn.*	NAGEIA.				*Amentaceæ.*		*Sp.* 1—3.				
13877	Putranjiva *Roxb.*	grey-barked	♣ ☐	un	12	...	Ap	E. Indies	1822.	C	r.m	
2057.	SHEPHER'DIA. *Nutt.*	SHEPHERDIA.				*Elæagneæ.*		*Sp.* 1.				
13878	canadénsis *Nutt.*	Canadian	♆	or	10	ap.my	Ap	N. Amer.	1759.	L	co	
2058.	HIPPO'PHAE. *W.*	SEA BUCKTHORN				*Elæagneæ.*		*Sp.* 1.				
13879	rhamnoídes *W.*	common	♆	or	12	ap.my	Ap	England	sea co.	L		Eng. bot. 426
2059.	BROUSSONE'TIA. *W.*	BROUSSONETIA.				*Urticeæ.*		*Sp.* 2.				
13880	papyrífera *W.*	Paper Mulberry	♆	or	12	f.s	Ap	Japan	1751.	C	co	Kæm.amœ.t.472
13881	spatuláta *Hort.*	entire-leaved	♆	or	12	f.s	Ap	......	1824.	C	co	
2060.	SCHÆFFE'RIA. *W.*	SCHÆFFERIA.				....		*Sp.* 1—2.				
13882	compléta *W.*	white-flowered	♣ ☐	or	6	au	G	W. Indies	1793.	C	p.l	Lam. ill. t. 809
2061.	BRU'CEA. *W.*	BRUCEA.				*Terebintaceæ.*		*Sp.* 2—3.				
13883	ferrugínea *W.*	Ash-leaved	♣ ☐	or	6	ap.my	G	Abyssinia	1775.	C	p.l	Bot cab. 129
13884	sumatrána *Roxb.*	Sumatra	♣ ☐	or	10	ap.my	G	E. Indies	1820.	C	p.l	
2062.	ANTHOSPER'MUM. *W.*	AMBER TREE.				*Rubiaceæ.*		*Sp.* 1—4.				
13885	æthiópicum *W.*	Ethiopian	♣ ⊔	or	2	jn.jl	G.w	C. G. H.	1692.	C	p.l	Plu.alm.t.183.f.1
2063.	TRO'PHIS. *W.*	RAMOON TREE.				....		*Sp.* 2—4.				
13886	americána *W.*	American	♆ ☐	or	20	ap.my	G	W. Indies	1789.	C	l.p	Bro.jam. t.37. f.1
13887	áspera *W.*	rough-leaved	♆ ☐	or	25	...	G	E. Indies	1802.	C	l.p	
2064.	MONTI'NIA. *W.*	MONTINIA.				*Onagrariæ.*		*Sp.* 1.				
13888	caryophyllácea *H. K.*	Sea Pursl.-lvd.	♄ ⊔	or	1	jl		C. G. H.	1774.	C	p.l	Smith spi.14.t.15

PENTANDRIA.

2065.	PISTA'CIA. *W*	PISTACHIA TREE.				*Terebintaceæ.*		*Sp.* 5—7.				
13889	officinárum *H. K.*	officinal	♆	m	15	ap.my	Ap	Levant	1570.	C	l.p	Rauw. it. 72. t. 9
13890	reticuláta *W.*	net-leaved	♆	or	15	ap	Ap	Levant	1752.	C	l.p	
	narbonen'sis L.											
13891	Terebínthus *W.*	Turpent. Tree	♆	or	20	jn jl	Ap	S. Europe	1656.	C	r m	Blackw. t. 478
13892	atlántica *W.*	Atlantic	♆ ⊔	or	12	...	Ap	Barbary	1790.	L	r.m	



History, Use, Propagation, Culture,

2056. *Nageia.* *Nagi* is the Japanese name of one of the species. That in the gardens is an uninteresting shrub with a loose elegant foliage, and a light grey bark. Ripened cuttings strike freely in a bark pit.

2057. *Shepherdia.* A name given by Nuttall to the Hippophae canadensis of our gardens, in honor of Mr. William Shepherd, the worthy curator of the Liverpool botanic garden. A small inelegant tree, with dark green deciduous leaves, covered over with brownish silvery scales on the lower side.

2058. *Hippophae.* An ancient name given to some plant now unknown, which was applied medicinally to horses; from *ἵππος*, a horse, and *φάω*, to give light. H. rhamnoides is very prolific in berries, which are yellow when ripe, succulent, smooth, and gratefully acid to the taste They are much eaten by the Tartars; and the fishermen of the Gulph of Bothnia prepare a rob from them, which imparts a grateful flavor to fresh fish. Every part of the plant will dye yellow. The species grow in common soil, and are readily increased by layers or cuttings of the roots.

2059. *Broussonetia.* Named by L'Heritier, in honor of his countryman P. N. V. Broussonet, a well known naturalist, who travelled in Barbary, and published an Ichthyologia in 1782. This is a vigorous growing shrub or low tree, with large lobed leaves, variously shaped; the foliage of the male and female plant differing so much from each other that they might easily be taken for distinct species. The fruit is little larger than peas, and from the bark the Chinese make paper, and the Otaheitans cloth.

B. papyrifera, though a low tree, produces vigorous shoots, furnished with large leaves. The fruit is little larger than peas, surrounded with long purple hairs, when ripe changing to a black purple color, and full of sweet juice. In China and Japan it is cultivated as we do osiers, for the sake of the young shoots, from the bark of which the inhabitants of the east countries make paper. The bark being separated from the wood is steeped in water, and the inner bark separated from the outer; the former making the whitest and best paper. The bark is next slowly boiled, then washed, and afterwards put on a wooden table and beaten into a pulp. This pulp being put in water, separates like grains of meal. An infusion of rice and the root of manihot is next added to it. From the liquor so prepared, the sheets of paper are poured out one by one, and when pressed, the operation is finished.

The juice of this tree is sufficiently tenacious to be used in China as a glue, in gilding either leather or paper. The finest and whitest cloth worn by the principal people at Otaheite and in the Sandwich Islands is made of the bark of this tree. The cloth of the Bread-fruit tree is inferior in whiteness and softness, and worn chiefly by the common people.

2060. *Schæfferia.* So called after James Christian Schæffer, a German naturalist of celebrity, who is best known by his excellent work on the Fungi of Bavaria, published in 1762. An inelegant shrub with green flowers.

13877 Leaves ovate lanceolate oblique at base finely and simply serrated smooth

13878 Leaves oblong stellate-hairy above brownish white and scaly beneath

13879 Leaves linear-lanceolate smooth above white with scales beneath

13880 Leaves 3-5-lobed acuminate serrated scabrous
13881 Leaves cucullate entire

13882 Flowers tetrapetalous axillary

13883 Leaves opposite stalked pinnated with an odd one of 5 or 6 pairs
13884 Leaflets serrated villous beneath, Racemes often compound

13885 Leaves somewhat whorled linear smooth

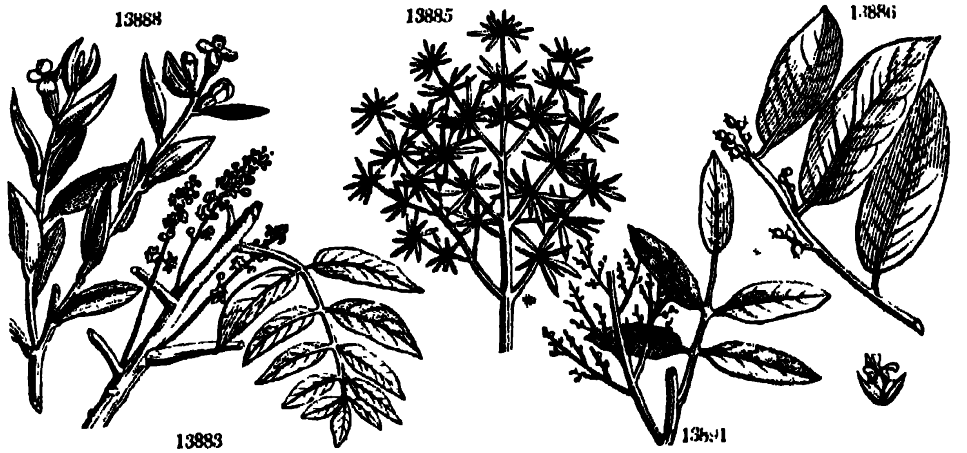
13886 Unarmed, Leaves oblong acum. entire smooth, Fruit 1-seeded cornute, Horns reflexed shorter than fruit
13887 Unarmed, Leaves obovate oblong acuminate unequally serrate very scabrous on each side

13888 Leaves alternate oblong oval, Fl. solitary

PENTANDRIA.

13889 Leaves pinnated with an odd one, Leaflets 5 ovate tapered at base rather acute and mucronate at end
13890 Leaves pinnate and ternate, Leaflets roundish narrowed at base netted with veins retuse mucronate

13891 Leaves pinnate with an odd one, Leaflets about 7 ovate-lanceolate rounded at base acute mucronate
13892 Leaves pinnate with an odd one, Leaflets lanceolate about 9, Petiole winged between the terminal pairs



and Miscellaneous Particulars.

2061. *Brucea.* Named in honor of James Bruce, a celebrated Scotch traveller in Abyssinia, who discovered the plant.

2062. *Anthospermum.* From ἀνθος, a flower, and σπερμα, seed; its female flower is entirely naked, consisting of a single ovarium; whence its name. A heath-looking evergreen, the leaves of which are fragrant when bruised, and the propagation and culture of the easiest description.

2063. *Trophis.* From τρεφω, to nourish T. americana produces berries about the size of large grapes, and of an agreeable pleasant flavor. The leaves and twigs are used as fodder for cattle when grass is scarce. Cuttings root in sand under a glass

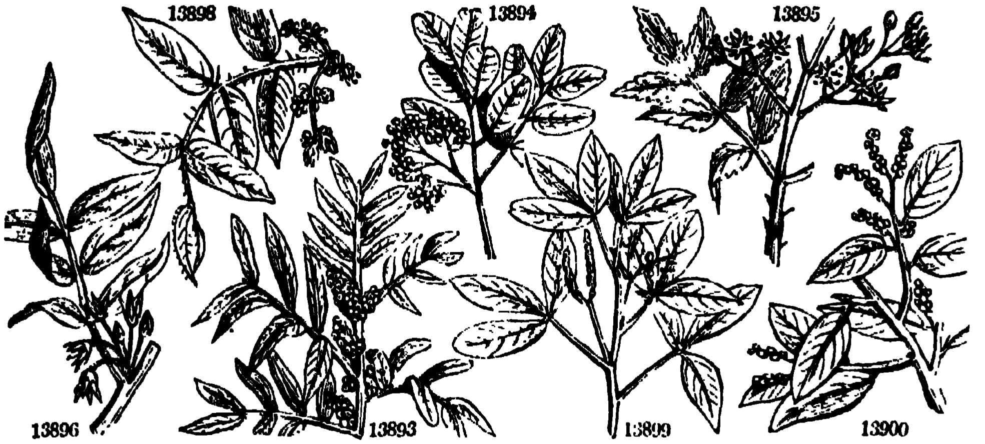
2064. *Montinia.* In honor of Laurence Montin, a Swede, who published a little tract upon Splachnum. The specific name seems to hint at the nature of his disposition. A little worthless weed-like Cape plant.

2065. *Pistacia.* Said by Forskahl to have been altered by the Latins from its Arabic name *fostaq*. P. officinalis abounds in Sicily, where it is cultivated for its nuts. The male flowers come out from the side of the branches in loose bunches, and are of an herbaceous color. The female flowers come out in the same manner in clusters. The male puts forth its flowers first, and some gardeners pluck them whilst yet shut, dry them, and afterwards sprinkle the pollen over the female tree: but the method usually followed in Sicily, when the trees are far asunder, is to wait till the female buds are open, and then to gather bunches of male blossoms ready to blow; these are stuck into a pot of moist mould, and hung upon the female tree till they are quite dry and empty. This operation is called *tuchiarare*, and never fails to produce fructification; sometimes the gardeners ingraft the male bud upon the female tree.

P. Terebinthus (from τερεω, to cut) furnishes the Cyprus turpentine. It is procured by wounding the bark of the trunk in several places, during the month of July, leaving a space of about three inches between the wounds; from these the turpentine is received on stones, upon which it becomes so much condensed by the coldness of the night, as to admit of being scraped off with a knife, which is always done before sunrise: in order to free it from all extraneous admixture, it is again liquified by the sun's heat, and passed through a strainer; it is then fit for use. The quantity produced is very inconsiderable; four large trees, sixty years old, only yielding two pounds nine ounces and six drachms; but in the eastern part of Cyprus and Chio, the trees afford somewhat more, though still so little as to render it very costly, and on this account it is commonly adulterated, especially with other turpentines. The best Chio turpentine is generally about the consistence of thick honey, very tenacious, clear, and almost transparent, white, inclining to yellow, and of a fragrant smell, moderately warm to the taste, but free from acrimony and bitterness.

P. Lentiscus (*lentiscere*, to be sticky) produces the mastick, which is obtained most abundantly, by making transverse incisions in the bark of the tree, whence the mastick exudes in drops, which are suffered

13893 Lentiscus *W.*	Mastick Tree	♣ ⊔	ec	15	my	Ap	S. Europe	1664.	L	r.m	Bot. mag. 1967
β massiliénsis	*narrow-leaved*										
2066. ZANTHOX'YLUM. *W.*	TOOTH-ACH TREE.				*Rutaceæ.*		*Sp.* 5—43.				
13894 emarginátum *W.*	notch-leaved	♣ □	or	10	...	G.w	Jamaica	1739.	C	l.p	Slo. ja.2. t.168.f.4
13895 Cláva Hérculis *W.*	Lentiscus-leav.	♣ ⊔	or	10	ap.my	G.w	W. Indies	1739.	C	l.p	Cat. car. 1. t. 26
13896 fraxíneum *W.*	common	♣	or	6	mr.ap	G.w	N. Amer.	1759.	L	s.l	Duh. arb. 1. t. 97
13897 tricárpum *H. K.*	three-capsuled	♣	or	6	...	G.w	N. Amer.	1806.	L	l.s	
13898 nítidum *Dec.*	shining	♣ ⊔	or	6	ap.my	G.w	China	1823.	L	r.m	Bot. mag. 2558
2067. PICRAM'NIA. *W.*	PICRAMNIA.				....		*Sp.* 1—2.				
13899 Antidésma *W.*	Ash-leaved	♣ □	un	4	...	G	Jamaica	1793.	C	p.l	Slo. ja.2.t.208. f.2
2068. ANTIDES'MA. *W.*	ANTIDESMA.				....		*Sp.* 2—10.				
13900 alexitéria *W.*	Laurel-leaved	♣ □	un	10	my.jn	Ap	E. Indies	1793.	C	p.l	Rhee.mal.5. t.11
13901 paniculáta *W.*	panicled	♣ □	un	10	...	Ap	E. Indies	1800.	C	p.l	
2069. IRE'SINE. *W.*	IRESINE.				*Amaranthaceæ.*		*Sp.* 3—8.				
13902 celosioídes *W.*	Florida	£ △	pr	1½	jl.au	W	America	1733.	D	l.p	Lam. ill. t. 813
13903 elongáta *W.*	long-leaved	£ △	pr	2	jl.au	W	S. Amer.	1822.	S	l.p	Pluk.al. t.261.f.1
13904 diffúsa *W.*	straggling	£ △	pr	1½	jl.au	W	S. Amer.	1818.	S	l.p	
2070. SPINA'CIA. *W.*	SPINAGE.				*Chenopodeæ.*		*Sp.* 1.				
13905 oleràcea *W.*	common	○	cul	1½	mr.o	G	... ..	1568.	S	co	Sch.hand.3.t.324
α spinósa	*prickly*	○	cul	1½	mr.o	G	......	...	S	co	
β glabra Mill.	*round*	○	cul	1½	mr.o	G	......	...	S	co	
2071. FLUG'GEA. *W.*	FLUGGEA.				*Euphorbiaceæ.*		*Sp.* 1.				
13906 leucopýrus *W.*	white	♣ □	un	6	...	Ap	E. Indies	1825.	C	r.m	
2072. ACNI'DA. *W.*	VIRGINIAN HEMP.				*Chenopodeæ.*		*Sp.* 1—3.				
13907 cannabina *W.*	common	○	un	2	jn.jl	G.y	N. Amer.	1640.	S	co	
2073. CAN'NABIS. *W.*	HEMP.				*Urticeæ.*		*Sp.* 1.				
13908 sativa *W.*	common	○	ag	6	jn.jl	G	India	...	S	h.l	Sch.hand.3.t.325
2074. HU'MULUS. *W*	HOP.				*Urticeæ.*		*Sp.* 1.				
13909 Lúpulus *W.*	common	ʓ △	ag	15	jn.au	Y	Britain	hed.	D	r.m	Eng. bot. 427



History, Use, Propagation, Culture,

to run down to the ground, and after they are concreted they are collected for use. These incisions are made at the beginning of August, when the weather is very dry, and are continued till the end of September.

Turpentine and mastick are considered as astringent and diuretic; but though they retain a place in our Materia Medica, they are not much used by modern practitioners. Mastick is used by the Turkish and Armenian women as a masticatory for cleaning the teeth and giving an agreeable smell to the breath. It is also employed to fill the cavities of carious teeth. (*Thom. Lond. Disp.* 444.)

2066. *Xanthoxylum.* From ξανθος, yellow, and ξυλον, wood. X. Clava-Herculis is esteemed a good timber tree in Jamaica; and an infusion of the leaves is used to cure the tooth-ach there and in Carolina. All the species may be increased by ripened cuttings, or by cuttings of the roots.

2067. *Picramnia.* From πικρος, bitter. A small tree with fruit the size of a gooseberry, and pinnate leaves; the whole plant abounding in the bitter principle. Large cuttings strike freely in sand under a hand-glass.

2068. *Antidesma* So called from the use of the bark in making ropes; from αντι, like, and δεσμος, a bond. A. alexiteria is a middle-sized evergreen tree, with leaves resembling those of the lemon, and fruit in racemes, red and acid like the barberry. A decoction of the leaves is reputed to be an antidote against the bite of serpents, and the bark is used for making ropes. All the species require a rich loamy soil, and ripened cuttings with their leaves on root in sand in a moist heat.

2069. *Iresine.* Suppliants were accustomed among the Greeks to present themselves before the altar with a branch of olive bound with wool, which offering they called ιρεσιωνη; whence this plant, which is very like such a branch, on account of its close clusters of woolly flowers, has been named. Herbaceous plants not of great beauty.

2070. *Spinacia.* From *spina*, a prickle, on account of the processes of the seed. A well known annual esculent of the easiest culture in any rich soil.

2071. *Fluggea.* Named by Willdenow, in honor of —— Flügge, a German Cryptogamic botanist. A shrub with round ash-colored spiny branches. The spines are from one and a half to three inches long, very strong and numerous, whitish, and covered with leaves.

2072. *Acnida.* From α, privative, and κνιδη, a Greek name of the nettle; that is to say, a nettle-like plant, which does not sting.

2073. *Cannabis.* According to Bullet, this name is taken from the Celtic *can*, a reed, and *ab*, small. But Golius says, the plant has been known by the Arabs from time immemorial under the name of *qaneb.* The hemp is a manufactorial plant of equal antiquity with the flax. It grows to a great height on rich soils under a warm climate, in some parts of Italy it has been found eighteen feet high (*Cruds. Agr.*); the common height in Lombardy and the Bolognese territory is twelve feet; in this country it seldom exceeds six feet, and the fibre of British hemp is no finer than where it is three times the length. The culture, management, and uses of hemp are nearly the same as those of flax; but the male and female flowers being on different plants, and the male plant decaying long before the female, the former requires to be pulled up as soon as the setting of the seed in the females shews that they have effected their purpose. Hemp is sown on well prepared

13893 Leaves abruptly pinnate, Leaflets lanceolate about 8, Petiole winged

13894 Unarmed, Leaves pinnate of 2 or 3 pair, Leaflets ovate emarginate villous, Racemes terminal
13895 Prickly, Leaves pinnate of 4 pair, Leaflets ovate repand-toothed unequal at base sessile, Panicles terminal
13896 Lvs. pinn. with an odd one of 4-5 pair, Leafl. ov. obsoletely serrul. equal at base, Petiol. rounded unarmed
13897 Lvs. pinn. with odd 1 of 3-5 pair, Leafl. stalkl. obl. oval acum. serrul. obliq. at base, Petiol. and branch. prickly
13898 Branches petioles and ribs prickly, Leaves pinnate with an odd one of 2-3 pairs, Leaflets oblong shining with remote glandular crenatures

13899 Racemes filiform pendulous, Flowers triandrous, Styles 2 recurved

13900 Lvs. obl. narrowed at base acumin. at end smooth shining on each side, Racemes axillary twin or solitary
13901 Lvs. roundish ellipt. rounded at each end retuse emarginate at point downy beneath, Racem. term. panicled

13902 Leaves dotted scabrous: lower oblong acuminate; upper ovate-lanceolate, Panicle branched compact
13903 Leaves ovate-oblong acute, Panicle erect, Branches simple, Stem furrowed
13904 Leaves ovate smooth cuspidate, Panicle diffuse branched, Stem furrowed

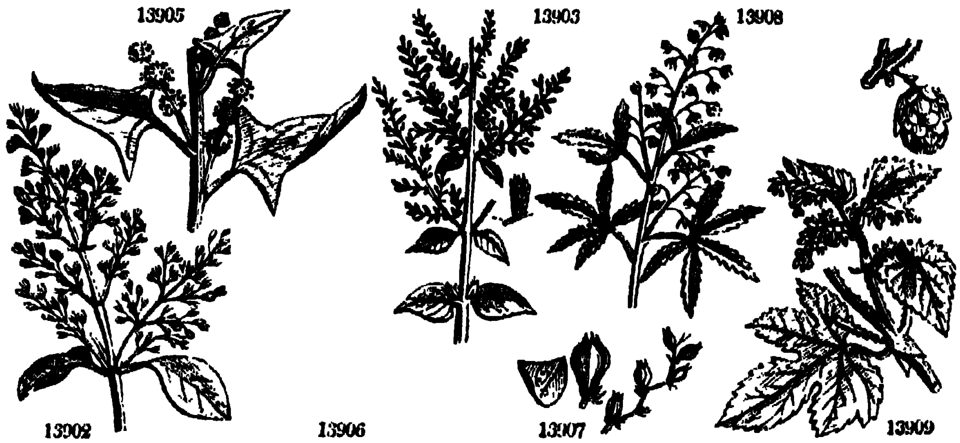
13905 Leaves sagittate, Fruit sessile

13906 The only species. Leaves alternate orbic ovate entire smooth, Spines 2 or 3 inches long

13907 Leaves lanceolate, Capsules smoothish acutangular

13908 The only species

13909 The only species



and Miscellaneous Particulars.

loamy soil about the end of April: the male plants are generally pulled about the beginning of July, and the females four or five weeks after them, when they have ripened their seeds. The plants being tied in bundles, are watered and bleached, in the same manner as flax; or they are dried and stacked without having gone through this process, and the fibres separated when wanted by the flax-breaking machine of recent invention, or by steeping in hot water and soft soap. The produce of hemp in fibre varies from three to six hundred weight per acre; in seed, from eleven to twelve bushels. The fibre produces a cloth stronger than that from flax, and the best of all cordage and ropes. An oil is extracted from the seeds of hemp, which is used in cookery in Russia, and in this country by painters. The seeds themselves are reckoned a good food for poultry, and are supposed to occasion hens to lay a greater quantity of eggs. Small birds in general are very fond of them, but they should be given to caged birds with caution, and mixed with other seeds. A very singular effect is recorded, on very good authority, to have been sometimes produced by feeding bullfinches and goldfinches on hemp-seed alone, or in too great quantity; viz. that of changing the red and yellow on these birds to a total blackness. (*Ency. of Agr.* 5327.)

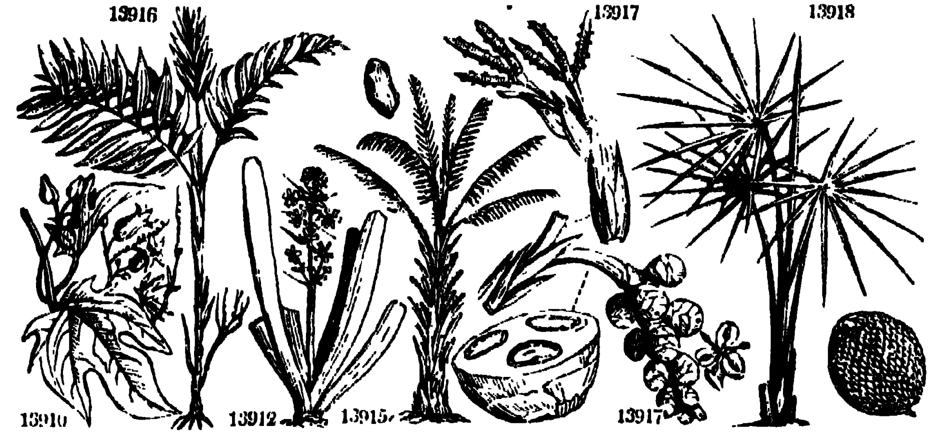
2074. *Humulus.* From *humus*, fresh earth; the hop grows only in rich soils. Our English word *hop*, seems to be the Anglo-Saxon *hoppan*, to climb. *Lupulus* is a contraction of Lupus salictarius, the name by which it was, according to Pliny, formerly called, because it grew among the willows, to which, by twining round and choking up, it proved as destructive as the wolf to the flock.

The hop has been cultivated in Europe an unknown length of time for its flowers, which are used for preserving beer. Its culture was introduced from Flanders in the reign of Henry VIII., though indigenous both in Scotland and Ireland: it is little cultivated in those countries, owing to the humidity of their autumnal season. Like other plants of this sort, the hop bears its flowers on different individuals; the female plant, therefore, is alone cultivated. There are several varieties grown in Kent and Surrey under the names of Flemish, Canterbury, Goldings, &c.; the first is the most hardy, differing little from the wild or hedge-hop; the Goldings is a very improved and highly productive variety, but more subject to the blight than the other. The hop prefers a deep loamy soil on a dry bottom; a sheltered situation exposed to the south or south-west, but at the same time not so confined as to prevent a free circulation of air. The soil requires to be well pulverised and manured previously to planting. In hop districts, the ground is generally trenched either with the plough or spade. The mode of planting is generally in rows, six feet apart, and the same distance in the row. Five, six, or seven plants are generally placed together in a circular form, and at a distance of five or six feet from each other. The plants or cuttings are procured from the most healthy of the old stools; each should have two joints or buds; from the one which is placed in the ground springs the root, and from the other the stalk. Some plant the cuttings at once where they are to remain, and by others they are nursed a year in a garden. An interval crop of beans or cabbages is generally taken the first year. Sometimes no poles are placed at the plants till the second year, and then only short ones of five or six feet. The third year the hop generally comes into full bearing, and then from four to six poles from fourteen to sixteen feet in length are placed to each hill. The most durable timber for poles is that of the Spanish chestnut, which is much grown

2075.	**MODEC'CA.** *Lam.*	MODECCA.					*Passifloreæ.*	*Sp.* 1.					
13910	lobáta *Jacq.*	lobe-leaved	⅄	□	or	12	au	G	S. Leone	1812.	C	r.m	Bot. reg. 433

HEXANDRIA.

2076.	**XERO'TES.** *R. Br.*	XEROTES.					*Junceæ.*	*Sp.* 2—24.					
13911	longifólia *R. Br.*	long-leaved	£	⊔	or	3	...	G.w	N. Holl.	1796.	D	r.m	
13912	rigida *R. Br.*	rigid	£	⊔	or	2	...	G.w	N. Holl.	1791.	D	r.m	Bot. cab. 798
2077.	**ELA'IS.** *W.*	OILY PALM.					*Palmæ.*	*Sp* 3.					
13913	melanocócca *Gærtn.*	black-seeded	🌴	□	or	30.	...	G.w	N. Grena.	1821.	S	co	
13914	occidentális *W.*	West Indian	🌴	□	or	30	...	G.w	Jamaica	1820.	S	r.m	
13915	guineénsis *W.*	Guinea	🌴	□	or	30	...	G.w	Guinea	1730.	S	r.m	Jac. amer. t. 172
2078.	**CHAMÆDO'REA.** *W.*	CHAMÆDOREA.					*Palmæ.*	*Sp.* 1.					
13916	grácilis *W.*	slender	🌴	□	or	10	...	W.u	Caraccas	1803.	Sk	r.m	Jac. sch. 2. t. 247, 8
2079.	**BORAS'SUS.** *W.*	BORASSUS.					*Palmæ.*	*Sp.* 1.					
13917	flabellifórmis *W*	fan-leaved	🌴	□	or	30	...	W.u	E. Indies	1771.	S	r.m	Rox. co. 1. t. 71, 72
2080.	**MAURI'TIA.** *W.*	MAURITIA.					*Palmæ.*	*Sp.* 1.					
13918	flexuósa *W.*	wavy-spiked	🌴	□	or	40	...	W.u	Surinam	1816.	S	r.m.	
2081.	**SMI'LAX.** *W.*	SMILAX.					*Smilaceæ.*	*Sp.* 22—68.					
13919	áspera *W.*	Rough Bindw.	⅄		un	8	s	W.G	S. Europe	1648.	Sk	s.p	Sch. hand. 3. t 328
	β *auriculáta*	*ear-leaved*	⅄		un	8	s	W.G	S. Europe	1648.	Sk	s.p	Pluk. al. t. 110. f. 3
13920	excélsa *W.*	tall	⅄	⊔	un	12	au s	W.G	Syria	1739.	Sk	s.p	Buxb. cen. 1. t 27
13921	zeylánica *W.*	Ceylon	⅄	□	un	10	...	W.G	E. Indies	1778.	Sk	p.l	Rum. am. 5. t. 161
13922	quadranguláris *W.*	square-stalked	⅄		un	6	jn jl	W.G	N. Amer.	1812.	Sk	s.p	Dend. brit. 109
13923	Sarsaparilla *W.*	medicinal	⅄		m	4	jl.au	W.G	N. Amer.	1664.	Sk	s.p	Dend. brit. 111
13924	China *W.*	Chinese	⅄	□	m	6	...	W.G	China	1759.	Sk	s.p	Kæm. amæ. t. 782
13925	rotundifólia *W.*	round-leaved	⅄		un	6	jl.au	W.G	N. Amer.	1760.	Sk	s.p	
13926	laurifólia *W.*	Laurel-leaved	⅄		un	5	jl	W.G	N. Amer.	1739.	Sk	s.p	Cat. car. 1 t. 15



History, Use, Propagation, Culture,

in Kent as coppice wood for that purpose. The after-culture of the hop consists in stirring the soil, and keeping it free from weeds; in guiding the shoots to the poles, and sometimes tying them for that purpose with withered rushes; in eradicating any superfluous shoots which may arise from the root, and in raising a small heap of earth over the root to prevent any more shoots from arising.

Hops are known to be ready for gathering, when the chaffy capsules acquire a brown color, and a firm consistence. Each chaffy capsule or leafed calyx contains one seed. Before these are picked, the poles with the attached stalks are pulled up, and placed horizontally on frames of wood, two or three poles at a time. The hops are then picked off by women and children. After being carefully separated from the leaves and stalks, they are dropped into a large cloth hung all round withinside the frame on tenter-hooks. When the cloth is full, the hops are emptied into a large sack, which is carried home, and the hops laid on a kiln to be dried. This is always done as soon as possible after they are picked, as they are apt to sustain considerable damage, both in color and flavor, if allowed to remain long in sacks in the green state in which they are pulled. In very warm weather, and when they are pulled in a moist state, they will often heat in five or six hours: for this reason the kilns are kept constantly at work, both night and day, from the commencement to the conclusion of the hop-picking season. The operation of drying hops is not materially different from that of drying malt, and the kilns are of the same construction. The hops are spread on a hair-cloth, from eight to twelve inches deep, according as the season is dry or wet, and the hops ripe or immature. When the ends of the hopstalks become quite shrivelled and dry, they are taken off the kiln and laid on a boarded floor till they become quite cool, when they are put into bags.

The bagging of hops is thus performed: in the floor of the room where hops are laid to cool, there is a round hole or trap, equal in size to the mouth of a hop-bag. After tying a handful of hops in each of the lower corners of a large bag, which serve afterwards for handles, the mouth of the bag is fixed securely to a strong hoop, which is made to rest on the edges of the hole or trap; and the bag itself being then dropped through the trap, the packer goes into it, when a person who attends for the purpose, puts in the hops in small quantities, in order to give the packer an opportunity of packing and trampling them as hard as possible. When the bag is filled, and the hops trampled in so hard as that it will hold no more, it is drawn up, unloosed from the hoop, and the end sewed up, other two handles having been previously formed in the corners in the manner mentioned above. The brightest and finest colored hops are put into pockets or fine bagging, and the brown into coarse or heavy bagging. The former are chiefly used for brewing fine ales, and the latter by the porter brewers. But when hops are intended to be kept two or three years, they are put into bags of strong cloth, and firmly pressed so as to exclude the air.

The stripping and stacking of the poles succeeds to the operation of picking. The shoots or bind being stripped off, such poles as are not decayed are set up together in a conical pile of three or four hundred, the centre of which is formed by three stout poles bound together a few feet from their tops, and their lower ends spread out.

The produce of no crop is so liable to variation as that of the hop; in a good season an acre will produce 20 cwt.; in a bad season none, or only 2 or 3 cwt. From 10 to 12 cwt. in a season is considered a tolerable average

13910 Leaves entire 3-7-lobed without glands cordate at base

HEXANDRIA.

13911 Stemless, Lvs. long lin. coriaceous straight toothed at end rough at edge, Panicles lanceolate contracted
13912 Scapes and spikes short, Lvs. distichous cartilaginous convex beneath ½ truncate at end, Stem very short

13913 Stem ascending, Stalks spiny serrated, Anthers and fruits ovate acute
13914 Fronds pinnated, Leaflets sheathed, Stems unarmed
13915 Fronds pinnated, Stems toothed spiny diverging: upper teeth recurved

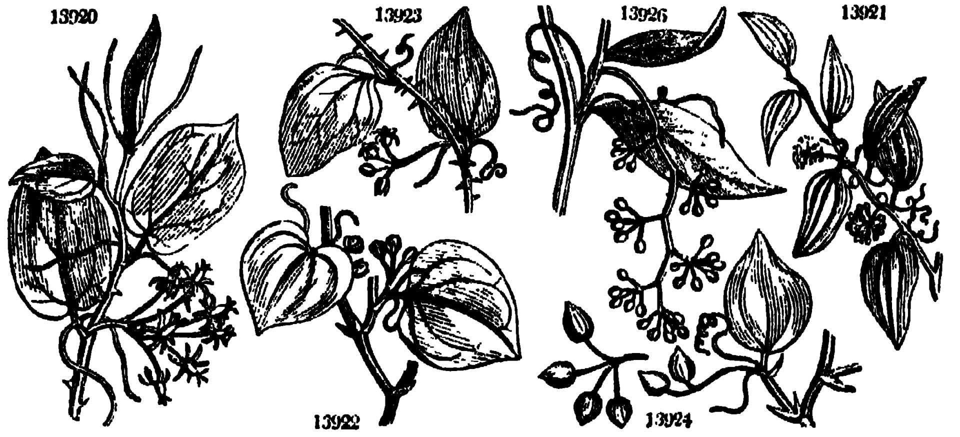
13916 Fronds pinnated 2 feet long: pinnæ alternate oblong narrowed at base pointed at end

13917 Fronds palmate plaited cucullate, Stalks serrated

13918 Fronds flabelliform, Male spadix flexuose a foot long and more

13919 Stem prickly angular, Leaves hastate cordate lanceolate 7-9-nerved prickly toothed coriaceous

13920 Stem prickly angular, Leaves unarmed ovate slightly cordate about 7-nerved
13921 Stem prickly somewhat square, Leaves unarmed 3-5-nerved ovate-oblong cordate
13922 Stem prickly square, Leaves unarmed ovate acute 5-nerved
13923 Stem prickly nearly square, Leaves unarmed ovate-lanceolate cuspidate about 5-nerved glaucous beneath
13924 Stem prickly rounded, Leaves roundish-cordate acute at each end 5-nerved
13925 Stem prickly rounded, Leaves roundish ovate acuminate slightly cordate 5-nerved
13926 Stem prickly rounded, Branches unarmed, Leaves ellipt. or elliptical-lanc. obtuse recurved acute 3-nerved



and Miscellaneous Particulars.

crop. The quality of hops is estimated by the abundance or scarcity of an unctuous clammy powder which adheres to them, and by their bright yellow color.

The expences of forming a hop plantation are very great; but once in bearing, it will continue so for ten or fifteen years before it requires to be renewed. The hop culture in England, like that of the culture of the vine in France, is only calculated for cultivators of considerable capital, who can retain the produce from years of abundance to years of scarcity. It is calculated on an average, that the hop crop fails almost entirely every fifth year, when the price will rise from two to thirty pounds per cwt. To those who can cultivate and preserve the hop with a view to such a rise, few crops will be equally profitable.

The hop is peculiarly liable to diseases; when young it it devoured by fleas of different kinds; at a more advanced stage it is attacked by the green fly, red spider, and otter moth, the larvæ of which prey even upon its roots The honey dew often materially injures the hop crop; and the mould, the fireblast, and other blights injure it at different times towards the latter periods of the growth of the plants.

The use of hop in brewing is to prevent the beer from becoming sour, and this is the grand purpose for which it is cultivated. But the young shoots both of the wild and improved hops are eaten early in the spring as asparagus, and were formerly brought to market for that purpose. The stalk and leaves will dye wool yellow. From the stalks a strong cloth is made in Sweden, the mode of preparing which is described by Linnæus in his Flora Suecica. A decoction of the roots is said to be as good a sudorific as Sarsaparilla; and the smell of the flowers is soporific. During the illness of George the third, in 1787, a pillow filled with hops was used instead of opiates.

2075. *Modecca*, is an Indian word by which two or three species of this genus appear in the Hortus Malabaricus, and has been adopted as a generic name by Lamarck. A curious plant resembling a bryony, of easy culture and propagation.

2076. *Xerotes.* From ξηρος, dry, on account of the aridity of the herbage and of the situations in which it grows.

2077. *Elais.* The natives of Guinea express oil from the fruit of this, as the Greeks from their olives, ελαια, whence its name. This palm bears a fruit about the size of a large plum. The inhabitants of the West India Islands draw an oil from it, by the same process used in extracting oil from olives. From the sap an inebriating liquor is fermented, and the negroes weave the leaves into mats, on which they repose.

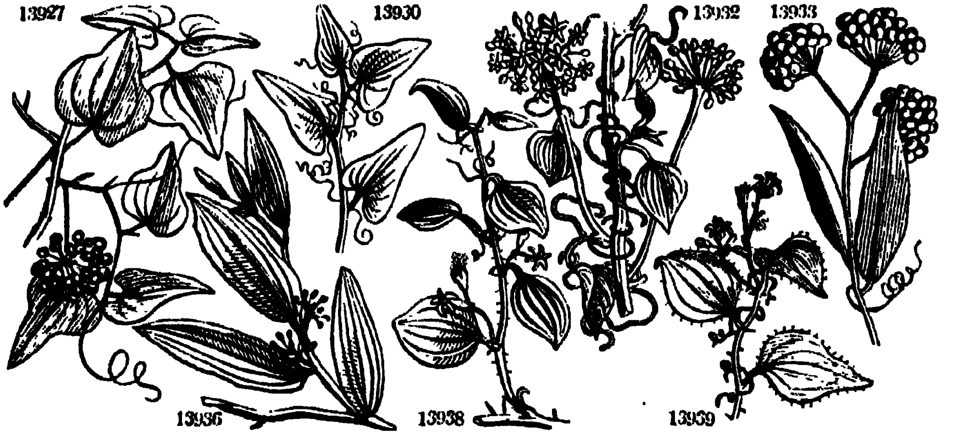
2078. *Chamædorea.* Named, we presume, from χαμαι, dwarf, and δωρεα, a gift: but we are ignorant of the sense in which the name has been applied.

2079 *Borassus.* This is one of the names which were applied to the spatha of the date; and was applied by Linnæus to the designation of this family of palms. The fruit of this palm is of the size and shape of a child's head; a wine and a sugar are made from the sap of the trunk.

2080. *Mauritia.* Named in honor of Prince Maurice of Nassau, the patron of Piso, for whom he obtained the necessary aid towards publishing his Natural History of Brazil. A fine genus of palms.

2081. *Smilax.* From σμιλη, a grater; the stems are rough with stiff prickles. S. aspera has roots not unlike those of the Sarsaparilla. They have the same qualities, but in an inferior degree; and may be distinguished by

13927 tamnoìdes *W.*	Tamus-leaved	⚘	△	un	6	jn.jl	W.o	N. Amer.	1739.	Sk s.p	Cat. car. 1. t. 52
13928 austrális *R. Br.*	oblong-leaved	⚘	□	un	6	...	W.o	N. S. W.	1815.	Sk s.p	
13929 cadúca	deciduous	⚘		un	6	jn.jl	W.o	N. Amer.	1759.	Sk s.p	
13930 Bona nóx *W.*	ciliated	⚘		un	6	jn.jl	W.o	N. Amer.	1739.	Sk s.p	Pluk.al. t.111.f.1
13931 latifólia *B. P.*	broad-leaved	⚘	⊔	un	8	...	G.w	N. Holl.	1791.	Sk s.p	
13932 herbácea *W.*	herbaceous	⚘	△	un	4	jl	G	N. Amer.	1699.	Sk s.p	Bot. mag. 1920
13933 lanceoláta *W.*	spear-leaved	⚘		un	5	my.jn	G.w	N. Amer.	1785.	Sk s.p	Cat. car. 2. t. 84
13934 glycyphýlla *B. P.*	Botany Bay Tea	⚘	⊔	un	6	...	G.w	N. S. W.	1815.	Sk s.p	
13935 púbera *W.*	downy	⚘		un	5	...	G.w	N. Amer.	1806.	Sk s.p	
13936 Pseudo-china *W.*	BastardChinese	⚘	⊔	un	6	my.jn	G.w	America	1739.	C p.l	Slo. ja.1.t.143.f.1
13937 pedunculáris *W.*	long-peduncled	⚘	△	un	6	my.jl	G.w	N. Amer.	1812.	C p.l	
13938 glaúca *B. M.*	glaucous-leav'd	⚘		un	2	my.jl	G.w	N. Amer.	1811.	C p.l	Bot. mag. 1846
13939 rúbens *Wats.*	pink	⚘		un	6	jl	G.w	N. Amer.	...	C p.l	Dend. brit. 108
13940 longifólia *W.*	long-leaved	⚘	□	un	10	my.jl	G.w	Cayenne	1820.	C p.l	
2082. TA'MUS. *W.*	Black Bryony.					*Smilaceæ.*		*Sp.* 2—3.			
13941 commúnis *W.*	common	⚘	△	m	10	my.au	G	England	hed.	R s.p	Eng. bot. 91
13942 crética *W.*	Cretan	⚘	△	un	5	jl.au	G	Candia	1739.	R p.l	
2083. TESTUDINA'RIA. *Burch.*	Elephant's Foot, or Hottentot's Bread.							*Dioscoreæ.*		*Sp.* 1—2.	
13943 elephan'tipes *Burch.*	common	⚘		cu	8	jl.au	Y	C. G. H.	1774.	R p.l	Bot. mag. 1347
2084. RAJA'NIA. *W.*	Rajania.					*Dioscoreæ.*		*Sp* 1—14.			
13944 cordáta *W.*	Tamus-leaved	⚘	⍍	un	6	jl	G	W. Indies	1786.	R p.l	Plum.ic.t.155.f.1
2085. DIOSCO'REA *W.*	Yam.					*Dioscoreæ.*		*Sp.* 12—42.			
13945 pentaphýlla *W.*	five-leaved	✱	□	cul	10	...	G	E. Indies	1768.	R r.m	Rhee. mal.7. t.35
13946 aculeáta *W.*	prickly-stemm.	✱	⍍	cul	10	...	G	E. Indies	1803.	R r.m	Rhee mal.7. t.37
13947 aláta *W.*	wing-stalked	✱	⍍	cul	15	...	G	India	1739.	R r.m	Rhee.mal.7. t.38
13948 bulbífera *W.*	bulb-bearing	✱	⍍	esc	12	jl.au	G	E. Indies	1692.	R r.m	Par. lond. 17
13949 sativa *W.*	common	✱	⍍	clt	20	au	G	W. Indies	1733.	R r.m	Rhee.mal.8. t.51
13950 triphýlla *W.*	three-leaved	✱	□	un	8	...	G	Malabar	1820.	R r.m	Rumph. 5. t. 128
13951 brasiliénsis *W.*	Brazilian	✱	□	esc	8	...	G	Brazil	1823.	R r.m	
13952 coriácea *W.*	leathery	✱	□	un	8	...	G	S. Amer.	1818.	R r.m	
13953 altíssima *W.*	tallest	✱	□	un	20	...	G	Martiniq.	1821.	R r.m	Plum. ic 117. f 1
13954 angustifólia *W.*	narrow-leaved	✱	□	un	10	...	G	Peru	1821.	R r.m	
13955 villósa *W.* *quaternata* Ph.	pubescent	✱	△	un	3	au	R	N. Amer.	1752.	R s.p	Jac ic. 3. t. 626
13956 oppositifólia *W.*	opposite-leaved	✱	⍍	un	6	...	G	E. Indies	1805.	R s.p	Pet. gaz. t.31. f 6



History, Use, Propagation, Culture,

being larger, more porous, and much less compressed. S. Sarsaparilla (*zarza*, furze, Spanish) has long slender roots covered with a wrinkled brown bark, white within, and having a small woody heart. It is inodorous, and has a mucilaginous very slightly bitter taste. Medicinally it is demulcent and diuretic. It was brought to Europe about the year 1530, and introduced as a medicine of great efficacy in the cure of lues venerea; but it fell into disrepute and was little used, till it was again brought into esteem by Dr. William Hunter and Sir William Fordyce, about the middle of the last century; not, however, as a remedy fitted to cure syphilis, but of much efficacy in rendering a mercurial course more certain, and after the use of mercury. Experience, however, has not verified the encomiums bestowed on it; and the extensive observations of Mr. Pearson have fixed the degree of benefit which is to be expected from this root in syphilitic complaints. The contagious matter and the mineral specific may, he observes, jointly produce, in certain habits of body, a new series of symptoms, which, strictly speaking, are not venereal, which cannot be cured by mercury, and which are sometimes more to be dreaded than the simple and natural effects of the venereal virus. Some of the most formidable of these appearances may be removed by sarsaparilla, the venereal virus still remaining in the system; and when the force of the poison has been completely subdued by mercury, the same vegetable is also capable of freeing the patient from what may be called the sequelæ of a mercurial course. Sarsaparilla is also recommended in scrophula, elephantiasis, or cutaneous affections resembling it, and in chronic rheumatism; but its efficacy is doubtful. (*Thom. Lond. Disp.* 505.)

S. China has roots as long as a child's hand, twisted, full of knots, reddish on the outside, flesh-colored in the heart, and destitute of smell. It is employed both as food and medicine in China, and to feed hogs in the West Indies. None of the species are of much beauty or worth growing, but as objects of curiosity.

2082. *Tamus.* This name was employed by Columella and others, for a plant resembling a vine, and bearing fruit not unlike grapes; a description which does not apply badly to the modern plant. T. communis has very large tuberous black coated masses attached to its roots. These are so acrid, that the pulp has been formerly used as a stimulating plaster. The young shoots, however, are so mild as to be good eating when dressed like asparagus. The Moors eat them boiled with oil and salt. The flowers of the female plant are succeeded by ovate smooth berries.

2083. *Testudinaria.* So called from the resemblance which the great rugged cracked root of this plant bears to the shell of a tortoise (*testudo*). The rootstock is a large fleshy mass, covered with a thick bark cracked deeply in every direction. The Hottentots in time of scarcity make use of the fleshy inside of the root as a sort of yam.

2084. *Rajania.* Named in honor of our distinguished countryman John Ray, a distinguished naturalist,

13927 Stem prickly rounded, Leaves ovate oblong acute subpanduriform obsoletely cordate 5-nerved
13928 Stems prickly rounded, Leaves oblong acute unarmed 5-nerved smooth, Petioles with tendrils
13929 Stem prickly rounded, Leaves ovate mucronate 5-nerved
13930 Stem unarmed angular, Leaves cordate ovate acute ciliate prickly 7-nerved
13931 Stem unarmed angular, Leaves ovate 5-nerved smooth subcordate or obtuse at base, Petioles with tendrils
13932 Stem unarmed angular, Leaves ovate acuminate 7-nerved, Common peduncl. of umbel longer than leaf
13933 Stem unarmed rounded, Leaves unarmed lanceolate
13934 Stem unarmed rounded, Leaves obl. lanc. acute 3-nerved smooth glaucous beneath, Petioles with tendrils
13935 Stem unarmed rounded, Leaves oblong acute cordate about 5-nerved soft with down beneath
13936 Stem unarmed rounded, Leaves unarmed: cauline cordate; of the branches ovate-oblong 5-nerved
13937 Stem unarm. round. Lvs. roundish ov. cord. acum. 9-nerv. Peduncles of fr.-bear. umbel longer than leaves
13938 Stem prickly, Lvs. unarmed rounded ovate mucronulate about 7-nerv. glauc. beneath, Pedunc. about 2-fl.
13939 Stem angular prickly, Leaves ovate subcordate rather obtuse mucronate coriaceous 5-nerved denticulate
13940 Stem prickly square, Leaves unarmed hastate oblong obtuse mucronate about 7-nerved

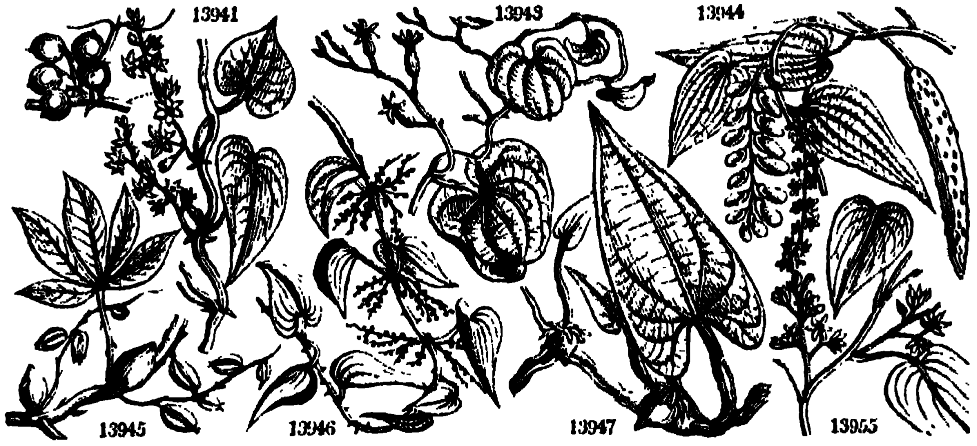
13941 Leaves cordate undivided
13942 Leaves 3-lobed

13943 Leaves reniform entire

13944 Leaves ovate lanceolate cordate 7-nerved

13945 Leaves alternate digitate, Leaflets 5 oblong acuminate veiny, Stem aculeate bulbiferous
13946 Leaves alternate roundish cordate acuminate 7-nerved, Stem aculeate bulbiferous
13947 Leaves opposite ovate cordate-sagittate cuspidate 7-nerved, Stem winged bulbiferous
13948 Leaves alternate cordate roundish ovate acuminate about 9-nerved, Stem smooth bulbiferous [round
13949 Lvs. altern. cord. round. ov. cuspid. about 9-nerv.: lobes of base close together, Caps. obov. Stem smooth
13950 Leaves alternate ternate, Leaflets obl. acuminate nerved, Stem prickly
13951 Leaves alternate cordate 3-lobed: middle lobe acuminate, Stem compressed round naked
13952 Leaves alternate cordate oblong acuminate coriaceous 7-nerved, Stem round smooth
13953 Leaves opposite cordate roundish ovate acute 7-nerved, Stem round smooth
13954 Leaves alternate cordate lanc. narrow 3-nerved longer than petiole, Stem smooth
13955 Leaves opposite and whorled cordate acuminate 9-nerved downy beneath, Stem round

13956 Leaves opposite ovate acuminate 7-nerved, Stem round smooth



and Miscellaneous Particulars.

born in 1628, died in 1705, and author of many works of the highest reputation. His zoological arrangement is still regarded with much respect. Twining plants resembling the Yam.

2085. *Dioscorea.* In memory of Pedacius Dioscorides, a Greek physician, born at Anazarba, in Cilicia. He is generally believed to have lived under Nero, but this is very uncertain. Abulfarrage makes him to have flourished under Ptolemæus Physcon; but he is not generally credited. D. sativa, *Iguame*, Fr., and *Inhame*, Portug., has large thick tubers, a foot broad, and palmated like some Orchises. The stalks are slender, and with the leaves bear some resemblance to black bryony. The yam is largely cultivated for food in Africa and the East and West Indies, especially in the latter for the negroes. The roots grow to a great size, are mealy, and esteemed to be easy of digestion; they are palatable, and not inferior to any roots now in use, either for delicacy of flavor or nutriment. They are eaten instead of bread, either roasted on the embers or boiled; the flower is also made into bread and puddings. In Otaheite they make a dish, which they esteem very delicious, from the roots of the yam, with the kernel of the cocoa-nut scraped, and the pulp of the Musa or Banana. The juice of yam-roots fresh is acrid, and excites an itching on the skin. There are many varieties of these roots, some spreading out like the fingers (*Rumph.* t. 121.); others twisted like a serpent (*Rumph.* t. 122.); others again very small, scarcely weighing more than a pound, with a whitish ash-colored bark, whereas the bark is commonly black. The flesh of the yam is white or purplish, and viscid, but becomes farinaceous or mealy when dressed.

D. aculeata, by some considered only an improved variety of the sativa, is universally cultivated in the East and West Indies, in Africa, and in all the islands of the southern ocean within the torrid zone, and even as far as New Zealand. The tubers are frequently three feet long, and weigh thirty pounds. All the edible species and varieties are propagated in foreign countries like the common potatoe, but they arrive much sooner at maturity. The buds of the roots are not apparent, but still a small piece of skin is left to each set; for from this piece of bark alone the shoots proceed. Holes are made in rows two feet apart, and at eighteen inches distant in the row; into those holes two or three sets are put, first covered with earth, and then with a little haulm or rubbish to retain moisture. The only after-culture consists in hoeing up the weeds. They are commonly planted in August, and are ripe about the November or December following. When dug up, the greatest care is taken not to wound them, as that occasions them to sprout much earlier than they otherwise would do. They should be rubbed over with ashes, and piled regularly on beds or hurdles raised above the floor, that the air may come easily between them; or, if they be piled in heaps, some ashes should be strewed between the layers. None of the species are worth cultivating as ornamental plants; but some of the edible sorts have been raised in hotbeds in the Paris garden, and being transplanted early into a warm situation, have produced tubers of a considerable size.

2086.	MA'BA. J.	Maba.				Ebenaceæ.		Sp. 1—5.				
13957	buxifólia P. S.	Box-leaved	■ □	pr	1½	...	Y	E. Indies	1810.	S	s.p	Rox. cor. 1. t. 45

OCTANDRIA.

2087.	PO'PULUS. W.	Poplar.				Amentaceæ.		Sp. 16.				
13958	álba W.	Abele Tree	🌳	tm	40	mr.ap	Ap	Britain	moi.w.	Sk	co	Eng. bot. 1618
13959	canéscens W.	gray	🌳	tm	40	mr.ap	Ap	England	wat.pl.	Sk	co	Eng. bot. 1619
13960	trépida W.	Trembling Americ.	🌳	tm	30	...	Ap	N. Amer.	1812.	C	co	Mic.arb 3. t.8.f.1
13961	trémula W.	Aspen	🌳	tm	50	mr.ap	Ap	Britain	moi.w.	Sk	co	Eng. bot. 1909
13962	lævigáta W.	smooth	🌳	tm	80	mr.ap	Ap	N. Amer.	1769.	G	co	Mich. arb.3. t.11
13963	græ'ca W.	Athenian	🌳	tm	40	mr.ap	Ap	Archipel.	1779	C	co	Duh. ar.184. t.54
13964	nigra W.	black	🌳	tm	30	mr.ap	Ap	Britain	wat.pl.	C	co	Eng. bot. 1910
13965	betulifólia Ph.	black American	🌳	tm	40	mr.ap	Ap	N. Amer.	...	C	co	Mi.arb.3. t.10.f.1
	hudsonica Mich.											
13966	dilatáta W.	Lombardy	🌳	tm	70	mr.ap	Ap	Italy	1758.	C	co	Arb.brit. 2.t.221
13967	monilífera W.	Canadian	🌳	tm	70	my	Ap	Canada	1772.	C	co	Dend. brit. 102
	P. grandidentata Mich.											
13968	aclades'ca Lindl.	black Italian	🌳	tm	70	my	Ap	N. Amer.	...	C	co	
13969	anguláta W.	Carolina	🌳	tm	80	mr	Ap	Carolina	1738.	C	co	Mi.a.3.p.302.t.12
13970	balsamífera W.	Tacamahac	🌳	tm	70	ap	Ap	N. Amer.	1692.	C	co	Mic.ar.3. t.13. f.1
13971	macrophýlla Lindl.	Ontario	🌳	tm	70	...	Ap	N. Amer.	1820.	C	co	
13972	cándicans W.	heart-leaved	🌳	tm	50	mr	Ap	N. Amer.	1772.	G	co	Cat. car. 1. t. 34
13973	heterophýlla W.	various-leaved	🌳	tm	70	ap.my	Ap	N. Amer.	1765.	G	co	Mich. arb. 3. t. 9

ENNEANDRIA.

2088.	MERCURIA'LIS. W.	Mercury.				Euphorbiaceæ.		Sp. 5—7.				
13974	perénnis W.	perennial	Ψ	w	1	ap.my	G	Britain	woods.	D	s.l	Eng. bot. 1872
13975	ambígua W.	doubtful	○	w	1	jl.au	G	Spain	1806.	S	co	Lin.fil dec 1 t 8
13976	ánnua W.	annual	○	w	1	jl.s	G	Britain	rub.	S	co	Eng. bot 559

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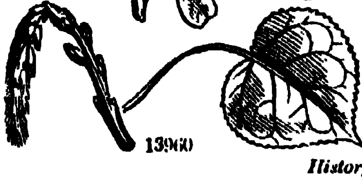
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History, Use, Propagation, Culture,

2085. *Maba.* The name given to the plant by the natives of Tonga-Tabu, according to Forster. (*Gen.* 61.) This shrub or small tree produces edible berries very well tasted. The wood is dark colored, remarkably hard and durable, and where its size will admit, is employed for such uses as require the most durable, compact, and heavy timber.

2086. *Populus.* In ancient times the public places of Rome were decorated with rows of this tree, whence it came to be called arbor *populi*, as being a tree peculiarly appropriated to the *people*. But Bullet asserts, that the Poplar has obtained its name from the constant motion of the leaves, which are in a perpetual state of agitation like the *populace*. All the species are rapid-growing soft-wooded timber trees, some of which attain a very great size. P. alba is one of the most valuable of the British species. The leaves of the common gray poplar are of a blackish-green above, but having a thick white cotton underneath; they are about three inches long, on petioles a foot in length. The leaves of the Abele are about double the size, and divided into three, four, or five lobes. The leaves of the gray poplar are also larger more deeply lobed, and the under-side of the leaves and young shoots are covered with a hoary down. The Abele is said to have been introduced from Flanders, and the hoary poplar to have been originated in this country. The timber is of great value for all sorts of wooden vessels, especially butchers' trays. It is of quick growth, soft, white, and stringy, and little subject to swell or shrink. It makes beautiful floors and turners' ware. Some of the finest Abeles in England are at Hartwell near Aylesbury.

P. tremula is commonly called the asp, from the German *espe*, which is the general name for all poplars, is a rapid-growing tree in almost any soil or situation: but the numerous shoots of the roots spread so near the surface that they will not permit any thing else to grow there. The wood is extremely light, white, smooth, soft, and durable in the air. It may be used for the same purposes as that of the Abele. The bark is the favorite food of beavers. On the leaves and leafstalks may sometimes be seen red glandular substances about the size of a pea, which are the nests of Tipula juniperina. P. nigra has a naked lofty trunk covered with an ash-colored bark, and a regular handsome head. It is a tree of quick growth, and on the banks of rivers and in moist situations it grows up to a great height in a short time. The bark is light like cork, and is sometimes used by fishermen to float their nets. The timber is light and soft, fit for the turner and patternmaker, and excellent for flooring-boards. These boards are much slower in taking fire than those of resinous trees; they smoke a long time before they burst into a flame: of course the wood is bad for fuel. Many species of insects are supported by this and the other poplars. The red substance like berries upon the leafstalks of this species are occasioned by the Aphis Bursonia. The leaves and young shoots are gathered in Sweden and other parts of Europe during the month of October and dried, to be given as fodder to the sheep in winter The practice is as old as the time of the Romans; who, as well as the modern Italians, planted this tree for their vines to run on. In Kamchatka the inhabitants are sometimes reduced to the necessity of converting the inner bark into bread. Scheffer made paper from the cotton down of the seeds. The buds both of this and the white poplar smell very pleasant early in the spring, and being pressed between the fingers yield a balsamic resinous substance, which, extracted by spirits of wine, smells like storax. A drachm of this tincture in broth is administered in internal ulcers and excoriations.

The black Italian poplar, so much recommended by Pontey, and said by him to have been intro-

13957 Leaves obovate entire, Flowers sessile, Calyxes hairy

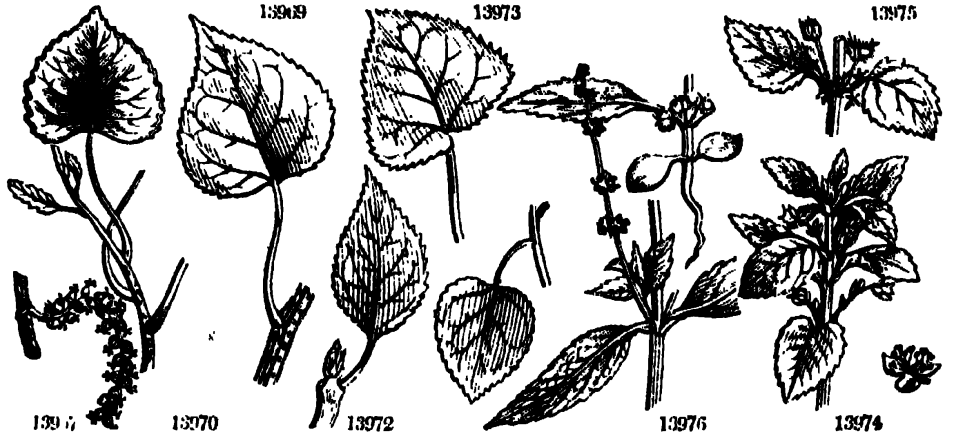
OCTANDRIA.

13958 Lvs. roundish cord. lobed toothed glab. above downy and very white beneath, Fert. catkins ov. Stigmas 4
13959 Leaves roundish angular-repand toothed hoary beneath, Catkins cylindrical lax
13960 Leaves roundish toothed with 2 glands at base acuminate smooth : younger silky
13961 Lvs. nearly orbicul. broadly tooth. glab. on both sides, Petioles compressed, Stigmas 4 auricled at base
13962 Lvs. roundish ov. acum. subcord. unequally serrat. smooth, Petioles compressed, Branches round smooth
13963 Lvs. round. ov. acute slightly cord. with equal close serratures smooth a little ciliat. Branches round smooth
13964 Leaves deltoid acute serrated glabrous on both sides, Fertile catkins cylindrical lax, Stigmas 4
13965 Leaves rhomboid acuminate toothed smooth, Younger branches hairy

13966 Leaves smooth on each side acuminate serrate deltoid, broader than long
13967 Lvs. subcord. smooth glandul. at base, Serrat. cartil. hooked hairy, Nerves spread. Branchl. slightly winged towards end compound
13968 Lvs. subcord. smooth glandul. at base, Serrat. cartil. hooked hairy, Nerves spread. Branchl. winged simple
13969 Leaves cordate deltoid acuminate bluntly hook-toothed, Branches winged angular
13970 Leaves ovate acuminate with close serratures white and netted beneath, Buds resinous
13971 Leaves cordate ovate large somewhat entire pale beneath
13972 Lvs. cordate ovate acumin. bluntly and unequally serrated white beneath 3 nerved netted, Buds resinous
13973 Leaves cordate roundish-ovate blunt hook-toothed : younger downy beneath

ENNEANDRIA.

13974 Stem perfectly simple, Leaves rough, Root creeping perennial
13975 Stem herbaceous brachiate, Leaves ovate-oblong smooth ciliated, Fls whorled : male and female mixed
13976 Stem branched, Branches opposite, Leaves glabrous, Root fibrous annual



and Miscellaneous Particulars.

duced from America, seems intermediate between P. nigra and dilatata; indeed, all the three sorts are by some considered as but one species. P. dilatata differs from the common black poplar chiefly in its close conical manner of growth, which resembles the cypress. The leaves are greater in breadth than length; whereas in the black poplar the longitudinal diameter is the greatest Though it generally attains a great height, the increase of the trunk is by no means so rapid as in most of the other poplars It cannot, therefore, be highly recommended as a timber tree. In Italy it is considered peculiarly adapted for packing-boxes: nails do not split it; and if cases of this wood fall or are thrown carelessly on the ground, it gives way a little, and returns to its former position without splitting, which oak and other heavy woods will not do. In Lombardy all the vessels in which the grapes are carried home in carts from the vineyards, are of poplar plank, about two inches thick, and in them the grapes are squeezed. Such vessels last thirty or forty years; and by their lightness are manageable, however large and long A four-wheeled cart is in general covered with one of them, and it contains about fifteen hundred weight of grapes, each hundred being a hundred pounds of thirty ounces. The conic form of the Lombardy poplar, as a deciduous tree, is peculiar. Among evergreens we find the same character in the cypress; and both trees, in many situations, have a good effect. The cypress often, among the ruins of ancient (and the buildings of modern) Rome, breaks the regularity of a wall or a pediment; and the poplar has the effect among deciduous trees of the round-headed kind. One beauty the Italian poplar possesses which is almost peculiar to it; and that is the waving line it forms when agitated by the wind. Most trees, in these circumstances, are partially agitated; one side is at rest while the other is in motion; but the Italian poplar waves in one single sweep from the top to the bottom, like an ostrich-feather on a lady's head. All the branches coincide in the motion, and the least blast makes an impression upon it when other trees are at rest.

P balsamifera is a moderate sized conical tree, a native both of Siberia and America. The buds of this tree, from autumn to the leafing season, are covered with abundance of a glutinous yellow balsam, which often collects into drops, and is pressed from the tree for medical use. This balsam is brought to Europe from Canada in shells. It is smooth, of an even texture, a yellowish color, and a fragrant scent. In Siberia a medicated wine is prepared from the buds, which is diuretic, and esteemed by the inhabitants serviceable in the scurvy. The grouse and other birds of that family feeding on these buds during winter, acquire a flavor which is much esteemed by epicures. P. candicans bears a general resemblance to the preceding species; and, like it, the buds are covered with a resinous tenacious balsam. The other American species are rapid-growing bulky timber-trees, well calculated for immediate effect and utility; but all the species being short-lived when compared with oaks, elms, and other slower-growing hard-wooded trees, confer a temporary premature character on landscape; for nothing can be great and lasting but what advances by degrees. Such poplars as do not grow freely from cuttings of the shoots, are most rapidly increased by cuttings of the roots; but the largest plants are produced from layers.

2087. *Mercurialis* Mercury is said to have discovered the virtues of this plant. Böhmer, indeed, in his Lexicon, says, after Ambrosinus, that the name is a corruption of *mulierculatis*, as being useful to women; but the Greeks call it *ἑρμου ποα*, which is the same as Mercurialis in its mythological sense. M. perennis is not eaten by any quadruped, and is poisonous to man and sheep. The plant on being dried turns blue, and steeped in water it

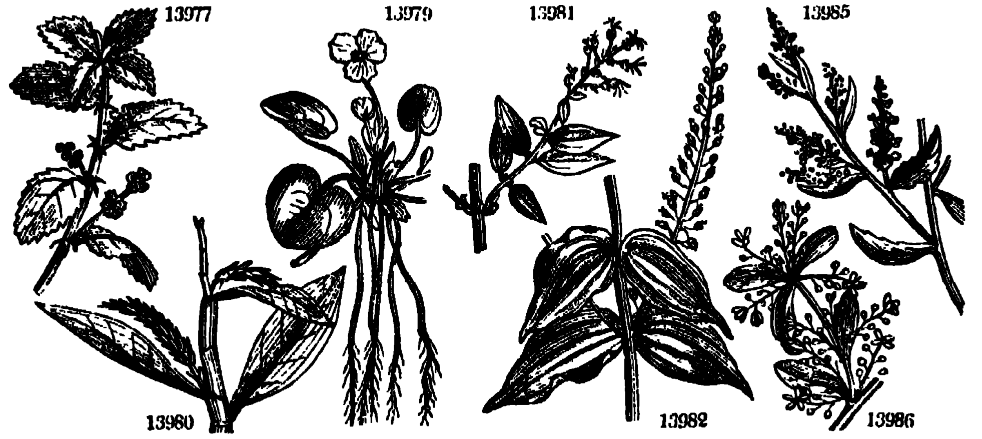
13977 **ellíptica** *W.*	oval-leaved	⊔	un	1	my.jl	G	Portugal	1802.	C	co	Vent. cels. 12
13978 **tomentósa** *W.*	woolly		un	1	jl.s	G	Spain	1640.	C	co	
2089. **HYDRO'CHARIS.** *W.*	Frog-bit.				*Hydrocharideæ.*		*Sp.* 1.				
13979 **Mórsus-ránæ** *W.*	common	♒ △	cu	¼	jn.jl	W	Britain	dit.	D	co	Eng. bot. 808
2090. **TRIPʹLARIS.** *W.*	Triplaris.				....		*Sp.* 1—7.				
13980 **americána** *W.*	American	♀ ☐	tm	40	...	Pa.Y	S. Amer.	1824.	C	r.m	Aublet, t. 347

DECANDRIA.

2091. **CORIA'RIA.** *W.*	Coriaria.				*Coriarieæ.*		*Sp.* 2—7.				
13981 **myrtifólia** *W.*	Myrtle-leaved	♣	or	6	my.au	G	S. Europe	1629.	L	co	Dend. brit. 103
13982 **sarmentósa** *Forst.*	running	✱	cu	3	my.au	G	N. Zeal.	1823.	L	co	Bot. mag. 2470
2092. **KIGGELA'RIA.** *W.*	Kiggelaria.				*Euphorbiaceæ.*		*Sp.* 1—2.				
13983 **africána** *W.*	African	♀ ⊔	or	10	my.jn	W.G	C. G. H.	1683.	C	a.l	Lam. ill. t. 821
2093. **SCHI'NUS.** *W.*	Schinus.				*Terebintaceæ.*		*Sp.* 3—7.				
13984 **Mólle** *W.*	Peruvian	♣ ⊔	or	12	jl.au	G	Peru	1597.	L	r.m	Mill. ic. 2. t. 246
13985 **dentáta** *H. K.*	tooth-leaved	♣ ⊔	or	6	my.jl	G	Owhyhee	1795.	L	r.m	Bot. rep. 620
13986 **depéndens** *H. K.*	entire-leaved	♣	un	8	my.jl	G	Chili	1790.	C	p.l	Cav. ic. 3. t. 239
Amýris polýgama W.											
2094. **GYMNOCLA'DUS.** *W.*	Gymnocladus.				*Leguminosæ.*		*Sp.* 1.				
13987 **canadénsis** *W.*	Canadian	♀	or	20	...	W	Canada	1748.	R	a.l	Mich.ame.2. t.51
2095. **CA'RICA.** *W.*	Papaw Tree.				*Cucurbitaceæ ?*		*Sp.* 4—6.				
13988 **Papáya** *W.*	common	♀ ☐	cul	20	jl	G	India	1690.	S	r.m	Bot. reg. 459
13989 **cauliflóra** *W.*	stem-flowering	♀ ☐	or	20	...	G	Caraccas	1806.	S	r.m	Jac.schœ.3.t.311
13990 **spinósa** *W.*	prickly	♀ ☐	or	20	...	W.G	Guiana	1821.	S	r.m	Aublet, t. 346
13991 **microcárpa** *W.*	small-fruited	♀ ☐	or	20	...	W.G	Caraccas	1806.	S	r.m	Ja.sch.3.t.309,10
β monóica Desf.	*monœcious*	♀ ☐	or	20	...	W.G	......	1818.	S	r.m	

DODECANDRIA.

2096. **STRATIO'TES.** *W.*	Water Soldier.				*Hydrocharideæ.*		*Sp.* 1.				
13992 **aloides** *W.*	Aloe-like	♒ △	el	2	jn.jl	W	England	dit.	D	l.p	Eng. bot. 379
2097. **HYÆNAN'CHE.** *H. K.*	Hyæna Poison.				....		*Sp.* 1.				
13993 **globósa** *H. K.*	Cape	♣ ⊔	or	8	ap.s	W.G	C. G. H.	1783.	C	l.p	Lam cinc.52.t.10
2098. **EU'CLEA.** *W.*	Euclea				....		*Sp.* 2—5.				
13994 **racemósa** *W.*	round-leaved	♣ ⊔	or	5	n.d	W	C. G. H.	1772.	C	p.l	Jac.frag.3.t.1.f.5
13995 **unduláta** *W.*	wave-leaved	♣ ⊔	or	5	...	W	C. G. H.	1794.	C	p.l	


13977 13979 13981 13985

13980 13982 13986

History, Use, Propagation, Culture,

affords a fine deep blue color, destructible, however, both by acids and alkalies. It has been observed that the male and female plants are seldom found intermixed, each sort usually growing in large patches; whence it is probable that this plant, which increases much by the root, rarely produces perfect seeds. M. annua was formerly accounted medicinal; its seeds taste like those of hemp.

2089. *Hydrocharis.* From ὕδωρ, water, and χαρις, grace. This little plant is one of the prettiest ornaments of still waters. This plant increases by runners, which shoot out to a great length, and at the joints drop down long roots, which penetrate deep into the mud. The joints are furnished with pendulous buds, supported on long footstalks. The buds consist of two stipulaceous scales folded together, within which are curiously enveloped the embryo leaves of the future plant.

2090. *Triplaris.* All the parts of the fructification are in threes or *triple.* T. americana is a tree forty feet high, with a dense pyramidal head. The leaves are oblong, entire, smooth, a span long. The branches are often hollow, and are then filled with an innumerable quantity of little red ants, which are often showered down upon any incautious traveller who may stand under the shade of the tree, and whom they bite severely. (*Bredemeyer.*)

2091. *Coriaria.* A tanner's plant; from *corium*, a hide. Coriaria myrtifolia has handsome leaves, but very little beauty in the flowers. It is considerably astringent, and is used not only in tanning leather, but in dying black colors. It produces abundance of suckers.

2092. *Kiggelaria.* Named after Francis Kiggelar, an obscure botanist, who lived at the end of the seventeenth century. An uninteresting plant. Ripened cuttings strike in heat under a hand-glass.

2093. *Schinus.* This was the Greek name of the Pistacia Lentiscus. It is now applied to an American genus which resembles Pistacia in sensible properties. The word *molle*, applied to one species, does not allude to any softness in the plant which bears the name, but is a slight alteration of the Peruvian word *mulli.*' Fragrant shrubs with beautiful foliage, easily cultivated in a cold conservatory or out of doors in a warm sheltered place.

2094. *Gymnocladus.* From γυμνος, naked, and κλαδος, a shoot, on account of the naked appearance of its strange rigid shoots during the winter. This tree or shrub has pinnate leaves nearly a foot and a half long; both leaves and stalks are armed with thorns. The stalks at first grow erect, but afterwards twine about the neighbouring trees and shrubs. It is best propagated by cuttings of the roots.

13977 Stem suffruticose brachiate, Leaves elliptical acute at each end smooth glandular serrated
13978 Stem suffruticose, Leaves oblong downy with serratures on each side at the end

13979 The only species

13980 Racemes terminal and axillary brachiate

DECANDRIA.

13981 Leaves ovate-lanceolate 3-nerved stalked
13982 Procumbent diffuse, Leaves cordate-ovate acuminate entire 5-nerved stalked, Racemes nodding

13983 Leaves oblong unequally serrated

13984 Leaves pinnated, Leaflets serrated : the odd one very long, Petioles equal
13985 Leaves simple toothed
13986 Leaves simple entire and trifid, Flowers generally octandrous

13987 Leaves bipinnate very large deciduous, Flowers equal diœcious

13988 Leaves palmate 7-lobed : middle lobe sinuated ; segments oblong acute, Male flowers corymbose
13989 Leaves palmate 5-lobed : middle lobe sinuated ; segments lanc. acum. Male fls. from excrescences of trunk
13990 Leaves digitate, Leaflets 7 oblong acuminate entire, Trunk spiny
13991 Leaves 3 or 5-lobed : middle lobe 3-lobed, Male flowers corymbose
β Lower leaves entire : cauline 3-lobed ; upper 5-lobed, Flowers monœcious subracemose erect

DODECANDRIA.

13992 Leaves linear lanceolate keeled prickly toothed

13993 Branches diffuse cinereous scarred, Leaves opposite 3 or 4-nate oblong retuse coriaceous

13994 Leaves oblong or obovate flat
13995 Leaves obovate wavy

and Miscellaneous Particulars.

2095. *Carica.* According to Linnæus, because a native of Caria ; but as the plant has no relation to that country, it would be better to adopt, with Jussieu, the specific name Papaya for the genus. C. Papaya rises with a thick soft herbaceous stem to the height of eighteen or twenty feet, naked till within two feet of the top, and having marks of the fallen leaves great part of its length. The leaves have long footstalks, are very large, and divided into many lobes. The whole plant abounds with a milky acrid juice, which is esteemed good for the ringworm. The male flowers, which are in loose clusters on long peduncles, are of a pure white, and have an agreeable odor. Sometimes these are succeeded by a small fruit about the size of a pear, which has occasioned some to suppose the male plant a distinct species. The flowers of the female have short peduncles ; they are large and bell-shaped, composed of six yellow petals. When these drop off, the germ swells to a large fleshy fruit the size of a small melon. When ripe it is eaten by the inhabitants of the Caribbee Islands, but its flavor is very indifferent. The most common use of them is when they are about half grown, to soak them in salt water, to get out the milky juice, and pickle them as mangoes, for which they are considered a good substitute. The plant generally is said to have the property of intenerating animal fibre by suspension under its leaves or branches ; but this quality wants confirmation. In our stoves the plants grow freely in loamy soil, and are increased by large cuttings with their leaves on in a moist heat.

2096. *Stratiotes.* From στρατος, a camp ; in English, water-soldier ; both names alluding to the military appearance of the plant, with its long sword-like leaves, and flowers which may be liked to plumes of white feathers. An aquatic plant, remaining the greatest part of the year immersed in water, but rising to flower. It increases with such rapidity as to become a troublesome weed in artificial pieces of water in which it is planted.

2097. *Hyænanche.* From *hyæna*, and αγχη, pain ; because the fruit is used at the Cape of Good Hope to poison hyænas. A small tree, six or seven feet high, also called Toxicodendron capense. The flowers grow in axillary branched yellowish panicles, and are succeeded by smooth nuts, which, being pounded, are used to poison the carcases of lambs, by which the hyænas are infallibly destroyed.

2098. *Euclea.* From ευκλεια, glory or beauty ; in allusion to the permanent beauty of the neat evergreen foliage of the plants. Shrubs or small trees, natives of the Cape of Good Hope. Of one species the berries are brought to the market of Cape Town for sale, and is the only kind of native fruit, except that of Cissus capensis, which is there eaten. Ripened cuttings root in sand under a glass.

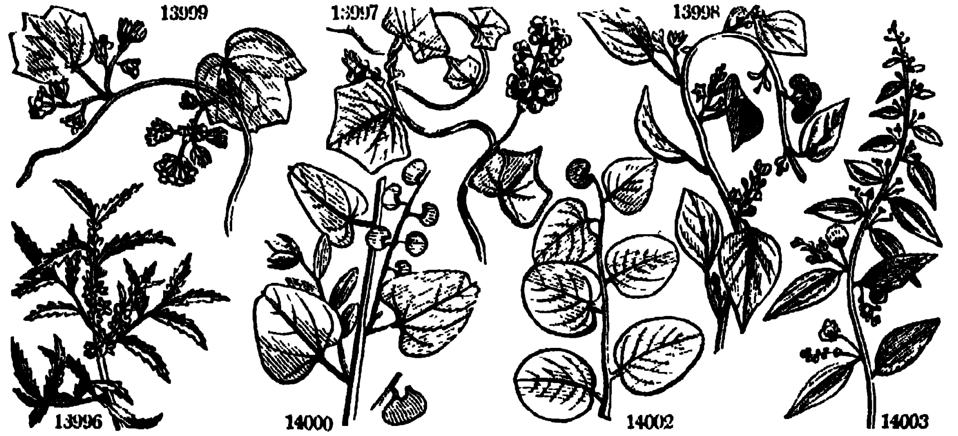
2099. DATIS'CA. *W.*	DATISCA.					*Resedaceæ.*		*Sp.* 1—2.				
13996 cannabina *W.*	Hemp-like	♃	△	or	4	jl.s	Y	Candia	1640.	D	co	Alp. exot. t. 298
2100. MENISPER'MUM. *D.*	MOON SEED.					*Menispermeæ.*		*Sp.* 3—6.				
13997 canadénse *W.*	Canadian	§		or	10	jn.jl	G.Y	N. Amer.	1691.	R	s.p	Bot. mag. 1910
13998 virgínicum *W.*	Virginian	§		or	20	jn.jl	G.Y	N. Amer.	1732.	R	s.p	Dil.el.t.178.f.219
13999 smilacinum *Dec.*	Smilax-leaved	§	⊔	or	10	...	G.Y	Carolina	1776.	R	l.p	Jac. ic. 3. t. 629
Cissampelos smilacina W.												
2101. COC'CULUS. *Dec.*	COCCULUS.					*Menispermeæ.*		*Sp.* 4—46.				
14000 Plukenétii *Dec.*	officinal	§	☐	or	10	...	G.Y	E. Indies	1790.	R	l.p	Pl.man. t.345.f.2
14001 carolínus *W.*	Carolina	§		or	4	jn.jl	G.Y	N. Amer.	1810.	R	s.p	
Wendlandia populifolia												
14002 orbiculátus *Dec.*	round-leaved	§	☐	or	6	...	G.Y	E. Indies	1790.	R	l.p	Pluk.al. t.384.f.6
14003 villósus *Dec.*	villous	§	☐	or	6	...	G.Y	E. Indies	1800.	R	l.p	Plu.am. t.384.f.3
β *hirsútus* Dec.	*hairy*	§	☐	or	6	...	G.Y	E. Indies	1800.	R	l.p	Plu.am. t.384.f.7

ICOSANDRIA.

2102. FLACOUR'TIA. *W.*	FLACOURTIA.					*Tiliaceæ.*		*Sp.* 4—7.				
14004 Ramóntchi *W.*	shining-leaved	●	☐	fr	12	jn jl	W	Madagasc.	1775.	C	p.l	L'He.stir.59.t.30
14005 flavéscens *W.*	yellow-flower'd	●	☐	fr	15	...	W	Guinea	1780.	C	p.l	
14006 cataphrácta *W.*	many-spined	●	☐	fr	4	...	W	E. Indies	1804.	C	p.l	
14007 sápida *W.*	esculent	●	☐	fr	10	...	W	E. Indies	1800.	C	p.l	Roxb. cor. 1. t.69
2103. PEU'MUS. *Pers.*	PEUMUS.					………………		*Sp.* 1.				
14008 frágrans *Pers.*	fragrant	♠	☐	ft	30	...		Chili	1824.	C	p.l	Feuillée, 3. t. 6
2104. GELO'NIUM. *Roxb.*	GELONIUM.					*Euphorbiaceæ.*		*Sp.* 1—2.				
14009 bifárium *Roxb.*	oval-leaved	●	☐	un	6	jn.au	Ap	E. Indies	1793.	C	p.l	
2105. ROTTLE'RA. *Roxb.*	ROTTLERA.					*Euphorbiaceæ.*		*Sp.* 1.				
14010 tinctória *Roxb.*	dyer's	●	☐	un	15	...	Ap	E. Indies	1810.	C	p.l	Roxb.cor 2 t.168

POLYANDRIA.

2106. CLIFFOR'TIA. *W.*	CLIFFORTIA.					*Rosaceæ.*		*Sp.* 11—24.				
14011 cuneáta *W.*	wedge-leaved	●	⊔	or	3	ap	G.w	C. G. H.	1787.	C	p.l	
14012 ilicifólia *W.*	Ilex-leaved	●	⊔	or	3	my.s	G	C. G. H.	1714.	C	p.l	Dill. elt.t.31 f.35
14013 tridentáta *W.*	three-toothed	●	⊔	or	3	my.s	G	C. G. H.	...	C	p.l	
14014 ruscifólia *W.*	Ruscus-leaved	●	⊔	or	3	jn jl	G.w	C. G. H.	1752.	C	p.l	L'hort. cliff. t.31
14015 cinérea *W.*	cinereous	●	⊔	or	4	jn jl	G.w	C. G. H.	1800.	C	p.l	
14016 pulchélla *W.*	beautiful	●	⊔	or	1½	ap.my	G.w	C. G. H.	1795.	C	p.l	
14017 crenáta *W.*	notched-leaved	●	⊔	or	3	jl.au	G.w	C. G. H.	1791.	C	p.l	
14018 ericæfólia *W.*	Heath-leaved	●	⊔	or	3	jl.s	G.w	C. G. H.	1799.	C	p.l	



History, Use, Propagation, Culture,

2099. *Datisca.* A word the meaning of which is unknown. The plant is of no beauty, and of the easiest culture.

2100. *Menispermum.* From μηνη, the moon, and σπερμα, seed; on account of the crescent-like form of the fruit. All the species are of the easiest propagation and culture.

The M. palmatum produces the famous Colombo root, which is so remarkable for the intenseness of its bitter taste, and valuable on this account in dyspepsia, diarrhœa, dysentery, and as a wash for putrid sores.

2101. *Cocculus.* This word is derived from *coccus*, the name of the well-known dyers' insect, and has been applied to this genus on account of the resemblance which has been found to exist between that insect and the scarlet berries of the plant. A genus with the habit of Menispermum.

Cocculus Plukenetii produces berries and bunches like grapes, but smaller; first white, then red, and finally blackish purple. In the East Indies they are made up into a paste, and used to intoxicate fish, birds, and different sorts of vermin.

2102. *Flacourtia.* Named in honor of Etienne de Flacourt, a director of the French East India Company, and the commander of an expedition to Madagascar in 1648; of which he afterwards wrote an account, containing considerable details upon the botany of the country. L'Heritier dedicated to him the first species of the genus, which was found by him in Madagascar, where it is called *Ramontchi.* It is a thorny shrub or tree, with leaves and fruit resembling those of the plum. The fruit is green when young, of a beautiful red when ripe, and finally of a dark violet color: the skin is very thin, and the flesh transparent red, of the same consistence with our common plums: in the middle are a dozen or fourteen small kernels, the size of those in the apple, and nearly of the same shape; they are bitterish like our apricot kernels, and covered with a tender shell. The natives eat the fruit; it is sweet, but leaves a slight sharpness in the mouth. An island on the coast of Madagascar is covered with these trees; and because they resemble the European plum-tree, the sailors have named the island *Isle aux Prunes*, or Plum-tree Island. All the species grow freely in a mixture of loam and peat, and cuttings root in sand, plunged and covered.

2103. *Peumus.* The Chilian name of this plant is *Peumo.* It is the Ruizia of the Flora Peruviana, and forms an evergreen tree among the woods upon the sandy shores of Chili; it is valuable for its wood, which is very fragrant.

13996 Stem smooth

13997 Leaves peltate cordate roundish angular
13998 Leaves peltate cordate lobed
13999 Leaves peltate smoothish cordate-roundish bluntly angular glaucous beneath, Racemes simple

14000 Leaves ovate subcordate at base bluntly truncate at end with a little point, Fem. racemes axillary simple
14001 Leaves cordate villous beneath

14002 Leaves orbicular subcordate obtuse 5-7-nerved mucronulate ash-colored beneath, Peduncles very large
14003 Leaves ovate or lanceolate 3-5-nerved : younger villous; old ones downy, Branchlets vill. Pedicels few. fl.

ICOSANDRIA.

14004 Leaves roundish ovate acute crenate
14005 Leaves oblong obtuse serrated narrowed at base
14006 Leaves ovate oblong acuminate serrated
14007 Leaves elliptical bluntish repand serrated obtuse at base

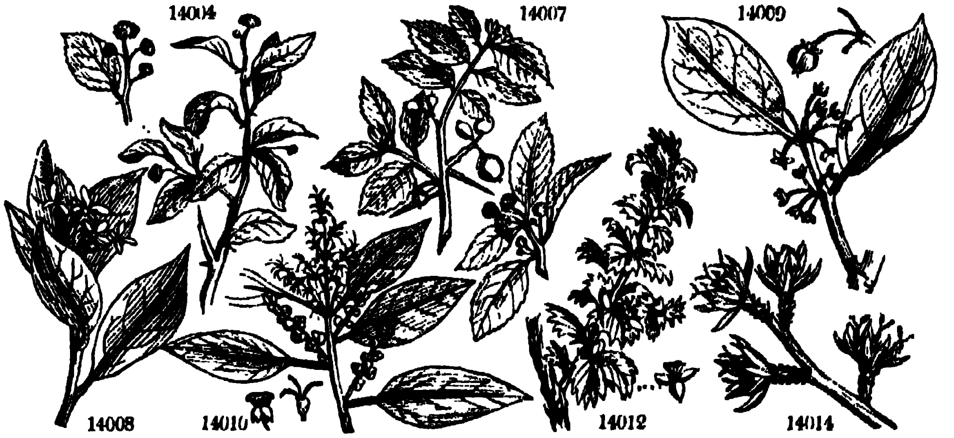
14008 Leaves ovate oblong with pellucid dots, Racemes short pellucid

14009 Leaves elliptical sharp-pointed

14010 Leaves alternate oblong elliptical acute at each end

POLYANDRIA.

14011 Leaves alternate cuneiform truncate 5-toothed at end streaked with veins
14012 Leaves altern. roundish ellipt. amplexicaul. from the middle to end mucronate toothed streaked with veins
14013 Leaves alternate oblong cuneiform entire and 3-toothed nerved downy beneath
14014 Leaves alternate lanceolate smooth nerved terminated by a spine : floral 3-toothed, Branches downy
14015 Leaves connate ovate 3-cornered hoary
14016 Leaves opposite orbicular entire appressed many-nerved
14017 Leaves opposite or ternate orbicular appressed toothletted 7-nerved
14018 Leaves fascicled rounded furrowed smooth



and Miscellaneous Particulars.

2104. *Gelonium.* So named by Roxburgh; but it is not known with what meaning. East Indian trees, with alternate leaves, the tubular stipular of a Ficus, and axillary flowers

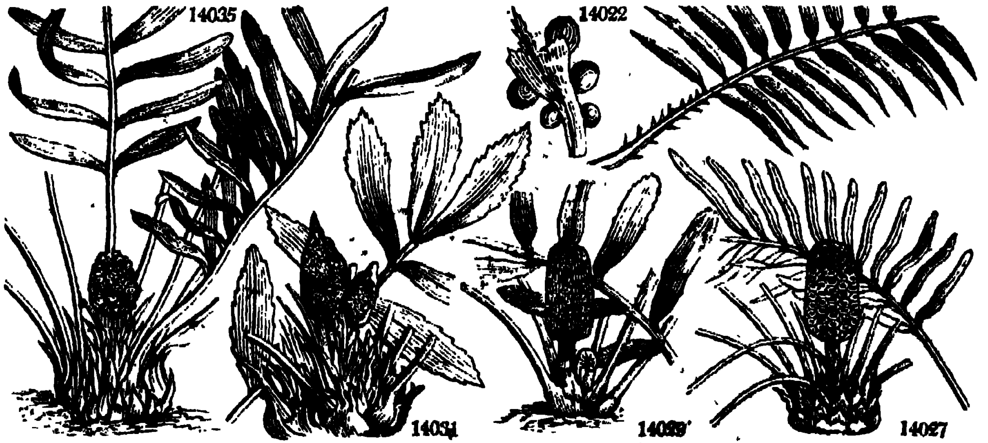
2105. *Rottlera* Named by Roxburgh, in honor of the Rev Dr. Rottler, an East Indian botanist of reputation, who resided many years at Tranquebar in the character of a Danish missionary. Rottlera tinctoria is a native of the inland mountainous parts of the Circars of Hindostan, flowering in the cold *season.* Dr Roxburgh never found it any where else. This is a middle-sized, erect, branching tree. Leaves alternate, stalked, elliptic, oblong, acute, entire, from four to eight inches in length, three-ribbed, and veiny; nearly smooth above; downy beneath, furnished at their base with two brown glands. Footstalks round, downy, from one to three inches long. Flowers small, in clusters about the tops of the branches, axillary, and terminal; the latter branched. Capsules the size of a small cherry, clothed with abundance of deep red granular powder, easily rubbed off. This powder is a valuable article of commerce, being much esteemed, especially among the Moors, for dyeing silk of a deep, bright, very beautiful and durable, full orange or flower color. When the capsules are ripe, in February or March, they are gathered, and the powder carefully brushed off. It is preserved without any further process, and is sold to the merchants trading to Hydrabad and other inland parts. This substance is but little acted upon by water, except with the admixture of alkaline salts, when it gives out a very deep blood-red color. To spirits it communicates a rich, deep, reddish flame color; but in neither instance does it dissolve, the grains remaining entire, like sand. The inhabitants know this powder by the name of *Wassunta-gunda*, and use it in the following manner : — To four parts of *Wassunta-gunda* are added one of alum, and two of salt of soda, native barilla. These are rubbed well together, with a portion of expressed oil of Sesamum, so small as hardly to be perceived. When well mixed, the whole is put into boiling water, in quantity proportioned to the silk which is to be dyed, and kept boiling smartly, more or less time, according to the shade required. The silk is turned frequently, to render the color uniform

2106. *Cliffortia.* Named in honor of George Cliffort, a Dutch gentleman; a great lover of plants, and one of the earliest of Linnæus's patrons. He had a superb garden at Hartcamp, of which Linnæus published the catalogue in one volume folio, in 1737. Shrubs of little beauty, except C pulchella, which is exceedingly pretty; they are easily cultivated in a good greenhouse.

14019	obcordáta *W.*	heart-leaved	■ ⊔	or	3	jn.au	G.w	C. G. H.	1790.	C	p.l	
14020	trifoliáta *W.*	three-leaved	■ ⊔	or	10	ap.jl	G.w	C. G. H.	1752.	C	p.l	Pluk.al. t.319.f.4
14021	sarmentósa *W.*	twiggy	■ ⊔	or	4	jn.au	W	C. G. H.	1793.	C	p.l	
2107.	CY'CAS. *W.*	Cycas.					*Cycadeæ.*	*Sp.* 2—4.				
14022	circinális *W.*	broad-leaved	₤ □	cu	8	...	Ap	E. Indies	1700.	Sk	r.m	Rh.mal.3.t.13.21
14023	revolúta *W.*	narrow-leaved	₤ □	cu	3	jl.au	Ap	China	1737.	Sk	r.m	Lin. trans.6. t.29
2108.	ZA'MIA. *W.*	Zamia.					*Cycadeæ.*	*Sp.* 15.				
14024	púngens *W.*	needle	₤ ⊔	cu		...	Ap	C. G. H.	1775.	Sk	l.p	Till. pis.120. t.46
14025	cycadifólia *W.*	Cycas-leaved	₤ ⊔	cu		...	Ap	C. G. H.	1775.	Sk	l.p	Ja.frag.1.t.25, 26
14026	angustifólia *Jac.*	narrow-leaved	₤ □	cu		jl.au	Ap	Bahama I.	...	Sk	p.l	Jac. ic. 3. t. 626
14027	média *Jac.*	intermediate	₤ □	cu		jl.au	Ap	W. Indies	...	Sk	p.l	Bot. mag. 1838
14028	débilis *W.*	long-leaved	₤ □	cu		jl.au	Ap	W. Indies	1777.	Sk	p.l	Bot. cab. 155
14029	integrifólia *W.*	dwarf	₤ □	cu		jl.au	Ap	W. Indies	1768.	Sk	p.l	Bot. mag. 1851
14030	pygmæ'a *B. M.*	least	₤ □	cu		my	Ap	W. Indies	...	Sk	p.l	Bot. mag. 1741
14031	furfurácea *W.*	broad-leaved	₤ □	cu	3	jl.au	Ap	W. Indies	1691.	Sk	p.l	Bot. mag. 1969
14032	spirális *W.*	spiral	₤ ⊔	cu	3	jl.au	Ap	N. S. W.	1796.	Sk	p.l	
14033	hórrida *W.*	gray	₤ ⊔	cu	3	...	Ap	C. G. H.	1800.	Sk	p.l	Jac.fr.27. t.27, 28
14034	Cycádis *W.*	Cycas-like	₤ ⊔	cu	3	...	Ap	C. G. H.	1775.	Sk	p.l	Th.act.ups.2. t.5.
14035	púmila *B. M.*	pygmy	₤ ⊔	cu	1½	...	Ap	C. G. H.	1812.	Sk	p.l	Bot. mag. 2006
14036	lanuginósa *W.*	woolly	₤ ⊔	cu	3	...	Ap	C. G. H.	1812.	Sk	p.l	Jac. frag. t.27, 28
14037	longifólia *W.*	long-leaved	₤ ⊔	cu	7	...	Ap	C. G. H.	1818.	Sk	p.l	Jac. fragm. t. 29
14038	tridentáta *W.*	three-toothed	₤ ⊔	cu	2	...	Ap	C. G. H.	1814.	Sk	p.l	

MONADELPHIA.

2109.	LATA'NIA. *J.*	Bourbon Palm.					*Palmæ.*	*Sp.* 2.				
14039	rúbra *W.*	red	Ŧ □	or	15	...	G.w	Mauritius	1788.	S	co	Jac. frag. 13. t. 8
14040	borbónica *W.*	common	Ŧ □	or	20	...	G.w	Bourbon	1816.	S	co	Jac.frag. t.11.f.1
2110.	LEPTOCAR'PUS. *R. Br.*	Leptocarpus.					*Restiaceæ.*	*Sp.* 1—7.				
14041	ténax *R. Br.*	tough	ш ⊔	un	2	...	Ap	N. Holl.	1823.	D	co	Lab.no.hol.t.229
	Schænódum ténax Lab.											
2111.	RUS'CUS. *W.*	Butcher's Broom.					*Asphodeleæ.*	*Sp.* 5—7.				
14042	aculeátus *W.*	prickly	ħ	or	1	jn.d	G	England	thick.	Sk	co	Eng. bot. 560
	β *láxus* L. T.	*loose*	ħ	or	1	ja.jn	G	Portugal	...	Sk	co	
14043	Hypophýllum *W.*	broad-leaved	ħ	or	1	my.jn	G	Italy	1640.	Sk	co	Bot. mag. 2049
14044	Hypoglóssum *W.*	double-leaved	ħ	or	1	ap.my	G	Italy	1596.	Sk	co	Sch. han.3. t. 340
14045	andrógynus *W.*	climbing	ɭ ⊔	or	3	ap.my	G.w	Canaries	1713.	R	p.l	Bot. mag. 1898
14046	racemósus *W.*	Alexandrian Laurel	ħ	or	4	jn	G.y	Portugal	1713.	Sk	co	Dend. brit. 145
2112.	ARAUCA'RIA. *J.*	Araucaria.					*Coniferæ.*	*Sp.* 2—3.				
14047	imbricáta *W.*	Sir J. Banks's	‡ ⊔	tm	150	...	Ap	Chili	1796.	C	p.l	Lam. ill. t. 328
14048	excélsa *H. K.*	Norfolk Island	‡ ⊔	tm	100	...	Ap	Norfolk I.	1793.	C	p.l	Lam.pin.t.39, 40



History, Use, Propagation, Culture.

2107. *Cycas.* A name employed by the ancients to designate a little palm which grew in Ethiopia. The modern plant is analogous to it. This genus, which seems intermediate between palms and ferns, produces the nutritive granulated power called sago, from *sagu*, the name of a sort of bread made from the pith of the trunk in Tonquin. It is cultivated in China and Japan, and the fruit is eaten in the latter country. The tree, however, is chiefly valued for the pith of its trunk, which is full of white pith like that of the elder. The tree being cut down, this pith is beaten with a wooden pestle in a great mortar or trough; it is then strained, and the sediment, without farther preparation, constitutes sago. The native Indians live wholly upon it for three or four months in the year. That which is transported is dryed and granulated. In our stoves these plants require the culture common to all the palm tribe; a rich loamy soil, plenty of pot-room, and a strong moist heat.

2108. *Zamia.* From ζημιά, loss or damage. Pliny applied the name to the pine-cones of the fir, which, when suffered to decay upon the tree, injured the succeeding crop. The modern genus bears heads of flowers very like pine cones.

2109. *Latania.* The name of this plant in the Isle of Bourbon is *Latanier.* L. borbonica is a middle-sized palm with plaited fan-like fronds, which from the elongation of the axis and terminal lobe, seems as if pinnate. When young their middle nerve is downy; it afterwards becomes naked. The stalks of the leaves are spiny. The other species, L. rubra, is a much smaller plant, and is remarkable for its red livid leaves.

2110. *Leptocarpus.* From λεπτος, smooth, and καρπος, fruit; with reference to the polished surface of the seeds. Rushy plants allied to Restio, and all natives of New Holland and the South Seas.

2111. *Ruscus.* Anciently *bruscus*, and derived, it is said, from *beus*, box, and *kelem*, holly, in Celtic; box-holly. The French at this day call one species *buis-épineux* and *petit-houx*. R. aculeatus has thick white twining roots, which strike deep into the ground, and send out fibres like those of asparagus. The stem is suffruticose, tough, stiff, and dark green; having many stiff sharp prickly pointed leaves. From the middle of the leaf above, comes out a singl· flower, on a very short pedicel: when it first appears it is the size and shape of a small pin's head; when expanded, composed of three outer calyxed leaves, and three inner ones con-

14019 Leaves ternate veinless smooth roundish elliptical: the middle one smaller obcordate
14020 Leaves ternate fascicled veiny hairy: lateral lanceolate entire; middle one obovate 3-toothed
14021 Leaves ternate linear villous

14022 Fronds pinnated, Leaflets lanceolate linear acute 1-nerved flat
14023 Fronds pinnated, Leaflets linear mucronate 1-nerved revolute at edge

[unarmed
14024 Fronds pinnat. Leafl. subul. spread. straight rigid mucron.: outer margin of base rounded, Stalk roundish
14025 Fronds pinnated, Leaflets linear mucronate distichous: lower opposite, Stalk ½-round channelled downy
14026 Fronds pinnated, Leaflets linear entire with a callous end twice emarginate obtuse, Stalk ½-round
14027 Fronds pinnated, Leaflets linear lanc. blunt obsoletely serrulate at end and flat, Stalk 3-cornered smooth
14028 Fronds pinnated, Leaflets lanc. acute pointless serrated at end, Stalk 3-cornered smooth.
14029 Fronds pinnat. Leafl. lanc. rounded blunt narrow, at base serrul. on outside at end, Stalk smooth nearly sq.
14030 Very smooth, Leaflets of 16 pairs ovate oblique imbr. serr. at end, Stem round, Ament ovate nodding
14031 Fronds pinnated, Leafl. lanc. ac. pointless serrat. from middle to end chaffy ben. Stalk roundish spiny below
14032 Fronds pinnated, Leaflets in 30-40 pairs falciform outwards with 3 or 4 prickly teeth at the end [smooth
14033 Fronds pinnat. Leafl. frost. glauc. lanc. ac. point. with spiny teeth in midd. on outside, Stalk sq. and trunk
14034 Leaflets oblique linear-lanceolate subulate hairy curved with 1 or 3 spines at the end and none on stalk
14035 Leaflets linear entire obtuse of 20 pairs, Stem round unarmed scurfy at base [woolly
14036 Leafl. oblique lanc. acute mucron. in midd. on outside with 2 spiny teeth smooth, Stalk squ. smooth, Trunk
14037 Leaflets oblique lanceolate distichous acute pointless entire, Stalk smooth bluntly-4-cornered
14038 Leaflets oblique linear somewhat sulcate 3-toothed at end smooth, Stalk ½ round channelled

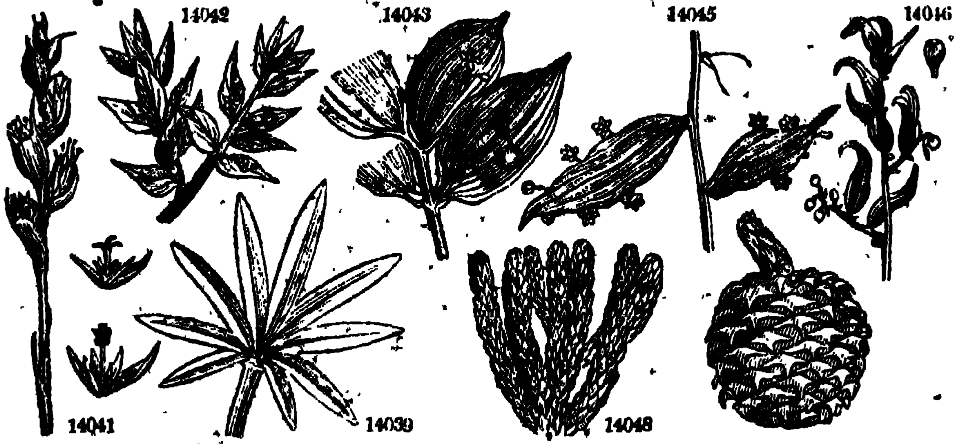
MONADELPHIA.

14039 Fronds plaited flabelliform, Leaflets spiny serrulate, Stalk unarmed
14040 Fronds plaited flabelliform elongated in the middle, Leaflets smooth at edge, Stalk spiny

14041 Spike divided, Catkins oblong somewhat squarrose. Scales cartilaginous acuminate, Culm simple

14042 Leaves mucronate pungent flower-bearing on their upper side and naked
β Leaves elliptical acute at each end, Branches weak
14043 Leaves bearing flowers on their underside naked
14044 Leaves bearing flowers on their upper side under a leaflet
14045 Leaves bearing flowers at their edge
14046 Raceme terminal hermaphrodite

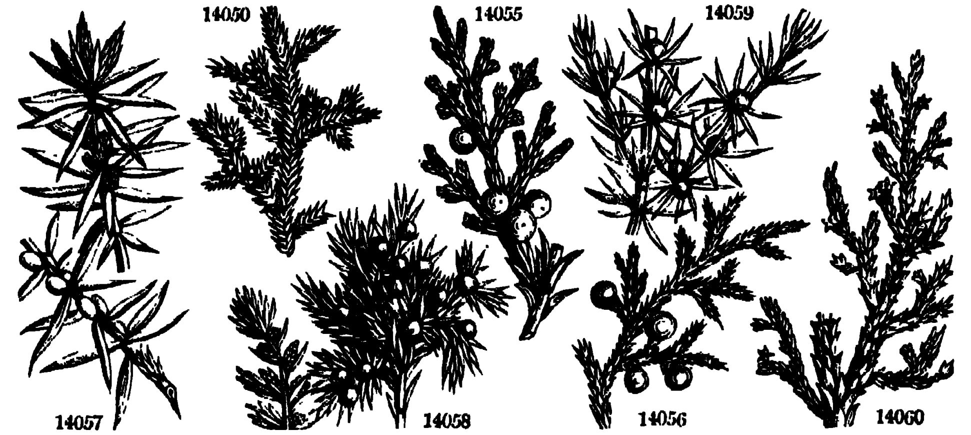
14047 Leaves about 8 imbricated ovate-lanceolate mucronate perennial
14048 Old leaves closely imbricated inflexed pointless



sidered as petals. Mr. Woodward remarks, that the flower does not properly grow out of the leaf, but on a pedicel from the bosom of the leaf, which is immersed beneath the outer coat, whence it may with ease be dissected. The female flowers are succeeded by red berries, almost as large as some cherries; they are sweet tasted, with two large orange-colored seeds in each. The green shoots were formerly used by butchers for sweeping their blocks, whence the common English name of the plant. It is still made into besoms in Italy. The tender growths, soon after they have sprung up from the root in spring, have been gathered and eaten by the poor like those of asparagus; and the branches, with the ripe fruit on them, were formerly stuck up in sand, with the stalks of Peony and Iris, displaying their capsules of ripe seeds; the three together made a sort of winter nosegay for rooms. In landscape gardening the plant is valuable as an evergreen, which will grow under the shade and drip of other trees. It harmonizes well with Daphne Laureola, and Ulex nana, and Vaccinium vitis idæa. R. hypophyllum has the flowers on the under side of the leaves, which are succeeded by small red berries about the size of those of Juniper. R. racemosus is an elegant evergreen shrub, by some supposed to be the plant with which the ancients crowned their victors; but the more general opinion is in favor of Laurus nobilis. All the species are readily increased by suckers from the root.

2112. *Araucaria.* The inhabitants of Chili call this noble ornament of their forests *araucanos.* A. excelsa, the Norfolk Island pine, is a most superb plant, growing to an enormous size, and never losing the bright imperishable foliage with which it is covered, as with a coat of mail. This genus, Sweet observes, "may be termed the handsomest genus of plants with which we are acquainted. A. imbricata, in particular, is certainly one of the grandest plants known. It will thrive well in the open air, with the protection of a mat or two in very severe weather, and when got pretty large, will, no doubt, be perfectly hardy. A. excelsa, or Norfolk Island pine, is also a beautiful tree, but will not do without the protection of a greenhouse. An equal mixture of sandy loam and peat will suit them very well; and cuttings may be rooted, though with difficulty, taken off at a joint in ripened wood, and planted in a pot of sand, which must be put under a hand-glass, in the propagating house, but not plunged in heat." (*Bot. Cult.* p. 136.)

2113.	JUNI'PERUS. *W.*	JUNIPER.					*Coniferæ.*	*Sp.* 14—17.					
14049	thurífera *W.*	Spanish	■		or	10	my.jn	Ap	S. Europe	1752.	L	s.l	
14050	bermudiána *W.*	Bermudas Cedar	♣	△	tm	20	my.jn	Ap	Bermudas	1683.	S	p.l	Herm. lug. t.347
14051	chinénsis *W.*	Chinese	■	△	or	10	my.jn	Ap	China	1804.	L	p.l	
14052	excélsa *W.*	tall	♣		tm	20	...	Ap	Siberia	1806.	L	s.l	
14053	Sabína *W.*	Common Savin	■		or	4	my.jn	Ap	S. Europe	1548.	L	s.l	
	β *tamariscifólia*	*Tamarisk-lvd. do.*	■		or	4	my.jn	Ap	S. Europe	1562.	L	s.l	
14054	prostráta *P. S.*	prostrate	■		or	3	my.jn	Ap	N. Amer.	...	S	s.l	
14055	daúrica *Pall.*	Daurian	■		or	8	jn.au	Ap	Dauria	1791.	L	s.l	Bot. rep. 534
14056	virginiána *W.*	Red Cedar	♣		tm	30	my.jn	Ap	N. Amer.	1664.	S	s.p	Mich. arb. 3. t. 5
14057	commúnis *W.*	common	■		tm	15	my.jn	Ap	Britain	heaths.	S	s.l	Eng. bot. 1110
	β *suécica*	*Swedish*	■		or	15	my.jn	Ap	N. Europe	...	L	s.l	
14058	nána *W.*	mountain	■		or	2	my.jn	Ap	Siberia	...	S	l.p	Pa.r.2.t.54.f.A.B
14059	Oxycédrus *W.*	brown-berried	■		or	15	my.jn	Ap	Spain	1739.	C	s.l	Duh.arb.1.t.128
14060	phœnícea *W.*	Phœnician	■		or	15	my.jn	Ap	S. Europe	1683.	C	s.l	Pall. ross. 2. t. 57
14061	lýcia *W.*	Lycian	■		or	10	my.jn	Ap	S. Europe	1693.	L	s.l	Pall. ross. 2. t. 56
14062	barbadénsis *W.*	Barbadoes Cedar	♣	⊔	or	20	...	Ap	Florida	1811.	L	s.l	Pluk.al. t.197.f.4
2114.	TAX'US. *W.*	YEW-TREE.					*Coniferæ.*	*Sp.* 1.					
14063	baccáta *W.*	common	♣		or	20	f.ap	Ap	Britain	m.wo.	S	co	Eng. bot. 746
	β *hibernica* Hooker	*Irish*	♣		or	12	...	Ap	Ireland		C	p.l	
2115.	EPHE'DRA. *W.*	EPHEDRA.					*Coniferæ.*	*Sp.* 3—5.					
14064	distáchya *W.*	great	■		cu	2	jn.jl	Ap	France	1570.	L	co	Sch. han.3. t.339
14065	monostáchya *W.*	small	■		cu	2	s.n	Ap	Siberia	1772.	L	co	Dend. brit. 142
14066	altíssima *Desf.*	lofty	♠	⊔	cu	24	...	Ap	Barbary	1825.	L	co	Desf. atl. t. 253
2116.	CISSAM'PELOS. *Dec.*	PAREIRA BRAVA ROOT.					*Menispermeæ.*	*Sp.* 3—28.					
14067	Paréira *Dec.*	genuine	♠	◬	or	6	jl.au	G	S. Amer.	1733.	C	s.p	Lam. ill. t. 830



History, Use, Propagation, Culture,

2113. *Juniperus.* From the Celtic *jeneprus*, which signifies rough, or rude. *Sandarach*, the name of a resin produced by the Juniper, is, according to Golius (p. 1225.), an alteration of the Arabic word *sandaroûs*. The species, with only one or two exceptions, are close conical-growing evergreen shrubs or trees. The timber of J. Barbadensis and Bermudiana is imported from the West Indies under the name of Bermudas Cedar. J. Virginiana grows in the West Indies, the North American continent, and in Japan It is one of the highest timber trees in Jamaica, affording very large boards of a reddish brown color, close and firm contexture, shining, very odoriferous, and bitter to the taste. It is imported into this and various other countries for the purposes of the cabinet-maker, as it is offensive to most insects. J. communis is common in all the northern parts of Europe, in fertile or barren soils, on hills or in vallies, in open sandy plains, or in moist and close woods. On the sides of hills its trunk grows long, but on the tops of rocky mountains and on bogs it is a tufted shrub. In England it is found chiefly on open downs in a chalky or sandy soil. In Scotland it is found in granite, trap and schistous hills and mountains; but not in the highest summits of the latter. In the south of Europe it is only found in elevated situations; it abounds in the Alps of Switzerland, but is not very common in the Appenines. In our shrubberies it forms a respectable looking conical bush, grouping and combining very well with cypresses, American cedars, and various species of the pine and fir tribe. It is easily transplanted, and bears cropping. Grass will not grow beneath it, but the Avena Pratensis is said to destroy it. The wood is hard and durable; the bark may be made into ropes; and ardent spirits, impregnated with the essential oil of these berries, forms the true Juniper water or gin. Various insects feed on this shrub; and it is eaten by horses, sheep, and goats, when they can get nothing better. A gum oozes spontaneously from the trunk of old plants, which is Sandarach, and in its powdered form is known under the name of pounce. Juniper berries require to remain two years on the tree before they are fully ripe. The greater quantity of those which are used in Britain, are brought from Germany, Holland, and Italy. They have a peculiar aromatic odor, and a sweetish, pungent, bitterish taste when chewed. In distillation with water, they yield a volatile terebinthinate oil of a greenish color, on which their virtues depend. The flavor and diuretic properties of hollands depend on this oil; it is also supposed to be used for flavoring English gin, but for this purpose oil of turpentine is used. Medicinally, Juniper berries are diuretic and cordial They have been long known as a remedy in hydropic affections; but they cannot be depended on alone, although they form an excellent adjunct to foxglove and squill. The tops yield the same essential oil as the berries, and may therefore be substituted for them. (*Thom. Lond. Disp.*)

J. suecica is by some considered only a variety. J. sabina seldom produces flowers or seeds in our gardens. Professor Pallas says, that in the Chersonesus Taurica, where it is very common, the savin is often found a foot and a half diameter; that it grows upright there, like a cypress, whereas by the Tanais it is procumbent, the branches extending on the sand several fathoms; that the wood very much resembles that of J. lycia, but has a more cadaverous smell, and the leaves are more fetid. The leaves and tops of common savin have a strong, heavy, disagreeable flavor, and a bitter hot taste, with a considerable degree of acrimony. These qualities depend on an essential oil, which is obtained in considerable quantity by distillation with water. Both water and alcohol extract its active principles; and Lewis found that on inspissating the spirituous tincture, there remains an extract consisting of two distinct substances, of which one is yellow, unctuous or oily, bitterish, and very pungent; the other black, resinous, tenacious, less pungent, and subastringent. Medicinally, savin is a powerful stimulant, possessing diaphoretic, emmenagogue, and anthelmintic properties. It has certainly, however, a considerable effect on the uterine system; but, on account of its stimulating properties, is suited to those cases only of amenorrhœa which are unattended by fever, and in which the circulation is

14049 Leaves imbricated in 4 rows acute
14050 Lower leaves ternate: upper binate decurrent subulate spreading acute
14051 Leaves decurrent imbricated spreading closely packed, of the stem in threes of the branches in fours
14052 Leaves opposite bluntish glandular in the middle imbricated in 4 ways, Stem arboreous
14053 Lvs. opp. blunt glandular in the middle imbricated in 4 ways: the younger acute and opp. Stem shrubby

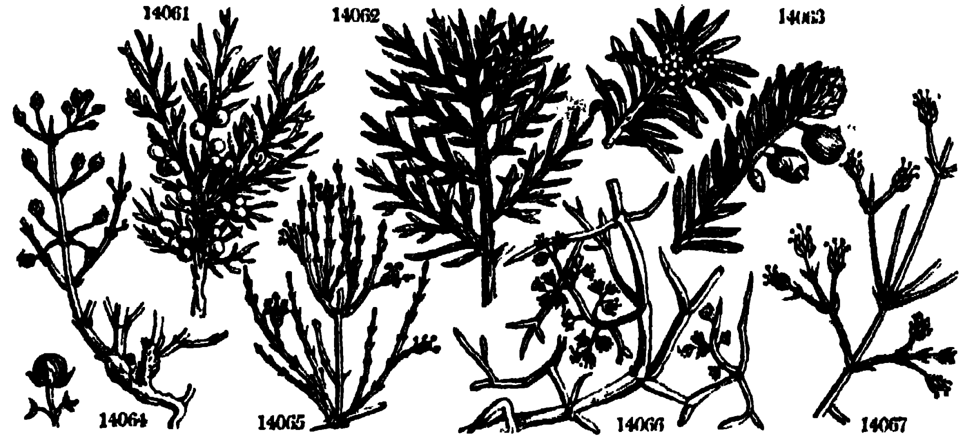
14054 Leaves opp. acute imbricated in about 4 rows smooth glaucous, Branches horizontal prostrate
14055 Leaves opposite acute imbricated decurrent: occasionally spreading and subulate
14056 Leaves in 3s adnate at base: younger imbricated; old ones spreading
14057 Leaves ternate spreading mucronate longer than the berry

14058 Leaves ternate falcate somewhat imbricated the length of berries
14059 Leaves ternate spreading pointed shorter than berry
14060 Leaves ternate obliterated imbricated blunt
14061 Leaves ternate imbricated all ways ovate blunt
14062 Leaves all imbricated in 4 rows: younger ovate; old ones acute

14063 Leaves thickly set linear distichous flat, Male receptacles globose

14064 Sheaths of joints 2-toothed blunt, Catkins 2-3 opposite stalked, Peduncles shorter than catkins
14065 Sheaths of joints 2-toothed blunt, Catkins solitary scattered or opposite, Peduncles longer than catkin
14066 Sheaths of joints bifid acum. Male catkins clustered sessile or stalked, Fem. solit stalk. Branches spreading

14067 Leaves peltate subcordate ovate-orbicular silky beneath, Female racemes longer than leaves



and Miscellaneous Particulars.

languid. In plethoric habits, its use should be preceded by repeated bleedings; and at all times its internal exhibition requires caution. It has been given in gout and worm cases also, but is seldom used. As an external local stimulant or escharotic, the dried leaves in powder are applied to warts, flabby ulcers, and carious bones; and the expressed juice diluted, or an infusion of the leaves, as a lotion to gangrenous sores, scabies, and tinea capitis, or mixed with lard and wax as an issue ointment. (*Thom. Lond. Disp.* p. 342.)

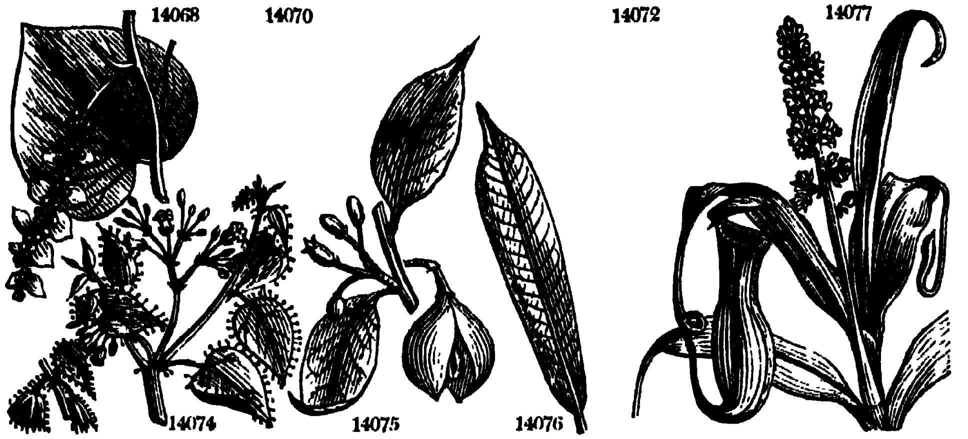
J. Lycia, which greatly resembles the savin, is commonly thought to produce the gum resin called Olibanum; though Dr. Thomson and others consider the *Boswellia Serrata* of Roxburgh as the true plant. Olibanum is supposed to have been the incense used by the ancients in their religious ceremonies; it is much employed by the Roman Catholics in their churches, and generally as a perfume in sick rooms.

2114. *Taxus.* According to Vossius this word is derived from *τοξον*, an arrow, because that weapon was formerly poisoned with the juice of the plant. Yew seems to be an alteration of the Celtic *iw*, green. T. baccata inhabits mountainous woods in Europe, North America, and Japan. Cæsar mentions it as very common in Gaul and Germany. In Britain and Ireland there was formerly great abundance in a wild state, and planted in church-yards. Ray says that our ancestors planted the yew in church-yards because it was an evergreen tree, as a symbol of that immortality which they hoped and expected for the persons there deposited. Hence a custom, which still exists in a few places of Wales and Ireland, of carrying twigs of this and other evergreen trees in funerals, and throwing them into the grave with the corpse. According to some, the yew was planted in church-yards on account of its utility in making bows; but this is by no means likely, when the tree was so common in a wild state, and when a single one would have afforded so very scanty a supply. The bow was considered an engine of military warfare, at least up to the time of Henry VIII.; so great was the demand for yew in the days of archery, that our own stock could not supply the demand; it was obliged to be imported, and various laws were passed concerning it from the time of Edward IV. to Elizabeth. The wood of the yew is red and veined, very hard and smooth, used by turners, cabinet-makers, millwrights, and a variety of other artisans. Flood-gates for ponds made of it, are said to be of incredible duration. The twigs and leaves of yew, eaten in a very small quantity, are certain death to horses and cows; but deer, it is said, will crop these trees with impunity, and sheep and goats are said by Linnæus to eat them. Turkeys, peacocks, and other poultry and birds eat both the leaves and fruit. A few of the berries are not deleterious to the human species, but the leaves are fatal. The tree is very patient of the shears, and was much employed in the ancient style of gardening for verdant architecture and sculpture. Allowed to take its natural shape, and when advanced to a considerable age, it forms one of handsomest of British evergreens, harmonizing admirably with the holly, the box, and the juniper. The yew is generally propagated from seeds, which are either sown as soon as they are ripe, without clearing them from the pulp, or mixed with sand, and laid in a heap to be turned over two or three times during the winter, and in spring, the seeds from which the pulp will have rotted sown in beds, of light loamy soil. By either mode, a part of the plants will come up the first season, and the remainder in that following. The Irish yew is probably a distinct species.

2115. *Ephedra.* This was a name given by the Greeks to our Equisetum, which the plant now called Ephedra strongly resembles. E. Distachya abounds in the southern parts of Russia, and from thence southwards to Persia and India. The berries ripen in July and August: they are sweetish, mucous, and leave a little heat in the throat. They are eaten by the Russian peasants, and by the wandering hordes of all Great Tartary.

2116. *Cissampelos.* From *κισσος*, the Greek name of the ivy, and *αμπελος*, vine; a plant partaking of the

14068 Caapéba *Dec.*	nervous-leaved	§ ⊠ or	4	jl.au	G	S. Amer.	1733.	C	s.p	Plum. ic 67. f. 2
14069 capen'sis *Dec.*	Cape	§ ⊔ or	6	...	G	C. G. H.	1775.	R	p.l	
• 2117. EXCÆCA'RIA. *W.*	EXÆCARIA.			*Euphorbiaceæ.*		*Sp.* 1—6.				
14070 serráta *H. K.*	saw-leaved	♣ ⊔ or	6	f.n	W	Chili	1796.	C	p.l	
2118. ADE'LIA. *W.*	ADELIA.	•		*Euphorbiaceæ.*		*Sp.* 3—6.				
14071 Bernárdia *W.*	villous-leaved	♣ ☐ or	6	jl.au	G	Jamaica	1768.	C	p.l	
14072 Ricinélla *W.*	smooth-leaved	♣ ☐ or	6	jn.au	G.w	Jamaica	1768.	C	p.l	
14073 Acidóton *W.*	Box-leaved	♣ ☐ or	3	jn.jl	G.w	Jamaica	1768.	C	p.l	
2119. LOUREI'RA. *W.*	LOUREIRA.			*Euphorbiaceæ.*		*Sp.* 1—2.				
14074 glandulósa *W.*	glandulous	♣ ☐ or	6	...	...	Mexico	1799.	C	p.l	Cav. ic. 5. t. 430
2120. MYRIS'TICA. *W.*	NUTMEG.			*Myristiceæ.*		*Sp.* 2—14.				
14075 moscháta *W.*	true	♀ ☐ clt	30	...	G.w	E. Indies	1795.	C	p.l	Lam. ill. t. 832
14076 fátua *W.*	tasteless	♀ ☐ or	30	...	G.w	Surinam	1812.	C	p.l	Pluk.al. t.250.f.6
2121. NEPEN'THES. *W.*	PITCHER PLANT.			....		*Sp.* 1—6.				
14077 distillatória *W.*	Chinese	£ ⊠ cu	2	ap.my	G	China	1789.	C	p.l	Bur. zeyl.42. t.17
2122. CLUY'TIA. *W.*	CLUYTIA.			*Euphorbiaceæ.*		*Sp.* 8—11.				
14078 alaternoídes *W.*	narrow-leaved	♣ ⊔ pr	2	mr.d	W	C. G. H.	1692.	C	p.l	Bot. mag. 1321
14079 polygonoídes *W.*	Polygonum-like	♣ ⊔ pr	2	mr.d	W	C. G. H.	1790.	C	p.l	W. hort. ber. 51
14080 daphnoídes *W.*	Daphne-leaved	♣ ⊔ pr	3	my.jn	W	C. G. H.	1731.	C	p.l	W. hort. ber. 52
14081 ericoídes *W.*	Heath-leaved	♣ ⊔ pr	2	ap.jn	W	C. G. H.	1790.	C	p.l	
14082 polifólia *W.*	Poley-leaved	♣ ⊔ pr	2	ap.jn	W	C. G. H.	1790.	C	p.l	Jac. schœ.2. t. 50
14083 tomentósa *W.*	tomentose	♣ ⊔ pr	3	ap.jn	W	C. G. H.	1812.	C	p.l	
14084 pulchélla *W.*	broad-leaved	♣ ⊔ pr	2	ja.jn	W	C. G. H.	1739.	C	p.l	Bot. mag. 1945
14085 collína *W.*	hill	♣ ⊔ pr	3	...	W	E. Indies	1807.	C	p.l	Rox. cor.2. t.160



History, Use, Propagation, Culture,

nature of the former in its foliage, and of the latter in its fruit. The roots of several species are said to have powerful medicinal qualities. That of the C. pareira, or *Pareira brava*, is bitter, diuretic, and aperient; of C. caapeba more mucilaginous.

2117. *Excæcaria.* From *excæcare*, to blind. The juice of this plant is so acrid as to cause loss of sight whenever it touches the eyes. Agallochum, the produce of one of the species, was the name given by the the Greeks to an aromatic wood they obtained from India. In Arabia it is called, according to Golius, *âghâloûdjy.*

2118. *Adelia.* From α, privative, and δηλος, visible. The parts of fructification are so minute as to be hardly visible. A. Bernardia derives its name from having been considered a distinct genus, and dedicated to the celebrated Bernard de Jussieu. Bernardia is the name which ought to have been adopted for the genus. Ugly uninteresting shrubs.

2119. *Loureira.* Dedicated by Cavanilles to John de Loureiro, a Portuguese missionary, who travelled in China and Cochin-china, of which he published the Flora in 1790.

2120. *Myristica.* From μυρρα, myrrh, on account of the odor of the fruit. M. moschata produces spheroidal drupes, fleshy, smooth, and finally drying up into a coriaceous crust, and opening on one side. Each berry contains an ovate, globular, serrated nut. The arillus or cover, which is commonly called mace, is fleshy, coriaceous, and reddish-saffron colored. Under this are two shells, the outer thin and brittle, and reticulated by the impressions of the mace: the inner shell is membranaceous, and adheres very closely to the kernel. The fruit would be a drupe was it not for the arillus.

The nutmeg-tree yields three crops annually; the first in April, which is the best; the second in August, and the third in December; yet the fruit requires nine months to ripen it. When it is gathered, the outer coriaceous covering is first stripped off, and then the mace carefully separated and dried in the sun. The nutmegs in the shell are next exposed to heat and smoke for three months, then broken, and the kernels thrown into a strong mixture of lime and water; after which they are cleaned and packed up. This process is necessary for their preservation, and with the same intention the mace is sprinkled with salt water. There are several varieties of the tree; but that denominated the queen nutmeg, which bears a small round nut, is the best. They are imported in chests, which contain each from 100 to 140lbs. weight; the mace comes in chests also of different sizes. The essential oil which is obtained in Banda by the distillation of the nut is brought

14068 Leaves somewhat orbicular cordate at base 7-nerved or little downy, Fem. racemes the length of leaves
14069 Lvs. ovate bluntish smooth on short stalks, Racemes much branched, male ? scarcely longer than petiole

14070 Monœcious diandrous, Leaves oblong serrated

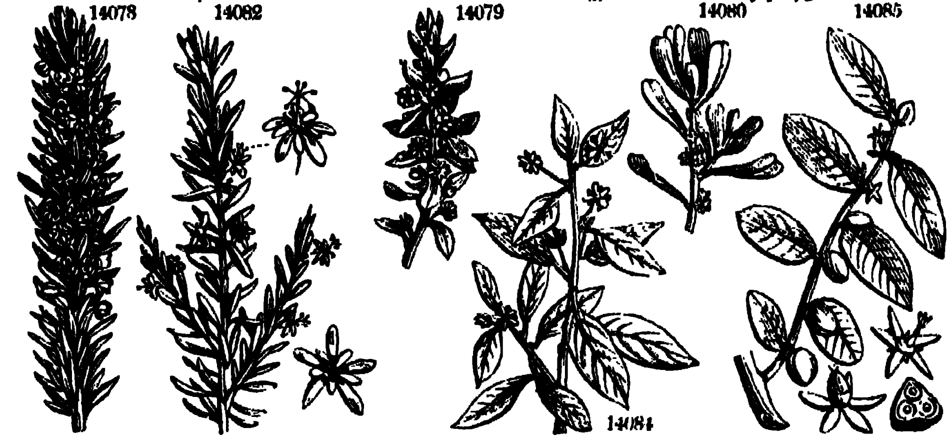
14071 Leaves oblong downy serrated
14072 Leaves obovate entire
14073 Leaves oblong blunt entire fascicled, Spines axillary

14074 Leaves cordate glandular on the limb

14075 Leaves oblong acuminate smooth, Veins simple, Fruit solitary smooth
14076 Leaves oblong lanceolate with starry down beneath, Veins simple, Fruit racemose downy

14077 Leaves sessile, Pitchers cylindrical, Flowers panicled

14078 Leaves sessile linear lanceolate acute, Flowers axillary solitary
14079 Leaves sessile obovate acute, Peduncles about 3-fl. axillary
14080 Leaves subsessile lanceolate obovate, Flowers axillary solitary
14081 Leaves subsessile linear-lanceolate acute thickish, Flowers axillary twin
14082 Leaves stalked linear blunt mucronate revolute at edge, Flowers axillary subsolitary on long stalks
14083 Leaves elliptical blunt densely downy on each side, Flowers axillary solitary sessile
14084 Leaves stalked ovate acute smooth, Flowers in 5s axillary
14085 Leaves stalked elliptical blunt somewhat retuse smooth shining, Flowers axillary polygamous about 3



and Miscellaneous Particulars.

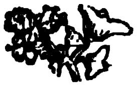
in bottles, and the expressed oil in stone jars. Nutmegs are frequently punctured and boiled in order to obtain the essential oil, and the orifices afterwards closed with powdered sassafras. The fraud is detected by the lightness of the nutmeg. The nutmeg has a fragrant, agreeable, spicy odor, and a warm aromatic taste.

As the medical properties of nutmeg and mace depend on the essential oil they contain, they agree in these circumstances; and both are stimulant, carminative, and, in large doses, narcotic. Mace is more generally used as a culinary spice; but the nutmeg and its volatile oil are in frequent use to cover the disagreeable taste of other medicines, and are sometimes ordered in cases of languor, vomiting, and diarrhœa, and in flatulent colic. On account of the narcotic property of the oil, nutmeg should be cautiously employed in apoplectic and paralytic habits. In India its dangerous effects have been frequently felt; and in this country instances have occurred in which the nutmeg, taken in large quantity, produced drowsiness, great stupor, and insensibility, and on awakening delirium, which alternated with sleep for several hours. (*Thom. Lond. Disp.* p. 595.)

M. fatua is a branching lofty tree; the branches long, tortuous and declining; the leafy and flowering branches downy and ferruginous; and the flowers in axillary and terminal clusters. The fruit varies in size and form on different trees; but is generally oblong, and about as long as a pigeon's egg. From the kernel is extracted a species of yellowish suet or fat, which serves for various medical and economical purposes, and is made into candles. From the wounded bark flows a red acrid juice. The plants are at present rare in British collections: they grow in light loam and peat, and may be increased by cuttings in sand under a bell-glass.

2121. *Nepenthes.* The name under which Homer speaks of a substance, which appears to have been opium. It is impossible to conceive in what sense the word has been applied to the plants now bearing the name. They are the famous pitcher-plants of China and the East Indies, which bear leaves, the extremities of which are hollowed out into cup-like appendages, which are generally filled with water, which seems as if confined within them by a little lid, by which the pitchers are surmounted. The cultivation of the plants is extremely difficult. It requires a very damp atmosphere, much heat, and perhaps, not much light. They are managed more successfully by Loddiges of Hackney, than by any cultivators in this country.

2122. *Clutia.* Named by Boerhaave, after Outgers Cluyt, or Augier Clutius, a Dutchman, and professor of botany at Leyden. He published, in 1634, a little tract upon the Cocoa-nut of the Maldives, which he called nux-medica. The species are of little beauty or interest, and of the easiest propagation and culture.



CLASS XXIII. — POLYGAMIA.

Flowers either male, female, or hermaphrodite, upon the same or different plants.

THIS class differs from the two preceding in having not only the sexes in different flowers upon the same individual as in Monœcia, or upon separate individuals as in Diœcia, but also combined in one flower, mixed among those which are unisexual. It may, therefore, be considered to contain those genera which are in a state of transition from the common hermaphrodite structure to absolute unisexuality.

To the first of its orders are referred several grasses, which are excluded from the early classes on account of the separation of their sexes; it also contains the numerous tribe of Mimosas, so well known for their various properties as objects of food, of ornament, of medicine, or of curiosity. The maple is also stationed in the first class, as are a few genera of palms.

The most important genera of the second class, besides the poetical Palmetto, are the ash and the fig. Gleditschia and Ceratonia, two families of Leguminosæ, are valuable, the former for its light, airy, elegant foliage, and the latter for its sweet pods, which are used in Spain, in great quantities, as fodder for cattle.

Order 1. MONŒCIA. Flowers monœcious.

2123. *Inga.* Hermaphrodite. Cal. 5-toothed. Cor. tubular, 5-fid. Stam. 100, monadelphous. Pod 2-valved. Seeds enwrapped in pulp, or in an arillus. Male. Cal. 5-toothed. Cor. tubular, 5-fid. Stam. 100, monadelphous.

2124. *Mimosa.* Hermaphrodite. Cal. 5-toothed. Cor. O. or 5-toothed. Stam. 8. Pod separating into one-seeded joints. Male. Cal. 5-toothed. Cor. O. or 5-toothed. Stamens 8.

2125. *Schrankia.* Hermaphrodite. Cal. 5-toothed. Cor. 5-fid. Stamens 8-10. Pod 4-valved. Male. Cal. 5-toothed. Cor. 5-fid. Stamens 8-10.

2126. *Desmanthus.* Hermaphrodite. Cal. 5-toothed. Cor. 5 petal Stamens 20. Pod 2-valved. Male. Cal. 5-toothed. Cor. O. Stamens 20.

2127. *Acacia.* Hermaphrodite. Cal 5-toothed. Cor. 5-fid. Stamens 4-100. Pod 2-valved. Male. Cal. 5-toothed. Cor. 5-fid. Stamens 4-100.

2128. *Veratrum.* Hermaphrodite. Cal. O. Cor. 6-petalous. Stamens 6. Ovaries 3. Caps. 3, many-seeded. Male. Same as hermaphrodite, but no ovary.

2129. *Andropogon.* Hermaphrodite. Cal. 1-fl. Paleæ glume bearded, either at base or tip. Stamens 3. Styles 2. Seed 1. Male. Ovary none.

2130. *Chloris.* Flowers 1-sided. Cal 2-valved, with 2 or 6 florets: one sessile, hermaphrodite; the other stalked, male. Hermaphrodite. Paleæ with a terminal beard. Stamens 3. Styles 2. Seed 1. Male. Cal. O, Paleæ one or two, bearded. Stamens 3.

2131. *Sorghum.* Flowers panicled. Glume coriaceous-cartilaginous, 2-flowered closed. Paleæ of the hermaphrodite bearded; of the neuter single, beardless. Male. Glume 1-fl stalked. Paleæ 2, beardless.

2132. *Holcus.* Hermaphrodite. Cal. glume 1-2-flowered. Paleæ bearded under the end. Stamens 3. Styles 2. Seed 1. Male. Cal glume 2-valved. Paleæ O or 2. Stamens 3.

2133 *Ischæmum.* Hermaphrodite. Cal. glume 2-flowered. Paleæ 2. Stamens 3. Styles 2. Seed1. Male Cal. and palea as in hermaphrodite. Stamens 3.

2134. *Ægilops.* Hermaphrodite. Cal. glume about 3-flowered, cartilaginous. Palea terminated by a triple beard. Stamens 3. Styles 2. Seed 1. Male. Cal. and pal. of hermaphrodite. Stamens 3.

2135. *Manisuris.* Hermaphrodite. Glume 1-fl. Paleæ 2. Stamens 3. Style bifid. Male. Glume 1-fl. Paleæ 2. Stam. 3. All the valves of calyx emarginate at end and sides.

2136. *Valantia.* Hermaphrodite. Cal. O. Cor. 4-parted. Stamens 4. Style 2-fid. Seed 1. Male. Cal. O. Cor. 3-4-parted. Styles 3-4.

2137. *Parietaria.* Hermaphrodite. Cal. 4-fid. Cor. O. Stam. 4. Style 1. Seed 1. Female. Cal. 4-fid. Cor. O. Style 1. Seed 1.

2138. *Atriplex.* Perfect fl. Perianth. single, 5-partite, inferior. Stam. 5. Style bipartite. Fruit depressed, 1-seeded, covered by the cal. Pistilliferous fl. Perianth. single, 2-partite. Stam. O. The rest as in the perfect flower.

2139. *Rhagodia.* Hermaphrodite. Cal. 5-parted. Cor. O. Stamens 5, or fewer. Acinus depressed. Male. Cal., cor., and stam. of the hermaphrodite.

2140. *Terminalia.* Hermaphrodite. Cal. 5-parted. Cor. O. Stam. 10. Drupe inferior. Male. Cal. five-parted. Cor. O. Stamens 10.

2141. *Fusanus.* Hermaphrodite. Cal. 5-fid. Cor. O. Stamens 4. Ovary inferior. Stigma 4. A drupe. Male. Fruit abortive. Cal., cor., and stam. of hermaphrodite.

2142. *Brabejum.* Hermaphrodite. Cor. of catkin 4-parted. Stamens 4. Style 2-fid. Drupe with a fleshy round nut. Male. Cor. of catkin 4-parted. Stamens 4. Style 2-fid, abortive.

2143. *Acer.* Hermaphrodite. Cal. 5-fid. Cor. 5 petals. Stamens 8. Styles 2. Samara winged at end, one-seeded. Male. Cal. 5-fid. Cor. 5 petals. Stamens 8.

2144. *Negundium.* Cal. very small, unequally 4-5-toothed. Pet. O. Male. Flowers fascicled. Anthers 4-5, linear, sessile. Female. Flowers racemose.

2145. *Celtis.* Hermaphrodite. Cal. 5-parted. Cor. O. Stamens 5. Styles 2. A drupe. Male. Cal. six-parted. Cor. O. Stamens 6.

2146. *Gouania.* Hermaphrodite. Cal. 5-fid, superior. Cor. O. Stamens 5. Style 3-fid. Fruit 3-cornered, 3-parted. Male. Cal. 5-fid. Cor. O. Stamens 5.

2147. *Hermas.* Hermaphrodite. An umbel. Cor. 5 petals. Stamens 5, sterile. Male. An umbel. Cor. 5 petals. Stamens 5, fertile. Styles 2. Seeds 2, inferior, cordate, orbicular.

2148. *Bridelia.* Hermaphrodite. Cal. 5-parted. Petals 5, inserted in calyx. Stamens 5, monadelphous. Styles 2, bifid. Berry 2-seeded. Male. Cal. 5-parted. Petals 5, inserted in the calyx. Filam. columnar, bearing 5 anthers. Female. Cal. and corolla of male. Styles 2, bifid. Berry 2-seeded.

2149. *Feronia.* Hermaphrodite. Cal. 5-toothed. Cor. 5 petals. Stamens 10. Style 1. Berry 5-celled, many-seeded. Male. Cal. 5-toothed. Cor. 5 petals. Stamens 10.

2150. *Ailantus.* Hermaphrodite. Cal. 5-parted. Cor. 5 petals. Stamens 2-3. Ovaria 3-5. Styles lateral. Samaras 1-seeded. Male. Cal. 5-parted. Cor. 5 petals. Stamens 10. Female. Cal. 5-parted. Cor. 5 petals. Ovaries 3-5. Styles lateral. Samaras 1-seeded.

2151. *Clusia.* Hermaphrodite. Cal. 6-leaved. Cor. 4-6 petals. Anthers clustered. Stigmas 4-6. Caps. 6-celled, many-seeded. Male. Cal. 4-6-leaved. Cor. 6 petals. Stamens numerous.

2152. *Ophioxylon.* Hermaphrodite. Cal. 5-fid. Cor. 5-fid. Stamens 3. Ovary 1. Male. Cal. 2-fid. Cor. 5-fid. Stamens 2.

2153. *Rhagis.* Hermaphrodite. Cal. 3-fid. Cor. 3-fid. Stamens 6. Ovary 1. Drupe 1-seeded. Male. Cal. 3-fid. Cor. 3-fid. Stamens 6.

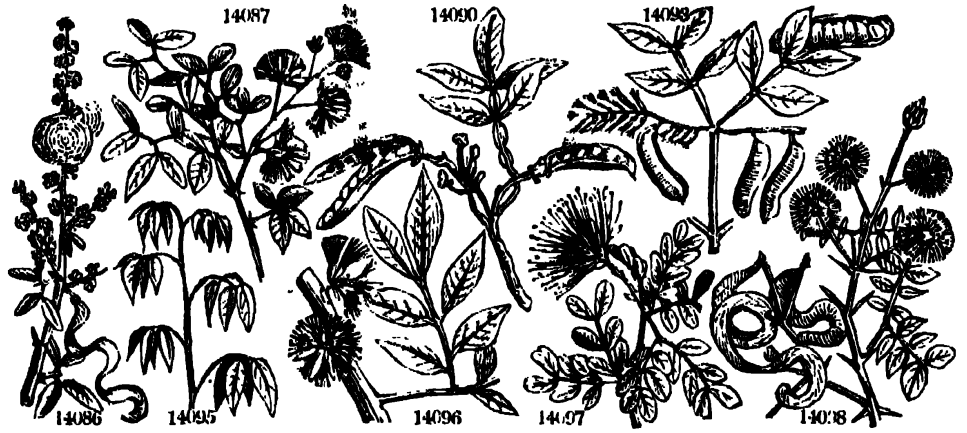
Order 2. DIŒCIA.

Flowers diœcious.

2154. *Gleditschia.* Hermaphrodite. Cal. 4-fid. Cor. 4 petals. Stamens 6. A pod. Male. Cal. 3-leaved. Petals 3. Stamens 6. Female. Cal. 5-leaved. Petals 5. A pod.
2155. *Ceratonia.* Hermaphrodite. Cal. 5-parted. Cor. O. Stamens 5. Style 1. Pod coriaceous, many-seeded. Male. Cal. 5-parted. Cor. O. Stamens 5. Female. Cal. about 5-toothed. Cor. O. Style 1. Pod coriaceous, many-seeded.
2156. *Fraxinus.* Hermaphrodite. Cal. O. or 4-parted. Cor. O. or 4 petals. Stamens 2. Samara 1-seeded. Female. Cal. O. or 4-parted. Cor. O. or 4 petals. Samara 1-seeded.
2157. *Brosimum.* Hermaphrodite. Catkin globose, with a solitary ovary at end. Cal. a scale. Cor. O. Anthers peltate, solitary. Style 2-fid. Female. Cal. O. Cor. O. Ovary imbricated with scales. Style 2-fid. Berry coated, 1-seeded.
2158. *Diospyrus.* Hermaphrodite. Cal. and cor. 4-fid. Stam. 8. Style 4-fid. Berry 8-seeded. Male. Cal. and cor. 4-fid. Stamens 8.
2159. *Myrsine.* Cor. half 5-cleft, conniving. Ovary filling the corolla. Drupe 1-seeded. Nut 5-celled.
2160. *Nyssa.* Hermaphrodite. Cal. 5-parted. Cor. O. Stamens 5. Ovary 1. Drupe inferior. Male. Cal. 5-parted. Cor. O. Stam. 10.
2161. *Hamiltonia.* Hermaphrodite. Cal. 5-fid. Cor. O. Nect. a 5-toothed disk. Stamens 5. Ovary 1. Drupe inferior. Male. Cal. 5-fid. Cor. O. Nect. a 5-toothed disk. Stamens 5.
2162. *Laurophyllus.* Hermaphrodite. Cal. 4-leaved. Cor. O. Stamens 4. Ovary superior. Style 1. Male. Cal. 4-leaved. Cor. O. Stamens 4.
2163. *Bursera.* Hermaphrodite. Cal. 5-toothed. Petals 5. Stamens 10. Style O. Caps. 3-valved, one-seeded. Male. Cal. 5-toothed. Petals 5. Stamens 10.
2164. *Arctopus.* Male. An umbel. Petals and stamens 5. Hermaphrodite. An umbel. Petals 5. Styles 2. Seeds 2. Involucre very large.
2165. *Panax.* Hermaphrodite. An umbel. Cal. 5-fid. Petals 5. Stamens 5. Styles 2. Berry 2-seeded. Male. An umbel. Cal. entire. Petals 5. Stamens 5.
2166. *Ficus.* Common receptacle turbinate, closed, fleshy. Female. Cal. 5-parted. Cor. O. Ovary 1. Seed 1. Male. Cal. 3-parted. Cor. O. Stamens 3.

MONŒCIA.

2123. IN'GA. *W.*	Inga.					*Leguminosæ.*		*Sp.* 13—112.				
14086 dúlcis *W.*	sweet	♀	☐	or	20	...	Pk	E. Indies	1800.	C	p.l	Roxb. cor. 1. t.99
14087 Unguis-Cáti *W.*	four-leaved	♀	☐	or	20	...	Pk	W. Indies	1690.	S	p.l	Jac.schœ.3.t.392
14088 biglobósa *W.*	two-headed	♀		fr	30	...	Pk	Martiniq.	1823.	S	p.l	Ja.am. t.179. f.87
14089 macrophýlla *W.*	large-leaved	♀	☐	or	20	...	Pk	Cumana	1815.	S	s.p	
14090 véra *W.*	common	♀	☐	or	30	jl.au	W	W. Indies	1739.	S	s.p	Sl.jam.2.t.183.f.1
14091 rhoifólia *W. en.*	villous	♀	☐	or	12	...	...	Brazil	1815.	S	s.p	
14092 álba *W.*	white	♀	☐	or	20	...	W	E. Indies	1804.	S	p.l	
14093 margináta *W.*	margined	♀	☐	fr	20	...	Pk	W. Indies	1752.	S	s.p	Pluk.al. t.141.f.2
14094 mellífera *W.*	honey-bearing	♀	☐	or	20	...	Pk	Arabia	1822.	S	p.l	
14095 nodósa *W.*	knobbed	♀	☐	or	20	...	Pk	Ceylon	1690.	S	s.p	Pluk.al. t.211.f.5
14096 latifólia *W.*	broad-leaved	♀	☐	or	10	mr.ap	Pu	W. Indies	1768.	S	p.l	Plum. ic. t.9
14097 purpúrea *W.*	Soldier Wood	♣	☐	or	6	mr.ap	Pu	W. Indies	1733.	C	p.l	Bot. reg. 129
14098 circinális *W.*	spiral-podded	♀	☐	or	10	...	Pu	W. Indies	1726.	C	p.l	Plum. ic. t.5
2124. MIMO'SA. *W.*	Mimosa.					*Leguminosæ.*		*Sp.* 12—71.				
14099 víva *W.*	lively	£	⍍	or	1½	jl.s	Pu	Jamaica	1739.	S	p.l	Sl jam.2.t.182.f.7
14100 *cásta W.*	chaste	♣	☐	pr	2	jl	Pa.Y	E. Indies	1741.	S	p.l	Com.hort.1. t.28
14101 sensitíva *W.*	Sensitive Plant	£	⧇	cu	1½	ap.s	Pk	Brazil	1648.	C	s.p	Bot. reg. 25
14102 latispinósa *Lam.*	broad-spined	♣	☐	el	3	s	W	Madagasc.	1823.	S	s.p	
14103 obtusifólia *W. en.*	blunt-leaved	♣	☐	el	3	...	Pu	Brazil	1816.	S	s.p	
14104 púdica *W.*	Humble Plant	♣	☐	el	1	ap.s	W	Brazil	1638.	S	r.m	Bot. rep. 544
14105 polydáctyla *Humb.*	many-fingered	♣	☐	el	1½	jn.jl	Pu	Brazil	1822.	S	r.m	Kunth. mim. t.5
14106 pigra *H. K.*	straight-spined	♣	☐	el	2	jn.jl	W	Vera Cruz	1733.	S	l.p	Breyn. cent. t.20
14107 rubicaúlis *W.*	Bramble-stalk.	♣	☐	el	3	jn.jl	Pa.Y	E. Indies	1799.	S	l.p	Roxb.cor.2.t.200
14108 asperáta *W.*	rough	♣	☐	el	2	jn.jl	W	W. Indies	1823.	S	l.p	Dec. legum. t.63
14109 concínna *W.*	neat	♣	☐	el	3	...	Pu	E. Indies	1794.	S	p.l	
14110 polystáchya *W. en.*	many-spiked	♀	☐	el	20	...	W	Martinico	1816.	S	p.l	Dec leg. tt.61,62
2125. SCHRANK'IA. *W.*	Schrankia.					*Leguminosæ.*		*Sp.* 2—5.				
14111 aculeáta *W.*	Vera Cruz	✲	⍍	cu	2	jl.au	Pk	Vera Cruz	1733.	S	p.l	Mil.ic.2 t.182.f.1
14112 uncináta *W.*	hooked	✲	⍍	cu	2	jl.au	Pk	Amer.	1789.	S	p.l	Vent. choix. 28



History, Use, Propagation, Culture,

2123. *Inga.* This is an American name adopted by Marcgraaf. A fine genus of plants, remarkable for their beautiful foliage and flowers, but in cultivation they seldom blossom. I. purpurea is a remarkably elegant plant, and so is Inga biglobosa. I. unguis-Cati, the Cat's claw, Mimosa, is so called from the form of its curved spines. All the species require the greatest heat of the bark stove; they increase very slowly by cuttings.

2124. *Mimosa.* Said to be derived from *μιμος*, a buffoon, because the leaves of the sensitive species appear as if to play with the hand that touches them.

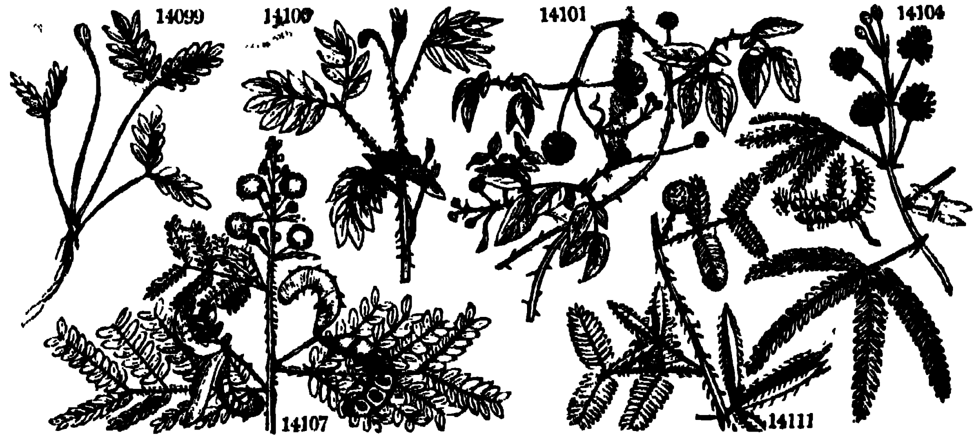
The cause of the well known motion in the leaves of the sensitive plant, has been the subject of many ingenious explanations; but it has not been treated by any botanist with so much ingenuity and address as by Dr. Dutrochet, whose theory we give, as explained by Mr. Lindley in the Botanical Register. M. Dutrochet states, that having ascertained hot nitric acid to possess the power of separating and reducing to its simplest form the whole mass of vegetable tissue, and that the action of the same acid produced other effects equally advantageous for the examination of the most obscure parts of vegetable structure, he was induced to give his attention to that of the Mimosa pudica, in the hope of gaining some evidence respecting the cause to which its sensibility is to be ascribed. Beginning with the pith, he observed a considerable number of minute globules of a greenish color, intermingled among the cells, and adhering to them in an irregular manner. After attempting to shew the probability of these globules having deceived M. Mirbel in various points of his analysis of vegetation, and especially in regard to the pores, which that botanist supposes to exist in the cellular tissue of plants, Dr. Dutrochet proceeds to remark, that the application of hot nitric acid to these globules renders them perfectly opaque, whence he concludes, that they are, in fact, minute cells filled with a particular fluid, which is subject to become concrete by the application of acids. Now, it is known, that such fluids as are thus altered by acids, are usually dissolved and liquefied again by the application of alkalies. A few drops, therefore, of a solution of hydrate of potash were suffered to fall upon a portion of the pith on which nitric acid had been acting, and the mixture was exposed to the heat of a lamp. Being examined after a few minutes, the globules were found to have resumed their natural appearance. This curious fact indicated, in the opinion of Dr. Dutrochet, a strong and unexpected point of analogy between plants and animals. According to the microscopical researches of some modern observers, it has been ascertained that all the organs of animals are composed of a conglomeration of minute corpuscles, similar to those just described; the corpuscles which constitute the muscles are soluble in acids, but those which compose the nervous system are insoluble in the same acids, and only soluble in alkalies Now, as the chemical properties and the external appearance of the particles scattered among the cellular tissue of plants, and constituting the nervous system of animals, are the same, the author is induced to infer, that the spherical particles of plants are, in fact, the

MONŒCIA.

14086 Spines stipulary very short straight, Leaves of two pairs halved oblong obt. Panicle simple long terminal
14087 Spines stipulary straight, Leaves of two pairs roundish elliptical halved emarginate, Raceme terminal
14088 Unarmed, Leaves bipinnate, Spike double of two globes pendulous
14089 Unarm. Lvs. bipin. of 2 pairs, Leafl. ov. ac. smooth shining above, Glands betw. every pair, Petiole winged
14090 Unarm. Lvs. pinn. of about 5 pairs, Leafl. ov. obl. acum. smooth, Gland between every pair, Petiole winged
14091 Leafl. of 5 pairs obl. acumin. hairy above and shining villous beneath, Branches covered with rusty down
14092 Unarmed, Lvs. of 3 pairs, Leaflets obl. acuminate equal smooth, Gland between each pair, Petiole winged
14093 Unarm. Lvs. pinn. of 2 pairs, Leafl. obl. lanc. acum. smooth, Gland between each pair, Petiole wing. at end
14094 Spines stipulary recurved, Leaves of 2 pairs, Leaflets halved obovate, Pod ensiform straight
14095 Unarm. Lvs. pinn. of 2 pairs, Leafl. obov. obl. unequal sided smooth, A gland between the lowest small ones
14096 Unarmed, Lvs. conjugate pinnate, Leaflets ov. obl. term. opp. lateral alternate, Flowers in lateral umbels
14097 Unarmed, Lvs conjugate pinnate, Leafl. obl. blunt uneq. at base, Petioles without glands, Heads stalked
14098 Spines stipular, Lvs. conjugate pinnate, Pinnæ of 3 pairs, Leaflets ovate acute smooth, Pods spirally twisted

14099 Unarmed herbaceous, Leaves conjugate pinnate, Pinnæ 4 pairs, Leaflets roundish, Pods with one joint
14100 Prickles of branches and stems scattered hooked, Lvs. bipinn. ciliat. and rough, Sutures of pods very spiny
14101 Stem and petioles prickly, Leaflets nearly halved ovate acute hairy beneath smooth above
14102 Spines of petiol. scatter. very broad compr. straight, Lvs. bipinn. finally smooth without glands, Leafl. 10-15
14103 Stem and petioles prickly, Leaflets halved cordate ovate blunt smooth
14104 Stem prickly more or less hispid, Leaves digitate-pinnate, Pinnæ 4 of many pairs, Leaflets linear
14105 Stem aculeate smooth hairy upwards, Leaves digitate-pinnate, Pinnæ 8 of many pairs, Leaflets linear
14106 Like M. asperata, but less hairy
14107 Prickles of branches and stems scattered hooked, Leaves bipinnate, Pinnæ of 5 pairs, Leaflets 20-25 lin.
14108 Leaves bipinnate, Pinnæ of 8-12 pairs, Leaflets of many pairs bristly ben. Peduncles twin as long as head
14109 Prickly, Leaves bipinnate; partial of 6 pairs; proper of many pairs cultrate, Gland of petiole depressed
14110 Lvs. bipinnate terminated by a tendril, Pinnæ of 2-3 pairs, Leaflets oval emarg. Spikes numerous fascicled

14111 Prickly, Leaves bipinnate: partial of 3 pairs; proper of many pairs, Pods acute, Stem 4-cornered
14112 Prickly, Leaves bipinnate: partial of 6 pairs; proper of many pairs, Pods acute, Stem 5-cornered



and Miscellaneous Particulars.

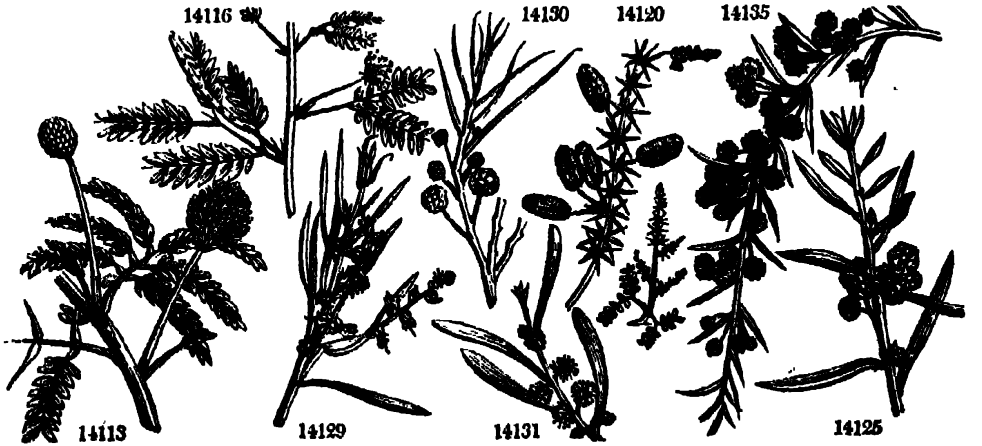
scattered elements of their nervous system. This hypothesis receives additional strength from the great similarity which exists between the medullary substance of the brain of Mollusca Gasteropoda and the cellular medullary tissue of plants. In pursuit of this idea, Dr. Dutrochet made a variety of experiments upon the sensitive plant, the results of which seem to be these. — The principal point of locomotion, or of *mobility*, exists in the little swelling which is situated at the base of the common and partial petioles of the leaves; this swelling is composed of a very delicate cellular tissue, in which is found an immense number of nervous corpuscles; the axis of the swelling is formed of a little fascicle of tubular vessels. It was ascertained by some delicate experiments, that the power of movement, or of contraction and expansion, exists in the parenchyma and cellular tissue of the swelling, and that the central fibres have no specific action connected with the motion. It also appeared that the energy of the nervous powers of the leaf depended wholly upon an abundance of sap, and that a diminution of that fluid occasioned an extreme diminution of the sensibility of the leaves. Prosecuting his remarks yet further, the author ascertained, that in the motion of the sensitive plant, two distinct actions take place, the one of locomotion, which is the consequence of direct violence offered to the leaves, and which occurs in the swellings already spoken of; the other of nervimotion, which depends upon some stimulus applied to the surface of the leaflets, unaccompanied by actual violence, such as the solar rays concentrated in the focus of a lens. As in all cases, the bending or folding of the leaves evidently takes place from one leaf to another with perfect continuity; it may safely be inferred, that the invisible nervous action takes place in a direct line from the point of original irritation, and that the cause by which this action of nervimotion is produced, must be some internal uninterrupted agency. This was, after much curious investigation, determined by the author to exist neither in the pith, nor in the bark, nor even in the cellular tissue filled with nervous corpuscles, and on which, he supposes, the locomotion of the swelling at the base of petioles to depend. It is in the ligneous part of the central system, in certain tubes supplied with nervous corpuscles, and serving for the transmission of the sap, that Dr. Dutrochet believes he has found the true seat of nervimotion, which he attributes to the agency of the sap alone, while he considers the power of locomotion to depend upon the nervous corpuscles alone.

Some of the species ripen seed; others may be increased by cuttings from the points of the young shoots planted in sand and kept closely covered.

The pods of M. fagifolia contain a sweet whitish pulp, which the natives of Martinique suck; they call the tree and its fruit *Pois Doux*, or sweet pea.

2125. *Schrankia.* Named by Willdenow, in honor of his countryman, Francis de Paula Schrank, a well known German botanist. Herbaceous prickly shabby-looking plants, with the habit of Mimosa

2126. DESMAN'THUS. *W.*	DESMANTHUS.					*Leguminosæ.*		*Sp.* 7—19.				
14113 nátans *W.*	floating	≈	⊡	un	2	jl.s	W	China	1800.	C	p.l	Bot. rep. 629
14114 plénus *W.*	double-yellow	≈	⊡	un	2	jl.s	Y	Vera Cruz	1733.	C	p.l	Mil.ic.2.t.182.f.2
14115 diffúsus *W.*	prostrate	⌒	□	un	3	jl.au	W	W. Indies	1731.	C	p.l	Pluk.al. t.307.f.3
14116 virgátus *W.*	long-twigged	●	□	un	3	jl.au	Y	W. Indies	1774.	S	p.l	Bot. mag. 2454
14117 punctátus *W.*	spotted-stalked	●	□	un	3	jl.au	W	Jamaica	1686.	C	p.l	Com.hort.1.t.31
14118 cinéreus *W.*	Ash-colored	●	□	un	3	jn.jl	W	E. Indies	1739.	C	p.l	Rox.cor. 2. t.174
14119 divérgens *W. en.*	divergent	●	□	un	6	jn.jl	W	Abyssinia	1816.	C	p.l	Bruce Abys. t. 6
2127. ACA'CIA. *W.*	ACACIA.					*Leguminosæ.*		*Sp.* 83—258.				
14120 verticilláta *W.*	whorl-leaved	●	⊔	or	10	mr.my	Y	V. Di. Isl.	1780.	S	s.p	Bot. mag. 110
14121 juniperína *W.*	Juniper-leaved	●	⊔	or	6	mr.jn	Y	N. S. W.	1790.	C	s.p	Bot. cab. 398
14122 aciculáris *H. K.*	needle-leaved	●	⊔	or	6	mr.au	Y	N. S. W.	1796.	S	s.p	
14123 genistifólia *Link.*	furze-leaved	●	⊔	or	3	mr.au	Y	N. S. W.	1825.	S	s.p	
14124 sulcáta *H. K.*	furrowed-leav.	●	⊔	or	2	my.au	Y	N. Holl.	1803.	S	s.p	Bot. reg. 928
14125 suavéolens *W.*	sweet-scented	●	⊔	or	4	f.jn	Y	N. S. W.	1790.	C	s.p	Bot. cab. 730
14126 glaucéscens *W.*	blunt-leaved	●	⊔	or	3	f.jn	Y	N. S. W.	1790.	S	s.p	
14127 floribúnda *W.*	many-flowered	●	⊔	or	6	my.jn	Y	N. S. W.	1796.	C	s.p	Vent. choix. 13
14128 linifólia *W.*	Flax-leaved	●	⊔	or	3	my.jn	Y	N. S. W.	1790	S	s.p	Bot. mag. 2168
14129 lineáris *B. M.*	linear	●	⊔	or	3	my.jn	Y	N. S. W.	1820.	S	s.p	Bot. mag. 2156
14130 calamifólia *Lindl.*	reed-leaved	●	⊔	or	3	my.jn	Y	N. S. W.	1819.	S	s.p	Bot. reg. 839
14131 stricta *W.*	double-headed	●	⊔	or	2	f.my	Y	N. S. W.	1790.	C	s.p	Bot. rep. 53
14132 longifólia *W.*	long-leaved	●	⊔	or	10	mr.my	Y	N. S. W.	1792.	S	s.p	Bot. mag. 2166
14133 falcáta *W.*	sickle-leaved	●	⊔	or	6	my.jn	Y	N. S. W.	1790.	C	s.p	
14134 laurifólia *W.*	Laurel-leaved	●	□	or	4	my.jn	Y	Tanna	1775.	S	s.p	
14135 diffúsa *B. Reg.*	diffuse	●	□	or	2	my.jn	Y	N. S. W.	1818.		s.p	Bot. reg. 634
A. prostrata Bot. Cab. 631												
14136 longíssima *Wendl.*	longest-leaved	●	□	or	4	my.jn	Y	N. S. W.	1819.		s.p	Bot. reg. 680
14137 unduláta *Lindl.*	wavy-leaved	●	□	or	4	o.n	Y	N. S. W.	1817.		s.p	Bot. reg. 843
14138 melanóxylon *H. K.*	black-wooded	●	⊔	or	8	ap.jn	Y	V. Di. Isl.	1808.	S	s.p	Bot. mag. 1659
14139 Sophóræ *H. K.*	Sophora-podd.	●	⊔	or	10	ap.jn	Y	V. Di. Isl.	1805.	S	s.p	Lab.no.h.2.t 237
14140 margináta *H. K.*	marginate-leav.	●	⊔	or	4	ap.jn	Y	N. S. W.	1803.	S	s.p	
14141 myrtifólia *W.*	Myrtle-leaved	●	⊔	or	3	f.my	Y	N. S. W.	1789.	C	s.p	Bot. mag. 302
14142 lunáta *Dec.*	lunate	●	⊔	or	2	ap.my	Y	N. S. W.	1810.	S	s.p	Bot. cab. 384
14143 angustifólia *Wendl.*	narrow-leaved	●	⊔	or	2	ap.my	Y	N. S. W.	1816.	S	s.p	Bot cab. 763
14144 hispídula *W.*	little harsh	●	⊔	or	2	ap.my	Y	N. S. W.	1794.	S	s.p	Bot cab. 823
14145 decípiens *H. K.*	paradoxical	●	⊔	or	3	mr.jn	Y	N. Holl.	1803.	C	s.p	Bot. mag. 1745
14146 biflóra *H. K.*	two-flowered	●	⊔	or	3	mr.jn	Y	N. Holl.	1803.	S	s.p	
14147 armáta *H. K.*	simp.-lv.-prick.	●	⊔	or	6	ap.jn	Y	N. Holl.	1803.	S	s.p	Bot. mag. 1653
14148 aláta *H. K.*	wing-stalked	●	⊔	or	6	ap.jl	Y	N. Holl.	1803.	C	s.p	Bot. reg. 396
14149 vestíta *B. Reg.*	clothed	●	⊔	or	6	ap.jl	Y	N. Holl.	1820.	S	s.p	Bot. reg. 698
14150 scándens *W.*	climbing	●	□	or	10	...	Pu	India	1780.	S	s.p	Rh.mal.8.t.32.34
14151 Lambertiána *B. Reg.*	Cowan's	●	⊔	el	6	my.jn	Pu	Mexico	1818.	S	s.p	Bot. reg. 721
14152 ciliáta *H. K.*	ciliate-winged	●	⊔	or	8	mr.jn	Y	N. Holl.	1803.	S	s.p	
14153 nigricans *H. K.*	unequal-wing.	●	⊔	or	8	my.jl	Y	N. Holl.	1803.	S	s.p	Bot. mag. 2188
14154 guianénsis *W.*	Guiana	↑	□	or	40	...	W	Cayenne	1803.	C	l.p	Aub. gui.2. t.357
14155 Houstóni *W.*	Houston's	●	□	or	10	s.n	Pu	Vera Cruz	1729.	C	p.l	Bot. reg. 98
14156 odoratíssima *W.*	fragrant	↑	□	it	40	...	W	E. Indies	1790.	S	p.l	Rox. cor.2. t.120
14157 venústa *W. en.*	charming	●	□	or	6	...	Pk	S. Amer.	1816.	C	l.p	
14158 arbórea *W.*	tree	↑	□	or	40	...	Pk	Jamaica	1768.	S	p.l	Plu.al.6 t.251.f.2
14159 Julibrissin *W.*	Silk tree	↑		or	20	au	W	Levant	1745.	C	l.p	Scop. in. 1. t. 8



History, Use, Propagation, Culture,

3126. *Desmanthus.* From δεσμη, a bond, and ανθος, a flower, on account of the fascicles of flowers, which seem as if bound up together. These plants are chiefly aquatic; a few are prickly; and they all have the habit of Mimosa. D. natans is used in China as a pot-herb; and is described by Loureiro, under the name of Neptunia oleracea. Willdenow, the author of the genus, observes that the neuter florets have always a different color from that of the hermaphrodites, whence the spikes appear parti-colored, by which character the genus may be known at a distance. Culture as in Mimosa. D. natans should be grown in water.

2127. *Acacia.* This was the Greek name of some plant of the present genus, and not being appropriated, was taken by Willdenow, in his reformation of the old genus Mimosa, as the designation of one of his new divisions. This is one of the most ornamental families of the greenhouse plants, and some are curious as well as beautiful. A Julibrissin, the *Gul ebrusohim*, or rose of silk of the Persians, and the Gazia of Italian gardeners, is an elegant hardy tree with beautiful tufts of pink colored flowers, which resemble tassels of silken threads.

A. Catechu and vera are used in medicine. The inner wood of the former tree is of a brown color, from which the catechu is thus prepared. "After felling the trees, the manufacturer carefully cuts off all the exterior white part of the wood. The interior colored part is cut into chips, with which he fills a narrow-mouthed unglazed earthen pot, pouring water upon them until he sees it among the upper chips; and when

14113 Unarmed, Leaves bipinnate: partial of 3 pairs; proper of many pairs, Spikes ovate, Pedunc. with bractes
14114 Unarmed, Leaves bipinnate: partial of 3 or 4 pairs: proper of 12 pairs, Spikes ovate, Stem prost. compres.
14115 Unarmed, Lvs. bipinnate: partial of 4 or 5 pairs; proper of 12 pairs, Spikes few-fl. capit. pentand. Pods lin.
14116 Unarmed, Lvs. bipinnate: partial of 4 pairs; proper of 12 pairs, Spikes few-fl. capitate decand. Pods linear
14117 Unarmed, Leaves bipinnate; partial of 4 or 5 pairs; proper of many pairs, Spikes ovate, Pods obl. blunt
14118 Spines solit. Lvs. bipinn.: partial of about 9 pairs; proper of many pairs, Spikes cylind. atten. at base cernu.
14119 Spines solitary, Leaves bipinn.: partial of 8 pairs; proper of many pairs, Spikes cylindrical twin pendulous

1. *Leafless.*

14120 Unarmed, Petioles linear subulate mucronate rigid pungent whorled, Spikes cylindrical solitary
14121 Unarmed, Petioles linear subulate mucronate rigid pungent alternate clustered, Spikes globose solitary
14122 Petioles round subulate mucronate scattered rigid, Stipules deciduous, Spikes globose solitary
14123 Stipules spiny very minute, Petioles linear subulate-pungent close together, Peduncles solitary
14124 Petioles filiform furrowed on each side: point harmless, Heads twin, Pods wavy
14125 Unarmed, Petioles linear narrowed at base mucron. Spikes globose stalked racemose, Branches 3-cornered
14126 Unarmed, Petioles lanceolate subfalcate narrowed at base blunt about 2-nerved glaucous, Spikes axillary
14127 Unarm. Petioles lin. narrowed at each end mucron. arcuate striat. Fls. interruptedly spik. Branches round.
14128 Unarm. Petiol. lin. narrow. at base straight mucron. Spikes glob. stalk. racem. Racemes nearly as long as lvs.
14129 Petioles narrow lin. very long 1-nerved erect entire, Spikes several axillary generally branched
14130 Stip. scarcely any, Petioles filiform compressed cernuous spreading with an incurved point, Pods torulose
14131 Unarmed, Petioles linear lanceolate narrowed at base obtuse, Spikes globose axillary stalked double
14132 Unarmed, Petioles lin. lanc. narrowed at each end 3-nerved striated, Spikes axillary double cylindrical
14133 Unarmed, Petioles oblong falcate narrowed at base acute veiny, Branches 2-edged
14134 Unarmed, Petioles ovato-acute many-nerved, Spikes globose stalked, Pods falcate
14135 Stip. very small decidu. Petiol. lin. 1-nerved with an oblique point, Branches procumb. diff. smooth angul.

14136 Petioles very long filiform 1-nerved spreading, Spikes several axillary generally branched
14137 Petioles half oblong wavy: their inner edge a little truncate, Stipules spiny, Branches smooth
14138 Petioles lanceolate oblong nerved somewhat falcate, Heads racemose, Young shoots furred
14139 Petioles oblong equal-sided nerved, Spikes twin sessile, Corollas 4-petals, Pods torose
14140 Petioles long lanc. somewhat falcate edged 1-nerved: the anterior edge with 1 gland, Heads racemose 4-fl.
14141 Unarmed, Petioles oblong acuminate veiny, Spikes globose stalked racemose
14142 Petioles half obl. somew. falcate tapered at base with a little gland on the convex side, Branches smooth
14143 Petioles linear tapered at base acute mucronate 1-nerved entire, Heads racemose many-flowered
14144 Unarmed, Petioles sessile oblong cuspidate toothletted scabrous, Spikes globose solitary axillary
14145 Petioles triangular: outer angle spiny; inner bearing glands, Stip. setaceous caducous, Branchlets smooth
14146 Petiol. triangul.: outer angle spiny; inner bearing glands, Stip. setaceous spiny persist. Branchlets downy
14147 Petiol. halv. obl. smooth mucronul. 1-nerv.: never parallel with inner edge, Stip. veiny, Branches hirsute
14148 Stem winged two ways, Petioles decurrent 1-nerved terminated by a spine, Stipules spiny
14149 Petioles half elliptical lanceolate mucronate aristate 1-nerved in middle and branches hispid

2. *Leafy.*

* *Unarmed.*

14150 Leaves conjugate pinnate terminated by a tendril, Pinnæ of 4 pairs, Spikes filif. Petals 5, Stem climbing
14151 Unarmed, Leaves bipinnate: partial of 2 pair; proper of 2 pair vill. Petiole without glands, Head globose
14152 Unarmed hairy, Lvs. bipinnate: partial of 2 pair; proper of 2 or 3 pair, Stip. somew. setaceous deciduous
14153 Unarmed smooth, Leaves bipinnate: partial of 2 pair; proper of 2 to 7 pair, Stip. subulate setaceous
14154 Lvs. bipinnate: partial and proper of 10 pairs ellipt. blunt, Gland of petiole convex, Spikes filif. solit. axill.
14155 Leaves bipinnate: partial of about 6 pairs; proper of many, Petioles downy, Spike terminal interrupted
14156 Leaves bipinnate: partial of 4 pairs; proper of 10-12, lowest very minute, Spikes globose term. panicled
14157 Unarmed, Leaves bipinnated, Pinnæ of 3 or 5 pair, Leaflets of 15 or 20 pair falcate acute smoothish
14158 Lvs. bipinn.: partial of 7 pair; proper of 17 pair halv. acute, Spikes glob. stalk. axill. Pods arcuate twisted
14159 Lvs. bipinn.: partial of 11 pair; proper of many pair halved acute, Spikes subglobose terminal aggregated

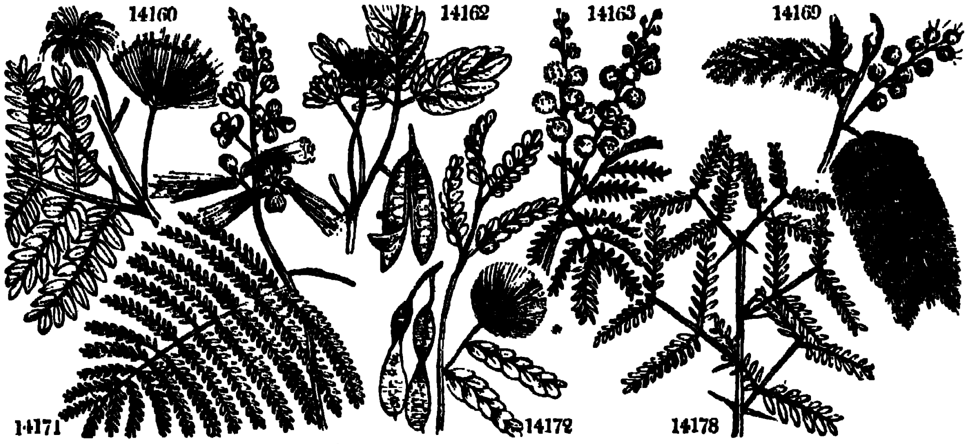
and Miscellaneous Particulars.

this is half evaporated by boiling, the decoction, without straining, is poured into a flat earthen pot, boiled to one-third part, and then set in a place to cool for one day The decoction is afterwards evaporated by the heat of the sun, stirring it several times in the day; and when it is reduced to a considerable thickness, it is spread upon a mat or cloth, which has previously been covered with the ashes of cowdung. The mass is lastly divided into square or quadrangular pieces by a string, and completely dried by turning them in the sun, until they are fit for sale. This extract, when first introduced as a medicine into Europe, was named Terra Japonica, from the supposition that it came from Japan and was an earth."

Medicinally catechu is one of the most valuable of the vegetable astringents; and as the dark colored contains the greater quantity of tannin, on which its astringency depends, it is to be preferred for medicinal use. It is employed with the best effects in dysentery and diarrhœa, when the use of astringents is admissible; in alvine and uterine hæmorrhages, leucorrhœa, gleet, and in obstinate catarrhal affections. As a local astringent, it is used in sponginess of the gums, and aphthous ulcerations of the mouth and fauces, and we have found the slow solution of a small piece of it in the mouth, a certain remedy for the troublesome cough induced by a relaxed uvula hanging into and irritating the glottis. Dr. Paris recommends it as a dentifrice, especially when the gums are spongy.

A. vera produces the gum arabic of the shops. The tree is found in almost every part of Africa, but those

14160 speciósa *W.*	splendid	♣	□	or	10	au.s	Pu	E. Indies	1742.	C	l.p	Jac. ic. 1. t. 198
14161 latisíliqua *W.*	broad-podded	♣	□	or	10	mr.jn	Pk	W. Indies	1777.	C	l.p	Plum. ic. 3. t. 6
14162 Leb'beck *W.*	Egyptian	🌳	□	or	20	mr.jn	Pk	Egypt	1823.	C	l.p	Pl.man.p.331.f.1
14163 díscolor *W.*	two-colored	♣	⊔	or	10	mr.jn	Y	N. S. W.	1788.	S	s.p	Bot. rep. 235
14164 pubéscens *H. K.*	hairy-stemmed	♣	⊔	or	10	mr.jn	Y	N. S. W.	1790.	R	s.p	Bot. mag. 1263
14165 lophántha *W.*	two-spiked	♣	⊔	or	6	my.jl	Y	N. Holl.	1803.	S	s.p	Bot. mag. 2108
14166 brachýloba *W.*	Illinois	♧	⊔Δ	or	2	...	W	N. Amer.	1803.	C	s.p	
14167 glandulósa *W.*	glandulous	♧	⊔	or	2	...	W	N. Amer.	1806.	C	s.p	Vent. choix. 27
14168 decúrrens *W.*	decurrent	♣	⊔	or	6	my.jl	Y	N. S. W.	1790.	S	s.p	
14169 móllis *B. Reg.*	soft	♣	□	or	6	jl.au	Y	N. Holl.	1810.	C	s.p	Bot. reg. 371
14170 peregrína *W.*	white-flowered	♣	□	or	8	jl	W	S. Amer.	1780.	C	s.p	
14171 grandiflóra *W.*	great-flowered	♣	□	or	10	jn.s	Pu	E. Indies	1769.	C	p.l	Bot. rep. 592
14172 glaúca *W.*	glaucous	♣	⊔	or	5	jn.au	W	America	1690.	S	s.p	Cat. car. 2. t. 42
14173 leucocéphala *Pers.*	white-headed	♣	□	or	5	jn.au	W	S. Amer.	1823.	S	s.p	
14174 portoricénsis *W.*	Portorice	♣	□	or	6	jn.au	W	S. Amer.	1824.	S	s.p	Jacq. ic. t. 633
14175 quadranguláris *Link.*	quadrangular	♣	□	or	4	jl.s	W	......	1825.	S	s.p	Bot. mag. 2651
14176 dealbáta *Link.*	whitened	♣	□	or	4	...	Y	......	1824.	C	s.p	
14177 strombulífera *W.*	spiral-podded	♣	⊔	or	8	...	...	Peru	1825.	S	s.p	
14178 reticuláta *W. en.*	netted	♣	⊔	or	10	...	W	C. G. H.	1816.	C	s.p	Pluk.al. t.123.f.2
14179 pulchélla *H. K.*	zigzag spiny	♣	⊔	or	4	ap.jl	Y	N. Holl.	1803.	S	s.p	Bot. cab. 212
14180 juliflóra *W.*	long-flowered	♣	□	or	3	...	W	Jamaica	1793.	C	s.p	
14181 Sénegal *W.*	Arabian	🌳	□	or	20	...	W	Arabia	1823.	C	s.p	Alp. ægypt. t. 15
14182 Giráffæ *W. en.*	camelopard's	🌳	□	or	40	...	...	C. G. H.	1816.	S	p.l	
14183 Cáfra *W.*	Hottentot	🌳	⊔	or	12	...	Y.w	C. G. H.	1800.	S	s.p	
14184 Chúndra *W.*	hook-spined	🌳	□	or	15	...	...	E. Indies	1789.	C	s.p	
14185 Cátechu *W.*	medicinal	🌳	□	m	40	...	Pa.Y	E. Indies	1790.	S	p.l	Rox. cor.2. t.175
14186 leucophlæ'a *W.*	panicled	🌳	□	or	12	...	Pa.Y	E. Indies	1812.	C	p.l	Rox. cor.2. t.150
14187 cornígera *W.*	Cuckold Tree	🌳	□	or	15	...	Pa.Y	S. Amer.	1692.	C	p.l	Plu.al.3.t.122.f.1
14188 ebúrnea *W.*	ivory-thorned	♣	□	or	5	...	Y	E. Indies	1792.	C	p.l	Rox. cor.2. t.199
14189 hæmatóxylon *W.en.*	hoary	🌳	□	or	20	...	Y.w	C. G. H.	1816.	C	p.l	
14190 farnesiána *W.*	Sponge Tree	🌳	□	ft	15	jn.au	Y	St. Domin.	1656.	S	p.l	
14191 véra *W.*	Egyptian Thorn	🌳	□	or	12	jl	W	Egypt	1596.	C	p.l	Pluk.al. t. 123 f. 1
14192 arábica *W.*	Gum Arab. tree	🌳	□	ec	20	...	W	E. Indies	1820.	S	p.l	Pluk.al. t.251.f.1
14193 cæ'sia *W.*	gray	ʃ	□	or	15	...	Y	E. Indies	1773.	S	p.l	Pluk. t. 330. f. 1
14194 pennáta *W.*	fine-leaved	ʃ	□	or	12	...	Y	E. Indies	1773.	S	p.l	Burm. zeyl.2.t.1
14195 I'ntsia *W.*	angular-stalked	ʃ	□	or	12	...	Y.w	E. Indies	1778.	S	p.l	Rheed.mal.6.t.4
14196 Ceratónia *W.*	round-leaved	ʃ	□	or	3	...	W	S. Amer.	1800.	S	p.l	Plum. ic. t. 8
14197 tamarindifólia *W.*	Tamarind-lvd.	♣	□	or	4	...	W	W. Indies	1774.	S	p.l	Jac.schœ.3.t.396
14198 hórrida *W.*	horrid	♣	□	or	6	...	...	Africa	1823.	S	p.l	Pluk.al. t.121.f.4
14199 flexuósa *W.*	flexuose	♣	□	or	6	...	...	Cumana	1824.	S	p.l	
14200 brachyacántha *W.en.*	short-spined	♣	□	or	4	...	...	S. Amer.	1824.	C	p.l	
14201 ciliáris *W. en.*	ciliated	♣	□	or	4	...	...	S. Amer.	1822.	C	p.l	
14202 peruviána *W. en.*	Peruvian	♣	□	or	6	...	...	Peru	1820.	C	p.l	
2128. VERA'TRUM. *W.*	VERATRUM.							*Melanthaceæ.* *Sp.* 5—7.				
14203 álbum *W.*	white	⚘	Δ	m	5	jn.au	L.Y	Europe	1548.	Sk	p.l	Fl. dan. 1120
14204 víride *W.*	green-flowered	⚘	Δ	or	5	jl.au	G	N. Amer.	1742.	Sk	p.l	Bot. mag. 1096



History, Use, Propagation, Culture,

which yield the gum which is exported from Barbary to Great Britain, grow principally in the Atlas mountains. It is a hard withered looking low tree, with a crooked stem, and a grey bark. The gum exudes naturally from the bark of the trunk and the branches, in a soft, nearly fluid state, and hardens in the air without losing its transparency. It is collected about the middle of December. It has a faint smell when first stowed in the warehouses, and is heard to crack spontaneously for many weeks.

Medicinally gum exerts no action on the living system, but is a simple demulcent, serving to lubricate abraded surfaces, and involve acrid matters in the primæ viæ. In the solid form it is scarcely ever given, unless to sheath the fauces, and allay the tickling irritation which occasions the cough in catarrh and phthisis pulmonalis; in which cases a piece of it is allowed to dissolve slowly in the mouth. It is chiefly used in a state of mucilage.

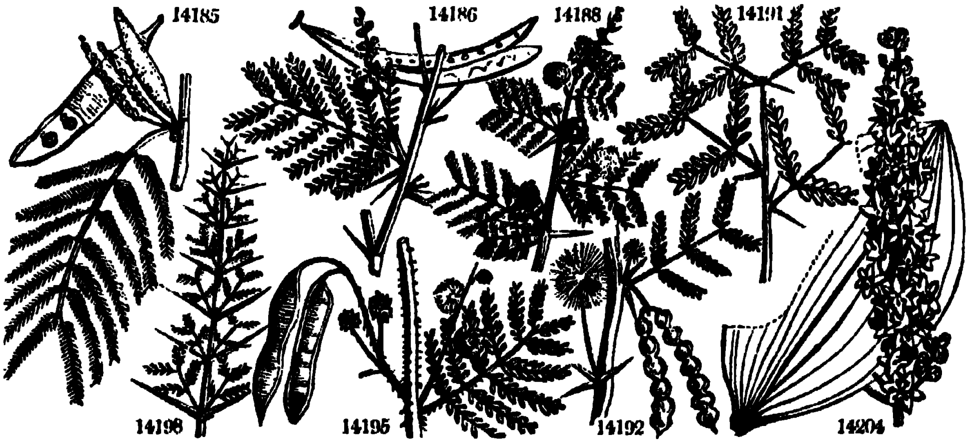
According to Sweet, all the species of Acacia are of easy culture. Those of the hot[illegible]e he recommends to be grown in loam and peat. "Cuttings," he says, "of most kinds will strike root. From the strongest growing kinds, take off large cuttings at a joint, and plunge them in a pot of sand under a hand-glass in the bark-bed.

14160 Lvs. bipinn. : partial of 4-5 pair : proper of 7-11 pair halved blunt smooth, Spikes subcapitate axill. aggregate
14161 Lvs. bipinn. : partial of 5 pair ; proper of 10 pair ellipt. blunt, Spikes globose stalked termin. with bractes
14162 Lvs. bipinn. : partial of 4 pair ; proper of many pair oblong halved blunt, Spikes subglobose term. aggregate
14163 Lvs. bipinn. : partial of 5 pair ; proper of about 10 pair discolored beneath, Spikes globose stalked racemose
14164 Lvs. bipinn. : partial of 8 pair ; proper of about 15 pair, Racemes axillary solitary, Heads globose stalked
14165 Lvs. bipinn. : partial of 9-12 pair ; proper of 20 pair lanc. veinless, A gland on stalk and betw. 2 term. petiol.
14166 Lvs. bipinn. : partial of 8 pair ; proper of many pair, A gland between the lowest pair of the partial ones
14167 Lvs. bipinn. : partial of 12 pair ; proper of many pair, A gland betw. every pair of partial ones, Spikes glob.
14168 Lvs. bipinn. : part. of 11 pair ; prop. of many pair, A gland betw. every pair of part. ones, Part. petiole marg.
14169 Lvs. bipinn. : partial of 8-18 pair ; proper of many pair lin. very close downy, A gland between every pair
14170 Lvs. bipinn. : partial of 16 pair ; proper of about 40 pair, A gland on petiole, Spikes glob. stalked axill. in 3s
14171 Lvs. bipinnate : partial of 17 pair ; proper of about 40 pair, Spikes subcapitate stalked racemose terminal
14172 Leaves bipinnate : partial 5-6 pairs ; proper of 18 distant pair, Spikes globose stalked axillary
14173 Leaves bipinnate, Pinnæ of 4 or 5 pair, Leaflets of 12 or 15 pair oblong linear acute, Petiole downy
14174 Lvs. bipinn. : partial of 5 pair ; proper of many pair lin. acute, Spikes glob. axill. about 3, Cal. ciliat. at edge
14175 Lvs. of 5 pair, Pinnæ of many pairs, Leafl. lin. acute ciliat. Rachis of lvs. downy, Heads axill. on long stalks
14176 Leaves of 15 pair, Pinnæ of many pair, Leaflets equal-sided minute downy, Racemes lateral

** Spiny.*

14177 Spines stipulary, Leaves conjugate pinnate, Pinnæ of 4-6 pair, Pods spirally twisted
14178 Spines stipul. straight almost length of leafl. Leaflets oblong linear obtuse dist. Petiole with a gland at end
14179 Lvs. conjugate pinnate, A stalked gland betw. pinnæ which consist of 5-7 pair, Stip. spiny as long as leaves
14180 Spines stipulary twin, Lvs. bipinn. : partial of 2 pair ; proper of 20 pair, Spikes axill. 2-3 cylind. pendulous
14181 Spines stipul. in 3s : midd. one reflex. Lvs. bipinn.: part. of 5 or 6 pair : prop. of many pair, Spikes axill. cylind.
14182 Spines stipul. twin con. as long as lvs. Lvs. bipinn. Pinnæ 3 or 6 pair, Leafl. 20 pair, Gland betw. every pinnæ
14183 Spines stipulary twin incurv. Lvs. bipinn. : partial of 12 pair ; proper of many pair, A gland on the petiole
14184 Spines stipulary twin hooked, Leaves bipinnate : partial of 9-13 pair ; proper of many pair, A gland on the petiole and between the three terminal outer leaflets
14185 Spines stipulary twin hooked, Leaves bipinnate : partial of 10 pair ; proper of many or downy, A gland on the petiole and between the two terminal outer leaflets
14186 Spines stipulary twin connate, Leaves bipinnate : partial of 6-10 pair ; proper of many, A gland between the 2 pair of partial leaves
14187 Spines stipulary connate compressed, Leaves bipinnate : partial of 6 pair : proper of 20 pair smooth, A gland on the petiole
14188 Spines stipul. connate twin, Leaves bipinnate : partial of 4 pair ; proper of 6 pair, Spikes globose aggregate
14189 Spines double slender and branches smooth, Branchlets, leaves, peduncles and fls. hoary
14190 Spines stipulary setac. dist. Lvs. bipinn. : partial 16 pair ; proper many pair, A gland on petiole and between 2 term. pair of partial leaves
14191 Spines stipulary twin spreading, Leaves bipinnate : partial of 2 pair ; proper of 8-10 pair, A gland betw. each pair of partial leaves
14192 Spines stipul. twin spread. Lvs. bipinn. : partial of 5 pair ; proper of many pr. Spikes globose axill. stalked
14193 Prickly, Lvs. bipinn. : partial of 7 pair ; proper of 16 pair, A gland on petiole, Spikes globose panic. term.
14194 Prickly, Lvs. bipinn. : partial and proper of many pr. A gland on petiole, Com. ped. and petioles prickly at
14195 Prickly, Leaves bipinnate : partial of 6 pair ; proper of about 12 pair incurved, Petioles prickly [base
14196 Prickly, Leaves bipinnate : partial of 5 pair ; proper of 3 pair obovate 3-nerved
14197 Prickly, Leaves bipinnate : partial of 5 pair ; proper of 15 pair, Gland on petioles stip. and bractes cordate
14198 Spines stipul. twin nearly as long as lvs. Lvs. bipinn. of 2 or 3 pr. : partial of about 10 pr. Spikes glob. stalked
14199 Spines stipulary twin connate, Leaves bipinnate : partial of 16 pair ; proper of many pair, A gland on the petiole and between the two terminal pair of partial leaves
14200 Spines stipulary twin hooked, Leaves bipinnate, Pinnæ of about 10 pair, Leaflets of 10 or 12 pair ciliated
14201 Spines stipul. twin straight subulate, Leaves bipinnate, Pinnæ of 3 or 4 pair, Leaflets of 13 pair ciliated
14202 Spines stipulary setaceous double, Leaves bipinnate, Pinnæ of 2 pair, Leaflets of 11-15 pair blunt smooth

14203 Racemes panicled, Bractes of branches oblong : partial as long as downy peduncle, Flowers erect
14204 Racemes panicled, Bractes of branches oblong-lanceolate : partial longer than downy petiole



and Miscellaneous Particulars.

Of the smaller kinds take younger cuttings, and put them under a bell-glass, also plunged in heat. The sooner the plants are potted off after they are rooted the better. If they stay too long, the sand injures their roots: they should be kept under a close glass, and shaded for a few days after potting off, and exposed to the air by degrees." (*Bot. Cult.* 11.)

The greenhouse species are particularly valuable as flowering for the most part in winter, or early in spring; they are very hardy and grow freely in loam, peat, and sand well drained. Cuttings of most kinds, Sweet observes, will root pretty freely, taken off in the young wood and planted in sand, under a bell-glass, and plunged in a little bottom heat. The kinds that do not root readily from cuttings may be increased by taking off roots, as large pieces as can be spared, and planting them in the same kind of soil as the old plants, when they should be plun[illegible] under a hand-glass in a little bottom heat. Most of the kinds might be propagated by that means. (*Bot.* [illegible] 126.)

2128. *Veratrum.* Said by Lemery to be so called, because its root is *vere-atrum*, truly black. V. album has a fleshy fusiform root, beset with strong fibres, gathered into a head; this root and every part of the plant is

14205	virginicum *H. K.*	Virginian	⚘	△	or	2	jn.jl	Br	N. Amer.	1768.	D	l.p	Bot. mag. 985
14206	nigrum *W.*	dark-flowered	⚘	△	or	3	jn.jl	D. Pu	Siberia	1596.	D	p.l	Bot. mag. 963
14207	parviflórum *W.*	small-flowered	⚘	△	or	2	jn.jl	G	Carolina	1809.	D	p.l	
2129.	ANDROPO'GON. *W.*	Andropogon.						*Gramineæ.*	*Sp.* 6—66.				
14208	striátus *W.*	nerve-glumed	⸙	[△]	un	1½	au	Ap	E. Indies	1793.	D	co	
14209	contórtus *W.*	twisted	⸙	[△]	un	2	jl.s	Ap	E. Indies	1779.	D	co	Sch.ha.3.t.342.a.
14210	Schænánthus *W.*	Lemon-grass	⸙	[△]	ft	1½	...	Ap	E. Indies	1786.	D	co	Ru.am.5. t.72.f.2
14211	distáchyos *W.*	two-spiked	⸙	△	un	1½	jl.au	Ap	S. Europe	1805.	D	co	Fl. græc. 1. t. 69
14212	múticus *W.*	smooth-spiked	⸙	[△]	un	½	jl.s	Ap	C. G. H.	1794.	D	co	
14213	Ischæ'mum *W.*	woolly	⸙	△	un	1	au	Ap	S. Europe	1768.	D	co	Sch. gram.2. t.33
2130.	CHLO'RIS. *W.*	Chloris.						*Gramineæ.*	*Sp.* 5—24.				
14214	petræ'a *W.*	flat-stalked	⸙	[△]	pr	½	jl.au	Ap	Jamaica	1779.	D	co	Vah.symb.2.t.27
14215	ciliáta *W.*	ciliated	⸙	[△]	pr	¾	jl.s	Ap	Jamaica	1779.	D	co	
14216	radiáta *W.*	many-spiked	⸙	[○]	pr	½	au.s	Ap	W. Indies	1739.	S	co	Moris.s.8.t.3.f.15
14217	barbáta *W.*	bearded	⸙	[○]	pr	1	jn.jl	Ap	E. Indies	1777.	S	co	
14218	curtipéndula *W.*	short-spiked	⸙	△	pr	½	jn.au	Ap	Illinois	1808.	D	co	
2131.	SOR'GHUM. *W. en.*	Sorghum.						*Gramineæ.*	*Sp.* 5—9.				
14219	bicolor *W. en.*	two-colored	⸙	○	clt	3	jl	Ap	Persia	1731.	S	co	M.ac.he.8.t.4.f.4
14220	vulgáre *W. en.*	Indian Millet	⸙	○	clt	4	jl	Ap	India	1596.	S	co	M.ac.he.8.t.4.f.3
14221	rúbens *W. en.*	red-seeded	⸙	○	clt	3	jl	Ap	Africa	1817.	S	co	
14222	saccharátum *W.en.*	yellow-seeded	⸙	[○]	clt	6	jl.au	Ap	India	1759.	S	co	A.ac.pa.1. t.4.f.2
14223	halepénse *P. S.*	panicled	⸙	△	un	3	jl.au	Ap	Syria	1691.	D	co	Fl. græc. 1. t. 68
2132.	HOL'CUS. *W. en.*	Soft-Grass.						*Gramineæ.*	*Sp.* 6—8.				
14224	Gryllus *R. Br.*	purple-flower'd	⸙	△	un		jn.jl	Ap	S. Europe	1791.	D	co	Fl. græc. 1. t. 67
14225	móllis *W.*	creeping	⸙	△	ag	2	jl au	Ap	Britain	corn fi.	D	h.l	Eng. bot. 1170
14226	lanátus *W.*	meadow	⸙	△	ag	3	jn.jl	Ap	Britain	me.pa.	D	h.l	Eng. bot. 1169
14227	avenáceus *W. en.*	Oat-like	⸙	△	ag	5	jn.jl	Ap	Britain	me.pa.	D	co	Eng. bot. 813
14228	bulbósus *W. en.*	bulbous-rooted	⸙	△	ag	3	jn.jl	Ap	......	...	D	co	
14229	odorátus *W.*	sweet-scented	⸙	△	ft	1½	jn.jl	Ap	N. Amer.	1777.	D	co	
2133.	ISCHÆ'MUM. *W.*	Ischæmum.						*Gramineæ.*	*Sp.* 2—21.				
14230	aristátum *W.*	bearded	⸙	[△]	un	2	jn.jl	Ap	E. Indies	1803.	D	co	
14231	rugósum *W.*	rough	⸙	[○]	un	2	jl.au	Ap	E. Indies	1791.	S	co	Sal.stir.rar.1. t.1

History, Use, Propagation, Culture,

extremely acrid and poisonous. It is used in medicine, and its properties are found to depend on veratrine, the same alkaline principle which is the active ingredient of colchicum. Medicinally it is violently cathartic and sternutatory. When taken internally, even in moderate doses, its operation is violent and dangerous; producing besides hypercatharsis, with bloody stools and excessive vomiting, great anxiety, tremors, vertigo, syncope, sinking of the pulse, cold sweats, and convulsions, terminating, if the dose be large, in death. Its external application to an ulcerated surface also produces griping and purging. Notwithstanding these effects, Veratrum has been exhibited internally, and with advantage, in mania, epilepsis, scabies, lepra, and obstinate herpetic eruptions. But the most ordinary use of white hellebore is as a local stimulant. When taken internally as a poison, the best antidote is a strong infusion of nut-galls. (*Thom. Lond. Disp.* p. 545.)

V. nigrum is very nearly allied to album, but differs in color, and seems not to be so strong and acrid in its qualities; for when both sorts are placed near each other, snails will entirely devour the leaves of this species, when they will scarcely touch those of the other.

2129. *Andropogon.* From ανηρ, a man, and πωγων, a beard. A hyperbolical comparison of the little tuft of hairs upon the flower to the beard of a man. A. schænanthus has an agreeable smell, with a warm, bitterish, not unpleasant taste. It was formerly brought over from Turkey in bundles about a foot long, and kept in the shops to be employed as a stomachic and deobstruent, but it is now little used. All the species are of the easiest culture.

2130. *Chloris.* Derived from χλωρος, green, on account of the color of its herbage. Pretty little grasses, with beautiful one-sided spikes of silky flowers.

2131. *Sorghum.* *Sorghi* is the Indian name, according to Bauhin. S. vulgare, *grand millet*, Fr., *Saggena* or *Sorgo*, Ital., and *alcandia*, Span., is much cultivated in Arabia and most parts of Asia Minor. It has been introduced into Italy, Spain, Switzerland, and some parts of Germany; also into China, Cochin-China, and the West Indies, where it grows commonly five or six feet high or more, and being esteemed a hearty food for labourers, is called Negroe Guinea corn. Its long awns or bristles defend it from the birds. In England, the autumns are seldom dry and warm enough to ripen the seeds well in the field. In Arabia it is called Dora or Durra. The flour is very white, and they make good bread of it, or rather cakes, about two inches in thickness. The bread which they make of it in some parts of Italy is dark and coarse. In Tuscany it is used chiefly for feeding poultry and pigeons; sometimes for kine, swine, and horses. Brooms are made of the spikes, which are also sent to this country for the same purpose. The Indian millet, as well as the common sort (Panicum), is cultivated in some parts of North America, and has been tried in this country, but it is only in the warmest autumns that it ripens its seeds. It might probably, however, be acclimated.

14205 Racemes panicled, Bractes shorter than peduncle, Petals with 2 glands at base
14206 Racemes supradecompound panicled, Bractes of branches linear-lanceolate very long
14207 Racemes panicled, Petals bearing the stamens on their claw

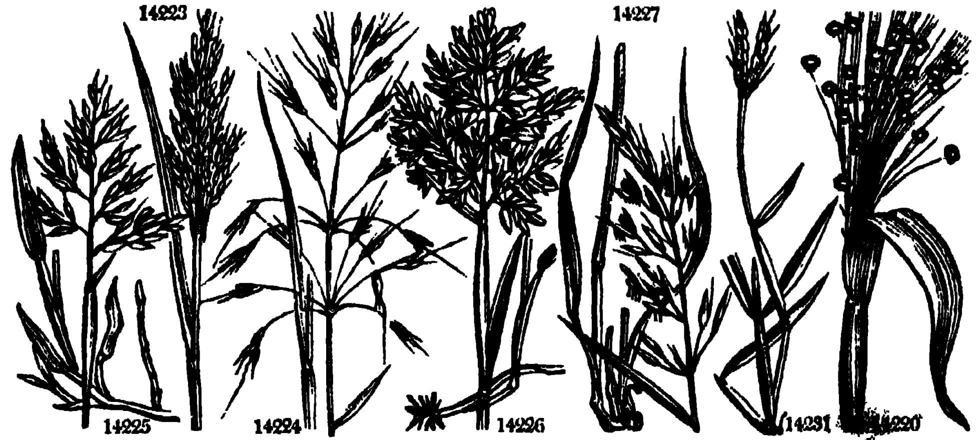
14208 Spike simple, Flowers twin : hermaphrodite sessile awned ; male stalked, Outer valve of cal. nerved
14209 Spike simple, Lower flower beardless, Male and hermaphrodite calyxes hairy, Awns very long hirsute
14210 Spikes imbric. conjug. panic. bract. Fls. in 3s : midd. hermap. beard. : beard smooth : lat. stalk. male beardl.
14211 Spikes twin terminal, Florets twin bearded : hermaphrodite sessile ; male bearded, Culm undivided
14212 Spikes digitate about 3, Florets alternate sessile beardless
14213 Spikes digitate about 8, Florets twin woolly at base : hermaphrodite sessile bearded ; male stalked bearded

14214 Spikes 4-5-6 straight erect, Florets imbric. nearly smooth beardless, Outer valve of cal. beard. Culm compr.
14215 Spikes digitate about 5 erect, Glumes ciliated
14216 Spikes many fascicled nearly erect, Florets subulate smooth
14217 Spikes many fascicled, Glumes ciliated bearded, Male valves ventricose bearded
14218 Spikes many alternate panicled pendulous, Spikelets 4-flowered

14219 Panicle contracted ovate, Florets strigose with down black, Seeds white round
14220 Panicle contracted oblong, Florets obovate shining hairy, Seeds compressed
14221 Panicle spreading, Florets oblong acute shining ciliated
14222 Panicle effuse, Branches spreading, Florets villous oblong, Leaves broad lanceolate
14223 Panicle spreading, Branches rough, Florets lanc. acute silky shining, Leaves lanceolate rough at edge

14224 Panicle effuse spreading, Branches whorled 3-fl. Peduncles bearded, Leaves and sheaths hairy
14225 Glumes 2-fl. hermaphrodite, Sessile floret beardless stalked bearded, Beard longer than flower
14226 Glumes 2-fl. : hermaphrodite beardless, Beard of the male much shorter than flower recurved
14227 Male flowers with a jointed beard twice as long as calyx, Joints of culm smooth, Root nodose
14228 Male flowers with a jointed beard twice as long as calyx, Joints of culm villous, Root bulbous [Gm.
14229 Panicle spread. Glumes 3-fl. beardl. Flor. heaped : hermap. in midd. diand. ; male triand. ciliat. *Hierochloe*

14230 Leaves lanc. Florets naked, Outer valve of cal. with 2 nodules on each side, Beard of cor. long twisted
14231 Leaves lanceolate, Neuter florets intermediate wrinkled across : two lateral smooth



and Miscellaneous Particulars.

2132. *Holcus.* From ἑλκω, to extract. It was a popular notion among the ancients, that the leaves of the plant they called Holcus, which seems to have been a grass of some kind, had the property of extracting thorns from the flesh. H. mollis is distinguished by its creeping roots, which, when once in possession of the soil, as Mr. Sinclair observes, can hardly be again expelled without great labor and expence. It is the true couch-grass of light sandy soils, and underground stolones have been found five feet in length, the growth of a few months only. These root-shoots contain a very considerable quantity of nutritive matter, which has the flavor of new made meal. Pigs are very fond of the roots, and dig them up with eagerness; but the herbage is disliked by cattle, more than that of any other species of the genus, being extremely soft, dry, and tasteless. The best mode of banishing this weed from light arable lands, is to collect the roots with the fork after the plough. (*Sinclair*, *Hort. Gram.* 167.)

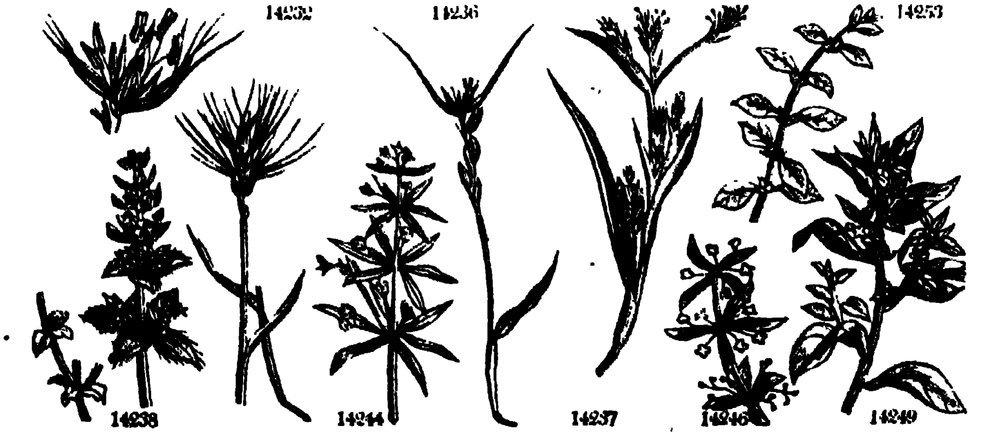
H. lanatus has a fibrous root, and grows on all soils from the richest to the poorest, but attains to the highest degree of luxuriance on light moist peaty soils. Cattle prefer almost any other grass to this; it is seen in pastures with full grown perfect leaves, while the grasses that surround it are cropped to the roots. Its nutritive matter consists entirely of mucilage and sugar; while the nutritive matters of grasses most liked by cattle are either sub-acid or saline. Mr. Sinclair suggests, that this grass might probably be made more palatable to cattle, by being sprinkled over with salt. (*Hort. Gram.* 164.)

H. avenaceus, the Avena elatior of Linnæus, Curtis, and Host, is a bulky productive grass, eaten by horses, cattle, and sheep, but less nutritious than many other grasses. It pushes rapidly after being cropped; and though later in flowering than many other species, produces an early and plentiful supply of herbage in the spring. These properties would entitle it to rank high as a grass adapted for the alternate husbandry, but its nutritive matter contains too large a proportion of bitter extractive and saline matters to warrant its cultivation, without a considerable admixture of different grasses; and the same objection extends to its culture for permanent pasture. It is always present in the composition of the best natural pastures, and, as before mentioned, eaten in common with other grasses. It does not, however, constitute a large proportion of the herbage, but rather the least of any of the more valuable grasses that have been mentioned. (*Hort. Gram.* p. 171.) This grass and Triticum repens are the two species eaten by dogs to excite vomiting. One variety has bulbous roots, and is a noxious weed in arable lands.

H. odoratus is one of the earliest flowering grasses; but it is tender, the spring produce of herbage is inconsiderable, and its powerful creeping roots render it unfit for agricultural purposes. (*Hort. Gram.* 169.)

2133. *Ischæmum.* From ἰσχω, to stop, and αἱμα, blood. Pliny says, that the Thracians first discovered that the woolly seed which is borne by the Ischæmum, if introduced into the nostrils, has the power of stopping the bleeding at the nose. Useless grasses.

2134.	**Æ'GILOPS.** *W*	HARD-GRASS.					*Gramineæ.*	*Sp.* 5.					
14232	**ováta** *W.*	oval-spiked	⚘	○	un	¾	jn.jl	Ap	S. Europe	1683.	S	co	Fl. græc. 1. t. 93
14233	**triunciális** *W.*	long-spiked	⚘	○	un	½	jl.au	Ap	S. Europe	1739.	S	co	Sch.gr. 1. t. 10. f 1
14234	**cylindrica** *W.*	cylindrical	⚘	○	un	1	jn.jl	Ap	Hungary	1805.	S	co	Host.gram.2. t.7
14235	**squarrósa** *W.*	rough-spiked	⚘	△	un	1½	jn.jl	Ap	Levant	1794.	S	co	Sch.gr.2. t 27. f 2
14236	**caudáta** *W.*	Cretan	⚘	○	un	1	jn.jl	Ap	Candia	1739	S	co	Fl. græc. 1. t. 95
2135.	**MANISU'RIS.** *W.*	MANISURIS.					*Gramineæ.*	*Sp.* 1—2.					
14237	**granulária** *W.*	round-grained	⚘	[⊙]	cu	1½	jn.jl	Ap	E. Indies	1784.	S	co	Roxb.cor.2.t.118
2136	**VALAN'TIA.** *W.*	VALANTIA.					*Rubiaceæ.*	*Sp.* 10.					
14238	**Cruciáta** *W.*	Crosswort	★	△	or	1½	my.jn	Y	Britain	...	D	co	Eng. bot. 143
14239	**murális** *W.*	wall		○	un	½	my.jl	G	S. Europe	1739.	S	co	Col. ecph. t. 297
14240	**hispida** *W.*	bristly		○	un	1	my.jl	G.y	S. Europe	1768.	S	co	
14241	**filifórmis** *W.*	least	★	○	un	¼	jl.s	G.y	Canaries	1780.	S	co	
14242	**pedemontána** *W.*	Piedmont		○	un	½	jl	G.y	Hungary	1799.	S	co	Pl. rar. hu. 1. t. 33
* 14243	**Cucullária** *W.*	hooded		○	un		my.jn	G.y	Levant	1780.	S	co	Bu.cen.1.t.19 f.2
14244	**Aparine** *W.*	warty-fruited		○	w	¾	jn.au	G.y	Britain	...	S	co	Eng. bot. 2173
	Gálium verrucósum	E. B.											
14245	**articuláta** *W.*	jointed		○	un	1	jl.au	G.y	Egypt	1752.	S	co	
14246	*glábra* *W.*	smooth	★	△	un	1	jl.au	G	S. Europe	1731.	D	co	Pl. rar. hu. 1. t. 32
14247	**áspera** *W.*	rough	★	△	un	¾	my.jl	G.y	Siberia	1804.	D	co	
2137.	**PARIETA'RIA.** *W.*	PELLITORY.					*Urticeæ.*	*Sp.* 7—19.					
14248	**indica** *W.*	Indian	£	[△]	un	1½	ap.my	G	E. Indies	1790.	D	co	
14249	**officinális** *W.*	wall	£	△	w	1	jn.s	G	Britain	walls.	D	co	Eng. bot. 879
14250	**judáica** *W.*	Basil-leaved	£	△	un	1	jn.s	G	Germany	1728.	S	co	Sch.hand.3.t.346
14251	**pensylvánica** *W.*	Pensylvanian		○	un	½	jl	G	Pensylva.	1821.	[illegible]	co	
14252	**urticæfólia** *W.*	Nettle-leaved		[○]	un	1	jn.s	G	Bourbon	1700.	S	co	
14253	**lusitánica** *W.*	Chickweed-lvd.	★	○	un	½	jl.au	G	Spain	1710.	S	co	Boc.sic.t.24.f. B.
14254	**polygonoides** *W.*	Polygonum-lvd.		○	un	½	jl.au	G	Armenia	1728.	S	co	
2138.	**A'TRIPLEX.** *W.*	ORACHE.					*Chenopodeæ.*	*Sp.* 15—37.					
14255	**Hálimus** *W.*	tall shrubby	ɱ		or	5	jl.au	G	Spain	1640.	C	co	Par thea.724. t.2
14256	**portulacoides** *W.*	dwarf shrubby	ɱ		or	2	jl.au	G	Britain	mud.s.	C	co	Eng. bot. 261
14257	**glaúca** *W.*	glaucous	ɱ	⊔	un	2	jl.au	G	S. Europe	1732.	C	s.l	Dill.elt. t.40. f.46
14258	**álbicans** *W.*	white	ɱ	⊔	un	2	jn.jl	G	C. H.	1774.	C	s.l	
14259	**rósea** *W.*	Rose		○	un	1½	jn.jl	G	S. Europe	1759.	S	co	Sch.hand.3.t.350
14260	**sibírica** *W.*	Siberian		○	un	2	jl.au	G	Siberia	1781.	S	co	S. h. 3 p.538.t.350
14261	**tatárica** *W.*	Tartarian		○	un	2	jl.au	G	Tartary	1778.	S	co	S. h.3.p.539.t.349
14262	**horténsis** *W.*	garden		○	cul	6	jl.au	G	Tartary	1548	S	co	
	β rúbra	*red garden*		○	cul	6	jl.au	G	Tartary	1548.	S	co	
14263	**laciniáta** *W.*	frosted sea		○	w	1½	jl.au	G	Britain	san.sh.	S	co	Eng. bot. 165
14264	**pátula** *W.*	spreading		○	w	¾	jn.s	G	Britain	dungh.	S	co	Eng. bot. 936
14265	**angustifólia** *W.*	narrow-leaved		○	w	¾	jn.au	G	Britain	rub.	S	co	Eng. bot. 1774
14266	**erécta** *W.*	upright		○	w	1½	au	G	England	fields.	S	co	Eng. bot. 2223
14267	**littorális** *W.*	Grass-leaved		○	w	1	au.s	G	Britain	mud s.	S	co	Eng. bot. 708
14268	**pedunculáta** *W.*	pedunculated		○	w	1½	jl.s	G	England	sal m.	S	co	Eng. bot. 232
14269	**microspérma** *W.*	small-seeded		○	un	1½	jl.s	G	Hungary	1800.	S	co	
2139	**RHAGO'DIA.** *R. Br.*	RHAGODIA					*Chenopodeæ.*	*Sp.* 1—7.					
14270	**hastáta** *R. Br.*	halberd-leaved	ɱ	⊔	un	2	jn.jl	G	N. S. W.	1803.	C	l.p	



History, Use, Propagation, Culture,

2134. *Ægilops.* From αιξ *αιγος*, a goat, and ωψ, the eye. The ancients believed that the plant they named Ægilops had the power of curing a disease of one corner of the eye, which seems to have been what we call Fistula lachrymalis. The Ægilops ovata is a common Sicilian grass; when ripe, it is gathered by the peasantry, who tye the heads up in bunches, and set them on fire, they burn with rapidity, and so give the grains a slight roasting, which are then considered agreeable food.

2135. *Manisuris.* Said to be so called, from *μανος*, relaxed, and *ουρα*, tail, or, in botanical language, a head of grass; because the spikes are loose, and not compact. A curious little plant remarkable for its wrinkled grains.

2136. *Valantia.* Miserable weeds of no beauty or use; called by their present name by *Linnæus* in reference to Sebastian Vaillant, a learned and excellent French botanist, who died in 1722. The author of the name would have employed his time better in considering the botanical writings of Vaillant, than in identifying with the most worthless part of vegetation an author whose merits he was not able to understand. No man was more given to sneers of this kind than Linnæus; and yet his followers manifest a most extraordinary degree of sensitiveness whenever he is retorted upon in a similar way; although *few* ever deserved criticism in some things in a higher degree than himself.

2137. *Parietaria.* From *paries*, a wall. Weeds which are commonly found upon old walls, or rubbish heaps. P. officinalis presents some curious anomaliesin its inflorescence and fructification. To obtain a perfect idea of

14232 Spike ovate, Cal. all with 4 beards scabrous, Culms ascending
14233 Spike cylind. Lower cal. with 2 beards: the rest with 3, Beards of 2 terminal florets longer than the rest
14234 Spike cylindrical, Cal. with 1 beard, Cor. beardless, Terminal beards very long
14235 Spike cylindrical, Cal. 2-toothed beardless, Cor. with 1 beard
14236 Spike cylindrical, Cal. 2-toothed: teeth unequal beardless, Valves of terminal floret with 1 valve only

14237 Valves of female fl. globose tessellated warted, Culm erect branched, Sheaths hairy

14238 Leaves 4 ellipt. obl. 3-nerved netted hispid, Peduncles branched smooth bracted, Fruit smooth
14239 Leaves 4 elliptical netted smooth, Male fl. trifid attached to the base of the hermaphrodite
14240 Leaves 4 obovate-oblong veinless roughish, Male fl. trifid attached to the base of the hermaphrodite
14241 Leaves 4 oblong ciliate toothletted netted smooth, Ovary oblong chaffy longer than pedicel
14242 Leaves 4 oblong ciliate hispid, Pedunc. subbifid ciliated, Male fl. trifid, Ovary smooth
14243 Leaves 4 oblong, Peduncles protected by the ovate deflexed bracteas, Stem erect
14244 Leaves 6 linear lanceolate hispid at edge, Pedunc. 2-fl. naked, Male fl. trifid, Fruit warted

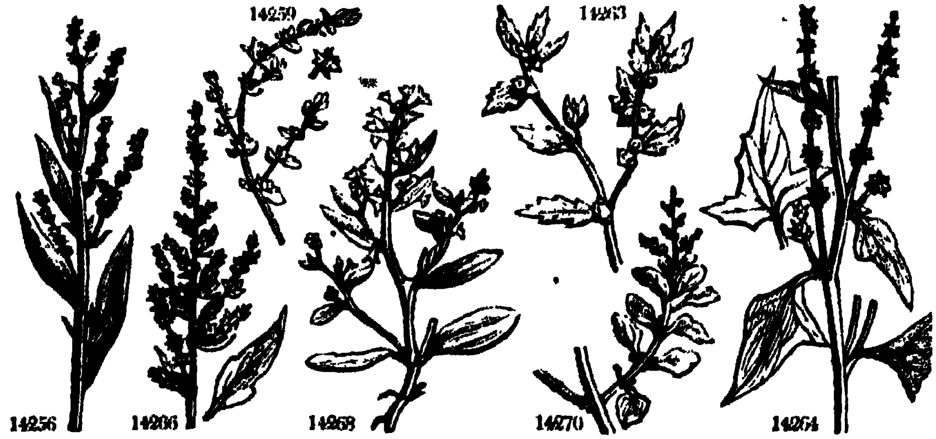
14245 Male fl. 4-fid, Pedunc. dichotomous leafless, Leaves cordate
14246 Leaves 4 elliptical ciliated, Pedunc. branched naked and fruit smooth
14247 Leaves 6 linear very rough at edge, Stalk and fruit hispid

14248 Leaves lanceolate, Stem erect
14249 Leaves oblong ovate acuminate at each end with pellucid dots, Pedunc. dichotomous, Cal. 2-leaved
14250 Leaves ovate, Stem erect, Invol. 3-flowered, Male corollas long cylindrical
14251 Leaves oblong lanceolate veiny with opaque dots, Involucre longer than flowers
14252 Leaves opposite stalked ovate serrated veiny downy, Flowers axillary
14253 Leaves roundish ovate obtuse the length of petiole, Stems filiform procumbent
14254 Leaves linear lanceolate subsessile hairy, Invol. longer than flower

14255 Stem shrubby, Leaves alternate or opposite oblong subrhomboid entire
14256 Stem shrubby, Leaves obovate-lanceolate entire silvery white
14257 Stem half-shrubby procumbent, Leaves ovate sessile entire. lower a little toothed
14258 Stem shrubby erect, Leaves hastate entire acute, Spikes terminal
14259 Stem herb. spreading, Leaves triangular hoary unequally toothed, Cal. of fruit quadrang. toothed
14260 Stem herbaceous spreading, Leaves rhomboid somewhat toothed, Cal. of fruit muricate toothed
14261 Stem herbaceous erect, Leaves oblong sinuated cuneate at base hoary beneath, Cal. of fruit toothed
14262 Stem herbaceous erect, Leaves triangular toothed whole-colored, Cal. of fruit ovate netted entire

14263 Stem herbaceous diffuse, Leaves ovato-deltoid dentato-sinuate very mealy beneath [tuberculat. at side
14264 Stem herb. spreading, Lvs. triang. hast. glab. above irregul. tooth.: upp. ones ent. Cal. of fr. more or less
14265 Stem herb. spread. Lvs. lanc. ent.: lower ones somew. hast. Cal. of fruit hastate slightly tuberculat. at sides
14266 Stem herbaceous erect, Leaves ovate-lanceolate; lower sinuated, Cal. of seeds muricated
14267 Stem herbaceous erect, Lvs. all linear ent. or toothed, Perianth of fruit sinuated and muricated on back
14268 Stem herbaceous flexuose spreading, Leaves obovate entire, Female flowers stalked cuneiform
14269 Stem herbaceous erect, Leaves triang. hastate acutish a little toothed, Cal. of fruit ovate acute entire

14270 Branches diffuse, Leaves nearly opposite rhomboid-hastate entire smooth, Spikes terminal leafless



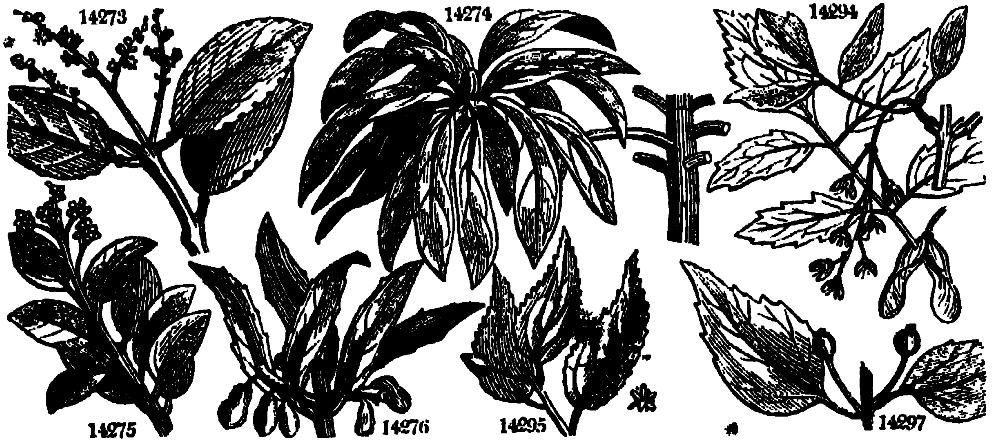
and Miscellaneous Particulars.

the manner in which this is carried on, the flowers should be examined at a very early period of their expansion. The manner in which the stamens shed their pollen is curious. The filaments on their first appearance all bend inwards; as soon as the pollen is arrived at a proper state to be discharged, the warmth of the sun, or the least touch from the point of a pin will make them instantly fly back, and discharge a little cloud of dust. This process is best seen in a morning, when the sun shines on a plant in July or August: if the plant be large, numbers will be seen exploding at the same instant. Mr. Curtis remarks, that the same degree of cold (thirty-one Fahrenheit) which strips the mulberry of its leaves, will destroy the herbage of Parietaria. The ashes of the plant are said to contain a considerable quantity of nitre.

2138. *Atriplex.* The same name as Atraphaxis, which see. A. Halimus (ἁλιμος, maritime) grows on the sea-coast of the south of Europe, and in this country its silver-colored foliage adds to the variety of our shrubberies. A. portulacoides requires to be planted on a poor gravelly soil; in its native state it prefers the sea-shore and salt marshes. A. hortensis, sometimes called mountain spinach, was formerly cultivated as a culinary herb, and is still grown to a considerable extent in the neighbourhood of Paris, and the leaves gathered as spinach. There are several varieties more or less tinged with red or purple. The leaves of all the species may no doubt be used as pot-herbs.

2139. *Rhagodia.* From ῥαγωδης, bearing berries. New Holland shrubs with alternate leaves, and flowers growing in racemose spikes.

2140. TERMINA'LIA. *W.*	Terminalia.					*Combretaceæ.*	*Sp.* 4—11.					
14271	Catáppa *W.*	broad-leaved	☐	or	20	...	W.o	E. Indies	1778.	S	p.l	Jac. ic. 1. t. 197
14272	moluccána *W.*	Molucca	☐	or	20	...	W.o	E Indies	1804.	C	p.l	
14273	Chébula *W.*	oval-leaved	☐	or	20	...	W.o	E. Indies	1796.	C	p.l	Rox. cor.2. t.197
14274	angustifólia *W.*	narrow-leaved	☐	or	20	...	W.o	E. Indies	1692.	S	p.l	Jac.vind.3. t.100
2141. FUSA'NUS. *L.*	Colpoon.					*Santalaceæ.*	*Sp.* 1.					
14275	compréssus *L.*	flat-stalked	⊔	un	1½	...	G.w	C. G. H.	1776.	C	l.p	Ber. ca.38. t.1.f.1
2142. BRABE'JUM. *W.*	African-Almond.					*Proteaceæ.*	*Sp.* 1.					
14276	stellátum *Thunb.*	common	⊔	or	15	mr.ap	W	C. G. H.	1731.	C	l.p	Breyn.cent.1.t.1
2143. A'CER. *W.*	Maple.					*Acerineæ.*	*Sp.* 17—30.					
14277	heterophýllum *W.*	evergreen		or	4	my.jn	G	Levant	1759.	S	co	W.arb.10. t.1 f.1
14278	tatáricum *W.*	Tartarian		tm	20	my.jn	G	Tartary	1759.	L	co	Dend. brit. 160
14279	Pseúdo-Plátanus	Sycamore		tm	50	ap.my	G	Britain	hed.	S	co	Eng. bot. 303
14280	rúbrum W.	Red or Swamp		tm	20	ap.my	R	N. Amer.	1656.	L	s.l	Mich. arb.2. t. 14
14281	dasycárpum *W.*	Sir C. Wager's		tm	25	ap.my	G.v	N. Amer.	1725.	L	s.l	Mich. arb.2. t. 13
14282	barbátum *Ph.*	bearded		tm	15	ap.my	G	N. Amer.	1812.	S	s.l	
14283	saccharinum *W.*	Sugar		tm	40	ap.my	Y	N. Amer.	1735.	S	s.l	Mich. arb.2. t. 15
14284	nigrum *Ph.*	black		tm	40	ap.my	G	N. Amer.	1812.	S	s.l	Mich. arb.2. t. 16
14285	platanoides *W.*	Norway		tm	50	my jl	G	Europe	1683.	S	co	Schm.arb.1.t.3,4
	β *laciniátum*	*cut-leaved*		tm	30	my.jl	G	Europe	1683.	L	co	Schm. arb. 1. t. 5
14286	striatum *Ph.*	striped-barked		or	20	my jn	G	N. Amer.	1755.	L	co	Mich. arb. 2. t.17
14287	montánum *Ph.*	mountain		or	25	ap.my	G	N. Amer.	1750.	L	s.l	Schm. arb.1. t 11
14288	campéstre *W.*	common		or	25	my jn	G	Britain	hed.	S	co	Eng. bot. 304
14289	O'palus *W.*	Italian		or	50	my jn	G	Italy	1752.	L	co	
14290	*opalifólium* *Vill.*	Guelder-rose-lv.		or	12	my.jn	G	S. France	1823.	L	co	Tra.arc.1.n.13.ic
14291	monspessulánum *W.*	Montpelier		or	8	my	G	France	1739.	L	co	Schm arb.1. t.14
14292	obtusátum *Kit.*	blunt-leaved		or	8	my	G	Hungary	1825.	L	co	Tra.arc.1 n.14.ic
14293	créticum *W.*	Cretan		or	4	my.jn	G	Levant	1752.	L	co	Schm.arb.1 t.15
2144. NEGUN'DIUM. *Dec.*	Box-Elder.					*Acerineæ.*	*Sp.* 1—2.					
14294	americánum *Dec.*	Ash-leaved		or	35	ap	G	N. Amer.	1688.	L	s.l	Schm arb.1. t 12
2145. CEL'TIS. *W.*	Nettle Tree.					*Ulmaceæ.*	*Sp.* 9—19.					
14295	austrális *W.*	European		or	40	my	G	S. Europe	1796.	S	co	Dend. brit. 105
14296	Tournefórti *W.*	Tournefort's		cu	8	...	G	Levant	1739.	S	co	Tourn. it. 2. t 41
14297	occidentális *W.*	American		or	20	ap.my	G	N. Amer.	1656.	L	co	Dend. brit. 147
14298	lævigáta *W.*	polished		or	20	ap.my	G	Louisiana	...	L	co	
14299	crassifólia *W.*	Hoop-Ash		or	20	ap my	G	N. Amer.	1812	C	co	Duha. arb. 2. t 9
14300	púmila *Ph.*	dwarf		cu	6	my	G	N. Amer	1812.	C	co	



History, Use, Propagation, Culture.

2140. *Terminalia.* Because the leaves grow in bunches at the *termination* of the branches. The species grow in loam and peat, and ripened cuttings, with their leaves on, will root in sand closely covered.

2141. *Fusanus.* The ancient name of the Euonymus. This plant resembles it in foliage. A little Cape shrub, formerly included in Thesium.

2142. *Brabejum.* From βραβεῖον, a sceptre. The elegant racemes of splendid flowers may well be compared to a sceptre.

2143. *Acer.* A Latin word signifying vigorous or sharp. The wood was formerly manufactured into the heads of pikes and other weapons. The species consist of trees, most of them yielding a saccharine juice from the trunk, branches, and leaves. A. Pseudo-Platanus, *Plane tree*, Scot., grows wild in Switzerland, Germany, Austria, and Italy. It is remarkably hardy, and will grow with an erect stem, exposed to the highest winds, or to the sea-breeze. It is in leaf by the middle of April; and on their first appearance the leaves are of a pleasant green, but they exude a clammy juice so abundantly, that they attract a variety of insects, which soon perforate and disfigure them. The flowers of none of the species are of any beauty. The shade of the tree is said to do less damage to pasture than most trees. The timber was formerly much used by the turner, and is still in repute by the saddle-tree maker and the millwright. In spring and autumn, if the trunk be pierced, it yields abundance of juice, from which a good wine may be made, or sugar to a certain extent procured by evaporation. A. rubrum grows in swamps in Pennsylvania, where the natives use it for almost all sorts of wood-work; with the bark they dye a dark blue, and make a good black ink. The Canadians tap the tree for the juice, of which they make sugar and treacle. The scarlet flowers of this species come out in spring before the leaves; they are without petals, and have not more than six stamens.

A saccharinum bears a considerable resemblance to A. platanoides, especially when young. From this tree, and probably also from other species, the inhabitants of North America make a very good sort of sugar. The trees are tapped in February, March, and April, during warm days and frosty nights. The incision is made with an axe or auger, or about two inches deep. A spout of sumach or elder is introduced, through which the sap flows, from four to six weeks, into a trough, whence it is carried daily to a larger receiver; from which it is conveyed after being strained to the boiler. The boiling and refining process is or should be carried on in the same manner with that for the cane sugar in the West Indies. A tree of an ordinary size yields in a good season from twenty to thirty gallons of sap, from which are made from five to six pounds of granulated sugar.

A. platanoides grows on the mountains of the northern counties of Europe, descending in some places of

14271 Leaves obovate without glands at base blunt obsoletely toothletted : beneath soft with down
14272 Leaves obovate without glands at base blunt entire smooth on each side
14273 Leaves obovate oblong blunt entire smooth on each side, Petioles with 2 glands above
14274 Leaves linear-lanceolate repand downy beneath

14275 The only species

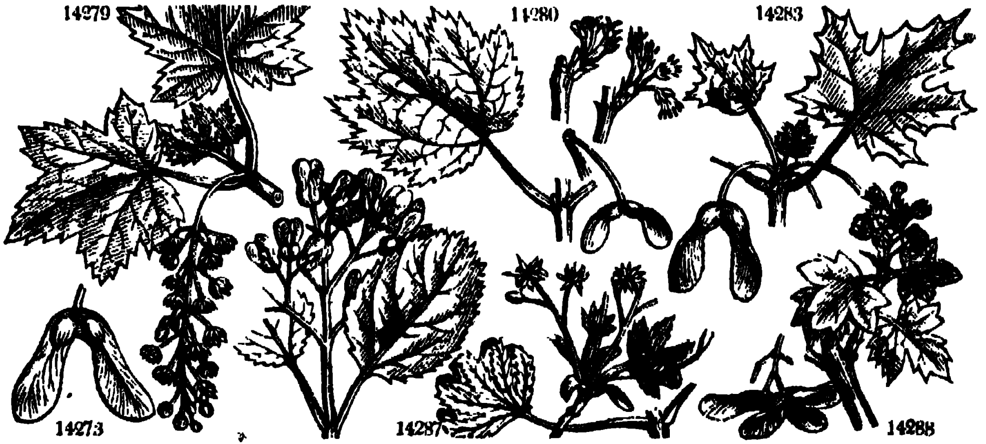
14276 The only species

14277 Leaves evergreen entire and 3-lobed obsoletely toothletted smooth on very short stalks
14278 Leaves cordate somewhat cut unequally toothed, Corymbs erect, Fruit smooth
14279 Lvs. cord. 5-lobed glauc. and smooth beneath : lobes unequally tooth. Racemes pendulous, Fruit smooth
14280 Lvs. on long stalks subcordate 5-fid smooth glauc. beneath : segm. acuminate cut-toothed, Umbels erect
14281 Lvs. cordate 5-fid whitish and smooth beneath : segm. acuminate cut-toothed, Fl. in capitate umbels
14282 Lvs. shortly 3-lobed serrated smooth on each side : male peduncles branched ; female simple
14283 Lvs. subcord. acutely 5-lobed downy beneath : lobes nearly entire, Corymbs before the lvs. loose nodding
14284 Lvs. cordate 5-lobed downy beneath, Corymbs sessile nodding, Fruit smooth
14285 Lvs. cordate 5-fid smooth : segm. acuminate cuspidate somewhat toothed, Corymbs nearly erect

14286 Lvs. cordate 3-fid acuminate serrated smooth, Racemes simple long pendulous, Branches striated
14287 Lvs. about 5-lobed acute serrated downy beneath, Racemes compound erect
14288 Lvs. cord. bluntly 5-lobed shining smth beneath : lobes nearly ent. Corymbs erect, Wings of fruit divaricat.
14289 Lvs. on long stalks round. coriac. bluntly 5-lob. pale ben. : lobes bluntly tooth. Corymbs erect, Fruit smth.
14290 Lvs. cord. 5-lobed glauc. beneath netted : lobes blunt crenate-tooth. Umb. pendul. Pedun. and fruit smooth
14291 Lvs. annual cordate 3-lobed : lobes nearly entire equal, Corymbs few-flowered erect, Fruit smooth
14292 Lvs. cordate slightly and very bluntly 5-lobed downy beneath : lobes repand, Umbels pendulous
14293 Lvs. evergreen tapered at base 3-fid : segments toothletted ; lateral shortest, Corymbs few-flowered erect

14294 Leaves ternate and pinnate cut serrate, Male flowers corymbose : female racemose

14295 Leaves oblong-lanceolate acumin. finely serrated scabrous above beneath soft with down unequal at base
14296 Leaves ovate acute serrated unequal at base roughish above : younger somewhat cordate
14297 Leaves ovate acuminate serrated unequal at base rough above hairy beneath
14298 Leaves unequally cordate acuminate nearly entire smooth on each side
14299 Leaves ovate acuminate serrated unequally cordate at base subcoriaceous rough on both sides
14300 Leaves unequal at base ovate acuminate serrated smoothish on each side



and Miscellaneous Particulars.

Norway to the sea-shore. It abounds in the north of Poland and Lithuania, and is common through Germany, Switzerland, and Savoy. On a tolerable soil it attains a large size, and the leaves being smooth and of a shining green, as large or larger than those of the sycamore, and being seldom eaten or defaced, because the tree abounds in a sharp milky juice disliked by insects, they have a much better appearance than those of the sycamore ; and in the spring, when the flowers are out, which are of a fine yellow color, this tree has great beauty. Hanbury observes, that in the autumn the leaves die to a golden yellow color, which produces a good effect at that season, when the different tints of the decaying vegetable world are displayed. He says further, that it is a quick growing tree, arrives at a great bulk, and is one of the best trees for sheltering habitations. Linnæus recommends it for sheltering walks and plantations ; as yielding a juice from which sugar may be made, if it be wounded in the winter ; and as cutting out into a white smooth wood, fit for the stocks of guns, the joiner and the turner. Dr. Hunter observes, that it is a quick grower, arrives at a great bulk, and answers all the purposes of the sycamore ; the raising it for use, as well as ornament and variety, should not be neglected. (*Mill. Gard Dict.*)

A. striatum has a slender stem, with a smooth bark beautifully varied with green and white stripes, the boughs of a shining red in winter. The thickness of the shade, the beauty of the bark, and the tree not being liable to insects, render it very desirable for ornamental plantations ; the only objections to it are, that it is subject to be injured by storms, and that the abundance of its foliage and seeds occasions a great litter in autumn.

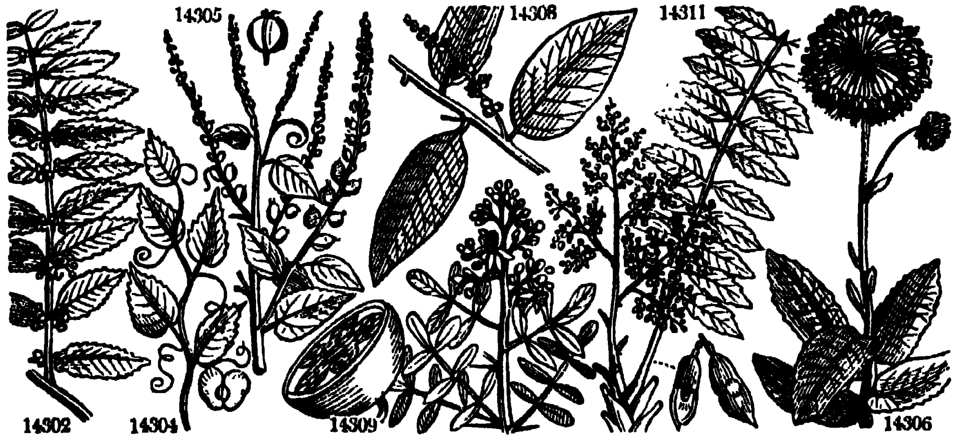
A. campestre forms a very picturesque little tree, and the timber is said to be far superior to that of the beech or the sycamore for the purposes of the turner. It is also frequently substituted for that of the holly and box by the mathematical instrument maker.

A. Opalus is a noble tree, with large and beautiful foliage, throwing an extensive shade ; it is much prized in Italy for planting by avenues and public walks. All the species are easily raised from seed, though the ash-leaved and some other species are occasionally propagated by layers and cuttings ; the cuttings should be cut off at a joint, and, as in the case of most hardy trees and shrubs, they succeed best when planted in the autumn in a sheltered situation in the open ground.

2144. *Negundium.* A genus obviously distinguished from Acer by its pinnated leaves. A fine ornamental tree, called in North America black ash. There is another species in China.

2145. *Celtis.* One of the names anciently given to the Lotus. Tournefort first applied the name to the modern genus, which may be said to resemble both in fruit and foliage the shrubby Lotus of the ancients.

14301 sinénsis *Pers.*	Chinese	♣		or	12	...	G	Asia	1820.	L	p.l	
14302 micrántha *W.*	smooth	♣	☐	or	10	au.s	G	Jamaica	1739.	C	p.l	Plum.ic.t.206.f.1
14303 aculeáta *W.*	prickly	♣	☐	or	10	...	G	Jamaica	1791.	C	p.l	
2146. GOUA'NIA. *W.*	GOUANIA.					*Rhamneæ.*	*Sp* 2—20.					
14304 domingénsis *W.*	Chaw-stick	⌇	☐	or	10	...	G	W. Indies	1739.	C	p.l	Pluk.al. t.201.f.4
14305 tiliæfólia *W.*	Lime-tree-lvd.	⌇	☐	or	10	...	G	E. Indies	1810.	C	p.l	Rox. cor. 1. t. 98
2147. HER'MAS. *W.*	HERMAS.					*Umbelliferæ.*	*Sp.* 2—5.					
14306 depauperáta *W.*	hairy	£	△	cu	2	jn.jl	G	C. G. H.	1795.	D	l.p	Bur. afr. t.71. f.2
14307 gigantéa *W.*	gigantic	£	△	cu	4	jn.jl	G	C. G. H.	1794.	D	l.p	T.in.ac.p.14.t.11
2148. BRIDE'LIA. *W.*	BRIDELIA.					*Euphorbiaceæ.*	*Sp.* 1—5.					
14308 spinósa *W.*	prickly	■	⊔	or	6	jn.jl	Ap	E. Indies	1823.	C	l.p	Roxb. cor. t. 172
2149. FERO'NIA. *Correa.*	ELEPHANT APPLE.					*Aurantiaceæ.*	*Sp.* 1.					
14309 elephántum *Corr.*	Indian	♣	☐	ft	40	...	W	E. Indies	1804.	C	l.p	Rox. cor.2. t.141
2150. AILAN'TUS. *W.*	AILANTUS.					*Terebintaceæ.*	*Sp.* 2—4.					
14310 glandulósa *W.*	Chinese	♣		or	20	au	G	China	1751.	R	l.p	Dend. brit. 104
14311 excélsa *W.*	Indian	♣	☐	or	50	...	G	E. Indies	1800.	C	s.p	Rox. cor. 1. t. 23
2151. CLU'SIA. *W.*	BALSAM TREE.					*Guttiferæ.*	*Sp.* 4—16.					
14312 rósea *W.*	Rose-colored	♣	☐	or	30	jl.au	R	Carolina	1692.	C	r.m	Cat. car. 2. t. 99
14313 álba *W.*	white-flowered	♣	☐	or	30	...	W	S. Amer.	1752.	C	l.p	Jac. amer. t. 166
14314 flava *W.*	yellow-flower'd	♣	☐	or	30	s	Y	Jamaica	1759.	C	r.m	Bot. rep. 223
14315 venósa *W.*	veiny-leaved	♣	⊡	or	20	...	...	S. Amer.	1733.	C	r.m	Plum. ic. 87. f. 2
2152. OPHIO'XYLON. *W.*	OPHIOXYLON.					....	*Sp.* 1—3.					
14316 serpentinum *W.*	red-flowered	⌇	⊡	or	3	my.jn	W	E. Indies	1690.	R	r.m	Bot. mag. 784
2153. RHA'PIS. *W.*	RHAPIS.					*Palmæ.*	*Sp.* 2.					
14317 flabellifórmis *W.*	creeping-rooted	♣	⊡	or	6	au	G	China	1774.	R	p.l	Bot. mag. 1371
14318 arundinácea *W.*	simple-leaved	♣	△	or	6	s	G	Carolina	1765.	R	p l	



History, Use, Propagation, Culture,

C. australis, sometimes called the lote tree, is reckoned among the largest timber trees of the south of Europe. The wood is one of the hardest we are acquainted with; it is also very tough and flexible. In France, the forked branches are peeled, and cut so as to resemble rude hay-forks, and in that state used for various agricultural purposes. The leaves have a cheerful light green color; the berries are the size of a small cherry, first yellow and then black; they are eaten by birds and children.

C. occidentalis bears a great resemblance to the first. The leaves come out late in the spring, but they are also the latest in fading of any of the deciduous sort; the timber is tough and pliable, and imported by coach-makers for the frames of their carriages. It grows more freely in this country than the European species, and in some years bears abundance of fruit.

C. orientalis is a low-spreading tree or bush; the timber is white, aud yields a gum like that of the cherry. C. aculeata is an inelegant little tree, with a drupe double the size of a pea, which is eaten by the natives of the Caribbee Islands and the neighbouring continent. All the species are easily increased by layers or seeds.

2146. *Gouania.* Antoine Gouan was professor of botany at Montpellier in the middle of the eighteenth century, and was a good botanist. The species are increased by ripened cuttings under a hand-glass in heat.

2147. *Hermas.* A name, the meaning of which is wholly unknown. An inconspicuous starved-looking plant of no known use; whence it is called *depauperata.*

2148. *Bridelia.* Named in honor of Professor Bridel, the celebrated muscologist. Small bushes or trees, with little beauty to recommend them.

2149. *Feronia.* Elegantly named by the classical Correa de Serra, after Feronia, the goddess of the forests. This is a noble Indian timber tree, bearing a fruit not unlike an orange, to which it is botanically related.

2150. *Ailantus.* Derived from *Ailanto,* the name of one species in the Moluccas. The usual way of writing it, Ailanthus, is therefore incorrect. A. glandulosa is a tree which may be compared to a gigantic stag's-horn sumach; it has very large leaves, unequally pinnate, with foot-stalks from one to two feet in length, and numerous flowers in a terminating pedicel, which exhale a disagreeable odor. The tree grows very fast, and on very poor soil, especially if it be calcareous. If the bark be wounded, a resinous juice flows out, which hardens in a few days. The wood is hard, heavy, glossy like satin, and susceptible of a very fine polish. It is propagated by cuttings of the roots. In general the trees bear only male flowers; but in France it has produced both male and female flowers, and fruit twice in ten years.

2151. *Clusia.* So called, in honor of the celebrated Charles de l'Ecluse, born at Artois in 1526, and died in 1609. He was one of the most excellent botanists who ever lived, and author of many works whose value will only cease with the world. But he is not more known for his mental excellence, than for his personal calamities. In his early youth he undertook to travel through Portugal, Spain, England, Hungary, and other countries in pursuit of plants; no easy task in those days. By excessive fatigue he contracted, so soon as in his twenty-fourth year, a dropsical complaint, of which he was afterwards cured with chicory by the celebrated

14301 Leaves broad ovate acuminate serrate smooth on each side
14302 Leaves ovate oblong acuminate serrulate unequally cordate at base rough above hairy beneath
14303 Lvs. ovate obl. acum. equally cordate at base entire obsoletely serrated at end smooth, Branches prickly

14304 Leaves ovate acuminate bluntly serrated smooth
14305 Leaves cordato-ovate with glandular serratures roughish, Racemes terminal downy

14306 Stem downy, Leaves oblong sessile toothed downy beneath
14307 Leaves lanceolate ovate woolly above downy beneath entire

14308 Shrubby erect spiny, Leaves ovate entire acute glabrous

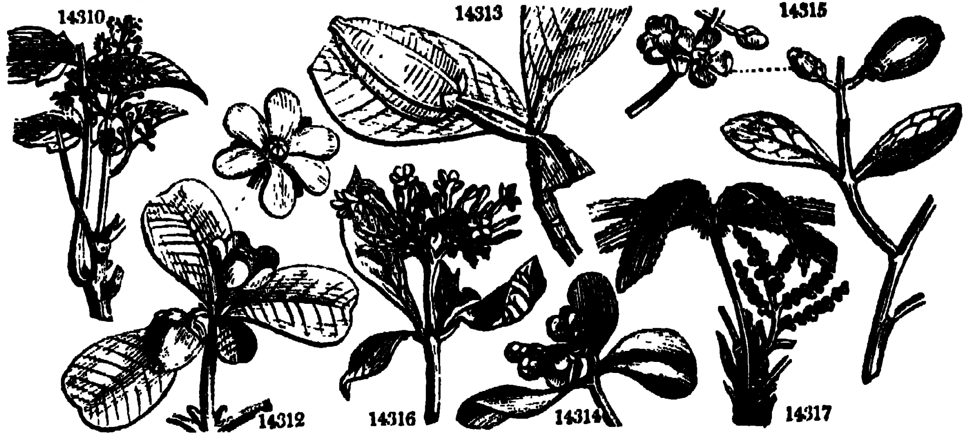
14309 The only species

14310 Leaves pinnated with an odd one, Leaflets toothed at base, Teeth glandular
14311 Leaves abruptly pinnated, Leaflets serrated

14312 Leaves obovate blunt veinless, Cor. hexapetalous twice as large as calyx
14313 Leaves obovate blunt veinless, Cor 5-7 petalous half as large again as calyx
14314 Leaves obovate blunt veinless, Cor. 4-petalous twice as large as calyx
15315 Leaves obovate blunt veiny, Flowers tetrapetalous

14316 Leaves in fours

14317 Fronds palmate plaited, Plaits and margins prickly
14318 Fronds simple 2-parted, Lobes acute plaited, Plaits roughish



and Miscellaneous Particulars.

Rondelet. See Rondeletia. At the age of thirty-nine he broke his right arm, during one of his botanical rambles; and a short time afterwards his right thigh. When fifty-five, he dislocated his left ancle while at Vienna; and eight years after his right hip. Having been unskilfully treated, he was ever after obliged to walk with crutches The consequent deprivation of his natural exercise brought on other diseases, among not the least distressing of which were calculus and hernia. After having been the director of the Imperial Gardens of Vienna for fourteen years, he finally returned to his native country, Flanders. He was named professor of botany at Leyden, where he gave botanical lectures for sixteen years, when he died overwhelmed by the multitude of his bodily infirmities, but retaining his faculties unimpaired to the last.

The species are trees abounding in a tenacious glutinous juice, of a balsamic flavor, whence the English name. C. rosea has handsome flowers, in which the stamina and pistillum are covered with a gelatinous gluten. The fruit is green and of the size of a middling apple, with eight lines running, like meridians on a globe, from the stalk to the crown of it. When it ripens, it opens at these lines, and divides into eight parts, disclosing many mucilaginous scarlet seeds, resembling those of the pomegranate. The whole tree is exceedingly beautiful, and the structure of the fruit is a most exquisite piece of mechanism. It grows on rocks, and frequently on the trunk and limbs of trees, occasioned by birds scattering or voiding the seeds, which being glutinous, like those of the misletoe, take root in the same manner; but the roots not finding sufficient nutriment, spread on the surface of the tree till they find a decayed hole, or other lodgment, wherein is some small portion of soil; the fertility of this being exhausted, a root is discharged out of the hole till it reaches the ground, where it fixes itself, and the stem becomes a large tree. Roots have been known to do this at forty feet from the surface. The resin is used to cure sores in horses, and instead of tallow for boats.

C. alba is an elegant tree, and epiphytical on other vast trees, like the foregoing; the trunk is frequently a foot in diameter, and supports a spreading head. The whole abounds in a balsamic juice, of a green color, but becoming of a brownish color on being exposed to the air. The flowers are white, and of no great beauty; the fruit scarlet, with a scarlet pulp; the birds are very fond of them, hang over them on the wing, and pluck out the seeds with the pulp adhering.

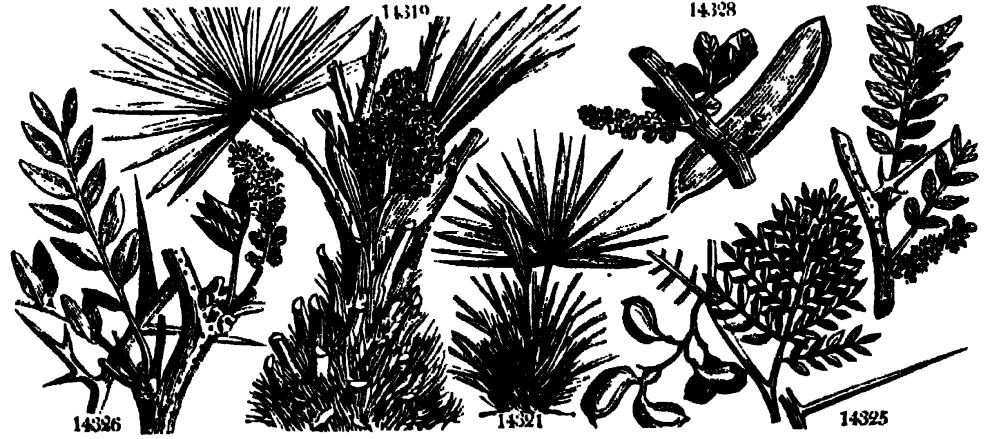
C. flava bears in all respects a considerable resemblance to the former. A very good idea of the progress of culture since Miller's time, may be formed by comparing his directions for propagating this plant, and those of Sweet. Mr. Miller says, the best way is to have them brought over in tubs from the West Indies; according to Sweet, the pots should be well drained, the soil for rooted plants should be a light sandy loam, and "cuttings root very freely in sand under a hand-glass."

2152. *Ophioxylon.* From οφις, serpent, and ξυλον, wood. In Ceylon they employ the plant in cases of the bite of serpents. It grows freely in a mixture of loam and peat, and may be increased by cuttings in sand under a hand-glass.

2153. *Rhapis.* So named by Loureiro, from ῥαφις, a needle, on account of the acute awns of the corolla, which stick into the clothes. Culture as in the other palms; that is, abundance of heat and room, both for the roots and top.

DIŒCIA.

2154.	CHAMÆ′ROPS. *W.*	CHAMÆROPS.					*Palmæ.*	*Sp.* 4.					
14319	húmilis *W.*	Dwarf Fan Palm	🌴	⌊△⌋	or	10	f.mr	G.w	S. Europe	1731.	Sk	r.m	Bot. rep. 599
14320	serruláta *W.*	saw-leaved	🌴	⌊△⌋	or	10	...	G.w	N. Amer.	1809.	Sk	r.m	
14321	Hýstrix *Ph.*	Porcupine	🌴	⌊△⌋	or	10	...	G.w	Georgia	1801.	S	r.m	
14322	Palmet′to *W.*	smooth-stalked	🌴	⌊△⌋	or	20	...	G.w	Carolina	1809.	S	r.m	
2155.	GLEDITS′CHIA. *W.*	GLEDITSCHIA.					*Leguminosæ.*	*Sp.* 5—7.					
14323	triacánthos *Ph.*	Honey-locust Tree	🌳		or	30	jn.jl	G	N. Amer.	1700.	S	s.l	Dend. brit. 138
	β inérmis	*smooth*	🌳		or	30	jn.jl	G	......	...	S	s.l	
14324	brachycárpa *Ph.*	curved-spined	🌳		or	30	jn.jl	G	N. Amer.	...	S	s.l	
14325	monospérma *Ph.*	Swamp Locust Tree	🌳		or	20	jn.jl	G	N. Amer.	1723.	S	p.l	Cat. car. 1. t. 43
14326	hórrida *W.*	strong-spined	🌳		or	10	jn.jl	G	China	1774.	L	p.l	Dend. brit. 75
14327	sinénsis *P. S.*	Chinese	♣	△⌋	or	10	...	G	China	1812.	L	p.l	
2156	CERATO′NIA. *W.*	CAROB TREE.					*Leguminosæ.*	*Sp.* 1.					
14328	Síliqua *W.*	St. John's Bread	🌲	⌊△⌋	ec	15	s.o	R.y	Levant	1570.	S	s.l	Bot. rep. 567
2157.	FRAX′INUS. *W*	ASH TREE.					*Oleinæ.*	*Sp.* 34—37.					
14329	americána *W.*	white	🌳		tm	20	my	G	N. Amer.	1723.	G	co	
14330	acumináta *Lam.*	Green	🌳		tm	40	my	G	N. Amer.	1723.			
14331	juglandifólia *W.*	Western black	🌳		or	40	my.jn	G	N. Amer.	1783.	G	co	Du. Roi. ed. 2. t. 1
14332	caroliniána *W.*	shining	🌳		or	30	my.jn	G	N. Amer.	1783.	G	co	Catesb. car. t. 80
14333	pubéscens *W.* *nigra* Duroi	Red or black	🌳		or	20	my	G	N. Amer.	1811.	G	co	
14334	pannósa *Vent.*	cloth-leaved	🌳		tm	30	my	G	Carolina	1820.	G	co	
14335	epiptera *W.*	cut-winged	🌳		tm	30	my	G	N. Amer.	1823.	G	co	
14336	quadranguláta *W.*	Blue	🌳		or	30	my	G	N. Amer.	1822.	G	co	
14337	platycárpa *W.*	broad-fruited	🌳		or	30	my	G	N. Amer.	1820.	G	co	
14338	expánsa *W.*	expanded	🌳		or	30	my	G	N. Amer.	1824.	G	co	
14339	mixta *Bosc.*	mixed	🌳		or	30	my	G	N. Amer.	1824.	G	co	
14340	pulverulénta *Bosc.*	powdered	🌳		or	30	my	G	N. Amer.	1824.	G	co	
14341	rubicúnda *Bosc.*	pink-veined	🌳		or	30	my	G	N. Amer.	1824.	G	co	
14342	longifólia *Bosc.*	long-leaved	🌳		or	30	my	G	N. Amer.	1824.	G	co	
14343	víridis *Bosc.*	green	🌳		or	30	my	G	N. Amer.	1824.	G	co	
14344	cinérea *Bosc.*	ash-colored	🌳		or	30	my	G	N. Amer.	1824.	G	co	
14345	álba *Bosc.*	white	🌳		or	30	ap.my	G	N. Amer.	1823.	G	co	
14346	Richárdi *Bosc.*	Richard's	🌳		or	30	ap.my	G	N. Amer.	...	G	co	
14347	ováta *Bosc.*	ovate	🌳		or	30	ap.my	G	N. Amer.	...	G	co	
14348	elliptica *Bosc.*	elliptical	🌳		or	30	ap.my	G	N. Amer.	1825.	G	co	
14349	nigra *Bosc.*	black-branched	🌳		or	30	ap.my	G	N. Amer.	...	G	co	
14350	fúsca *Bosc.*	fuscous	🌳		or	30	ap.my	G	N. Amer.	1823.	G	co	
14351	rúfa *Bosc.*	rufous	🌳		or	30	ap.my	G	N. Amer.	1822.	G	co	
14352	pállida *Bosc.*	pale	🌳		or	30	ap.my	G	N. Amer.	...	G	co	
14353	excélsior *W.*	common	🌳		tm	80	ap.my	G	Britain	woods.	S	s.l	Eng. bot. 1692
	β péndula Hort.	*weeping*	🌳		or	20	ap.my	G	......	...	G	co	
	γ jaspidea W. en.	*yellow-barked*	🌳		or	30	ap.my	G	......	...	G	co	
	δ atrovirens P. S.	*green curled-lv.*	♣		or	4	ap.my	G	......	...	G	co	
14354	verrucósa *Lnk.*	warted	🌳		or	60	ap.my	G	England	Norf.	G	co	
14355	heterophýlla *Vahl.* *F. simplicifólia* W.	various-leaved	🌳		tm	30	ap.my	G	England	woods.	G	s.l	Eng. bot. 2476



History, Use, Propagation, Culture,

2154. *Chamærops.* This word is said by etymologists to be synonymous with χαμαιδρυς, or χαμαιδρυν, a dwarf oak. The modern genus consists of ornamental palms, which are fine hardy greenhouse plants.

2155 *Gleditschia.* Called in honor of John Gottlieb Gleditsch, a native of Leipzig, and member of the academy of Berlin, and the author of several works, among which his Arrangement of Fungi, published in 1753, and his Botanical System, are the most remarkable. G. triacanthos, the honey locust of North America, attains the size of a large tree, but very seldom flowers and ripens its seeds in this country. All the species grow in common garden soil, and are generally raised from seeds.

2156. *Ceratonia.* This name has been derived from κερας, a horn, in allusion to the long horn-like pods of this plant, which contain a sweet fœcula, for the sake of which they are often imported from Spain under the name of the Algaroba bean. This last word is a slight alteration, by the prefix of the article *al*, of the Arabic name of the tree, *Kharroûb*, whence also our English name *Carob-tree.* This is generally considered the locust-tree of scripture; and in Spain, where the seeds are eaten, it is called Saint John's bread. Ignorance of eastern manners and natural history, Professor Martin observes, induced some persons to fancy that the locusts on which John the Baptist fed, were the tender shoots of plants, and that the wild honey was the pulp of the pod of the Carob, whence it had the name of Saint John's bread. There is better reason to suppose, he adds, that the shells of the carob pod might be the husks which the prodigal son desired to partake

DIŒCIA.

14319 Fronds palmate with spiny stalks, Spathe simple
14320 Fronds palmate with spiny stalks, Caudex creeping
14321 Stem creeping, Stalks with very long entangled prickles, Fronds palmate
14322 Fronds palmate with unarmed stalks, Spathes double, Stem arboreous

14323 Branches spiny, Spines thick triple, Leaflets linear oblong, Pods many-seeded

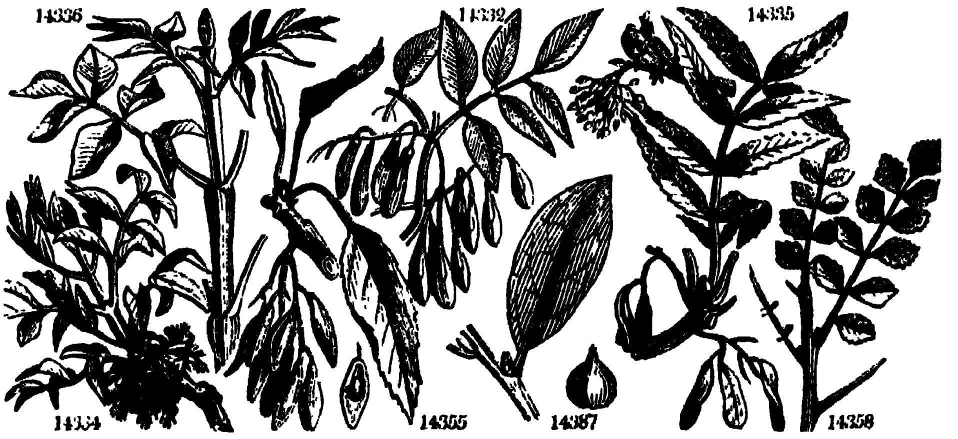
14324 Spines short thick triple, Leaflets oblong blunt, Pods oblong short
14325 Branches somewhat spiny, Leaflets ovate-oblong, Pods 1-seeded
14326 Trunks spiny, Spines branched, Leaflets oval-oblong
14327 Spines robust alternately branched, Leaflets elliptical smooth

14328 The only species

14329 Leaflets stalked oblong shining acuminate entire glaucous beneath, Buds yellowish
14330 Leaflets quite entire with long points glaucous beneath, Buds tawny
14331 Leafl. stalked ovate opaque serrated glaucous ben. Axils of veins downy, Branches smooth, Buds fuscous
14332 Leaflets stalked lanceolate serrulate shining smooth, Branches smooth, Buds fuscous
14333 Leaflets stalked elliptical ovate serrated beneath with the petioles and branchlets downy

14334 Lvs. of 3 pair shining above vill. with down ben. Leafl. stalk. ov. ent. taper. toward each end, Buds tawny
14335 Leaflets oblong lanceolate subserrated, Wing of fruit stalked cuneate emarginate, Buds fuscous
14336 Leaflets subsessile lanc. ellipt. serrated downy beneath, Branches square with winged angles, Buds grey
14337 Leaflets subsessile serrated outwardly and fruit lanceolate elliptical
14338 Leaflets ovate oblong unequally serrate about 11 smooth stalked, Branchlets smooth, Buds fuscous
14339 Leaves of 5 pair smooth above, Veins above hairy, Leaflets oblong subsessile unequally toothed
14340 Lvs. of 6 pair somew. downy ben. Leafl. on long stalks oblong acute sinuated, Petioles somew. powdery
14341 Lvs. of 3 pair coriac. a little downy ben. Leafl. obl. acute somewhat toothed, Veins and petioles ben. pink
14342 Lvs. of 3 pair shining above ben. with the petioles downy, Leaflets obl. lanc. acuminate, Branches hirsute
14343 Lvs. of 3 pair shining above with veins downy ben. Leaflets oblong acute finely serrated, Branches green
14344 Lvs. of 3 pair smooth, Veins ben. rather hairy, Leaflets lanc. unequally toothed, Buds lin. cinereous hairy
14345 Lvs. of 3 pair beneath and petioles hirsute, Leafl. lanc. unequally and finely toothed acum. Branches grey
14346 Lvs. of 3 pair smooth, Veins ben. rather hairy, Leafl. obl. acute toothed, Branches cinereous hairy at base
14347 Leaves of 3 pair downy beneath, Leaflets ovate acute equally toothed, Buds tawny
14348 Lvs. of 3 pair hairy ben. Leaflets oblong mucronate somew. toothed, Branches brownish-black, Buds tawny
14349 Leaves of 3 pair smooth, Leaflets oblong acute subsinuate toothed, Branches blackish
14350 Lvs. of 3 pair smooth above, Veins beneath villous, Leafl. obl. mucron. equally toothed, Branches fuscous
14351 Leaves of 2 pair with rufous hairs beneath, Leaflets lanceolate acuminate cuspidate unequally toothed
14352 Leaves of 3 pair smooth, Leaflets subsessile ovate lanceolate toothed, Branches yellow
14353 Leaflets somewhat stalked lanceolate acuminate serrated smooth cuneate at base, Branches flat smooth

14354 Leafl. somewhat stalked lanceolate acuminate serrate smooth, Branches round warted
14355 Leaves simple and compound tooth-serrated, Buds black

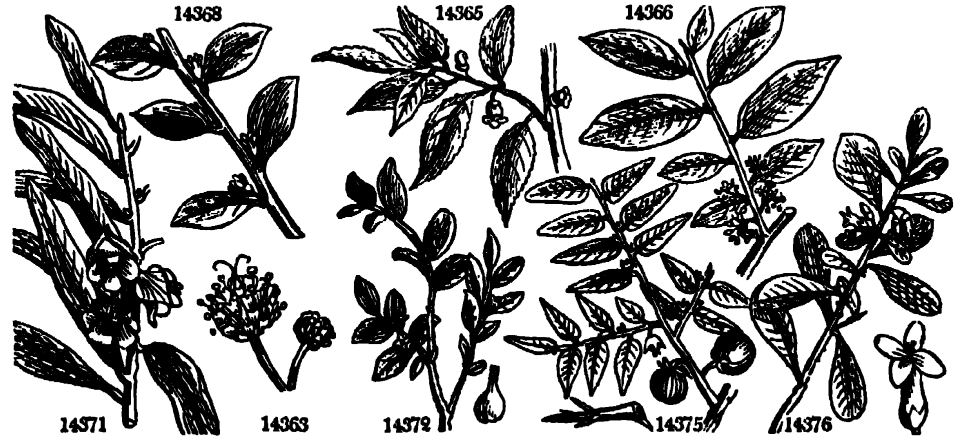


and Miscellaneous Particulars.

of with the swine. The tree is very common in the south of Spain, and the seeds or beans, as they were there called, often formed the principal food of the British cavalry horses during the war of 1811 and 1812. In our greenhouses the plant seldom flowers, but it grows very well in loam and peat, and ripened cuttings root in sand under a hand-glass.

2157. *Fraxinus.* The origin of this word is far from certain. Linnæus says, it has been taken from the Greek φραξις, a separation, in allusion to the facility of splitting its wood. De Theis remarks, that M. A. Dureau de la Malle has proved, in a learned dissertation published in 1804, that the Fraxinus of the Latins and the Melia of the Greeks are our Ornus europæus, while the Ornus of the Latins and the Boumelia of the Greeks are, in fact, our Fraxinus excelsior, or common ash. *Le Frêne*, Fr., *Esche*, Ger., and *Frassino*, Ital. The English name is from the Celtic *æsc*, a pike. F. excelsior is one of the most useful of our native timber trees. It is peculiarly adapted for implements of husbandry, and the coachmaker and wheeler; it makes excellent fuel, with very little smoke; good hop-poles and hoops, excellent handles for tools, and very good walking-sticks. Its period of leafing is very late, being seldom earlier than the last week of April, and not unfrequently about the middle of May: the leaves have been used to adulterate tea; they are bitter, and said to communicate a rank taste to the milk and butter of cows which eat them. The roots spread to a great extent, and lie very near the surface; and these, together with the shade of the head, are found very injurious to hedges and pastures. The variety of this species, F. pendula, was first discovered in a field at Gamblingay,

14356	macrophýlla *Thouin*	large-leaved	♄		or	40	ap.my	G	......	1828.	G	co	
14357	parvifólia *W.*	small-leaved	♄		or	20	ap.my	G	Levant	1822.	G	co	Willd.arb.t.6.f.2
14358	lentiscifólia *W.*	Aleppo	♄		or	6	my.jn	G	Aleppo	1710.	G	co	Pluk.al. t.182.f.4
14359	argéntea *Lois.*	silvery	♄		or	15	my.jn	G	Corsica	1825.	G	co	
14360	sambucifólia *W.*	Water	♄		or	30	my.jn	G	N. Amer.	1800.	G	s.l	
14361	nána *Bosc.*	dwarf	■		or	6	my.jn	G	......	...	G	co	
14362	oxycárpa *W.*	Caucasian	♄		or	20	...	G	Caucasus	1815.	G	co	
	β oxyphýlla F.	*narrow-leaved*	♄		or	20	...	G	S. Europe	1821.	G	co	
2158.	BRO'SIMUM. *W.*	Bread Nut.					....		*Sp.* 2—4.				
14363	Alicástrum *W.*	Jamaica	■	□	or	6	...	Ap	Jamaica	1776.	C	r.m	S.fl. l. oc.1.t.1.f.1
14364	spúrium *W.*	Milkwood	■	□	or	6	...	Ap	Jamaica	1789.	C	r.m	
2159.	DIOSPY'ROS. *W.*	Date Plum.					*Ebenaceæ.*		*Sp.* 12—29.				
14365	Lótus *W.*	European	♄		clt	20	jn.[illegible]	Y.o	Italy	1596.	L	s.l	Mill. ic. t. 116
14366	virginiána *W.*	American	♄		clt	20	jn.jl	Y.o	N. Amer.	1629.	S	s.l	Dend. brit. 146
14367	pubéscens *Ph.*	pubescent	♄		clt	20	ap	Y.o	N. Amer.	1812.	C	s.l	
14368	sylvática *W.*	wood	♄	□	or	20	...	W	E. Indies	1812.	C	s.l	Roxb. cor.1. t.47
14369	E'benum *W.*	smooth	♄	□	tm	30	...	W	E. Indies	1792.	C	s.l	Ro.in.ac.ha.2.t.5
14370	Káki *W.*	Japan	♄	⊔	fr	12	...	W.o	Japan	1789.	L	r.m	Kæm.amœ.t.806
14371	Embryópteris *Pers.*	polyandrous	♄	⊔	or	25	jl	W.o	E. Indies	1818.	L	r.m	Bot. reg. 499
14372	vaccinioides *Lindl.*	Vaccinium-like	■	⊔	pr	2	ap.my	W	China	1823.	C	r.m	Hook. ex. fl. 139
14373	discolor *W.*	Mabolo-fruit	♄	⊔	fr	20	...	...	Philippin.	1823.	C	r.m	
14374	montána *W.*	mountain	■	⊔	or	6	...	W.o	E. Indies	1822.	C	r.m	
14375	cordifólia *W.*	heart-leaved	♄	□	or	15	...	W.o	E. Indies	1794.	G	co	Roxb. cor.1. t.50
14376	obováta *W.*	four-seeded	♄	□	or	15	...	W.o	W. Indies	1796.	G	co	Jac.schœ.3.t.312
2160.	MYRSI'NE. *R. Br.*	Myrsine.					*Myrsineæ.*		*Sp.* 4—13.				
14377	africána *W.*	African	■	⊔	or	2	mr.my	Br	C. G. H.	1691.	C	p.l	Com.hort.1. t.64
14378	retúsa *W.*	round-leaved	■	⊔	pr	2	jn	W.o	Azores	1778.	C	p.l	Vent. cels. 86
14379	Samára *R. Br.*	oval-leaved	■	⊔	pr	3	f.n	W.o	C. G. H.	1770.	C	l.p	
	Samára pentándra W.												
14380	melanóphleos *R.Br.*	Laurel-leaved	■	⊔	pr	3	...	W.o	C. G. H.	1783.	C	l.p	Jac.vind.1. t.71
	Sideróxylon melanóphleum W.												
2161.	NYS'SA. *W.*	Tupelo.					*Santalaceæ ?*		*Sp.* 5—9.				
14381	villósa *W.*	Sour-gum	♄		or	10	my	G	N. Amer.	1806.	L	s.l	Mich. arb. 21
14382	biflóra *W.*	mountain	♄		or	10	ap.my	G	N. Amer.	1739.	C	s.l	Mich. arb. 22
14383	capitáta *H. K.*	round-headed	♄		or	10	...	G	N. Amer.	1806.	C	s.l	
14384	tomentósa *W.*	downy	♄		or	15	ap.my	G	N. Amer.	1818.	C	s.l	
	grandidentata Mich.												
14385	can'dicans *W.*	Ogechee lime	♄		or	20	...	G	N. Amer.	1812.	C	s.l	Mich. arb. 20
14386	denticuláta *W.*	water	♄		or	30	...	G	N. Amer.	1735.	L	s.l	Cat. car. 1. t. 60.
2162.	HAMILTO'NIA. *W.*	Oil Nut.					....		*Sp.* 1.				
14387	oleifera *W.*	Olive-bearing	■	⊔	or	6	...	G.y	N. Amer.	1800.	C	s.l	
	Pyrulária púbera Mich.												
2163.	LAUROPHYL'LUS. *W.*	Laurophyllus.					....		*Sp.* 1.				
14388	capénsis *W.*	Cape	■	⊔	or	6	...	G	C. G. H.	1801.	L	p.l	



History, Use, Propagation, Culture,

in Cambridgeshire. There are other varieties with curled leaves, striped leaves, variegated bark, &c. and some consider F. simplicifolia only a variety. F. Americana is a lofty tree, in few respects different from the common ash. Those species which do not produce seeds, are readily increased by grafting.

Little is known of the qualities of the greater part of the numerous varieties of American ash, distinguished by Bosc. They probably all form fine trees; the young plants in our gardens grow freely, and exhibit indications of valuable properties as ornamental trees.

2158. *Brosimum.* From *βρωσιμος*, good to eat. B. Alicastrum is common in the woods of Jamaica. The timber is not despicable; but the leaves and younger branches are more useful, and a hearty fattening fodder for all sorts of cattle. The fruit, boiled with salt fish, pork, beef, or pickle, has been frequently the support of the negroes and poorer sort of white people in times of scarcity, and proved a wholesome, and not unpleasant food, when roasted, it eats something like our European chestnuts, and is called bread-nut. The leaves and younger shoots are full of gum, which renders them disagreeable to most cattle at first, but they soon grow very fond of them.

B. spurium is also common in woods in the West Indies, but its timber is of little value. In our stoves both species thrive well, and like loamy soil; and old cuttings, with their leaves on, root in sand in moist heat.

2159. *Diospyros.* From *Διος πυρος*, the fruit of Jove, or heavenly fruit It has been fancied that the European species of this plant produced that famous fruit, which, according to ancient romancers, caused oblivion. D. Kaki is a valuable Japanese tree, which bears the fruit sometimes received from China in a dried form under the name of dates. D discolor also bears a fine fruit. D. lotus produces fruit the size of a

14356 Leaves simple blistered ovate coarsely serrated dark-green quite smooth
14357 Leafl. ovate subsessile acute mucronate serrate smooth cuneate at base
14358 Leafl. oblong stalked acute at each end mucronate serrated smooth
14359 Leaves unequally pinnated of 3 pair, Leaflets stalked lanceolate acuminate serrated silvery
14360 Leafl. sessile ovate lanc. serrated rugose-shining rounded at base unequal, Axils of veins villous beneath
14361 Lvs. of 3 pairs smooth, Leafl. obl. acum. tooth Com. petiole winged at base, Branches ciner. Buds blackish
14362 Leaflets subsessile lanc. acuminate serrated smooth, Fruit lanc. narrowed at each end with a long point

14363 Leaves ovate lanc. evergreen, Catkins globose stalked twin axillary, Fruit coated
14364 Leaves lanceolate-ovate acuminate, Catkins subsessile ovate axillary twin, Fruit soft

14365 Leaves obl. acuminate downy beneath, Buds hairy inside
14366 Leaves ovate bluntish shining smooth netted with veins, Petioles downy, Buds smooth
14367 Leaves obl. acute downy beneath, Petioles long, Fruit few-seeded
14368 Lvs. obl. acute at base and end smooth on each side, Fl. trigynous erect, Hermaphrodite cor. as long as cal.
14369 Leaves ovate-lanc. acuminate, Buds hairy
14370 Leaves ovate-elliptical acuminate acute at base downy beneath, Branches downy
14371 Leaves lanc. oblong, Flowers axillary polyandrous, Berry 8-seeded
14372 Lvs. simple fleshy nerveless cover. on each side with scatter. stell. scales, Sterile obl.-lanc. Fert. lin.-lanc.
14373 Leaves oblong acute rounded at base acute at end : smooth above ; silky and glaucous beneath
14374 Leaves oblong rounded at base acute at end smooth on each side
14375 Spiny, Leaves oblong acuminate cordate downy beneath
14376 Leaves obovate blunt smooth on each side

14377 Leaves obovate elliptical acute serrated at end, Pedunc. umbelled axillary, Stamens exserted
14378 Leaves obovate retuse toothletted, Flowers axillary clustered, Stamens included
14379 Leaves ellipt. Corymbs axillary aggregate

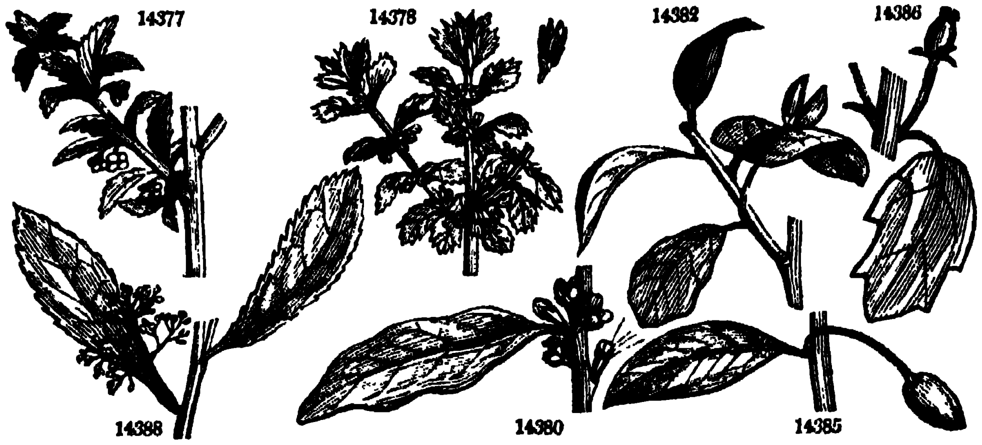
14380 Leaves oblong lanc. subcoriaceous entire, Flowers axillary clustered

14381 Leaves oblong entire acute at each end, Petiole middle rib and edge villous, Female peduncles about 3-fl.
14382 Leaves ovate-oblong entire acute at each end smooth, Female peduncles 2-flowered
14383 Leaves cordate ovate slightly serrated glaucous beneath, Flowers in globose heads, Drupes oblong
14384 Leaves on long stalks obl. acuminate remotely serrate downy beneath, Female peduncles 1-flowered

14385 Leaves on short stalks obl. nearly entire cuneate at base whitish beneath, Female peduncle 1-fl.
14386 Leaves on long stalks obl. acuminate remotely serrated smooth on both sides, Female pedunc. 1-fl.

14387 Leaves oval-oblong acuminate entire

14388 Leaves stalked oblong acute serrated coriaceous veiny smooth



and Miscellaneous Particulars.

cherry, yellow when ripe, sweet, and somewhat astringent; they are recommended as a cure for the diarrhœa. D. virginiana has a white brittle wood, covered with a dark brown bark. The fruit is in form and bigness like a date, very firm, like that fruit, and almost as sweet, with a large kernel.

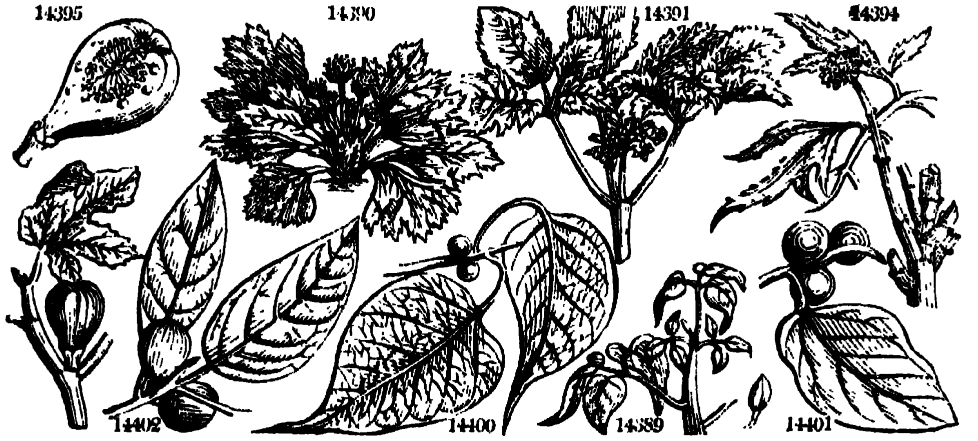
2160. *Myrsine.* A Greek word synonymous with Myrtle. Modern botanists have applied the name to a genus of African myrtle-like shrubs. The species grow freely in loam and peat, and are increased by young cuttings in sand under a hand-glass.

2161. *Nyssa.* A name of a nymph, according to Linnæus. The species are large shrubs, which grow freely in any soil or situation, but prefer moisture. N. denticulata grows naturally in wet swamps in Carolina and Florida, and rises there to the height of eighty or hundred feet. Marshall, in his American Grove, describes it as a tree of great singularity and beauty. It produces fruit about the size and shape of small olives, which are preserved like them by the French inhabitants of the Mississipi, where it greatly abounds, and is called the olive-tree. The timber is white and soft when unseasoned, but light and compact when dry, which renders it very proper for the carver and turner. All the species are readily propagated by layers or seeds.

2162. *Hamiltonia.* Dedicated by Muhlenburg, to Mr. Hamilton, an American botanist. A shrub growing to the height of from three to six feet. The flowers grow in terminal racemes from an inch to an inch and a half long.

2163. *Laurophyllus.* An hybrid name created by Thunberg, to express the resemblance of the leaves, φυλλα, to a laurel. A shrub with stalked, oblong, acute, serrated, coriaceous leaves, and minute flowers growing in panicles three or four inches long.

2164. BURSE'RA. *W.*	Bursera.					*Terebintaceæ.*	*Sp.* 1.					
14389 gummifera *W.*	Jamaica	♀	□	or	20	...	W.o	W. Indies	1690.	S	p.l	Jac. amer. t. 65
2165. ARCTO'PUS. *W.*	Arctopus.					*Umbelliferæ.*	*Sp.* 1.					
14390 echinátus *W.*	rough	¥	⊔	m	1	my.jn	G	C. G. H.	1774.	D	p.l	Bot. reg. 705
2166. PA'NAX. *W.*	Panax.					*Araliaceæ.*	*Sp.* 4—16.					
14391 quinquefólium *W.*	Ginseng	♃	△	pr	1½	jn	L.Y	N. Amer.	1740.	D	s.p	Bot. mag. 1333
14392 trifólium *W.*	lesser	♃	△	pr	½	my.jn	G	N. Amer.	1759.	D	s.p	Bot. mag. 1334
14393 aculeátum *W.*	prickly	¥	□	m	1½	n	G	China	1773.	C	s.p	Jac. ic. 3. t. 634
14394 fruticósum *W.*	shrubby	▬	□	pr	6	au.s	G	Ternate	1800.	R	r.m	Bot. rep. 595
2167. FI'CUS. *W.*	Fig Tree.					*Urticeæ.*	*Sp.* 47—143.					
14395 Cárica *W.*	common	♀	□	fr	15	jn.jl	Ap	S. Europe	1548.	C	co	Tre. ehret. t. 73,4
14396 rubrinérvia *Link.*	red-nerved	♀	□	or	10	...	Ap	Brazil	1824.	C	co	
14397 aquática *W.*	rough-leaved	♀	□	or	10	...	Ap	E. Indies	1758.	C	l.p	Rhee.mal.3. t.62
14398 nymphæifólia *W.*	Water-lily-lvd.	♀	□	or	10	...	Ap	E. Indies	1759.	C	p.l	
14399 crassinérvia *W.*	thick-nerved	♀	□	or	10	...	Ap	S. Amer.	1823.	C	p.l	
14400 religiósa *W.*	Poplar-leaved	♀	□	ec	25	...	Ap	E. Indies	1731.	C	p.l	Rhee.mal.1. t.27
14401 benghalénsis *W.*	Bengal	♀	□	or	25	ap	Ap	E. Indies	1690.	C	p.l	Rhee.mal.1. t.28
14402 venósa *W.*	vein-leaved	♀	□	or	10	...	Ap	E. Indies	1763.	C	p.l	W.ho.ber.1. t. 36
14403 Bras'sii *Sabine*	Brass's	♀	□	or	20	...	Ap	S. Leone	1822.	C	p.l	
14404 coriácea *W.*	leathery-leaved	♀	□	or	10	...	Ap	E. Indies	1772.	C	p.l	
14405 lasiophýlla *Link.*	woolly-leaved	♀	□	or	10	...	Ap	......	1820.	C	p.l	
14406 costáta *W.*	rib-leaved	♀	□	or	10	...	Ap	E. Indies	1763.	C	p.l	
14407 lúcida *W.*	shining-leaved	♀	□	or	10	...	Ap	E. Indies	1772.	C	p.l	
14408 oblongáta *Link.*	oblong-leaved	♀	□	or	6	...	Ap	C. G. H.	1825.	C	p.l	
14409 martinicénsis *W.*	round-fruited	♀	□	or	10	...	Ap	W. Indies	1759.	C	p.l	Sloa.jam 2. t. 223
14410 infectória *W.*	veiny	♀	□	or	15	...	Ap	E. Indies	1763.	C	p.l	Rhee.mal 3. t 64
14411 superstitiósa *Link.*	superstitious	●	□	or	6	...	Ap	......	1763.	C	p.l	
14412 pedunculáta *W.*	Willow-leaved	●	□	or	6	...	Ap	S. Amer.	1776.	C	p.l	Pluk.al. t.178.f.4
14413 ulmifólia *W.*	elm-leaved	●	□	or	4	...	Ap	Phillipin.	1818.	C	p.l	
14414 cordáta *W.*	heart-leaved	●	⊔	or	6	...	Ap	C. G. H.	1802.	C	p.l	Thunb.diss.c.ic.
14415 macrophýlla *P. S.*	large-leaved	♀	⊔	or	14	...	Ap	N. Holl	...	C	p.l	
14416 obtusáta *Link.*	blunt	●	⊔	or	4	...	Ap	......	1821.	C	p.l	
14417 Mun'tia *Link.*	doubtful	●	⊔	or	4	...	Ap	N. Holl.	1822.	C	p.l	
14418 austrális *W.*	ferruginous	●	⊔	or	6	mr.jn	Ap	N. S. W.	1789.	C	p.l	Ven.malm. t.114
14419 elástica *Rox.*	Elastic-gum	♀	⊔	or	20	...	Ap	E. Indies	1815.	C	p.l	
14420 microcárpa *Vahl.*	small-fruited	♀	⊔	or	20	...	Ap	Guinea	1819.	C	p.l	
14421 ciliolósa *Link.*	ciliated	●	⊔	or	4	...	Ap	...	1823.	C	p.l	
14422 stipuláta *W.*	trailing	∽	⊔	or	½	...	Ap	China	1771.	C	p.l	
14423 púmila *W.*	dwarf	∽	⊔	or	½	...	Ap	China	1759.	C	p.l	Kæm.amœ.t.804
14424 tinctória *W.*	Otaheite	♀	□	or	15	my.jn	Ap	Society I.	1793.	C	p.l	
14425 brasiliénsis *Link.*	Brazilian	●	□	or	4	...	Ap	Brazil	1823.	C	p.l	
14426 benjámina *W.*	oval-leaved	♀	□	or	10	...	Ap	E. Indies	1757.	C	p.l	Rhee.mal.1. t.26
14427 Lichtensteinii *Link.*	Lichtenstein's	●	□	or	3	...	Ap	C. G. H.	1824.	C	p.l	
14428 pertúsa *W.*	Laurel-leaved	●	□	or	8	...	Ap	S. Amer.	1780.	C	p.l	
14429 nítida *W.*	glossy-leaved	●	□	or	6	mr.jn	Ap	E. Indies	1786.	C	p.l	Hook. ex. fl. 111
14430 índica *W.*	Banyan Tree	♀	□	or	30	...	Ap	E. Indies	1759.	C	p.l	Rhee.mal.3. t.63
14431 popul'nea *W.*	poplar-leaved	♀	□	or	12	...	Ap	S. Amer.	1812.	C	p.l	
14432 lævigáta *Vahl.*	polished	●	□	or	6	...	Ap	W. Indies	1823	C	p.l	
14433 racemósa *W.*	clustered	●	□	or	4	...	Ap	E. Indies	1759.	C	p.l	Rhee.mal.1. t 25
14434 retúsa *W.*	blunt-leaved	●	□	or	2	...	Ap	E. Indies	1793.	C	p.l	
14435 répens *W.*	creeping-stem	¥	□	or	¼	...	Ap	E. Indies	1805.	C	p.l	
14436 péndula *Link.*	pendulous	♀	□	or	12	...	Ap	......	1824.	C	p.l	



History, Use, Propagation, Culture,

2164. *Bursera.* So called after Joachim Burser, a disciple and friend of Caspar Bauhin, and professor of botany at Sara, in Naples. He is said to have left behind him an Herbarium, in twenty-five volumes. B. gummifera is a large tree with a fine leafy head, and abounds in copious watery balsamic fluid, which soon becomes inspissated by exposure to the air. The root is said to possess the same properties as Quassia. Hedges are made of it by the Spanish residents in South America, who call it *Almacigo.*

2165. *Arctopus.* Literally, bear's foot, *αρκτου πους.* An inconspicuous prickly umbelliferous plant. The roots are used with success at the Cape, in cases of siphilis; but upon trial here, some years since, they were found to be less efficient than Sarsaparilla.

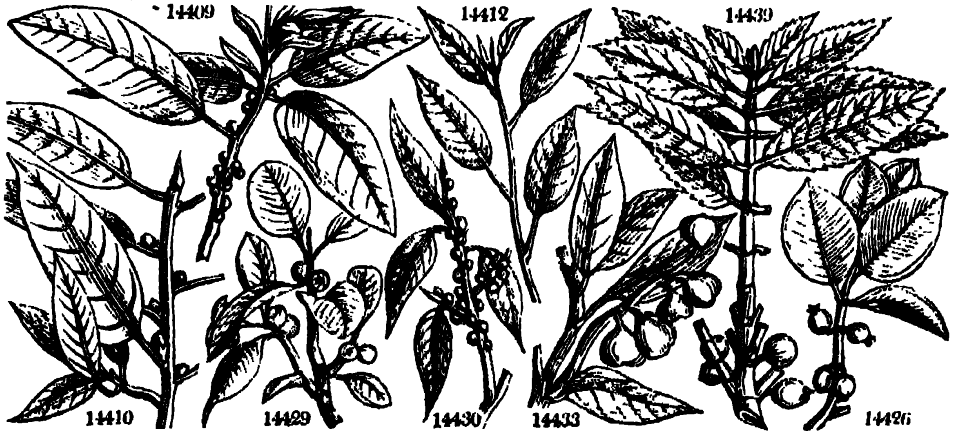
2166. *Panax.* A high-sounding title, meaning little less than that the plant which bears it is the long sought *universal elixir;* the name has been taken from *παν,* and *ακος,* a remedy; a remedy for all things. P. quinquefolium is a native of Chinese Tartary, and also of North America. In the former country it has been gathered as an invaluable drug from time immemorial. The roots, which are said to bear some resemblance to the human form, are gathered and dried, and enter into almost every medicine used by the Tartars and Chinese. Osbeck says, that he never looked into the apothecaries' shops, but they were always selling Ginseng, that both poor people and those of the highest rank made use of it, and that they boil half an ounce in their

14389 Racemes axillary, Leaves pinnated with an odd one, Leaflets ovate acute

14390 Leaves prickly with stellate spines

14391 Stem herbaceous, Leaves ternate or quinate, Leafl. ovate acuminate serrated
14392 Stem herbaceous, Leaves ternate or quinate, Leafl. oblong lanc. serrated
14393 Leaves ternate: the upper near the flowers clustered simple, Petioles and branches prickly
14394 Leaves supradecompound toothed-ciliated, Stem shrubby

14395 Leaves cordate 3-5-lobed repand-toothed: lobes blunt rough above downy beneath
14396 Leaves ovate with a short point netted beneath very smooth
14397 Leaves oblong 3-lobed and sinuated entire rough on each side
14398 Leaves cordate roundish mucronate entire glabrous glaucous beneath
14399 Leaves ovate oblong entire acute blunt at base smooth
14400 Leaves subcordate ovate with very long points
14401 Leaves ovate entire very blunt rounded at base subcordate 5-nerved
14402 Leaves oblong ovate entire acute subcordate at base impressed with dots on the upper surface
14403 Leaves oblong pointed smooth on both sides widely toothed, Branches covered with brown hairs
14404 Leaves oblong smooth narrowed at base cordate coriaceous, Veins immersed
14405 Leaves ovate blunt soft with down beneath
14406 Leaves ovate-cordate with a deep narrow sinus quite entire smooth acute green on each side
14407 Leaves ovate-cordate entire smooth blunt 3-nerved at base, Branches erect
14408 Leaves cordate oblong with a short point obtuse smooth with parallel nerves
14409 Leaves oblong-lanc. entire narrowed and acute at end rounded at base with white dots above
14410 Leaves obl quite entire narrowed and acute at end rounded and subcord. at base: with punctures above
14411 Leaves ovate tapered at the base with a long point
14412 Leaves ovate-obl. entire acuminate blunt obsoletely cordate at base
14413 Leaves ovate unequal-sided toothed acuminate rough on each side
14414 Leaves ovate-lanc entire slightly cordate at base
14415 Leaves cordate oblong entire nerved shining
14416 Leaves ovate-oblong bluntly serrate crenate hairy on each side
14417 Leaves oval acute serrated rough above soft beneath
14418 Leaves ellipt. entire rounded at each end smooth: young ones rusty with down beneath
14419 Leaves smooth elliptical entire shining very large
14420 Leaves oblong ovate blunt smooth, Fruit twin globose sessile
14421 Leaves oblong acuminate blunt tapered at base netted beneath, Stipules scarious
14422 Leaves ovate blunt entire cordate unequal at base, Stipules membranous twin persistent, Stem creeping
14423 Leaves ovate bluntish entire netted beneath
14424 Leaves obliquely ovate blunt
14425 Leaves broad lanc. with a short point tapered at base shining very smooth netted beneath
14426 Lvs. ellipt. obl. ent. narrow. at base bluntly acum. at end with fine parallel veins, dotted with white above
14427 Leaves cordate lanc. repand toothed obtuse downy beneath
14428 Leaves obl. acuminate entire narrowed at base about 3-nerved with parallel veins
14429 Leaves obovate entire with very short points and fine parallel veins shining smooth
14430 Leaves ovate acuminate entire acute at base
14431 Leaves obl. with short points entire smooth
14432 Leaves cordate ovate acuminate veiny very smooth, Fruit stalked globose smooth
14433 Leaves oblong-lanc. acute quite entire somewhat narrowed at base 3-nerved veiny dotted beneath
14434 Leaves obovate entire blunt smooth, Branchlets furrowed
14435 Leaves cordate ovate acute serrated unequal at base scabrous above hairy beneath, Stem creeping
14436 Leaves oblong acuminate tapered at base, Branches pendulous



and Miscellaneous Particulars.

tea or soup every morning, as a remedy for consumption and other diseases. Jartoux relates, that the most eminent physicians of China have written volumes on the medicinal powers of this plant, asserting that it gives immediate relief in extreme fatigue, either of body or mind, that it dissolves pituitous humours, and renders respiration easy, strengthens the stomach, promotes appetite, stops vomiting, removes hysterical, hypochondriacal, and all nervous affections, giving a vigorous tone of body even in extreme old age. The French in Canada use this root for curing the asthma, and as a stomachic. After all, our physicians say, that we have no proofs of the efficacy of Ginseng in Europe, and that from its sensible qualities it seems to possess very little power as a medicine. The hardy species thrive well in light rich soil; the others grow in loam and peat, and are increased by cuttings in sand under a hand-glass

2167. *Ficus.* It is not known what the derivation of this word is; but in most languages it is nearly the same. In Greek it is *συκη*, in Latin *Ficus*, in Celtic *Figuezen*, in Teutonic *feige*, in Sclavonic *fige*, in Hungarian *fuge*, in Anglo-Saxon *fic*. The species are trees or shrubs, abounding in a milky juice. The fruit is turbinate, fleshy, soft, and hollow within. All the species are natives of warm countries. F. Carica, *le figuier*, Fr., *Feigenbaum*, Ger., and *Fico*, Ital., is supposed to be originally from Caria, in Asia, though it is now acclimatized, and in some respects naturalized in the Levant and

14437 myrtifólia *Link.*	Myrtle-leaved	■	□	or	4	...	Ap	......	1824.	C	p.l	
14438 áspera *W.*	rough-leaved	■	□	or	3	mr.jn	Ap	N. Holl.	1807.	C	p.l	
14439 oppositifólia *W.*	opposite-leaved	■	□	or	4	...	Ap	E. Indies	1802.	C	p.l	Roxb.cor.2.t.194
scábra P. S.												
14440 arbutifólia *Link.*	Arbutus-leav'd	■	□	or	3	...	Ap	......	1825.	C	p.l	
14441 capénsis *W.*	Cape	■	□	or	4	...	Ap	C. G. H.	1816.	C	p.l	

History, Use, Propagation, Culture,

the south of Europe. In these countries the fruit green and dried forms an important part of the food of the inhabitants. In this country it is cultivated as a fruit tree, but not generally or extensively. It is only in very warm situations that it will ripen its fruit in the open air, even though trained against a wall; though there are one or two exceptions in Sussex on the sea-coast, where it ripens its fruit on standards. The only certain mode, however, is to grow it in houses built on purpose. No tree is more robust or more prolific. Even plants in pots or tubs kept in a temperature adapted for the orange-tree will fruit freely, and ripen two crops a year. Kept in the temperature of the pine-apple, Mr. Knight has proved, that the fig will go on growing and ripening fruit without intermission. A variety of curious and important matter respecting this tree will be found in the Transactions of the Horticultural Society, and in the Encylo-

Class XXIV. — CRYPTOGAMIA.

Sexual organs hidden; either imperfect, or not existing.

This class differs essentially from all the preceding in the peculiar conformation of the organs of reproduction, which are not formed of male and female parts, like those of the higher classes of plants, but are of a nature altogether different, consisting either of buds under a particular form, or of vessels containing vegetable substances analogous to seeds, but differing in not being the result of impregnation, and in having the power of striking root indifferently from any point of their surface. The internal composition of these vegetable substances, which are denominated sporules, is, on account of their extreme minuteness, unknown. Willdenow describes Cryptogamous plants to be vegetables without any visible flower, and differing from other plants in their external characters, in which respect they also differ from each other. By more modern botanists they are said to be distinguished from other plants by the absence of lymphatic vessels, and of pores of the epidermis; but the latter character has been disputed, and neither apply to the three first orders of Cryptogamia. For the purposes of this work, which follows the system of Linnæus, the definition, if it can be so called, of Willdenow is most applicable. In the arrangement of the orders of Cryptogamia, it has been found advisable to adhere to the divisions of modern writers, who, by extensive observations, and great powers of perception, have brought this most abstruse part of botany to a considerable degree of perfection.

The orders which are here adopted, are

I. Filices. Reproductive organs uniform. Thecæ naked, or covered by an involucre, placed on the back of a frond, which is either foliaceous, or contracted in such a way as only to cover the clusters of thecæ, and always circinate when young.

II. Equisetaceæ. Reproductive organs uniform, in terminal spikes, composed of peltate, several-sided scales, producing on their under surface 4-7 elongated involucres containing the seeds. Branches whorled, rigid.

III. Lycopodineæ. Reproductive organs axillary, sometimes apparently spiked. Thecæ? of two kinds, the one containing granules, the other larger bodies. Stems covered with many small leaves.

IV. Marsileaceæ. Reproductive organs radical, uniform. Sporules? contained in roundish, one or many-celled indehiscent heads. Plants simple, aquatic.

V. Musci. Reproductive organs of two kinds. Thecæ many-seeded, solitary, furnished with an operculum and columella. Plants leafy.

VI. Hepaticæ. Reproductive organs of two kinds. 1st. Thecæ without an operculum, either naked or sessile, or furnished with a veil, through which they are, more or less, protruded. Sporules naked, or mixed with spiral threads. 2d. Minute, roundish, or oblong bodies variously situated. Plants frondose, of a cellular structure, not submersed.

VII. Algæ. Reproductive organs of two kinds. 1st. Thecæ or tubercles variously situated. 2d. Sporules or granules naked, or immersed in the frond. Plants always aquatic, and submersed.

VIII. Lichenes. Reproductive organs uniform. Sporules deposited in receptacles of various forms, distinct in substance from the thallus, which is either pulverulent, crustaceous, membranous, foliaceous, or branched and shrub-like.

IX. Fungi. Reproductive organs uniform. Sporules arranged in tubular cells, placed in some part of the external surface. Substance various, mostly thick and fleshy, sometimes vesicular. Thallus none.

A few other divisions, such as Hypoxyla, &c., which have been proposed by some writers of authority, not having appeared to possess characters of sufficient importance, are here merged in others.

In consequence of the wide difference which exists between the lower orders of vegetables and the higher, and the impossibility of subjecting the former to cultivation, it has been found requisite, with the exception

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14437 Leaves oblong acute subcordate at base netted beneath
14438 Leaves ovate unequal-sided sinuate-toothed cordate at base rough on each side
14439 Leaves opp. obovate oblong serrated acute scabrous above hairy beneath

14440 Leaves oblong acuminate blunt tapered at base netted beneath, Stipules scarious smooth
14441 Leaves ovate-oblong acute sinuate toothed smooth

and Miscellaneous Particulars.

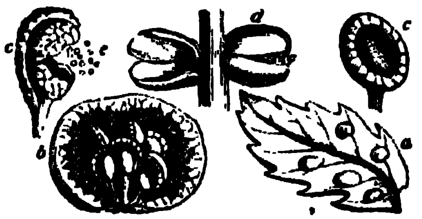
pædia of Gardening. (§ 5968.) F. elastica as well as some other plants produce the gum known as India-rubber.

F. indica is an immense tree, spreading very wide, the branches ash-colored, and throwing down roots into the soil. Marsden mentions one of these growing near Memgee, twenty miles west of Patna, in Bengal, which was in diameter 370 feet; the circumference of the shadow at noon was 1116 feet, and there were fifty or sixty stems. It is called the priest's tree, and held in so much veneration by the Gentoos, that if any one cuts or lops off a branch, he is looked upon with as great abhorrence as if he had broken a cow's leg. F. religiosa is so called, because it is sacred to the idol Vishnu. The horizontal branches root into the soil like the other; all the species are of remarkably easy culture, and root easily from large cuttings.

of Filices and their nearest allies, to introduce some alterations into the form of the pages of this work. These alterations commence with Musci.

The orders of Cryptogamia being equal in importance to the classes of flowering plants, they will be treated of as the classes have hitherto been treated. Each order will, therefore, stand by itself, and will have its genera and species arranged under it, without immediate connection with any other order.

Order 1. FILICES.



Reproductive organs uniform. Thecæ naked, or having an involucre placed on the back of a frond, which is either foliaceous, or contracted so as only to cover the clusters of thecæ, and always circinate when young.

This is the most beautiful of all the orders of Cryptogamic plants, and has always been a favorite tribe, to which the most celebrated botanists of all modern times have given their attention. Till some time, however, after the death of Linnæus, ferns shared the fate of all other departments of botany, being viewed rather as objects of elegant form than of scientific examination. Sir James Edward Smith was the first author who attempted to distribute them into genera, by characters derived from a minute inspection of their organs of reproduction; and his arrangement, however imperfect it may now be considered, is certainly that upon the principles of which the more precise divisions of recent authors have been effected. He was succeeded by Swartz, Willdenow, Brown, and many others, and lastly by Dr. George Frederick Kaulfuss, *Professor of Botany* at Halle, whose arrangement of 1824 is chiefly here adopted as being the most recent which has been published.

The principal distinction which exists between ferns and other orders of Cryptogamous plants is found in the situation of what are called their *sori*, or patches of reproductive organs, which are in all cases inserted upon the back surface of the leaf, or, as it is called in ferns, the frond, sometimes appearing only in the form of little spots, sometimes covering the whole of the under side of the frond, and sometimes contracting the substance of the frond, so as to give it the appearance of a single mass of fructification, bursting in a determinate manner, as in Ophioglossum, Schizæa, &c. Besides this character, the fronds are always rolled up in a circinate manner when they are first developed.

That part of the frond which occupies the place of the petiole of a compound leaf is called the *rachis*. The groups of thecæ forming the organs of reproduction are called *sori* (*a*), which are either naked or covered with an involucrum, or, as it is more frequently termed, *indusium*. (*b*) This latter organ, when present, either bursts outwardly towards the margin of the frond, or inwardly towards the midrib or rachis. It may also be either single or double; the latter term signifying, that there is a cover on each side the sorus. The bodies which are called *thecæ* by some authors, and capsules by others, are constructed in two ways; they are either surrounded by an elastic furrowed ring, when they are called *Annulatæ* (*c*), or they are destitute of such a ring, in which case they are termed *Exannulatæ* (*d*). They contain the minute powdery matter, which is that by which ferns are reproduced; the constituent parts of this matter are called *sporules* (*e*), and are analogous to seeds in more perfect plants.

Tribe I. POLYPODIACEÆ.

Thecæ 1-celled, with an articulated, elastical, longitudinal ring, bursting across in an irregular manner.

2168 *Polybotrya*. Thecæ closely covering the whole surface of the pinnules of an altered frond. Indusium none.

2169. *Acrostichum*. Thecæ scattered, occupying all the lower surface of the frond, or a part of it. Indusium none.

2170. *Hemionitis*. Thecæ seated on the reticulated veins of the frond. Indusium none.

2171. *Gymnogramma*. Thecæ seated on the forked veins of the frond. Indusium none.

2172. *Meniscium*. Sori linear, lunulate, somewhat parallel, placed across the spaces between the veins of the fronds. Indusium none.

2173. *Xiphopteris*. Sori oblong, oblique, placed on the reflexed points of the frond. Indusium none.

2174. *Ceterach*. Sori linear, transverse, concealed under paleæ. Indusium none.

2175. *Polypodium*. Sori in little round scattered convex spots. Indusium none.

2176. *Tænitis*. Sorus linear, longitudinal, placed between the midrib and margin of the frond under the end. Indusium none.

2177. *Nothochlæna*. Sori almost marginal, continuous, covered by the scales, setæ, or hairs of the frond. Indusium none.

2178. *Onoclea*. Sori globose, inserted upon columnar receptacles, inclosed within the berry-like pinnules. Indusium double: common placed on the edge of the pinnule, and united into the form of a berry; proper membranous enwrapping the sori.

2179 *Struthiopteris*. Sori linear, crossing, inserted upon crested receptacles, included in a double row within the somewhat articulated pinnæ. Indusium double: common marginal opening inwards in a rugged manner; proper membranous, and resembling a partition.

2180. *Allosorus*. Sori placed on the transverse forked veins of spike-like pinnules, finally becoming confluent. Common indusium very narrow, arising from the revolute margin which is rolled inwards.

2181. *Ellebocarpus*. Thecæ globose, irregularly attached to the longitudinal veins of the frond. Indusium transparent, discolored, arising from the revolute edge of the frond, continuous, and opening by a longitudinal suture.

2182. *Lomaria*. Sori linear, continuous, occupying the surface of the linear pinnæ of a particular frond. Indusium marginal or submarginal, conniving, involute.

2183. *Blechnum*. Sori linear, continuous, (sometimes interrupted) contiguous to the midrib. Indusium membranous, superficial, continuous, opening inwards.

2184. *Woodwardia*. Sori oblong, distinct, in rows, parallel, contiguous to the midrib. Indusium membranous, superficial, vaulted, opening inwards.

2185 *Doodia*. Sori lunulate, distinct, parallel with the midrib. Indusium membranous, superficial, flat, separating inwardly.

2186. *Asplenium*. Sori linear, placed upon lateral veins. Indusium membranous, flat, separating inwardly.

2187. *Allantodia*. Sori oblong, oblique with respect to the midrib. Indusium membranous, vaulted, cylindrical, adhering to a vein, opening inwards, finally spreading outwards.

2188. *Scolopendrium*. Sori linear, oblique, opposite, double, parallel. Indusia membranous, opening in opposite pairs.

2189. *Diplazium*. Sori linear, double alongside the veins. Indusia double, narrow, placed between the sori, fixed lengthwise by the middle, with their exterior margin separate.

2190. *Pteris*. Sori continuous, linear, marginal. Indusium from the inflexed edge of the frond, opening inwards.

POLYPODIACEÆ.

2168. POLYBOTRYA. *H. & B.* Polybotrya. *Sp.* 1—17.

14442 cervina *Kaulf.* hart's-tongue ♃ △ or ¼ ap.my Br Jamaica 1823. D l.p Petiv. fil. t. 8. f. 3

History, Use, Propagation, Culture,

2168. *Polybotrya*. So called in allusion to the numerous bunches of the fertile divisions of its frond; from πολυς, many, and βοτρυς, a bunch. Handsome species of West Indian and South American ferns. The genera of ferns are not very dissimilar in habit, so that it will be seldom that any remarks upon that subject will be found in these notes, which must necessarily consist chiefly of the etymology of the names. The medical properties are probably the same in all the genera; such as appear of any consequence are, however, inserted in the proper places. We will here take occasion to remark, that the cultivation of ferns is nearly the same in all cases, and that the soil best adapted for their growth is light peaty earth with a little loam. They are propagated by division of the roots, or by seeds or sporules. The latter plan has been practised at Liverpool,

2191. *Vittaria.* Sori solitary, continuous, linear, marginal or submarginal, immersed. Indusium double, superficial.
2192. *Lonchitis.* Sori lunate, marginal, placed under the recesses of the frond. Indusium from the margin of the frond, inflexed, opening inwards.
2193. *Antrophyum.* Sori linear, continuous, immersed in the reticulated veins of the frond. Indusium double, opening in the middle.
2194. *Adiantum.* Sori inserted into the indusium, linear, contiguous, or roundish. Indusium marginal, opening inwards, either nearly continuous, or squamiform, or reniform.
2195. *Cheilanthes.* Sori dot-like, separate, marginal in the recess of the indusium. Indusium either reflexed crenules of the frond, or squamiform, membranous, and arising from the margin, or nearly continuous, opening inwards.
2196. *Davallia.* Sori roundish, nearly terminal and marginal, distinct. Indusium superficial, attached inwards, and opening outwards.
2197. *Dicksonia.* Sori dot-like, marginal, solitary in the recesses of the frond. Indusia membranous, nearly globose, marginal, adnate, opening unequally with lacerated orifices, and spreading back in all directions.
2198. *Balantium.* Sori oblong-linear, nearly terminal and marginal, transverse. Indusium coriaceous, reniform, 2 valved, opening outwards: upper valve marginal, patera-shaped; lower nearly flat.
2199. *Aspidium.* Sori roundish, scattered. Indusium solitary, orbicular, peltate, or reniform.
2200. *Woodsia.* Sori dot-like, scattered. Indusium membranous, placed under the sori, somewhat patera-shaped and ciliated.
2201. *Cyathea.* Sori globose, scattered, inserted upon an elevated receptacle, which arises from a division of the vein. Indusium spherical, opening in the middle, and finally becoming patera-shaped.
2202. *Trichomanes.* Sori marginal, inserted upon a long setaceous receptacle. Indusium erect, campanulate.
2203. *Hymenophyllum.* Sori marginal, inserted upon a claviform receptacle. Indusium erect, 2-valved.

Tribe II. OSMUNDACEÆ.

Thecæ without a ring, netted, pellucid, with radiating striæ upon their top, bursting lengthwise on one side.

2204. *Todea.* Sori oblong, seated upon forked veins of an unchanged frond. Thecæ globose, stalked, netted, opening from their base as high as a pellucid dorsal projection. Indusium none.
2205. *Osmunda.* Sori nearly globose, alternately arising from the margin of a frond, which becomes changed into a panicle. Thecæ globose, stalked, netted, opening from their base as high as a pellucid dorsal projection. Indusium none.
2206. *Lygodium.* Thecæ oblong-ovate, striated at the end in a radiate manner, seated in two rows upon 1-sided marginal spikelets, fixed by their backs and opening lengthwise in front. Indusium funnel-shaped, covering up each capsule.
2207. *Anemia.* Thecæ ovate, striated at the top in a radiated manner, disposed in compound unilateral spikes, attached by the base, and opening lengthwise. Indusium none.

Tribe III. OPHIOGLOSSEÆ.

Thecæ 1-celled, adnate at base, roundish, coriaceous, opaque, without a ring, not vascular, sometimes fastened together, half-bivalved.

2208. *Botrychium.* Thecæ naked, globose, distinct, attached to the rachis of a compound spike, half 2-valved, opening nearly at one side.
2209. *Ophioglossum.* Thecæ naked, connate in a distichous jointed spike, half 2-valved, opening at the side.
2210. *Marattia.* Sori oval, somewhat marginal. Thecæ united in a double row, opening inwards by a cleft. Indusium arched, opening lengthwise above, 2-valved, inclosing on each side a row of thecæ.

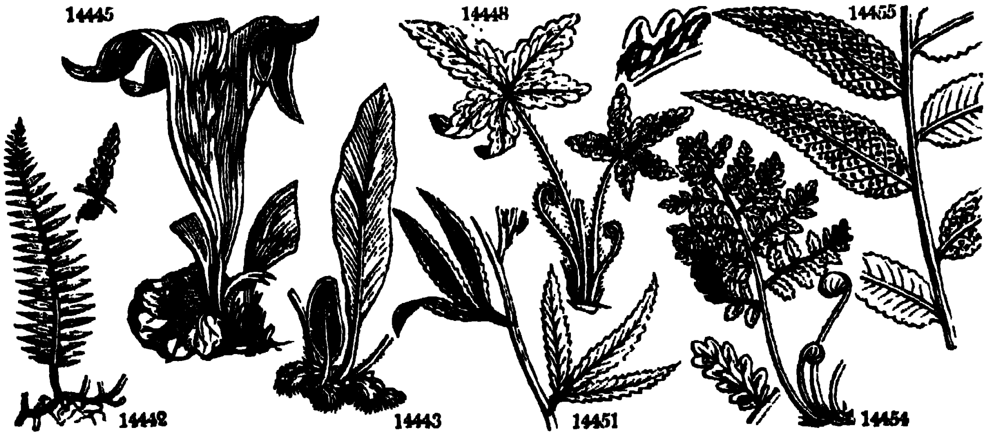
POLYPODIACEÆ.

14442 Ster. fronds pinnat. Pinn. ov. lanc. ent. margin. Fert. fr. bipinn. Pinnæ lin. Pinnul. obl. flatt. runn. together

and Miscellaneous Particulars.

by Mr. H. Shepherd, with so much success, that his method has been made the subject of a communication to the Horticultural Society, of which the following is an extract. "Having provided a common garden-pot four and a half inches in depth, and three and a half wide, let the bottom part, to the height of one inch, be filled with fragments of broken pots, by way of drain. Over these should be spread a stratum of such soil as is commonly used for potting greenhouse plants, of the depth of two inches; the remaining inch and half should be filled with brown loamy earth sifted through a hair-sieve, the surface being made perfectly smooth, and on this the seeds are to be scattered as evenly as possible. Care must be taken that the wind be not suffered to blow the seeds away, leaving nothing but empty capsules. The seeds being sown, no other covering is

2169.	ACROS'TICHUM. *L.*	Acrostichum.					*Sp.* 5—42.						
14443	simplex *W.*	simple	£	[Δ]	or	1	...	Br	Jamaica	1793.	D	l.p	Bot. cab. 709
14444	crinitum *W.*	hairy	£	[Δ]	or	¾	...	Br	W. Indies	1793.	D	l.p	Plum. fil. t. 125
14445	alcicórne *W.*	Elk's-horn	£	⌊Δ⌋	cu	½	au.o	Br	N. S. W.	1808.	R	s.p	Bot. reg. 262-3
14446	sorbifólium *W.*	Sorbus-leaved	£	[Δ]	or	1½	...	Br	W. Indies	1793.	D	l.p	Plum. fil. t. 117
14447	aúreum *L.*	golden	£	[Δ]	or	4	au	Br	W. Indies	1815.	D	l.p	Plum. fil. t. 104
2170.	HEMIONI'TIS. *L.*	Hemionitis.					*Sp.* 1—5.						
14448	palmáta *L.*	palmated	£	[Δ]	el	¾	jn.au	Br	W. Indies	1793.	D	l.p	Hook. ex. fl. 33
2171.	GYMNOGRAM'MA. *Desv.*	Gymnogramma.					*Sp.* 6—26.						
14449	pedátum *Kaulf.*	pedate	£	[Δ]	pr	¾	jn.jl	Br	N. Spain	1822.	D	l.p	Sw.syn.fil t.1.f.3
14450	rúfum *Desv.*	rusty-haired	£	[Δ]	pr	½	jn.au	Br	Jamaica	1793.	D	l.p	Schk. fil. t.17. 2.
	Hemionitis rúfa W.												
14451	trifoliátum *Desv.*	three-leaved	£	[Δ]	dr	1	jl.au	Br	Jamaica	1810.	D	l.p	Plum. fil. t. 144
14452	sulphúreum *Desv.*	sulphury	£	[Δ]	el	1	jn.jl	Br	Jamaica	1808.	D	l.p	Schku. crypt. t.4
14453	tartáreum *Desv.*	whitened	£	[Δ]	el	1	au	Br	W. Indies	1817.	D	l.p	
	Hemionitis dealbata W.												
14454	calomélanos *Kaulf.*	mealy	£	[Δ]	el	1	jl.au	Br	W. Indies	1790.	D	s.p	W. hort. ber. 41
	Acrostichum calomelanos W.												
2172.	MENIS'CIUM. *Schreb.*	Meniscium.					*Sp.* 1—6.						
14455	reticulátum *Schr.*	netted	£	[Δ]	el	¾	ap.my	Br	Martinico	1793.	D	l.p	Plum. fil. t. 110
2173.	XIPHOP'TERIS. *Kaulf.*	Sword-Fern.					*Sp.* 1—2.						
14456	serruláta *Kaulf.*	serrulate	£	[Δ]	pr	¼	jn.jl	Br	W. Indies	1823.	D	l.p	Schku. crypt. t.7
	Grammitis serrulata W.												
2174.	CE'TERACH. *W.*	Ceterach.					*Sp.* 1—4.						
14457	officinárum *W.*	common	£	Δ	m	½	my.o	Br	Britain	cal.ro.	D	l.p	Eng. bot. 1244
2175.	POLYPO'DIUM. *L.*	Polypody.					*Sp.* 27—160.						
14458	piloselloides *W.*	Mouse-ear	♣	[Δ]	or	¼	au	Br	W. Indies	1793.	D	l.p	Plum. fil. t. 118
14459	lycopodioides *W.*	Club-moss	♣	[Δ]	or	½	jl	Br	W. Indies	1793.	D	l.p	Schk. fil. t. 8. c.p
14460	phyllítidis *W.*	Hart's-tongue	£	[Δ]	or	2	jn.s	Br	W. Indies	1793.	Sk	s.p	Plum. fil. t. 130
14461	Lin'gua *W.*	tongue-leaved	£	⌊Δ⌋	or	1	my.jl	Br	China	1817.	D	l.p	Thunb. jap. t. 38
14462	aúreum *W.*	golden	£	[Δ]	or	3	mr.ap	Br	W. Indies	1742.	Sk	s.p	Plum. fil. t. 76
14463	vulgáre *W.*	common	¥	Δ	or	1	my.o	Br	Britain	sha.ba.	D	l.p	Eng. bot. 1149
	β *cámbricum*	*Welsh*	¥	Δ	cu	1	my.o	Br	Britain	...	D	l.p	Bolt. fil. t.2 f.5.a
14464	virginiánum *W.*	Virginian	¥	Δ	or	1	jl	Br	N. Amer.	...	D	l.p	Plum. fil. t. 77
14465	pectinátum *W.*	comb-leaved	£	[Δ]	or	1½	jn.s	Br	W. Indies	1793.	Sk	s.p	Bot. cab. 748
14466	aspleniifólium *W.*	Spleenwort-lvd.	£	[Δ]	or	2	jl	Br	Martinico	1790.	Sk	s.p	Plum. fil. t. 102. A
14467	incánum *W.*	hoary	¥	Δ	or	½	jl	Br	N. Amer.	1811.	D	l.p	Schk. fil. t. 11. b
14468	Phegópteris *W.*	Sun-fern	¥	Δ	or	¾	jn.jl	Br	Britain	moun.	D	l.p	Eng. bot. 2224
14469	hexagonópterum *W.*	triangular	¥	Δ	or	1	jl	Br	N. Amer.	1811	D	l.p	Pluk. al. t.284 f.2
14470	pruinátum *W.*	white-leaved	£	[Δ]	or	2	s	Br	Jamaica	1793.	D	l.p	
14471	effúsum *W.*	spreading	£	[Δ]	or	3	n	Br	Jamaica	1769.	Sk	s.p	Slo. jam. 1.t.57.f.3
14472	Dryópteris *W.*	tender-branch.	¥	Δ	or	1	jn.s	Br	Britain	moi.pl.	D	l.p	Eng. bot. 616
14473	calcáreum *W.*	rigid-branched	¥	Δ	or	¾	jl	Br	Britain	cal.ro.	D	l.p	Eng. bot. 1525
14474	crassifólium *W.*	thick-leaved	£	[Δ]	or	3	au.s	Br	W. Indies	1823.	D	l.p	Plum. fil. t. 123



History, Use, Propagation, Culture.

required than a bell-glass, which should just fit within the rim of the pot, so as to exclude all air. The pot is then to be kept in a pan always half full of water, and set in a shady part of the stove or hot-house, being always regularly watered as above directed. When the young plants have acquired their second leaf, it is proper to give them a little air, by placing a small piece of wood under the edge of the glass, at one side. In a short time afterwards the glass may entirely be removed."

The vegetation of ferns appears to be less tardy than botanists have supposed. Specimens of Gymnogramma tartareum having been brought from Jamaica to Liverpool, on the tenth of July 1817, a few seeds were brushed off them and sown immediately. Several plants thus obtained perfected seeds by the fifth of August 1818, which being committed to the earth, had produced young plants, covering the surface like a fine moss, by the eighth of September following. Specimens of Pteris cretica, and another marked Pteris acrostichoides, from William Jackson Hooker, Esq., afforded seeds which have vegetated and produced very fine plants of both species. Dr. William Carey sent from Serampore specimens of Polypodium giganteum, and what appears to be a new Diplasium. These reached Liverpool, July the tenth 1818; their seeds being immediately sown, had produced young plants by the eighth of September. A small fern from Sicily, with several others of this tribe, collected in the Brazils by William Swainson, Jun., Esq., afforded ripe seeds, which being sown in the spring of 1818, had partly vegetated, and in September had produced Polypodum decumanum, as well as Gymnogramma calomelanos. Mr. Shepherd obtained two plants of the latter from seeds brushed from the specimens in the Herbarium of Dr. John Reinhold Forster, now belonging to the botanic garden at Liverpool, and perhaps fifty years old. He made the experiments on other ferns in that collection, but without success, which, indeed, is not wonderful.

The seeds of this order of plants are of course liable to damage from damp or other accidents, like those of plants in general. It seems, moreover, that they are very soon shed by the bursting of their capsules, so that

14443 Fronds lanceolate tapered each way smooth : fertile linear lanceolate, Stalks very short naked
14444 Fronds elliptical obtuse at each end hairy villous at the edges, Stalk villous
14445 Ster. fronds renif. somew. lobed entire horizontal : fert. erect palmate dichotom. bearing fr. on lanc. segm.
14446 Fronds pinnated : pinn. lanc. acumin. serr. cuneate at base, Fert. pinn. : pinn. linear entire, Stem climbing
14447 Fronds pinnated : pinn. altern. obl. lanceolate cut. cuneate and equal at base, all acum. : the upper fertile

14448 Fronds cordate 5-lobed toothed ciliated, Stalk long

14449 Fronds pinnate : pinnæ pinnatifid acuminate hairy
14450 Fronds pinnate : pinnæ oblong acutish subcordate subserrate on each side as well as the stalk hairy

14451 Fronds pinnate : pinnæ ternate in pairs and solitary stalked lin. crenul. ; fertile yellow with meal beneath
14452 Fronds bipinnate : pinnulæ pinnatifid ; segm. cuneate truncate at end toothletted yell. with meal beneath
14453 Fronds bipinnate : upper pinn. confluent obl. obt. serrul. ; lower somew. pinnatif. white with meal beneath

14454 Fronds bipinnate : pinn. lanc. white with meal beneath ; lower pinnatifid auricled at base, upper confluent

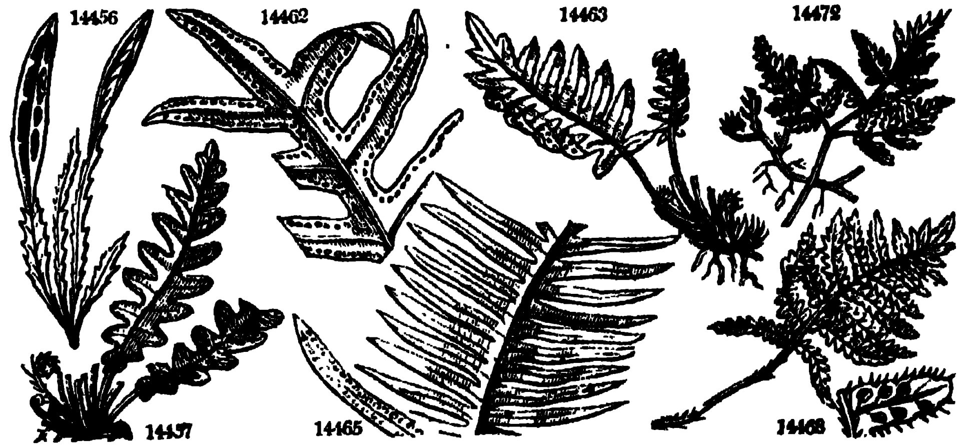
14455 Fronds pinn. : pinn. lanc acuminate cuneate at base all repand : lower opposite, Stem none

14456 Fronds linear toothed when fructifying entire at the end, Stem filiform ascending simple

14457 Fronds pinnatifid : segm. oblong obtuse chaffy with entire paleæ beneath

14458 Fronds hairy : sterile oblong ovate entire ; fertile lanceolate, Sori solit. Stem filiform rooting chaffy
14459 Fronds lanceolate entire smooth, Sori solitary, Stem filiform creeping with bristly paleæ
14460 Fronds lanceolate margined acute tapered at base smooth, Sori in two rows
14461 Fronds oblong obtuse entire smooth above rusty with down beneath, Sori contiguous copious
14462 Fronds deeply pinnatifid glaucous : segm. lanc. acuminate entire, Lower sori scattered ; upper solitary
14463 Fronds deeply pinnatifid : segm. lin. lanc. blunt crenul. contig. : upper smaller by degrees, Sori solitary

14464 Fronds deeply pinnatifid : segm. lanc. blunt entire contig. ; upp. smaller by degrees, Sori solit. Stalk naked
14465 Fronds deeply pinnatifid : segm lanc. acute entire parallel smooth ; upper and lower smallest, Sori solitary
14466 Fronds pinnatifid hairy : segments half ovate blunt, Sori solitary
14467 Fronds deeply pinnatifid : segm altern. lin. ent. obt. ; upper smaller by degrees ben. as well as stalk chaffy
14468 Fronds bipinnatif : 2 lower pinnæ defl. ; segm. lin -lanc. blunt ent. ciliat. Veins hairy, Sori solit. marginal
14469 Fronds downy and ciliated bipinnatifid, Membranes connecting the opposite pinnæ oblong hexagonal
14470 Fronds 4-pinn Branches and branchlets lanc. Pinnæ lanc. pinnatifid, Segm. ovate acute glaucous beneath
14471 Fronds 3-pinn. : pinnulæ pinnatif. ; segm lin. serrat. acute, Rachis edged naked, Sori solit. Stalk smooth
14472 Fronds ternate bipinnate spreading deflexed : segments blunt nearly entire, Sori marginal, Root filiform
14473 Fronds ternate bipinnate straight rigid : segments bluntish nearly entire, Sori marginal confluent
14474 Fronds oblong smooth entire margined acute at each end, Sori in rows



and Miscellaneous Particulars.

they are more likely to be found in such specimens as are just beginning to turn brown in their fructification, than in others more advanced.

2169. *Acrostichum.* Said to be formed from the words *ακρος στιχος*, the commencement of a verse, and to have been so called because the reverse of their leaves indicates traces of lines, resembling the beginning of lines of poetry. These are fine, chiefly tropical, ferns, one of which, A. aureum, sometimes grows to the height of five or six feet.

2170. *Hemionitis.* Said by Dioscorides to be so called from the resemblance of its nature to that of a mule, *ἡμιονος* ; it was always considered sterile, bearing neither flowers nor fruit.

2171. *Gymnogramma.* Named by Desvaux from *γυμνος*, naked, and *γραμμα*, writing, in allusion to the disposition of the naked sori upon the forked veins of the frond, whence they seem to resemble Roman letters. The species have been separated from Hemionitis and Acrostichum.

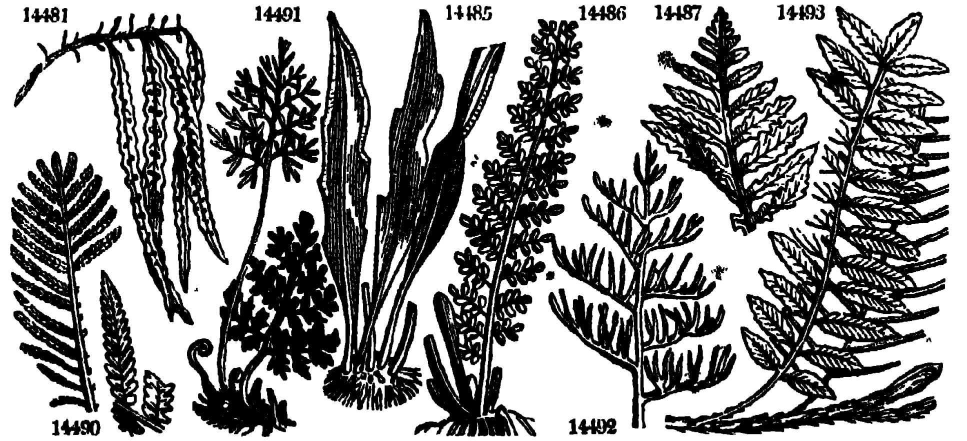
2172. *Meniscium.* From *μηνη*, the moon ; the sori are [illegible]nt-shaped. These ferns are remarkable for the arrangement of their veins. The little veins which unite the transverse veins of the sterile frond are usually at right angles, and generally united with each other by a little branch which sets off from one or other of their angles. In the fertile fronds the veins on which the sori are placed are either curved or straight.

2173. *Xiphopteris.* Divided from Grammitis by Kaulfuss, who seems to have named it from *ξιφος*, a sword, and *πτερυξ*, a fern, on account of the sword-like form of their fronds.

2174. *Ceterach.* The name employed by the Arabian and Persian physicians for this plant was *Chetherak.* (*Gazoph. Ling. Pers.* p. 377.) They employed the plant in obstructions of the viscera, for the jaundice, and for disorders of the spleen.

2175. *Polypodium.* From *πολυς*, many, and *πους ποδος*, a foot, on account of the multitude of the roots which form close entangled patches. Many of the species of this genus are noble plants. They are mostly epiphytic

14475	decumánum *W.*	tall	¥	[Δ] el	5	au	Br	Brazil	1818.	D	l.p	
14476	fraxinifólium *W.*	ash-leaved	¥	[Δ] el	2	au	Br	Caraccas	1817.	D	l.p	Jacq. ic. t. 639
14477	lanceolátum *W.*	lanceolate	¥	[Δ] or	1	au	Br	W. Indies	1812.	D	l.p	Plum. fil. t. 137
14478	phymatódes *W.*	red	¥	[Δ] or	½	jn.au	Br	E. Indies	1823.	D	l.p	Plu. phyt. 404. f. 5
14479	quercifólium *W.*	oak-leaved	¥	[Δ] or	1½	s	Br	E. Indies	1824.	D	l.p	Rumph. 6. t. 36
14480	répens *W.*	creeping	♀	[Δ] pr	2	my.jn	Br	W. Indies	1810.	D	l.p	Plum. fil. t. 134
14481	sérpens *W.*	gliding	♀	[Δ] pr	½	my.jn	Br	W. Indies	1816.	D	l.p	Plum. fil. 121
14482	tænióeum *W.*	jointed	♀	[Δ] pr	2	my.jn	Br	S. Amer.	1815.	D	l.p	
14483	pertúsum	bored	♀	[Δ] pr	½	ja.d	Br	China	1821.	D	l.p	Hook. ex. fl. 162
14484	crenátum *W.*	crenate	¥	[Δ] pr	1½	au	Br	Jamaica	1823.	D	l.p	
2176.	TÆ'NITIS. *Suw*	Tænitis.			*Sp.* 1—5.							
14485	lanceoláta *Kaulf.*	lanceolate	♀	[Δ] pr	1	au	Br	W. Indies	1818.	D	l.p	Plum. fil. t. 132
2177.	NOTHOCHLÆ'NA. *R. Br.*	Nothochlæna.			*Sp.* 1—16.							
14486	lanuginósa *Desv.* *Acróstichum vel'leum* W.	woolly	¥	⌊Δ⌋ or	¾	au.s	Br	Madeira	1778.	R	s.p	Desf. atl. 2. t. 256
2178.	ONOCLE'A. *L.*	Onoclea.			*Sp.* 2.							
14487	sensíbilis *W.*	sensitive	⚘	Δ or	1½	au	Br	Virginia	1799.	D	l.p	Schk. fil. t. 102
14488	obtusilobáta *Schk.*	obtuse-lobed	⚘	Δ or	1	jl	Br	N. Amer.	1812.	D	l.p	Schk. fil. t. 103
2179.	STRUTHIOP'TERIS. *W.*	Struthiopteris.			*Sp.* 2.							
14489	germánica *W.*	Russian	⚘	Δ or	2	jl.au	Br	Europe	1760.	D	l.p	Schk. fil. t. 105
14490	pensylvánica *W.*	Onoclea-like	⚘	Δ or	2	au	Br	N. Amer.	1812.	D	l.p	Schk. fil. t. 111
2180.	ALLOSO'RUS *Bernh.*	Allosorus.			*Sp.* 1.							
14491	críspus *Bernh.* *Pteris críspa* L.	curled	⚘	Δ cu	½	jl.au	Br	Britain	sto. hi.	D	l.p	Eng. bot. 1160
2181.	ELLOBOCAR'PUS. *Kaulf.*	Pod-Fern.			*Sp.* 1—2.							
14492	oleráceus *Kaulf.*	eatable	¥	[Δ] or	1½	au	Br	Tranqueb.	1818.	D	l.p	Plu. alm. t. 215. f. 3
2182.	LOMA'RIA. *W.*	Lomaria.			*Sp.* 1—20.							
14493	longifólia *Kaulf.*	long-leaved	♀	[Δ] or	2	jn.jl	Br	W. Indies	1810.	D	l.p	Pl. fil. t. 117. *dextr*
2183.	BLECH'NUM. *L.*	Blechnum.			*Sp.* 3—29.							
14494	boreále *W.*	northern	⚘	Δ pr	¾	jl	Br	Britain	hea.	D	l.p	Eng. bot. 1159
14495	austrále *W.*	Cape	¥	⌊Δ⌋ pr	¾	mr.s	Br	C. G. H.	1691.	R	s.p	Schk. fil. t. 110 b
14496	occidentále *W.*	American	¥	[Δ] pr	1	mr.s	Br	S. Amer.	1777.	R	s.p	Jac. ic. 3. t. 644
2184.	WOODWAR'DIA. *Sm*	Woodwardia.			*Sp.* 2—7.							
14497	rádicans *W.*	rooting-leaved	¥	⌊Δ⌋ or	1½	s	Br	Madeira	1779.	R	s.p	Schk. fil. t. 112
14498	virgínica *Ph.*	Virginian	⚘	Δ or	1	au.s	Br	N. Amer.	1774.	D	l.p	Plu. alm. t. 179. f. 2
2185.	DOO'DIA. *R. Br.*	Doodia.			*Sp.* 1—3.							
14499	áspera *R. Br.*	rough-stalked	¥	⌊Δ⌋ pr	¾	mr.s	Br	N. S. W.	1808.	R	s.p	
2186.	ASPLE'NIUM. *L.*	Spleenwort.			*Sp.* 27—117.							
14500	fontánum *R. Br.* *Aspídium fontánum* E. B.	smooth rock	⚘	Δ el	½	jn.au	Br	England	w. & r.	D	l.p	Eng. bot. 2024
14501	Fílix-fœ'mina *R. Br.*	female	⚘	Δ or	2	jn.s	Br	Britain	w.sh pl.	D	l.p	Eng. bot. 1459
14502	Adiántum-nígrum *W.*	black	⚘	Δ pr	1	ap.o	Br	Britain	sha. pl.	D	l.p	Eng. bot. 1950
14503	montánum *W.*	mountain	⚘	Δ pr	½	jl	Br	N. Amer.	1812.	D	l.p	
14504	lanceolátum *W.*	lanceolate	⚘	Δ pr	½	jn.s	Br	England	rocks.	D	l.p	Eng. bot. 240
14505	frágrans *W.*	fragrant	¥	[Δ] el	¾	jl	Br	Jamaica	1793.	D	l.p	Plu. alm. t. 282. f. 1
14506	Ruta-murária *W.*	Wall-rue	⚘	Δ cu	½	jn.o	Br	Britain	sh. roc.	D	l.p	Eng. bot. 150



History, Use, Propagation, Culture,

upon trees. Polypodium vulgare is sometimes burnt for the sake of its ashes, which contain a large proportion of carbonate of potash, which is employed in the fusion of flint for some kinds of glass-ware.

2176. *Tænitis.* From the resemblance of the interrupted line of sori to the *tænia* or tape-worm.

2177. *Nothochlæna.* From *νοθος*, spurious, and *χλαινα*, a cloak. So called because the sori are not enclosed in a genuine indusium, but are frequently covered over by the paleæ of the frond. A genus extracted by Mr. Robert Brown from the ancient Acrostichum.

2178. *Onoclea.* A name given by Dioscorides, Pliny, and Galen, to a Boragineous plant, and strangely applied by the moderns to a genus of ferns. O. sensibilis has been so called from the delicacy of its frond, which is so impatient of injury as to perish with almost the least violence.

2179. *Struthiopteris.* Named from *στρουθος*, an ostrich, and *πτερις*, a fern, on account of the similarity between its fine fronds and the feathers of an ostrich. A genus divided from Osmunda by Willdenow.

2180. *Allosorus.* From *αλλος*, various, and *sorus*; a name contrived by Bernhardi, in a paper printed in Schrader's Journal, we presume in allusion to the different states of the sori at different periods. A curious little rock plant.

2181. *Ellobocarpus.* Named by Kaulfuss, from *ελλοβος*, enclosed in a pod, and *καρπος*, fruit, in allusion to the pod-like form of the divisons of the fronds on which the sori are placed.

14475 Fronds deeply pinnatifid glaucous : segments lanceolate acuminate repand serrate, Sori in rows
14476 Fronds pinnate, Leaflets lanceolate acuminate repand wavy distant
14477 Fronds lanceolate entire smooth or somewhat scaly rigid erect, Sori solitary
14478 Fronds simple 3-lobed and pinnatifid : segments lanceolate acuminate opposite, Sori scattered immersed
14479 Sterile fronds sessile ovate sinuated ; fertile pinnatifid ; segments lanceolate
14480 Fronds on a creeping stem lanceolate acuminate entire sublucid with flexuous veins, Sori scattered
14481 Sterile fronds oblong entire : fertile linear lanceolate repand, Sori solitary, Stem paleaceous rooting
14482 Fronds linear lanceolate much tapered at the base somewhat repand quite smooth, Sori scattered
14483 Ster. fronds obl. lanc. taper. at base : fert. lin -lanc. bear. sori on upp. half, Sori oval immers. in dense wool
14484 Fronds pinnate, Pinn. somewhat stalked oblong acuminate coarsely and bluntly serrated, Sori in rows

14485 Fronds simple lanceolate acute at each end nearly entire fructifying at end

14486 Fronds bipinnate woolly : pinnules elliptical obtuse covered all over with long wool

14487 Pinnæ lanceolate acute cut toothed : pinnules and rachis smooth
14488 Pinnæ pinnatifid with rounded lobes : pinnules villous, Rachis scaly

14489 Sterile fronds bipinnatifid : segments entire acute equal
14490 Sterile fronds bipinnatifid : segments entire obtuse ; lower long acute

14491 Fronds supradecompound, Pinnæ alternate roundish cut

14492 Alternate pinnæ pinnulate on the upper-side linear : lower 2-parted

14493 Sterile pinnæ long-lanceolate acuminate cuneate at base repand-toothed : fertile linear

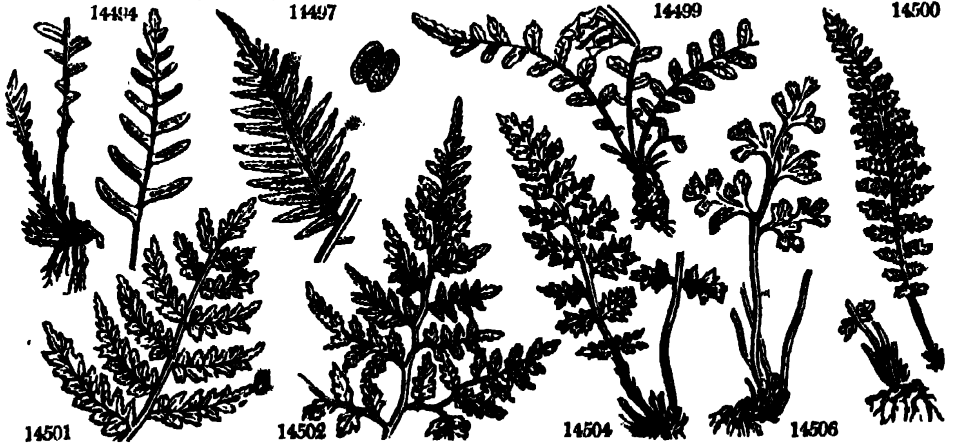
14494 Fronds pinnated smooth, Pinnæ linear bluntish entire nearly equal at base
14495 Fronds pinnated, Pinnæ linear-lanceolate mucronate auricled at base scabrous at edge
14496 Fronds pinnated, Lower pinnæ opposite lanceolate entire subcordate at base : upper alternate united

14497 Fronds pinnate-pinnatifid : segments lanceolate acuminate somewhat repand finely serrulate
14498 Fronds very smooth pinnate, Pinnæ sessile lanceolate pinnatifid, Segments oblong blunt crenulate

14499 Fronds lanceolate pinnatifid : segm. linear ensiform acuminate spinulose, Sori lanceolate in two rows

14500 Fronds pinn. : pinnæ cordate pinnatifid ; segm. ovate rather acute, lower and terminal usually 3-lobed

14501 Fronds bipinn. : pinnules obl. lanc. cut serrated : serratures 2 or 3-toothed nearly acute, Sori obl. straight
14502 Fronds bipinn. : pinnæ obl. lanc. acute , pinnules oblong pinnatifid cut, Sori becoming confluent
14503 Fronds bipinn. : pinnules pinnatifid ; segments 3 or 2-toothed
14504 Fronds bipinn. : pinnules obovate blunt cuneate at base acutely toothed at end, Sori becoming confluent
14505 Fronds bipinn. : pinnules oblong acute at each end serrated at end : upper confluent
14506 Fronds alternately decompound : pinnæ rhomboid cuneiform spreading bitten at end



, and Miscellaneous Particulars.

2182. *Lomaria.* From λωμα, an edge, on account of the marginal position of the indusia. These are fine plants, resembling Acrostichum in habit.

2183. *Blechnum.* One of the Greek names of the fern was βλιχνον. Athenæus writes it βλαχνον, and derives it from βλαξ, powerless, insipid.

2184. *Woodwardia.* Named by Sir James Smith, after his friend Thomas Jenkinson Woodward, Esq., a good practical English botanist. One of the species produces little hairy bulbs at the axillæ of the leaves, which either fall off and strike root in the ground, or vegetate while attached to the parent plant. This property is common to many other ferns, and in one instance, the young plants so produced have been mistaken in Pteris cornuta for parasites by an acute cryptogamic botanist.

2185. *Doodia.* So called in honor of Samuel Doody, a London apothecary, who was almost the first investigator of British cryptogamic plants. Small rough-leaved ferns of rigid texture.

2186. *Asplenium.* From α, privative, and σπλην, the spleen. This plant was formerly held to be a sovereign remedy for all diseases of this organ, and to be so powerful as even to destroy it if employed in excess.

14507	præmórsum *W.*	snip-leaved	£	[△]	el	¾	au	Br	Jamaica	1793.	R	s.p	Plu.alm. t.73. f.5
14508	striátum *W.*	striated	£	[△]	pr	1	jn.au	Br	W. Indies	1793.	R	s.p	Plum. fil. t.18, 19
14509	rhizóphorum *W.*	root-bearing	£	[△]	pr	1	au	Br	Jamaica	1793.	D	l.p	Sl.ja. 1.t.29,30.f.1
14510	viride *W.*	green	¥	△	pr	½	jn.s	Br	Britain	al roc.	D	l.p	Eng. bot. 2257
14511	melanocaúlon *Ph.*	black-stalked	¥	△	pr	¼	jl	Br	N. Amer.	1812.	D	l.p	
14512	Trichómanes *W.*	Maiden-hair	¥	△	pr	½	my.o	Br	Britain	sh.roc.	D	l.p	Eng. bot. 576
14513	alternifólium *Sm.*	alternate-leav'd	¥	△	cu	½	jn.o	Br	Scotland	...	D	l.p	Eng. bot. 2258
14514	ebéneum *Ph.*	ebony-stalked	¥	△	or	¾	s	Br	N. Amer.	1779.	D	l.p	Schk. fil. t. 73
14515	monánthemum *W.*	one-flowered	£	⌊△⌋	cu	1	jl	Br	C. G. H.	1790.	D	l.p	Smith ined. t. 73
14516	Nidus *W.*	Bird's Nest	£	[△]	el	2	au	Br	E. Indies	1820.	D	l.p	Breyn. cent. t.99
14517	marinum *W.*	sea	¥	△	or	½	jn.o	Br	Britain	rocks.	R	s.p	Eng. bot. 392
14518	angustifólium *W.*	narrow-leaved	¥	△	el	1	jn.jl	Br	N. Amer.	1812.	D	l.p	Schk. fil. t. 67. 69
14519	septentrionále *W.*	forked	¥	△	or	½	jn.o	Br	Britain	rocks.	D	l.p	Eng. bot. 1017
14520	rhizophýllum *W.*	rooting-leaved	¥	△	cu	¾	jn.jl	Br	N. Amer.	1680.	D	l.p	Pluk.al. t.105.f.3
14521	serrátum *W.*	saw-leaved	£	[△]	pr	1½	...	Br	W. Indies	1793.	D	l.p	Schk. fil. t. 64
14522	biséctum *Swz.*	split	£	[△]	or	1½	au	Br	Jamaica	1821.	D	l.p	
14523	púmilum *W.*	pygmy	£	[△]	pr	½	jn.jl	Br	W. Indies	1823.	D	l.p	Plum. fil. t.66. A.
14524	zamiæfólium *W.*	Zamia-leaved	£	[△]	cu	1½	jn.s	Br	Caraccas	1820.	D	l.p	
14525	acútum *W.*	acute	£	⌊△⌋	or	2	ap.my	Br	Teneriffe	1818.	D	l.p	
14526	palmátum *W.*	palmate	£	⌊△⌋	or	¾	au.s	Br	S. Europe	1816.	D	l p	Bot. cab. 868

2187. ALLANTO'DIA. *R. Br.* Allantodia. *Sp.* 2—3.

14527	axilláris *Kaulf.*	axillary	£	⌊△⌋	or	2	jn s	Br	Madeira	1779.	D	l.p	
14528	umbrósa *R. Br.*	Madeira	£	⌊△⌋	or	4	jn.s	Br	Madeira	1779.	D	l.p	Schk. fil. t. 61
	Polypódium umbrósum H. K.												

2188. SCOLOPEN'DRIUM. *Smith.* Hart's Tongue. *Sp.* 1.

14529	officinárum *Swz.*	common	£	△	cu	1½	jl au	Br	Britain	m.s.pl.	D	l p	Eng. bot. 1150
β	*crispum*	*curled-leaved*	£	△	cu	1½	jl.au	Br	Britain	...	D	l.p	
γ	*undulátum*	*wave-leaved*	£	△	cu	1½	jl au	Br	Britain	...	D	l.p	Plu phyt 248. f.1
δ	*multifidum*	*clustered*	£	△	cu	1½	jl.au	Br	Britain	...	D	l.p	
ι	*ramósum*	*branching*	£	△	cu	1½	jl au	Br	Britain	...	D	l.p	Plu.phyt.248. f.1

2189. DIPLA'ZIUM. *Swz.* Diplazium. *Sp* 2—13.

14530	grandifólium *W.*	large-leaved	£	[△]	or	2	au	Br	Jamaica	1793.	D	l.p	
14531	auriculátum *Kaulf.*	auricled	Ϯ	□	or	10	au	Br	Caraccas	1820.	D	l.p	

2190. PTE'RIS. *L.* Brake. *Sp.* 15—37.

14532	longifólia *W.*	long-leaved	£	[△]	or	2	jl.s	Br	W. Indies	1770	Sk	s.p	J.sch.3.t.399,400
14533	grandifólia *W.*	large-leaved	£	[△]	or	2	au	Br	W. Indies	1793.	Sk	s.p	Schk. fil. t. 89
14534	serruláta *W.*	various-leaved	£	[△]	pr	1½	au.s	Br	India	1770	Sk	s.p	Schk. fil. t. 91
14535	atropurpúrea *W.*	purple	¥	△	pr	½	au s	Br	N. Amer.	1770.	D	l p	Schk. fil. t. 101
14536	argúta *W.*	sharp notched	£	⌊△⌋	el	1	au.s	Br	Madeira	1778.	D	l.p	Plu.alm t.290 f.2
14537	aculeáta *W.*	prickly-stemm	Ϯ	□	or	10	au.s	Br	W. Indies	1793.	D	l p	Plum fil t.5 et 11
14538	esculénta *Swz.*	esculent	£	⌊△⌋	or	3	au.s	Br	N. S. W.	1815.	D	l.p	La.n.hol.2. t.244
14539	caudáta *W.*	American	¥	△	pr	2	s d	Br	N. Amer.	1777.	D	l.p	Jac. ic. 3 t 645
14540	aquilina *W.*	common	¥	△	or	3	jl.au	Br	Britain	hea.w.	D	l.p	Eng. bot. 1679
14541	podophýlla *W.*	pedated	£	[△]	pr	1½	jn.jl	Br	Jamaica	1793.	D	l p	Brow. jam 89 t.1
14542	crética *W.*	Candian	£	⌊△⌋	cu	1	jl.au	Br	Candia	1820.	D	l.p	Schku.crypt t.90
14543	hastáta *W.*	hastate	£	⌊△⌋	or	2	jl.s	Br	C. G. H.	1823.	D	l.p	Pl. phyt.t.403.f.5
14544	palmáta *W.*	palmate	£	[△]	or	¾	jn.au	Br	Caraccas	1821.	D	l p	
14545	pedáta *W.*	pedate	¥	△	or	½	jl.au	Br	Virginia	1820.	D	l.p	Plum. fil. t. 152
14546	Pluméri *Link.*	Plumier's	£	[△]	or	2	jl	Br	S. Amer.	1818.	D	l.p	

2191. VITTA'RIA. *Sm.* Vittaria. *Sp* 1—10.

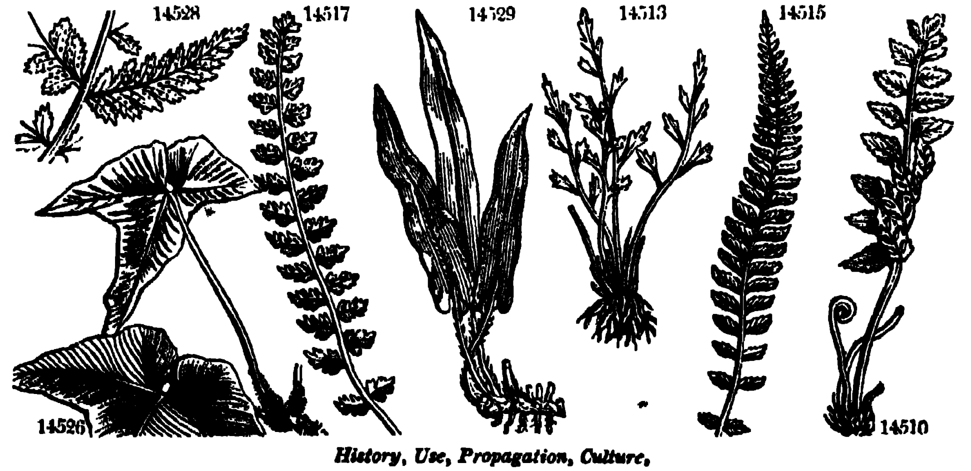
14547	lineáta *W.*	linear-leaved	£	[△]	cu	2	au	Br	America	1793.	D	l.p	Schk. fil. t. 101.b.

2192. LONCHI'TIS *L.* Lonchitis. *Sp.* 1—5.

14548	hirsúta *W.*	hairy	£	[△]	pr	1	jn.s	Br	W. Indies	1793.	D	l.p	Schk. fil. t. 86

2193. ANTRO'PHYUM. *Kaulf.* Antrophyum. *Sp.* 1—8.

14549	lanceolátum *Kaulf.*	spear-leaved	£	[△]	or	¾	jl.s	Br	W. Indies	1793.	D	l.p	Schk. fil. t. 6
	Hemionitis lanceoláta L.												



History, Use, Propagation, Culture,

2187. ***Allantodia.*** So named from ἀλλαντος, a sausage, or sort of small pudding, to which the cylindrical arched indusia bear considerable resemblance.

2188. ***Scolopendrium.*** On the lower surface of the fronds of this plant are to be seen little marks which bear a likeness to the insect called Scolopendra. It is probable that the supposed varieties of this plant are distinct species. One of them has been ascertained not to alter in being raised from seed.

2189. ***Diplazium.*** From διπλασιος, double; the indusia are double. Handsome ferns of large size; one forms a small tree.

2190. ***Pteris.*** The Greeks called ferns in general by this name, because they generally resemble plumes, πτερυξ, in their light and divided appearance. Pteris aquilina is the common brake, well known as an excellent covert for game, and for serving for many household purposes in the north of England. It is used as litter for

14507 Fronds pinnated : pinnæ cuneate ovate acute deeply pinnatifid ; segments lanc. cuneate unequally toothed
14508 Fronds pinnated : pinnæ stalked oblong acuminate pinnatif. ; segm. obl. obt. sharply serrat. Sori parallel
14509 Fronds pinnated : pinnæ ovate repand somew. auricled ; term. remote small entire, Fronds rooting at end
14510 Fronds pinnated : pinnæ alternate elliptical roundish crenate, Rachis flattened beneath
14511 Fronds pinnated : pinnæ roundish blunt crenated cuneate at base, Stalk discolored
14512 Fronds pinnated : pinnæ ovate-roundish crenate, Rachis shining keeled beneath
14513 Fronds pinnated : pinnæ alternate cuneiform erect eroded at end
14514 Fronds pinnated : pinnæ sessile lanceolate serrulate cordate at base auricled upwards
14515 Fronds pinnated : pinnæ lanceolate blunt equally and bluntly serrated, Sorus one on each pinna
14516 Fronds broad-lanceolate subsessile, Sori very near parallel contiguous to the midrib
14517 Fronds pinnated : pinnæ ovate oblique serrated obtuse unequal at base cuneate
14518 Fronds pinnat. : pinnæ altern. ; upp. usually opp. lin -lanc. subrepand truncat. at base above rounded below
14519 Fronds pinnated trifid : pinnæ alternate linear torn at end
14520 Fronds lanceol. stalked rather crenate auricled cordate at base at the end very long linear-filiform rooting
14521 Fronds lanceolate on short stalks acuminate serrated tapered at base and entire, Sori contiguous parallel
14522 Fronds pinnate : pinnæ lanceolate taper-pointed at end pinnatifid ; segments bifid, Stalk shining glabrous
14523 Fronds ternate : middle leaflet pinnatifid ; lateral 3-parted toothed
14524 Fronds pinnated : pinnæ obl. lanceolate acuminate coriaceous serrated at end tapered at base, Stalk chaffy
14525 Fronds 3 pinnated : pinnæ oblong lanceolate with very long points, Sori becoming confluent
14526 Frond 5-lobed cordate, Three middle lobes acuminate

14527 Fronds bipinnate : pinnules oblong pinnatifid ; segments lanceolate finely bidentate, Sorus solit. at base
14528 Fronds 3-pinnate : pinnules lanceolate decurrent cut serrated, Sori contiguous finally becoming confluent

14529 Frond simple cordate-lingulate smooth beneath

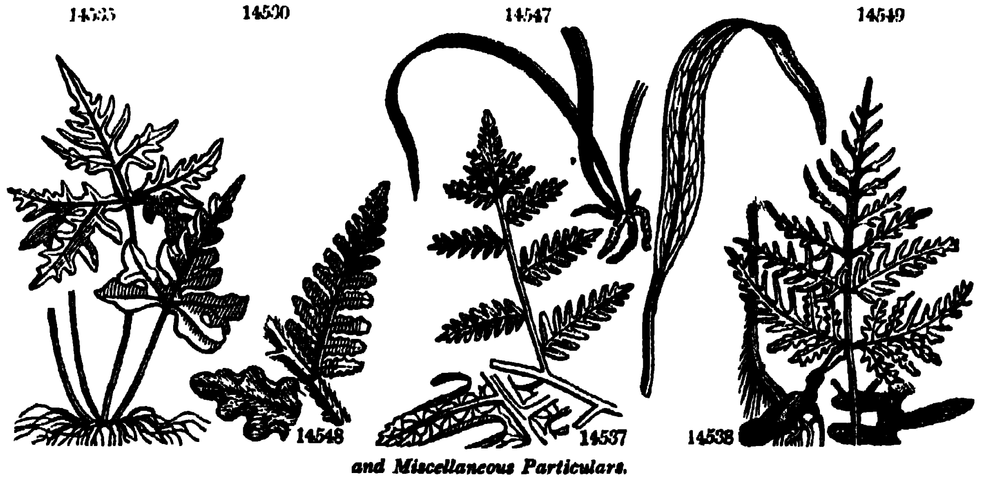
14530 Fronds pinnat. : pinnæ lanc. serrat. at end truncate at base above rounded and somew. wedge-shaped below
14531 Fronds pinnat. : pinnæ lanc. coarsely toothed ; teeth rounded serrated at end tapered and finely toothed

14532 Fronds pinnated : pinnæ linear auricled cordate at base serrulate, Stalk and rachis paleaceous hairy
14533 Fronds pinnated : pinnæ oblong lanceol. on short stalks entire cuneate at base, Stalk and rachis smooth
14534 Fronds pinnated : pinnæ lin. decurrent ; lower 3-parted, Sterile acutely serrated : fertile ent. serrul. at end
14535 Fronds decompound : lower bipinnate ; pinnules lanceol. retuse at base, terminal longer, Stalk pubescent
14556 Fronds bipinnatifid, Lower branches twin 2-partite below, Pinnules lanceolate subfalcate sharply serrated
14537 Fronds supradecompound : pinnæ broad-lanceolate pinnatifid, Stem and branches prickly
14538 Fronds tripinnate : pinnules linear decurrent downy beneath ; those at the end longest, Rachis smooth
14539 Frond 3-parted, Branches bipinnate, Pinnules linear elongated blunt entire : lower bipinnatifid
14540 Frond 3-parted, Branches bipinn. Pinnules lin. lanc. : upper undivided ; lower pinnatif. Segm. obl. blunt
14541 Frond pedate, Branches pinnate, Pinnules obl. lanceolate acumin. pinnatifid, Segm. oblong acute serrated
14542 Fronds pinnat. : pinnæ lanc. acum. on short stalks tapered and serrated at base ; lowest 2-parted or ternate
14543 Fronds bipinn. : pinnules somew. stalked ovate-lanc. blunt crenulate ; lower hastate 3-lobed, Stalk smooth
14544 Fronds deeply 5-lobed palmate, Lobes pinnatifid : segments linear lanceolate acumin. Recesses rounded
14545 Fronds deeply 5-lobed palmate, Lobes pinnatifid : segments linear lanceolate acute, Recesses acute
14546 Pinnæ opposite pinnatifid, Nerve above a little strigose, Pinnules lanceolate blunt entire, Petiole smooth

14547 Fronds linear very long pendulous, Sori solitary within the margin

14548 Fronds bipinnate hairy : pinnæ pinnatifid acuminate , segments blunt, Stalk and rachis villous

14549 Fronds linear-lanceolate tapered at each end ribbed, Sori reticulated



and Miscellaneous Particulars.

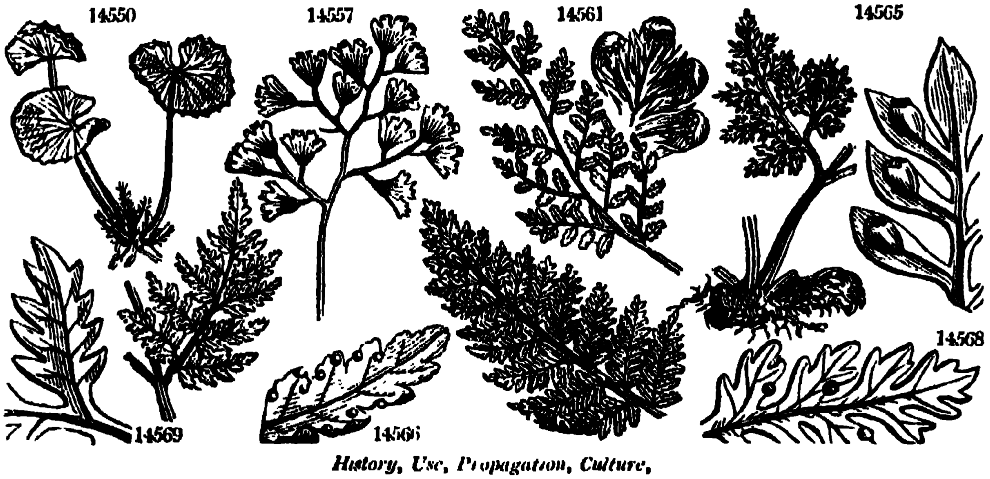
cattle, and very frequently for the purpose of thatching cottages. The ashes are employed in the manufactory of soap and glass. Its astringent quality has recommended it in dressing and preparing kid or chamois leather. The country people take it medicinally to destroy worms, and a bed made of the green plant is esteemed a sovereign cure for the rickets in children.

2191. *Vittaria.* From *vitta*, a ribband, on account of the narrow ribband-like appearance of the fronds. Small simple-leaved grass-like plants, of difficult cultivation.

2192. *Lonchitis.* From λογχη, a lance, on account of the form of the fronds of some species. The Greeks had a plant named λογχιτις, but it must have been very different from that of the moderns.

2193. *Antrophyum.* A genus divided by Kaulfuss from Hemionitis, and named from αντρον, a cavern, and φυω, to grow, in reference to its native places of habitation.

2194.	**ADIAN'TUM.** *W.*	MAIDENHAIR.					*Sp.* 10—63.						
14550	renifórme *W.*	Kidney-leaved	₤	⌊△⌋	pr	¾	jn.s	Br	Madeira	1690.	R	s.p	Bot. cab. 841
14551	radiátum *W.*	radiated	₤	[△]	pr	½	ap.au	Br	W. Indies	1776.	D	l.p	Plum. fil. t. 100
14552	macrophýllum *W.*	large-leaved	₤	[△]	pr	1	jl.au	Br	Jamaica	1793.	D	l.p	Bro. jam. t. 38 f. 1
14553	pedátum *W.*	Canadian	¥	△	el	1	au s	Br	N. Amer.	1640.	R	s.p	Schk. fil. t. 115
14554	villósum *W.*	hairy-stalked	₤	[△]	or	1	jn.s	Br	Jamaica	1775.	D	s.p	Schk. fil. t. 120
14555	pulverulέntum *W.*	dusty	₤	[△]	el	1½	jn.s	Br	W. Indies	1793.	D	s.p	Schk. fil. t. 119
14556	trapezifórme *W.*	rhomb-leaved	₤	[△]	el	1½	jn.jl	Br	W. Indies	1793.	R	s.p	Schk. fil. t. 112
14557	Capillus-véneris *W.*	true	¥	△	el	¾	my.s	Br	Britain	rocks.	R	s.p	Eng. bot. 1564
14558	ténerum *W.*	tender	₤	[△]	el	1	jl	Br	Jamaica	1793.	D	s.p	Pluk. al. t.354.f.1
14559	serrulátum *W.*	serrulate	₤	[△]	or	1	au	Br	Jamaica	1822.	D	l.p	Pluk. al. t.125.f.2
2195.	**CHEILAN'THES.** *Swz.*	CHEILANTHES.					*Sp.* 4—30.						
14560	pteroides *W.*	Pteris-like	₤	⌊△⌋	pr	½	jl.s	Br	C. G. H.	1775.	D	l.p	Ho.n.his.t.96.f.3
14561	vestita *Swz*	hairy	¥	△	pr	¼	au	Br	N. Amer.	1812.	D	l.p	Schk. fil. t. 124
14562	frágrans *W.*	sweet-scented	₤	⌊△⌋	pr	¾	au	Br	Madeira	1778.	D	l.p	Sw. syn.fi. t.3.f.6
14563	lentigera *Swz*	chaffy	₤	[△]	pr	½	jn.au	Br	N. Spain	...	D	l.p	
2196.	**DAVAL'LIA.** *Sm.*	DAVALLIA.					*Sp.* 2—39						
14564	pyxidáta *W.*	shining	₤	⌊ ⌋	or	¾	ap.s	Br	N. S. W.	1808.	D	l.p	
14565	canariénsis *W.*	Hare's-foot	₤	⌊△⌋	or	1½	ap.s	Br	Canaries	1699.	R	s.p	Jac. ic. 1. t. 200
2197.	**DICKSO'NIA.** *L'Her.*	DICKSONIA.					*Sp.* 3—23.						
14566	arboréscens *W.*	tree	⚲	▭	or	15	jn.d	Br	St. Helena	1786.	D	l.p	
14567	dissécta *W.*	cut-leaved	₤	[△]	pr	3	s.o	Br	Jamaica	1793.	D	l.p	
14568	pilosiúscula *W.*	hairy	¥	△	pr	2	jl.s	Br	N. Amer.	1811.	D	l.p	Schk. fil. t. 191
2198.	**BALAN'TIUM.** *Kaulf.*	BALANTIUM.					*Sp.* 1—2.						
14569	Cúlcita *Kaulf.* *Dicksónia Culcita* W.	smooth-stemm.	₤	[△]	or	3	au	Br	Madeira	...	D	l.p	
2199.	**ASPI'DIUM.** *Swz.*	SHIELD FERN.					*Sp.* 30—160.						
14570	dentátum *W.*	toothed	¥	△	or	¾	jl	Br	Wales	rocks.	D	l.p	Eng. bot. 1588
14571	bulbíferum *W.*	bulbiferous	¥	△	or	1	jl.au	Br	N. Amer.	1638.	D	l.p	
14572	frágile *W.*	brittle	¥	△	el	¾	jn.au	Br	Britain	walls.	D	l.p	Eng. bot. 1587
14573	régium *W.*	laciniated	¥	△	el	½	jn	Br	Britain	al.roc.	D	l.p	Eng. bot. 163
14574	rhæ'ticum *W.*	stone	¥	△	el	½	jn.jl	Br	Britain	rocks.	D	l.p	
14575	irriguum *E. B.*	brook	¥	△	or	1	jn.jl	Br	Britain	w.sh.p.	D	l.p	
14576	æ'mulum *W.*	dwarf	₤	⌊△⌋	or	2	au	Br	Madeira	1779.	D	l.p	
14577	trifoliátum *W.*	three-leaved	₤	[△]	or	1½	ap.au	Br	W. Indies	1769.	D	l.p	Jac. ic. 3. t. 638
14578	Lonchitis *W.*	rough Alpine	¥	△	or	¾	my.au	Br	Britain	al.roc.	D	l.p	Eng. bot. 797
14579	auriculátum *W.*	eared	₤	[△]	or	½	jl	Br	E. Indies	1793.	D	l.p	
14580	exaltátum *W.*	lofty	₤	[△]	or	4	jl	Br	Jamaica	1793.	D	l.p	Schk. fil. t. 32. b.
14581	unitum *W.*	smooth	₤	[△]	or	2	au	Br	E. Indies	1793.	D	l.p	
14582	propinquum *Kaulf.*	pubescent	₤	[△]	or	2	au	Br	E. Indies	1793.	D	l.p	
14583	pátens *W.*	downy	₤	[△]	or	2	jl.s	Br	Jamaica	1784.	D	l.p	Schk. fil. t. 334
14584	noveboracénse *W.*	river-side	¥	△	or	1½	jl	Br	N. Amer.	1812.	D	l.p	Schk. fil. t. 46
14585	Oreópteris *W.*	Heath	¥	△	or	3	jl	Br	Britain	hea.	D	l.p	Eng. bot. 1019
14586	Thelýpteris *W.*	Lady-fern	¥	△	or	1	jl.au	Br	Britain	mar.	D	l.p	Eng. bot. 1018
14587	cristátum *W.*	lesser-crested	¥	△	or	1½	jn.au	Br	England	bog.h.	D	l.p	Eng. bot. 2125
14588	aculeátum *W.*	com.-prickly	¥	△	or	2	jn.au	Br	Britain	sha.pl.	D	l.p	Eng. bot. 1562
14589	marginále *W.*	marginal-flow.	¥	△	or	2	jn.s	Br	N. Amer.	1772.	D	l.p	Schk. fil. t.45. b
14590	Filix-mas *W.*	Male-fern	¥	△	w	3	jn.au	Br	Britain	sha.pl.	D	l.p	Eng. bot. 1458
14591	lobátum *W.*	close-leaved	¥	△	or	2	jn.au	Br	England	sha.pl.	D	l.p	Eng. bot. 1563



History, Use, Propagation, Culture,

2194. *Adiantum.* From αδιαντος, dry. In vain you plunge the Adiantum in water, says Pliny, it always remains dry. The prettiest of all ferns, on account of the delicate slender stalks on which the pinnules are balanced in the air; one species on this account is called Capillus Veneris, or in English, Maiden's Hair.

2195. *Cheilanthes.* From χειλος, a lip, and ανθος, a flower, in allusion to the lip-like form of the indusium. Pretty plants, formerly referred to Pteris.

2196. *Davallia.* Named by Sir James Smith, after his friend M. Davall, a Swiss botanist, who sent him large collections of plants. D. canariensis is popularly called the hare's-foot fern, on account of the peculiar form of its rootstock, which curves over the side of the pot in which it grows, and, being covered with close brown hairs, resembles very perfectly the foot of a hare.

2197. *Dicksonia.* In honor of the late Mr. James Dickson, a celebrated British cryptogamic botanist. A noble genus containing several arborescent species, among which the tree-fern of St. Helena is placed. This plant is often brought in a living state to this country, but the mode of cultivating it being unknown, it rarely survives more than a few months.

2198. *Balantium* A genus of Madeira ferns, divided from Dicksonia by Kaulfuss, on account of its transverse two-valved indusium; and named from βαλαντιον, a purse, on account of the form of the indusium.

14550 Fronds simple reniform-orbicular crenate, Both diameters equal
14551 Frond digitate, Branches pinnate, Pinnæ linear-oblong obtuse nearly halved crenate, Stalk smooth
14552 Fronds pinnate: pinnæ ovate acuminate cuneate at base toothed at end, Sori continuous upon each edge
14553 Frond pedate, Leaflets pinnate, Pinnæ rhomboid-oblong somewhat lunate cut-lobed
14554 Fronds bipinnate: pinnules trapezoid-obl. blunt, Sori oblong at the end of the upper edge, Stalk villous
14555 Fronds bipinnate: pinnules rhomboid oval serrated at end, Sorus lin. solitary on upper edge, Stalk hairy
14556 Fronds supradecomp.: pinnules trapezoid acum. cut crenate towards end of upper edge, Sori on crenatures
14557 Frond alternately decompound: pinnules stalked cuneiform lobed
14558 Fronds supradecompound: pinnules rhomboid blunt cut lobed on upper edge, Lobes toothl. bearing sori
14559 Fronds pinn. or bipinn.: pinnæ obl. lanc. halved truncate at base serrul. Sori on upper edge, Stalk smooth

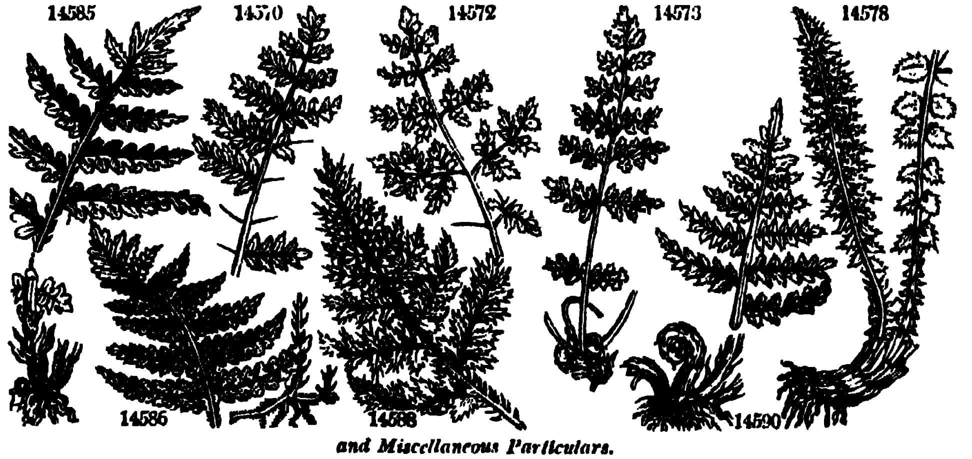
14560 Fronds bipinnate, Lower pinnæ bipinnate: pinnules ovate-ellipt. obtuse obsoletely subcordate crenulate
14561 Fronds bipinn. hairy on each side: pinnules pinnatif.; segments obl. blunt entire, Stalk and rachis hairy
14562 Fronds bipinnate smooth: pinnules obl. lanc. obtuse pinnatifid cut; segments subbifid, Stalk paleaceous
14563 Fronds tripinnate somewhat villous, Leaflets orbicular very small

14564 Fronds bipinnate alternate, Leaflets lanceolate pinnatifid, Sori linear oblong
14565 Fronds 3-parted alternately decompound: segments lanceolate; those bearing sori obovate

14566 Fronds supradecompound villous, Leaflets nearly entire, Stem arboreous
14567 Fronds tripinnate: pinnæ tapered; pinnules oblong blunt pinnatifid, Segments blunt toothed
14568 Fronds bipinnate: pinnæ pinnatifid; segments toothed, Rachis somewhat hairy

14569 Fronds tripinnate smooth: pinnules ovate oblong cuneate cut-toothed

14570 Fronds pinnate: pinnæ ovate-oblong pinnatifid; segments oblong blunt toothletted
14571 Fronds pinnate remotish: pinnules oblong serrated bulb-bearing beneath; lower pinnatifid
14572 Fronds bipinnate: pinnules oblong blunt cut-serrated, Serratures blunt toothletted, Rachis winged
14573 Fronds bipinn.: pinnules ov. obl. lobed pinnatif.; segm. linear-oblong blunt nearly entire, Rachis winged
14574 Fronds bipinn.: pinnules lanceolate acuminate pinnatifid; segments linear acute serrated, Rachis winged
14575 Frond lanceolate pinnate: pinnæ deeply pinnatifid cut toothed, Rachis quadrangular, Sori lateral
14576 Fronds tripinnate: pinnules pinnatifid; segments linear toothed at end
14577 Fronds simple cordate 3-lobed or ternate: middle larger; lateral auricled at base
14578 Fronds pinnate: pinnæ ciliate serrate, Stalk strigose
14579 Fronds pinnate: pinnæ falcate lanceolate serrate truncate at base auricled above [marginal
14580 Fronds pinn.: pinnæ lanc. subfalcate cordate at base gibb. and somew. serrul. on upper edge, Sori solitary
14581 Fronds pinnate: pinnæ ensiform serrated, Serratures half ovate ovate nerved
14582 Fronds pinn.: pinnæ ensiform attenuated at end downy ben. cut. pinnatif. Sori almost marginal contiguous
14583 Fronds pinn.: pinnæ pinnatif.; segm. lanc. ac. Lowest of last pinnæ longest pinnatif. cut, Veins hairy ben.
14584 Pinnæ pinnatifid somewhat linear: pinnules oblong nearly entire, Sori in rows near the edge of pinnæ
14585 Fronds pinnate: pinnæ lanceolate glabrous resinous glandulose beneath pinnatifid; the segm. lanceolate obtuse entire, lowermost ones longer, Sori marginal
14586 Fronds pinn.: pinnæ lin.-lanc. pinnatif. glab.: segm. ov. ac. ent. Sori marginal contigu. at length confluent
14587 Fronds pinnate: pinnæ subcordate oblong pinnatifid; segments oblong obtuse dentato-serr. Stalk chaffy
14588 Fronds bipinnate: pinnules rigid ovate sublunate acum. aristate oblique and cuneate at base and decurr.; the margins faintly serrated spinulose with a tooth near the base on upper side, Stalk and rachis chaffy
14589 Fronds bipinnate: pinnules oblong obtuse decurrent crenate. Crenatures of base deepest, Sori marginal
14590 Fronds bipinn: pinnules obl. obt. serrat. mutic. Sori near the central nerve, Stalk and rachis chaffy
14591 Fronds bipinnate: pinnules scarcely rigid ovate rather obt. aristate truncate at base which has a lobe on the upper margin shortly petiolate; the margin deeply serrated and spinulose, Stalk and rachis chaffy



and Miscellaneous Particulars.

· 2199. *Aspidium.* From *ασπις*, a little buckler, on account of the form of the indusia. *Fougère*, Fr., *Johannis wurtzel*, Ger., *Feli Maschia*, Ital., and *Polypodio Helecho Masculino*, Span. The male fern is common to Europe, in shady places and woods. The root consists of many matted fibres, forming a turfy or cæspitose head, of the thickness of the finger, blackish and scaly. It has been celebrated from time immemorial as a specific for worms. It appears to have been used as such by Theophrastus, Dioscorides, and Galen; but seems to have been neglected by the moderns, with the exception of empiric practitioners, until the publication of Madame Nufer's specific for the tape-worm by the French government again brought it into notice. According to her plan of administering it, from one to three drachms of the powdered root were directed to be taken in a large cupful of water in the morning, while the patient was in bed; and two hours afterwards, a strong cathartic of calomel and gamboge, proportioned to the age and strength of the patient, was given; and if necessary, the further operation was promoted by a dose of purging salts; nothing but broth being taken till the worms came away. If this, however, did not happen on the same day, the process was ordered to be repeated on the next day. In the present state of medical science, oil of turpentine is considered a certain specific for expelling tænia. (*Thom. Lond. Disp.* 186.)

Aspidum Barqmez is the famous Scythian lamb, of which so many fables have been related. Although it

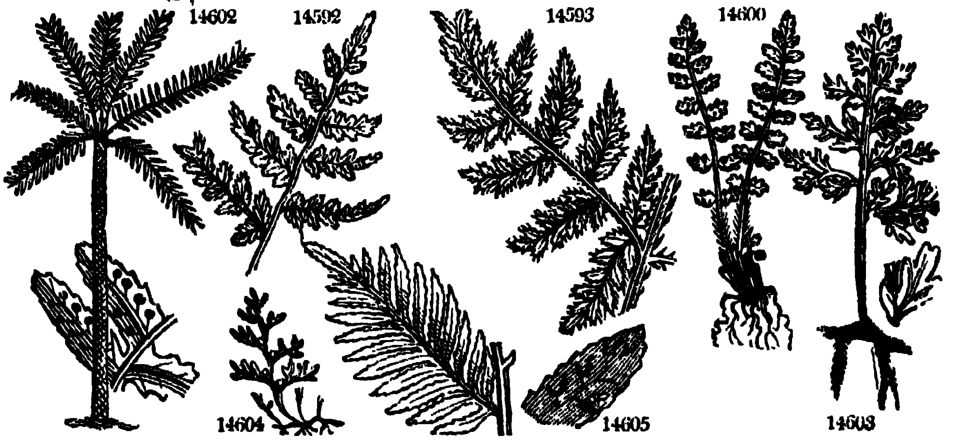
14592 spinulósum *W.*	crested-prickly	♃	△	or	1	jn.au	Br	Britain	mar.	D	l.p	Eng. bot. 1460
14593 dilatátum *W.*	great-crested	♃	△	or	2	jn.au	Br	Britain	w.sh.p.	D	l.p	Eng. bot. 1461
14594 elongátum *W.*	cut-leaved	£	⌊△⌋	or	2	jl.au	Br	Madeira	1779.	D	l.p	
14595 villósum *W.*	villous	£	[△]	or	3	jl	Br	W. Indies	1793.	D	l.p	Schk. fil. t. 46. b.
14596 mólle *W.*	soft	£	[△]	or	2	au.s	Br	Caraccas	1824.	D	l.p	Jacq. ic. t. 640
14597 acrostichoídes *W.*	Acrostichum-like	♃	△	or	1½	jl.au	Br	N. Amer.	...	D	l.p	Schk. crypt. t. 30
14598 intermédium *W.*	intermediate	♃	△	or	2	jn.s	Br	N. Amer.	1823.	D	l.p	
14599 asplenioídes *W.*	Asplenium-like	♃	△	or	1½	jn.s	Br	N. Amer.	1823.	D	l.p	Schk. crypt. t. 78
2200. WOODSIA *R. Br.*	Woodsia.					*Sp.* 2—4.						
14600 hyperbórea *R. Br.*	hairy Alpine	♃	△	el	½	jl.s	Br	Scotland	al.roc.	D	l.p	Eng. bot. 2023
14601 ilvénsis *R. Br.*	rock	♃	△	el	¼	jn.jl	Br	N. Amer.	1812.	D	l.p	Schk. fil. t. 19
2201. CYATHE'A. *Sm.*	Cyathea.					*Sp.* 1—22.						
14602 arbórea *W.*	tree	🌳	□	or	15	...	Br	W. Indies	1793.	D	l.p	Plum. fil. 1. t. 1, 2
2202. TRICHO'MANES. *L.*	Trichomanes.					*Sp.* 1—40.						
14603 brevisétum *H. K.*	short-styled	£	△	el	½	my.jn	Br	Britain	moi.ro.	D	l.p	Eng. bot. 1417
Hymenophýllum alatum E. B.												
2203. HYMENOPHYL'LUM. *Sm.*	Filmy-Leaf.					*Sp.* 1—38.						
14604 tunbridgénse *W.*	Tunbridge	£	△	el	½	my.jn	Br	Britain	moi.ro.	D	l.p	Eng. bot. 162

OSMUNDACEÆ.

2204. TO'DEA. *W.*	Todea.					*Sp.* 1.						
14605 africána *W.*	African	£	⌊△⌋	or	2	my.au	Br	C. G. H.	1805.	D	l.p	Schk. fil. t. 147
2205. OSMUN'DA. *L.*	Osmunda.					*Sp.* 5—8.						
14606 cinnamómea *Ph.*	woolly	♃	△	or	2	jn	Br	N. Amer.	1772.	D	l.p	Schk. fil. t. 146
14607 regális *W.*	Flowering-Fern	♃	△	or	2	jl.au	Br	Britain	sha.bo.	D	l.p	Eng. bot. 209
14608 Claytoniána *W.*	Clayton's	♃	△	or	2	au	Br	N. Amer.	1772.	D	l.p	
14609 interrúpta *W.*	interrupted	♃	△	or	2	jn jl	Br	N. Amer.	...	D	l.p	Schk. fil. t. 144
14610 spectábilis *W.*	showy	♃	△	el	2	jl	Br	N. Amer.	1811.	D	l.p	Plu.alm.t.184.f.4
2206. LYGO'DIUM. *Swz.*	Snake's-Tongue.					*Sp.* 3—18.						
14611 scándens *Swz.*	climbing	L	[△]	el	3	my.s	Br	E. Indies	1793.	D	l.p	Bot. cab. 742
14612 circinátum *Swz.*	circinate	L	[△]	el	3	au	Br	E. Indies	1823.	D	l.p	Rum. amb 6.t 33
14613 palmátum *Swz.*	palmate	L	⌊△⌋	el	3	au.s	Br	N. Amer.	...	D	l.p	Ac.E.1802.t.1.f.2
2207. ANE'MIA. *Swz.*	Anemia.					*Sp.* 2—19.						
14614 hirsúta *Sw.*	hairy	£	[△]	or	3	...	Br	Jamaica	1794.	D	l.p	Plum. fil. t. 162
14615 adiantifólia *Sw.*	Maiden-hair-lvd.	£	[△]	or	3	au s	Br	W. Indies	1793.	D	p.l	

OPHIOGLOSSEÆ.

2208. BOTRY'CHIUM. *Swz.*	Moonwort.					*Sp.* 5—10.						
14616 Lunária *W.*	common	♃	△	cu	½	my.jn	Br	Britain	hil.pa.	D	p.l	Eng. bot. 318
14617 fumarioídes *W.*	Fumitory-leav.	♃	△	cu	¼	jl.au	Br	Carolina	1806.	D	p.l	Schk. fil. t. 157
14618 disséctum *W.*	cut-leaved	♃	△	cu	½	jl	Br	N. Amer.	1806.	D	p.l	Schk. fil. t. 158
14619 virgínicum *W.*	Rattlesnake Fern	♃	△	cu	1	au	Br	N. Amer.	1790.	D	p.l	Schk. fil. t. 156
14620 oblíquum *W.*	oblique	♃	△	cu	½	au	Br	N. Amer.	1821.	D	p.l	



History, Use, Propagation, Culture,

is often brought in a fresh state to the markets of Macao, as an article of medicine, no plants have ever reached this country alive. Its name has arisen from the resemblance which its brown hairy rootstalk bears to a little rufous dog couching; and the belief in its animal nature has been confirmed by the color of the juice, which is of a rich blood color, and soon becoming thick by exposure to the air. It is needless to add, that the stories about no plant being able to grow near it are mere fables. Kæmpfer says, that *borannek* is the name which the people on the borders of the Caspian Sea give to a kind of sheep of that country.

2200. *Woodsia.* Small ferns formerly referred to Polypodium, Aspidium, and Nephrodium, by various writers; and distinguished from all these by Mr. Brown, who named the genus after Mr. Joseph Woods, an ingenious British botanist.

2201. *Cyathea.* From κυαϑος, a cup; on account of the cup-shaped form of the indusia. A fine tropical genus of ferns, which does not appear to have been well understood by its author, who confounds it with little British plants referred by all other botanists to Aspidium. Nearly all the species are arborescent, and arrive at the greatest height of which ferns are susceptible. C. glauca forms a lofty tree in the Island of Bourbon, and C. speciosa and excelsa are not less than twenty-four feet in height.

2202. *Trichomanes.* From ϑριξ τριχος, hair, and μανια, excess. The Greeks gave this name to the plant now called Asplenium trichomanoides, on account of its fine shining stems, which resemble hairs. Elegant plants with almost transparent foliage.

14592 Frond somew. bipinn. : pinnules decurrent ellipt. pinnatifid serrul. spiny, Rachis smooth, Nerves flexuose
14593 Fronds bipinnate ; pinnules oblong distinct inciso-pinnatifid ; segments mucronato-serrate, Stalk chaffy
14594 Fronds bipinnate : pinnæ pinnated bipinnatifid below ; pinnules lanc. blunt, Segments ovate toothletted
14595 Fronds 3-pinnate : pinnules oblong blunt hairy above, toothed, Stalk and rachis bristly chaffy
14596 Fronds pinnate : pinnæ lanc. hairy on each side pinnatifid ; segm. oblong blunt entire, lowest nearly equal
14597 Fronds pinn. : pinnæ altern. subsess. subserr. ciliat. auric. at base on upp. edge, Upp. pinnæ bear. sori, Stalk
14598 Fronds bipinnate : pinnules lin. pinnatifid cut ; segm. mucronate serrate at end, Stalk chaffy [chaffy
14599 Fronds bipinn. : pinnules lin. lanc. cut serr. Serrat. 2 or 3 toothed : those at end most ac. Sori obl. lunate

14600 Frond lanceolate pinnate : pinnæ cordate pinnatifid hairy on each side, Lobes rounded repand
14691 Fronds bipinnatifid : pinnæ oblong blunt ; lower repand, upper entire

14602 Fronds bipinnate : pinnules lanceolate serrate sharpish ; upper confluent, Stalk smooth, Stem arboreous

14603 Frond tripinnatifid lobed smooth : segments linear entire, Stalk winged, Columella included

14604 Frond alternately bipinnatifid : segments and invol. serrated, Sori solitary axillary

OSMUNDACEÆ.

14605 The only species

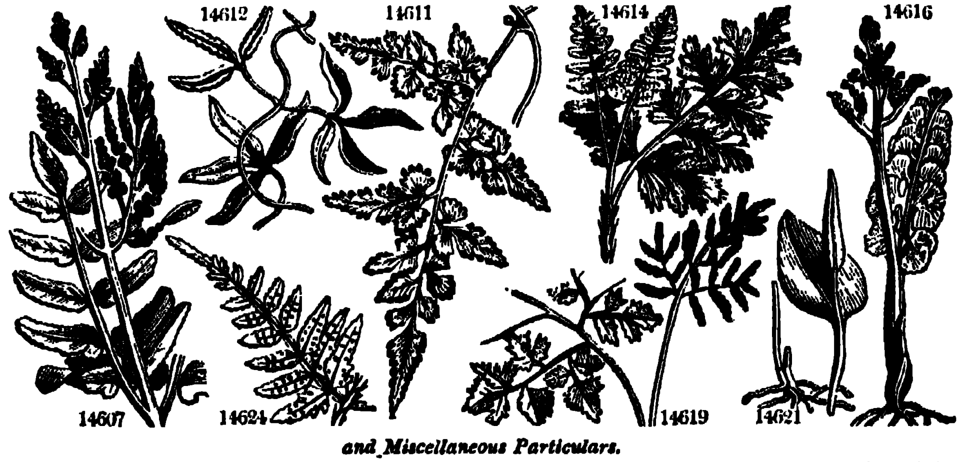
14606 Fronds pinnat. : ster. bipinnatif. ; segm. ov. obl. obt. entire, Stalk woolly, Fertile fronds bipinnate woolly
14607 Frond bipinnate bearing the spike at end : pinnules cordate-lanceolate smooth
14608 Fronds bipinnatifid rusty with down contracted and fertile at the end
14609 Fronds bipinnatifid entire smooth interrupted in the middle by 3 pair of fertile pinnated racemes
14610 Fronds bipinn. : pinnules lanc. sharply serrat. cune. at base ; all altern. A fert. bipinn. panic. at end of frond

14611 Stem flexuose round, Fronds conjugate pinnate, Leaflets bearing spikes on each edge
14612 Stem flexuose climbing, Fronds conjugate 3-4-lobed palmate, Lobes lanceolate acute entire
14613 Stem flexuose climbing, Fronds conjugate cord. 5-lobed palmate, Lobes lanc. ent. obt, obscurely sinuated

14614 Frond bipinnatifid hirsute : segments cuneate lined blunt and serrated at end
14615 Frond 3-pinnatifid triangular : segm. ovate acute toothletted at end, beneath and the rachis downy

OPHIOGLOSSEÆ.

14616 Scape with a simple frond above, Frond pinnate : pinnæ lunate entire
14617 Scape none, Fronds radical 3-parted bipinnate : pinnules lunate crenate
14618 Scape with a simple frond at bottom, Frond 3-parted bipinnatifid : segm. linear 2-parted 2-toothed at end
14619 Scape frondose in midd. Frond subtern. 3-parted bipinnatifid, Leaflets cut pinnatif. Segm. obtuse 3-toothed
14620 Scape with a simple frond at bottom, Frond mostly bitern. Leaflets obl. lanc. serrul. unequally cord. at base



and Miscellaneous Particulars.

2203. *Hymenophyllum.* From ὑμην, a membrane, and φυλλον, a leaf, in allusion to the tenuity of the foliage. This and the last are the most elegant of all ferns; they generally grow in damp shady places among moss, and have hitherto refused cultivation under any plan which has been devised.

2204. *Todea.* Named after Tode, an experienced mycologist, author of Fungi Mecklenburgensis. Mr. Brown unites this genus to Osmunda, but Kaulfuss keeps them distinct.

2205. *Osmunda.* A word said to be of northern origin, and to have received its name on account of its potential qualities in medicine. Osmunder was one of the names of Thor, a Celtic divinity, and *mund*, in Anglo-Saxon, is expressive of force or power. These are noble species of hardy ferns. O. regalis is the finest of all our native species.

2206. *Lygodium.* From λυγος, a band. The species are elegant twining plants, which bind together the grass or small shrubs near which they chance to grow. L. palmatum, although a North American plant, must have the protection of a good frame.

2207. *Anemia.* From ανιμων, naked; in allusion to the naked spikes of inflorescence; whence some authors write the word Aneimia.

2208. *Botrychium.* Derived from βοτρυς, a bunch, on account of the bunch-like form of its fructification. Botrychium virginicum is the largest of the American kinds, and is called the rattle-snake fern, from the circumstance of its generally growing where those venomous reptiles are usually found.

2209. OPHIOGLOS'SUM. *L.*	ADDER'S-TONGUE.		*Sp.* 3—9.							
14621 vulgátum *W.*	common	⚘ △ cu	¼ my.jn	Br	Britain	m.me.	D	p.l	Eng. bot. 108
14622 reticulátum *W.*	netted	¥ [△] pr	¼ my.jn	Br	W. Indies	1793.	D	p.l	Plum. fil. t. 164
14623 bulbósum *W.*	bulbous	⚘ △ pr	¼ jl.au	Br	N. Amer.	...	D	l.p	
2210. MARAT'TIA. *Swz.*	MARATTIA.		*Sp.* 1—6.						
14624 aláta *W.*	winged	¥ [△] or	1¼ au	Br	Jamaica	1793.	D	l.p	Sm. ined. t. 46

History, Use, Propagation, Culture,

2209. *Ophioglossum.* From ὀφις, a serpent, and γλωσση, a tongue. The little green narrow-pointed leaves, seated on a narrow stalk or neck, and peeping up from among the grass, may be not unaptly compared to a snake's tongue.

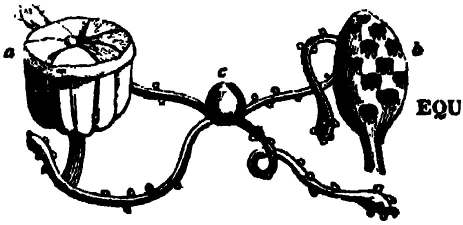
14621 Frond ovate veinless
14622 Spike cauline, Frond cordate acute reticulated
14623 Spike cauline, Frond subcordate ovate obtuse, Root bulbous

14624 Fronds bipinnate: pinnules acutely serrate, Rachis scaly: partial winged

and Miscellaneous Particulars.

2210. *Marattia.* In honor of J. F. Maratti, a writer upon ferns. He lived at Vallombrosa, in Tuscany. Kaulfuss considers this, Danæa, and Angiopteris as constituting a particular tribe, which he calls Marattiaceæ, but of which he has not given the characters.

Order 2. EQUISETACEÆ.



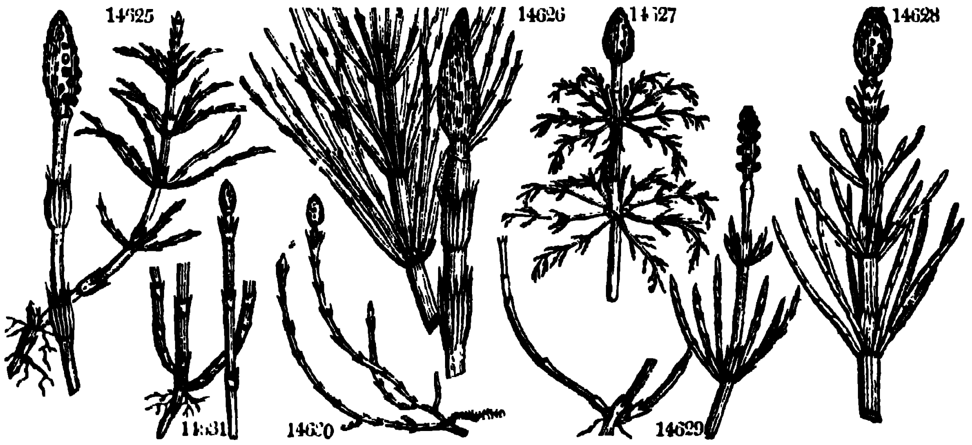
Reproductive organs uniform, in terminal spikes, composed of peltate, several-sided scales, producing on their under surface 4-7-elongated involucres containing the seeds. Branches whorled, rigid.

THIS order contains one genus only, which is among the most puzzling of all the anomalous formations which are so frequently met with among the lower orders of vegetation. Both the stems and branches are regularly articulated, and arise from a tubular sheath. There are no leaves, and the reproductive organs are arranged in a terminal spike (*b*), on all sides of which are inserted many peltate scales (*a*) with several sides or angles. Several wedge-shaped hollow bodies project from the surface of these scales, and bursting inwardly, discharge their contents, which are not yet well understood. They consist of a number of green roundish bodies, surrounded by minute granules, and furnished at the base with four elastic filaments (*c*), thickened at their apex. By some observers the granules have been considered pollen, the filaments stamens, and the green bodies ovaries; by others the granules have been called naked seeds; by Kaulfuss the wedge-shaped hollow bodies are considered capsules, and the green bodies, seeds. It is probable that none of these theories are true.

2209. *Equisetum.* Character the same as of the order.

2211. EQUISE'TUM. *L.* HORSE-TAIL. *Sp.* 7—18.

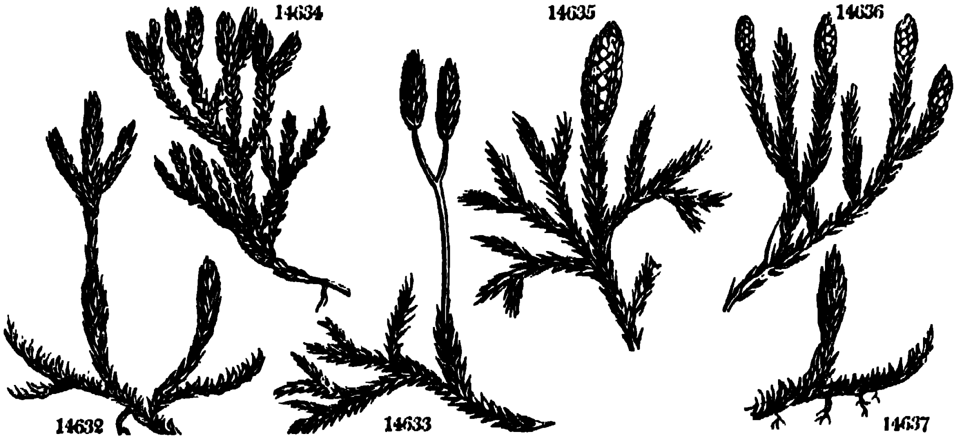
14625 arvénse *W.*	corn	♃	△	w	½	mr.ap	Br	Britain	moi.fi.	D	p.l	Eng. bot. 2020
14626 fluviátile *W.*	great-water	♃	△	w	6	ap.my	Br	Britain	wat.pl.	D	p.l	Eng. bot. 2022
14627 sylváticum *W.*	wood	♃	△	w	1	ap.my	Br	Britain	m s.pl.	D	p.l	Eng. bot. 1874
14628 limósum *W.*	smooth naked	♃	△	w	2	jn.jl	Br	Britain	wat.pl.	D	p.l	Eng. bot. 929
14629 palústre *W.*	marsh	♃	△	w	1½	jn.jl	Br	Britain	bog.pl.	D	p.l	Eng. bot. 2021
14630 variegátum *W.*	variegated	♃	△	or	½	jn.jl	Br	Scotland	sc.sh.	D	p.l	Eng. bot. 1987
14631 hyemále *W.*	Dutch Rush	£	△	ec	1½	jl.au	Br	Britain	moi.w.	D	p.l	Eng. bot. 915



History, Use, Propagation, Culture,

2211. *Equisetum.* Literally, horse-hair, from *equus*, a horse, and *seta*, hair; so called, in allusion to the fine branches of all the species. The first five species are noxious weeds on deep loamy soil, especially such as has been gained from rivers or lakes. E. fluviatile rises three or four feet high, the thickness of a finger, with numerous branchlets or leaves proceeding from the whorls; according to Haller, this species was eaten by the common people among the Romans. Linnæus affirms, that rein-deer, who refuse hay, will, however, eat this;

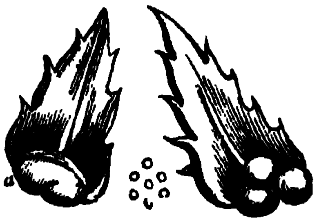
14625 Ster. stems decumb. with simp. branches, which are rough. tetragon.: fertile ones erect simp. their sheaths cylind. inciso-dentate
14626 Sterile stems with very numerous simple branches, which are roughish octagonal: fertile ones simple; the sheaths infundibuliform laciniato-dentate, their teeth setaceous
14627 Sterile and fertile stems with their branches comp. roughish deflexed 4-sided, Branchlets subtriquetrous
14628 Stems branch. upw with branches about 12 in a whorl simple pentagon. smooth, Spike or catkin terminal
14629 Stems branched glabrous sulcate, Branches simple pentagonal, Spike terminal
14630 Stems naked very rough branched at base, Sheaths black with white membran. lanc. teeth, Spike terminal
14631 Stems simple erect very rough bearing spikes at the extremity, Sheaths whitish black at base and summits, Teeth aristate deciduous



and Miscellaneous Particulars.

that it is cut as fodder for kine, but that it is not so acceptable to horses E. hyemale is the best species for polishing wood and metal, and is imported from Holland for that purpose under the name of Dutch rushes. It is much used by whitesmiths, cabinet-makers, and comb-makers, and formerly it was in demand for scouring pewter and wooden things in the kitchen.

Order 3. LYCOPODINEÆ.



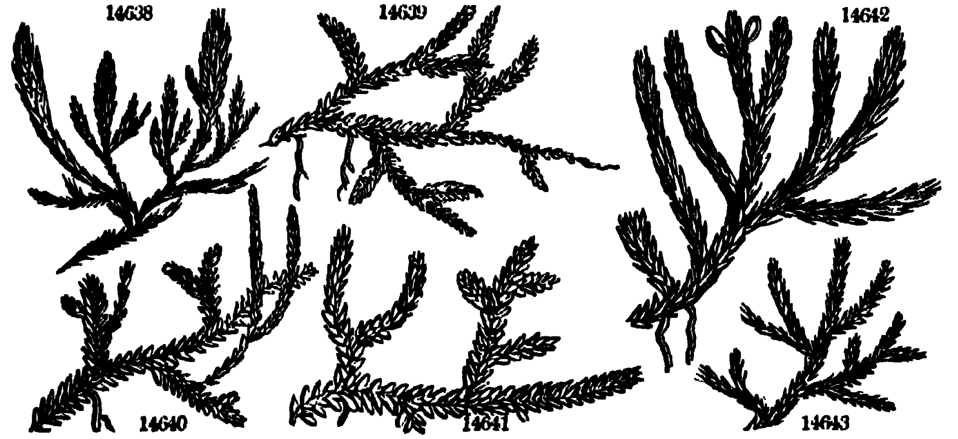
Reproductive organs axillary, sometimes apparently spiked. Thecæ? of two kinds, the one containing minute granules, the other larger bodies. Stems covered with many small leaves.

THE reproductive organs of these plants are always axillary, the apparently spiked arrangement which they occasionally present being caused by the partial abortion of the leaves, at the base of which they are seated. The thecæ (*a*)? the nature of which is very doubtful, and which have accordingly been called by different writers *capsules*, *conceptacula*, and *cocci*, are formed of from one to three valves, and of a similar number of cells, and contain either a mass of minute powdery granules, or some corpuscles of a larger size. The nature and properties of both these are uncertain. Decandolle imagines that one may be the means of fertilizing the other.

2210. *Lycopodium.* Thecæ reniform, 1-celled, 2-valved, with many sporules. Sporules very minute, powdery.

2211. *Psilotum.* Thecæ 3-coccous, 3-celled; cells opening upwards, half 2-valved.

2212. LYCOPO'DIUM. *L.*	CLUB-MOSS.				*Sp.* 15—114.						
14632 clavátum *W.*	common	ℒ	△	cu	⅛ jl.au	Br	Britain	hea.	D	p.l	Eng. bot. 224
14633 complanátum *W.*	Arbor-vitæ-lvd.	£	△	cu	¾ jl.au	Br	N. Amer.	1770.	D	p.l	Fl. dan. 78
14634 alpínum *W.*	Savin-leaved	ℒ	△	cu	¼ au	Br	Britain	al.bogs.	D	p.l	Eng. bot. 234
14635 dendroídeum *W.*	fan	£	△	cu	¾ jl	Br	N. Amer.	1770.	D	p.l	Hook. ex. fl. 7
14636 annotinum *W.*	interrupted	ℒ	△	cu	½ jn.au	Br	Britain	al.hea.	D	p.l	Eng. bot. 1727
14637 inundátum *W.*	marsh	ℒ	△	cu	¼ jn.jl	Br	Britain	tur.bo.	D	p.l	Eng. bot. 239
14638 Selaginoídes *W*	prickly	ℒ	△	cu	¼ au	Br	Britain	w.al.h.	D	p.l	Eng. bot. 1148
14639 ornithopódioides *W.*	Bird's-claw	ℒ	△	cu	½ jn.au	Br	......	1812.	D	p.l	Dil. M t.66.f.1 B.
14640 helvéticum *W.*	Swiss	*	△	cu	1 in ...	Br	Switzerl.	1779.	D	p.l	Dill. M t. 64. f. 2
14641 denticulátum *W.*	toothed	ℒ	△	cu	1 in jl	Br	Switzerl.	1779.	D	p.l	Dil M t.66.f. 1. A
14642 Selágo *W.*	Fir	ℒ	△	cu	⅙ au	Br	Britain	w.al.h.	D	p.l	Eng. bot. 233
14643 rupéstre *W.*	rock	ℒ	△	cu	¼ au	Br	N. Amer.	...	D	p.l	Schk. fil. t. 165
14644 lucídulum *W.*	glittering	ℒ	△	cu	⅙ au	Br	N. Amer.	1823.	D	p.l	Schk fil. t 159
14645 apódum *W.*	stemless	ℒ	△	cu	⅙ au	Br	N. Amer.	1819.	D	p.l	Dill. mus.t 64.f 3
14646 alopecuroídes *W.*	Walking Fern	ℒ	△	cu	¼ au	Br	N. Amer.	1821.	D	p.l	Dill. mus.t.62.f 6
2213. PSILO'TUM. *Swz.*	PSILOTUM.				*Sp.* 1—3.						
14647 triquetrum *Swz.*	triangular	£	⊠	cu	⅔ jl.au	Br	W. Indies	1793.	D	p.l	Schk. fil. t.165.b.

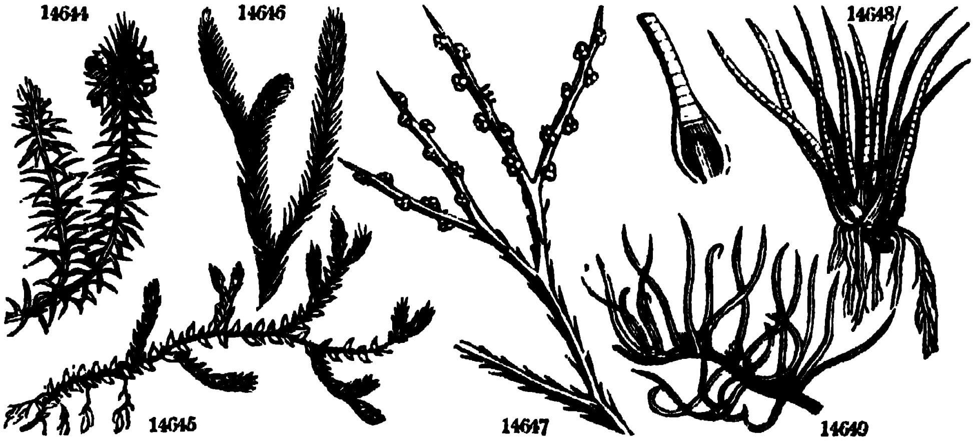


History, Use, Propagation, Culture,

2212. *Lycopodium.* From λυκος, a wolf, and πους, a foot; on account, as Dalechamp assures us, of the resemblance the roots bear to a wolf's foot. Selago is an ancient word applied to some succulent plant, and derived, according to De Theis, from the Celtic *sel*, sight, and *jach*, salutary, as being useful for complaints in the eyes. From the same root *sel*, was formed *selma*, the name of Fingal's hall, which in modern language would be called *Belle-vue*. The species are neat little evergreen moss-like herbaceous plants, some of which are found in all parts of the world. L. helveticum is a pretty prostrate plant, with small bright green leaves; for the beauty of which it is often cultivated in hothouses on the edge of the aquarium, or in pots set in pans of water. L. Phlegmaria is a fine species found in various parts of the East Indies, but hitherto a stranger to our gardens. It is a parasite upon the trunks of trees, whence it hangs down in tufts from six inches to a

14632 Stem creeping, Branches ascending, Leaves scattered incurved and hair-pointed, Spikes geminate cylindrical pedunculate : their scales ovate acuminate eroso-dentate
14633 Stem erect, Branches altern. dichotom. Leaves bifarious connate spreading at end, Spikes 4 round cylind.
14634 Stems prostrate, Branches dichotomous and fasciculated, Leaves quadrifarious oblong convex acute appressed, Spikes terminal solitary sessile short cylindrical
14635 Stem erect, Branches alternate compact dichotomous spreading, Spikes solitary terminal sessile
14636 Stem creeping, Branches ascending dichotomously branched, Branchlets simple, Leaves in 5 rows linear lanceolate mucronate serrulate patent, Spikes oblongo-cylindrical solitary sessile terminal
14637 Stem creeping, Branches simple solitary erect with a single sessile leafy spike at its extremity, Leaves linear scattered acute entire curved upwards
14638 Stem creep. Branches ascend. simple, Lvs. scattered lanc. subpatent ciliato-denticul. Spikes term. solitary
14639 Leaves bifarious spreading ovate acute : of the surface distichous ciliated flat, Spikes roundish sessile
14640 Lvs. bifar. ½-cord. blunt. : of surface altern. distichous ovate-obl. blunt, Spikes stalked term. mostly in pairs
14641 Lvs. bifarious ovate subcord. acute toothletted : of surface altern ovate acute, Spikes terminal short sessile
14642 Stems dichotomously branched erect fastigiate, Leaves scattered in 8 rows linear-lanceolate acuminate entire imbricated rigid, Capsules scattered not spiked
14643 Stem creeping branched, Leaves scatt. imbric. ciliated with a hair at end, Spikes solitary sessile terminal
14644 Leaves in 8 rows linear-lanceolate toothletted acute spreading reflexed, Stem ascending bifid
14645 Lvs. bifarious roundish ovate acute flat toothl. Stem branched rooting at base, Spikes term. sess. subsolit.
14646 Branches nearly simple long ascend. with one spike at top, Lvs. lin.-subul. toothed at base, Spike sess. leafy

14647 Stem dichotomous, Branches 3-cornered

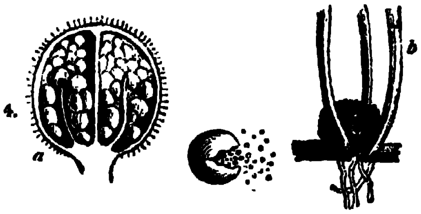


and Miscellaneous Particulars.

foot in length. L. Selago is used in Skye, and some other places, to fix colours in dying, instead of alum. The Highlanders employ it in infusion as an emetic and cathartic ; but it operates violently, and, unless taken in a small dose, brings on giddiness and convulsions. Linnæus says, the Swedes use a decoction of it to destroy lice on swine and other animals. All the species may be cultivated in a light peaty soil, but they require an abundance of moisture.

2213. *Psilotum* From ψιλος, naked. This is a little bushy evergreen herbaceous plant of no beauty. Its branches are 3-cornered, and altogether destitute of leaves. The thecæ appear from the little indentations of the branches, and are of a whitish-yellow color. It is easily cultivated in a little peat and sand, but it has no merit except as an object of curiosity.

Order 4.



MARSILEACEÆ.

Reproductive organs radical, uniform. Sporules contained in roundish one or many-celled indehiscent heads. Plants simple, aquatic.

Very few plants are found in this order. Their vegetation is various; they are at most a few inches high, and are more or less aquatic. In Isoetes the leaves resemble those of a young rush. The organs of reproduction are always near the root, and are variable, and their nature is by no means understood. In Pilularia (*a*) it consists of a roundish head, divided internally into 1-4-cells, each cell containing small bodies of two kinds. In Isoetes (*b*) the fructification is even less known and understood.

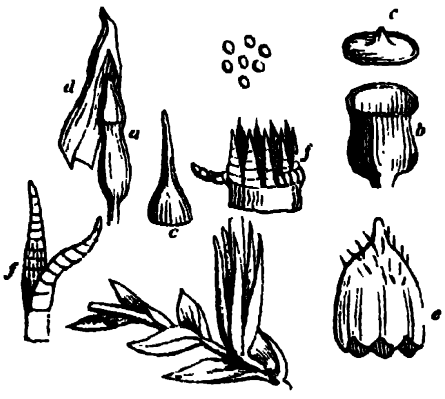
2214. *Isoetes.* Head membranous, not opening, immersed in the base of the frond, 1-celled. Sporules angular, inserted upon many filiform receptacles.
2215 *Pilularia.* Heads imbricated, solitary, nearly sessile, globose, coriaceous, 4-celled. Cells containing two kinds of bodies.

2214. ISOE'TES. *L.*	Quillwort.		*Sp.* 1—2.					
14648 lacústris *W.*	marsh	≛ △ cu	¼ my.o	Br	Britain	al lak. D	p.l	Eng. bot. 1084
2215. PILULA'RIA. *L.*	Pillwort.		*Sp.* 1.					
14649 globulifera *W.*	Pepper-grass	⅄ △ cu	¼ ju.s	Br	Britain	moi.h. D	p.l	Eng. bot. 521

History, Use, Propagation, Culture,

2214. *Isoetes* From ἴσος, equal, and ἔτος, the year; a plant which remains the same through all the seasons. A very curious little submersed aquatic, which grows at the bottom of some of the Scotch lakes. The leaves are long and cylindrical, whence the English name Quillwort.

Order 5.



MUSCI.

Reproductive organs of 2 kinds. Theca many-seeded, solitary, furnished with an operculum and columella Plants leafy.

Mosses are distinguished from all other similar plants, by the peculiar nature of the reproductive organs, which are of two kinds. The principal and the most obvious is a theca (*a*, *b*), which is furnished with an operculum or lid (*c*), by means of which the sporules are retained in the theca, and a columella, or central axis, to which they are attached The other consist of minute spherical pedicellated organs, concealed in the axils of some of the leaves, and called anthers by Hedwig. The theca is either entire, or split into four valves, as in Andreæa; when in a very young state it is enclosed in an indusium, which is torn asunder as the theca is elongated, and being carried up with it, remains upon the summit of the theca in the form of a little extinguisher called

14648 Fronds subulate half-cylindrical, Heads roundish 2-celled

14649 Filiform branched creeping, Heads brown

and Miscellaneous Particulars.

2215. ***Pilularia.*** From *pilula*, a pill. The little heads in which the reproductive organs are enclosed resemble pills. An obscure little plant found creeping among grass in meadows in many parts of England, and especially in damp places which are overflowed during winter.

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calyptra (c); if the calyptra is slit up one side it is called *dimidiate* (d), if divided at the base into many short clefts, it is termed *mitriform* (e). The orifice of the theca, when the operculum is removed, is either covered by a simple membrane, or by various processes called the *peristome* (*f*), either annular, or in the form of teeth, and arranged in a single or double row. These processes vary in number, and in the manner of their division; from such differences excellent characters for the genera have been obtained.

The minute attention which mosses have received in modern times has brought their arrangement to a degree of perfection unknown in other Cryptogamic orders. This has been effected by the labor of Hooker, Greville, and Brown in our own country, and of Hedwig, Swartz, Bridel, Schwaegrichen, Palisot de Beauvois, Nees von Esenbeck, and Hornschuch abroad. The arrangement of the two last authors is chiefly adopted here from their excellent Bryologia Germanica.

With this order, the alteration in the form of our page, of which we have already spoken, commences. The columns indicating the *habit*, *habitation in the garden*, *propagation*, and *soil*, are necessarily omitted; and their place is supplied by a more extended *popular character*, and more detailed references to plates. The heights indicated are to be understood as in inches, and not as feet; and the colors as the general color of the plant. In the figures it has been also found necessary to represent the plants in many cases much magnified; whenever this has taken place, the figures which are larger than nature are distinguished by a * affixed to their number. The popular synonyms of this and the succeeding orders have been rendered as complete as possible, especially with reference to Sowerby's English Botany, to which valuable work this will be a complete modern index even in Cryptogamia.

TRIBE I. EVAGINULATI.

Theca entirely sessile; its receptacle stalked, and without perichætial leaves.

2216. ***Sphagnum.*** Receptacle of theca stalked. Peduncle resembling a fruitstalk. Theca sessile on the receptacle. Mouth naked.

TRIBE II. VAGINULATI OLOCARPI.

Theca more or less stalked: with perichætial leaves; not valvular.

A. *Theca terminal.*

* *Theca indehiscent.*

2217. ***Phascum.*** Theca entire, adnate with the persistent lid. Calyptra shorter than the theca.

** *Theca dehiscent. Peristome absent.*

2218. *Schistostega.* Fruitstalks terminal; mouth of theca naked. Lid laciniated, with deciduous segments.
2219. *Gymnostomum.* Fruitstalk terminal. Calyptra dimidiate. Mouth of theca naked.

*** *Theca dehiscent. Peristome present.*
† *Peristome single.*

2220. *Hymenostomum.* Fruitstalk terminal. Peristome destitute of teeth, but having an inner horizontal membrane perforated in the middle.
2221. *Tetraphis.* Fruitstalk terminal. Peristome of 4 erect teeth.
2222. *Encalypta.* Fruitstalk terminal. Peristome single of 16 teeth. Calyptra cylindrico-campanulate, wholly concealing the nature of the theca.
2223. *Grimmia.* Fruitstalk terminal. Peristome single, of 16 entire or perforated rarely cleft teeth. Calyptra mitriform.
2224. *Weissia.* Fruitstalk terminal. Peristome single, of 16 entire equidistant teeth. Calyptra dimidiate.
2225. *Dicranum.* Fruitstalk terminal. Peristome single, of 16 bifid equidistant teeth. Calyptra dimidiate.
2226. *Trichostomum.* Fruitstalk terminal. Peristome single, of 16 equal teeth divided to the base, or 32 in pairs. Calyptra mitriform.
2227. *Cinclidotus.* Fruitstalk terminal. Peristome single, of 32 filiform twisted teeth anastomosing at their base. Calyptra mitriform.
2228. *Tortula.* Fruitstalk terminal. Peristome single, of 32 filiform twisted teeth, nearly free, or more or less united by a tubiform membrane. Calyptra dimidiate.
2229. *Pterogonium.* Fruitstalk lateral. Peristome single, of 16 entire equidistant teeth. Calyptra dimidiate.
2230. *Didymodon.* Fruitstalk terminal. Peristome single, of 16 bifid equidistant teeth. Calyptra dimidiate.
2231. *Splachnum.* Fruitstalk terminal. Peristome single, of 8 geminate teeth. Theca with an evident apophysis. Columella exserted, capitate. Calyptra mitriform.
2232. *Conostomum.* Fruitstalk terminal. Peristome simple; teeth solitary, entire, separate at base, 16 in number, united at the tips.

†† *Peristome double.*

2233. *Orthotrichum.* Fruitstalk terminal. Peristome mostly double; outer one of 16 teeth, approaching in pairs; inner one of 8-16 ciliary processes or none. Calyptra mitriform. Columella capitate.
2234. *Zygodon.* Fruitstalk terminal. Peristome double or simple; teeth in pairs. Calyptra cucullate.
2235. *Diphyscium.* Fruitstalk terminal. Peristome always double; outer with 16 teeth: teeth obscure. Theca subsessile.

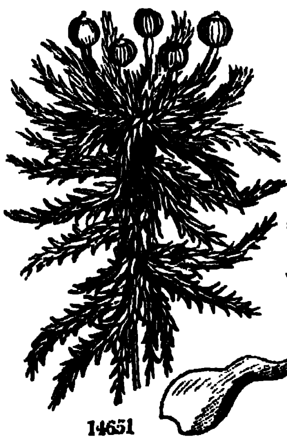
EVAGINULATI.

Systematic Name and Authority.	English Name.	Popular Character.	Length in inches.	Time of flowering, or when most conspicuous.	Color of the Plant.	Locality.	Reference to Figures.
2216. SPHAG'NUM. *L.*	SPHAGNUM.			*Sp.* 4—11.			
14650 obtusifólium *Ehr.*	blunt-leaved	aquatic	7	all months	Y.G	bogs	Musc. brit. t.4
α vulgáris Hooker *S. latifolium* E. B.	*common*	aquatic	7	all months	Y.G	bogs	Eng. bot. t. 1405
β minus Hooker	*small*	aquatic	3	all months	Y.G	bogs	Schwægr.sup.t 3
γ fluitans Turner	*floating*	aquatic	24	all months	Y.G	bogs	
14651 squarrósum *Web.*	squarrose	aquatic	7	all months	Y.G	bogs	Musc. brit. t.4
14652 acutifólium *Ehr.* *capillifólium* E. B.	sharp-leaved	aquatic	6	all months	Y.G	bogs	Musc. brit. t.4
14653 cuspidátum *Ehr.*	cuspidate	aquatic	6	all months	Y.G	bogs	Musc. brit. t.4

VAGINULATI OLOCARPI.

2217. PHAS'CUM. *L.*	PHASCUM.			*Sp.* 11—39.			
14654 serrátum *Schreb.* *stoloniferum* E. B. t.2106	serrated	solitary	½	spring	Pa.G	shady banks	Musc. brit.t.5

14650



14651

14652

14653

History, Use, Propagation, Culture,

2216. *Sphagnum* A name employed by Pliny to distinguish some kind of moss that grew upon trees. In this genus the theca is sessile, being entirely destitute of a real fruitstalk. That which appears like one is the footstalk of the receptacle, which in most of the Sphagna is so much lengthened out as greatly to exceed the perichætial leaves. All the species agree in the peculiar structure of the leaves, of which the reticulation is

2236. *Buxbaumia.* Fruitstalk terminal. Stem none. Theca oblique, gibbous. Peristome double: outer one of many filiform, torulose processes; inner one of a conical plicate membrane. Calyptra mitriform.

2237. *Funaria.* Fruitstalk terminal. Peristome double, oblique; outer and inner ones each of 16 teeth, opposite to each other.

2238. *Bartramia.* Fruitstalk terminal. Theca subglobose. Peristome double: outer one of 16 teeth; inner one of a membrane cleft into 16 bifid segments. Calyptra dimidiate.

2239. *Pohlia.* Fruitstalk terminal. Peristome double: teeth separate acute; membrane with 16 processes, which are entire at the end without ciliæ.

2240. *Bryum.* Fruitstalk terminal. Peristome double: outer one of 16 teeth; inner one of a membrane cut into 16 equal segments, with filiform processes often placed between them. Calyptra dimidiate.

2241. *Polytrichum.* Fruitstalk terminal Peristome double: outer one of 32 or 64 equidistant incurved teeth; inner one of a dense horizontal membrane connected with the outer teeth. Calyptra dimidiate.

B. *Theca lateral.*

2242. *Anictangium.* Fruitstalk lateral. Calyptra mitriform. Mouth of theca naked.

2243. *Fissidens.* Fruitstalk lateral. Peristome simple. Calyptra smooth. Teeth bifid.

2244. *Leucodon.* Fruitstalk lateral. Peristome simple, with bifid processes.

2245. *Fontinalis.* Fruitstalk lateral. Peristome double: outer one of 16 teeth; inner one of 16 ciliary processes formed by transverse bars into a reticulated cone. Calyptra mitriform.

2246. *Anomodon.* Fruitstalk lateral. Peristome double: the first of 16 teeth; the second of 16 ciliary processes arising from the teeth. Calyptra dimidiate.

2247. *Neckera.* Fruitstalk lateral. Peristome double: outer one of 16 teeth; inner of 16 ciliary processes, connected only at the base by a short membrane. Calyptra dimidiate.

2248. *Daltonia.* Fruitstalk lateral. Peristome double: membrane figured, with 16 ciliæ and reflexed teeth.

2249. *Hookeria.* Fruitstalk lateral. Peristome double: outer one of 16 teeth; inner one of a membrane cut into 16 entire segments. Calyptra mitriform.

2250. *Leskea.* Fruitstalk lateral. Peristome double. Membrane with 16 entire processes. Teeth erect or reflexed. Calyptra cucullate.

2251. *Hypnum.* Fruitstalk lateral. Peristome double: outer one of 16 teeth; inner of a membrane cut into 16 equal segments, with filiform processes often between them. Calyptra dimidiate.

TRIBE III. VAGINULATI SCHISTOCARPI.

Theca more or less stalked, with perichætial leaves, valvular.

2252. *Andreæa.* Theca 4-valved: valves cohering at apex, and adnate with the persistent lid.

EVAGINULATI.

14650 Branches tumid, Leaves ovate obtuse
    α Stems loosely tufted, Leaves closely imbricated

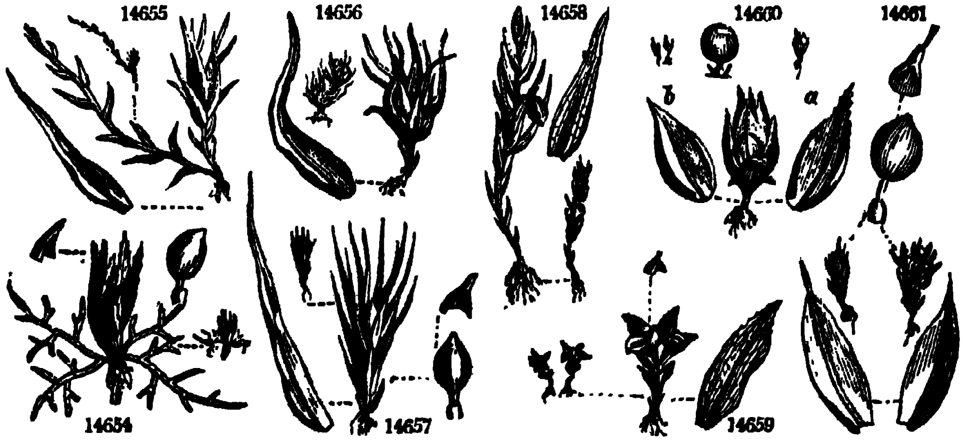
    β Stems densely tufted, Leaves closely imbricated
    γ Stems much lengthened, Leaves scattered remote
14651 Branches attenuated at their extremities, Leaves ovato-acuminate squarrose recurved
14652 Branches attenuated, Leaves ovate-lanceolate crowded

14653 Branches attenuated, Leaves lanceolato-subulate lax

VAGINULATI OLOCARPI.

** Shoots creeping, leafless, articulated, branched.*

14654 Shoots branched conferva-like, Perichætial leaves lanceolate serrated nerveless



and Miscellaneous Particulars.

large, and the interstices or areolæ oblong, interrupted by transverse lines. The leaves are always destitute of a nerve, and are of a singularly whitish color.

2217. *Phascum.* One of the ancient Greek names of the moss was *φασκον.* This genus contains species

14655	alternifólium *Dicks.*	alternate-leav.	solitary	1/12	spring	Pa.G	moist banks	Musc. brit. t.5
14656	cris'pum *Hedw.*	crisp	solitary	¼	spring	Pa.G	banks and fi.	Musc. brit. t.5
	multicap'suláre E. B. 618							
14657	subulátum *Linn.*	subulate	small patches	¼	spring	L.G	dry banks	Musc. brit. t.5
14658	axilláre *Dicks.*	axillary	lax. sol.	¼	spr. and sum.	Y.G	moist banks	Musc. brit. t.5
	stric'tum E. B. t. 2093							
14659	pátens *Hedw.*	spreading	solitary	1/12	spr. and sum.	Pa.G	clay fields	Musc. brit. t.5
14660	múticum *Schreb.*	pointless	solitary	1/12	spr. and sum.	Bt.G	moist banks	Musc. brit. t.5
	α mdjus Hooker	*large*	solitary	1/12	spr. and sum.	Bt.G	moist banks	Eng. bot. t. 2027
	β minus Hooker	*small*	solitary	1/12	spr. and sum.	Bt.G	sea coast	Musc. brit. t.5
14661	cuspidátum *Schreb.*	cuspidate	solitary	¼	spr. and sum.	Gr	hed. moi. ba.	Musc. brit. t.5
	α apiculátum Hooker	*pointed*	solitary	¼	spr. and sum.	Gsh	hed. moi. ba.	Eng. bot. t. 2025
	Schreberiánum E. B. t. 2026							
	curvisétum E. B. t. 2259							
	β piliferum	*piliferous*	solitary	¼	spr. and sum.	Hoa	sandy downs	Eng. bot. t. 1888
14662	bryoides *Dicks.*	Bryum-like	solitary	¼	spr. and sum.	G	banks and fi.	Musc. brit. t.5
14663	rec'tum *Withering*	upright	solitary	¼	spr. and sum.	L.G	moist banks	Musc. brit. t.5
14664	curvicóllum *Hedw.*	bent-necked	solitary	1/12	spr. and sum.	L.G	moist banks	Musc. brit. t.5

2218. SCHISTOSTE'GA. *Mohr.* Schistostega. *Sp.* 1.

14665	pennáta *Hooker*	feathery	solitary	¼	spring	L.G	banks, Dev.	Musc. brit. t.8
	Gymnóstomum pennátum E. B. t. 2219							

2219. GYMNO'STOMUM. *Hedw.* Gymnostomum. *Sp.* 13—47.

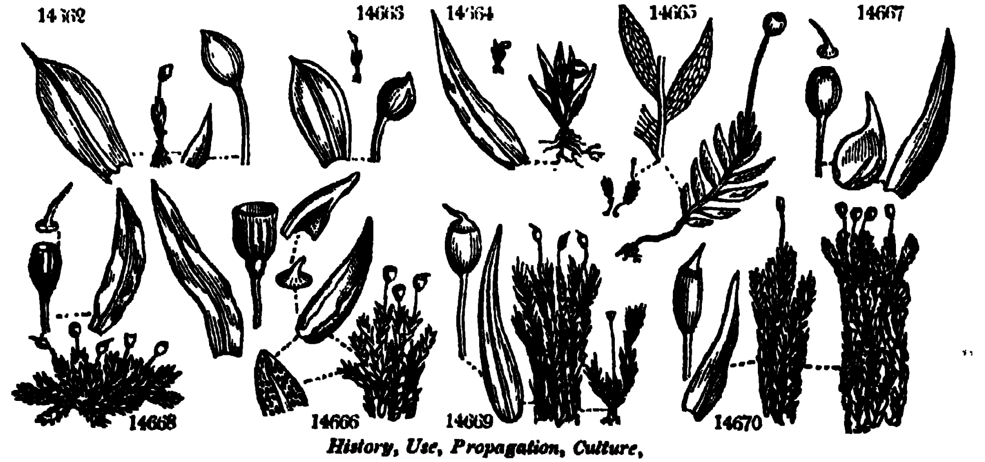
14666	lappónicum *Hedw.*	Lapland	dense tufts	1	spring	D.G	alpine rocks	Musc. brit. t.6
14667	æstivum *Hedw*	summer	thick tufts	1¼	spring	Bt.G	wet rocks	Musc. brit. t.6
	lutéolum E. B. t. 2201							
14668	viridis'simum E. B.	very green	tufts	¾	summer	Bt.G	trees & rocks	Musc. brit. t 6
	Grim'mia Forstéri E. B. 2225							
14669	curviróstrum *Hedw.*	bent-pointed	tufts	1¼	spring	Pa.G	moist rocks	Musc. brit. t 6
	stelligerum E. B. t. 2202							
14670	rupes'tre *Schwægr.*	rock	large tufts	1¼	spr. and sum.	D.G	moi. mou. ro.	Schwæg. sup. t. 11
	æruginósum E. B. t. 2200							
14671	Griffithsiánum E. B	Griffith's	little spots	¼	summer	Pa.G	mountains	Musc. brit. t 7
14672	ovátum *Hedw*	ovate	broad patches	¼	all months	Gr	ba. & wa. tops	Musc. brit. t.7
	α vulgáre Hooker	*common*	broad patches	¼	all months	Gr	ba. & wa. tops	Eng. bot. t 1889
	β grácile Hooker	*slender*	broad patches	¼	all months	Gr	ba. & wa tops	
14673	truncátulum *Hoffm.*	truncate	patches	¼	all months	Bt.G	fields & ban.	Musc. brit. t 7
	intermédium E. B. t. 1976							
14674	Helmii *Hedw.*	Heim's	small patches	1	summer	Rsh	marit. banks	Musc. brit. t.7
	obtúsum E. B. t. 1407							
14675	cónicum *Schwægr.*	conical	little spots	¼	summer	Pa.G	fields, S Irel.	Musc. brit. t.7
14676	fasciculáre *Hedw.*	bundled	patches	¼	summer	Y.G	clayey banks	Musc. brit. t 7
14677	pyrifórme *Hedw.*	pyriform	dense patches	¾	summer	Bt.G	moist places	Musc. brit. t.7
14678	ténue *Hedw.*	slender	little patches	1¼	spring	Bt.G	sandst. rocks	Musc. brit. t 7
	paucifólium E. B. t. 2506							
14679	Donniánum *Smith*	Donn's	solitary	1/12	spring	Pa.G	Scotch rocks	Musc. brit. t 7

2220. HYMENO'STOMUM. *R. Brown.* Hymenostomum. *Sp.* 1.

14680	microstómum *R. Br.*	small-mouthed	little-patches	¼	spring	Pa.G	banks	Musc. brit. t 7
	Gymnóstomum micróstomum E. B. t. 2215							

2221. TE'TRAPHIS. *Hedw.* Tetraphis. *Sp.* 2—5.

14681	pellúcida *Hedw.*	pellucid	wide tufts	1	all months	Pa.G	dry banks	Musc. brit. t 8
14682	Browniána *Greville*	Brown's	solitary	¼	all months	Ol.G	roofs of caves	Musc. brit. t 8
	ováta Hooker							
	Grim'mia Browniána E. B. t. 1422							



History, Use, Propagation, Culture,

which are not only amongst the minute of mosses, and often scarcely discernible to the naked eye, but also extremely dissimilar in appearance to each other.

2218 *Schistostega.* From σχιζω, to split, and στεγη, a covering, in allusion to the singular character of the lid splitting at the margin. The only known station for this minute moss is said by Dr. Hooker, from whose Muscologia Britannica, many of the remarks in this work upon the genera of mosses are borrowed, to be in the road from Zele to South Tawton church, near Okehampton, Devonshire.

2219. *Gymnostomum.* From γυμνος, naked, and στομα, the mouth, in allusion to the processes called teeth, from the orifice of the theca. Very minute plants, many of which are barely distinguishable by the naked eye.

*** Creeping shoots none.*

14655 Leaves entire lanceolato-subulate, Innovations elongated
14656 Leaves lanceolato-subulate flexuose crisped when dry

14657 Leaves subulato-setaceous straight : their nerve disappearing below the point
14658 Leaves lanceolato-subulate straight : their nerve disappearing below the point, Fruit at length lateral

14659 Leaves patent narrow-ovate serrated : their nerve disappearing below the point
14660 Leaves ovato-rotundate acuminate concave connivent : the nerve reaching to the point
α Leaves sharply serrated at point
β Leaves entire
14661 Leaves ovato-acuminate erect : their nerve reaching to the point
α Leaves apiculate

β Leaves hair-pointed
14662 Leaves ovate apiculate, Thecæ elliptical
14663 Leaves ovate with a short point, Thecæ globose, Fruitstalk nearly erect
14664 Leaves narrow-ovate acuminated, Thecæ globose, Fruitstalk curved

14665 The only species

** Stem long, branched.*

14666 Leaves linear lanceolate crisped when dry : perichætial broadly ovate, Thecæ turbinate striated
14667 Lvs. lanc. twist. when dry : the perichætial ones broadly ovate ; their marg. involute, Thecæ obl. smooth

14668 Leaves broadly lanceolate, Thecæ ovate, Lid obliquely rostrate

14669 Leaves subulate, Thecæ turbinate ovate, Lid obliquely rostrate

14670 Lvs. lin. subul. spreading flexuose twisted when dry, Thecæ ovate, Lid conical rost. shorter than thecæ

*** Stems short simple.*

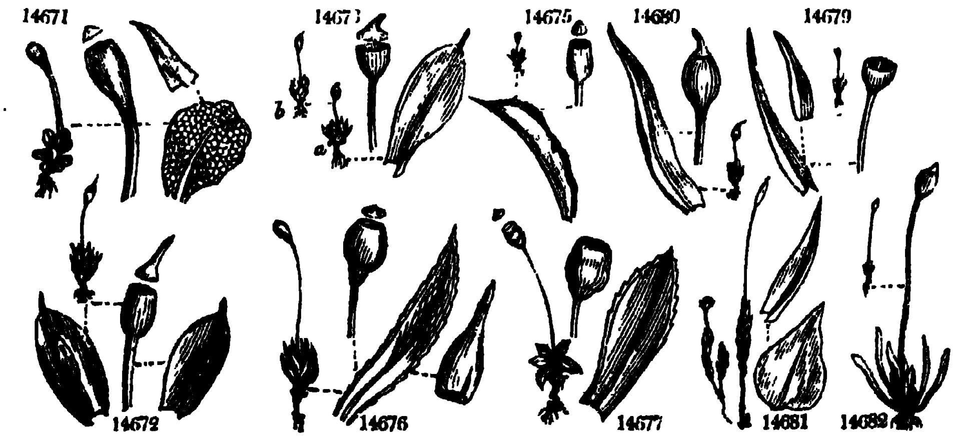
14671 Lvs obov.-rotund. reticul. : their nerve disappear. below summit, Fruitstalk carnose thick, Lid hemispher.
14672 Lvs. ovate erect concave piliferous : their nerve furnished with a granuliferous membrane, Lid rostrate
α Thecæ ovate
β Thecæ oblong
14673 Leaves ovate apiculate patent nearly plane, Lid obliquely rostrate

14674 Leaves lanceolate serrated at the point, Thecæ ovato-oblong, Lid obliquely rostrate

14675 Leaves oblongo-obovate apiculate, Thecæ ovate, Lid conical obtuse
14676 Leaves oblongo-acum. nearly plane subserrated margined, Thecæ pyriform, Lid plane submammillate
14677 Leaves ovato-acum. concave serrated not margined, Thecæ roundish obovate, Lid convex shortly rost.
14678 Stem scarcely any, Outer leaves very short ovate lanceolate : inner ones linear lanceolate ; all erect obtuse with a strong nerve disappearing below the summit, Thecæ oblong
14679 Stem very short, Leaves subulate straight, Thecæ turbinate

[subulate incurved
14680 Lvs. broadly subul. : marg. invol. above flexuose crisped when dry, Thecæ ellipt. contracted at mouth, Lid

14681 Stems elongated, Leaves ovato-acuminate : those of the perichætium lanceolate, Thecæ cylindrical
14682 Stems very short, Lvs. few lin. slightly incrassated upw. : those of perichætium ovate obtuse, Thecæ ovate

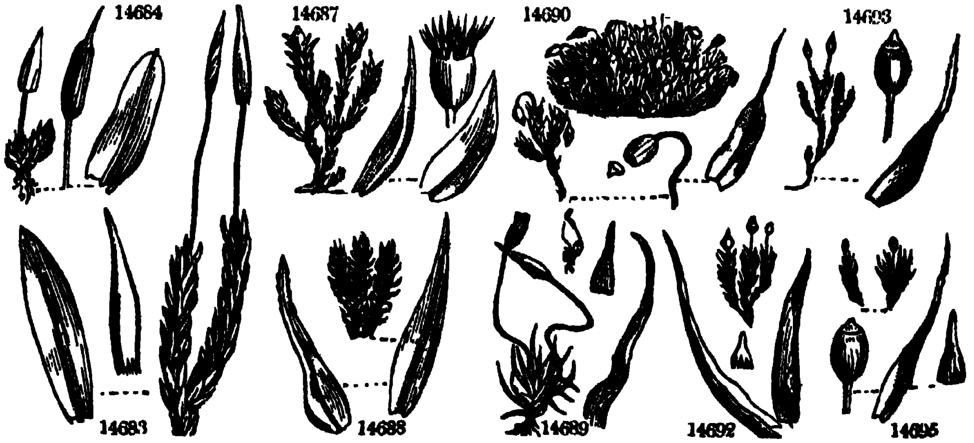


and Miscellaneous Particulars.

2420. *Hymenostomum.* From ὑμην, a membrane, and στομα, a mouth. This genus differs from the last in having a membrane stretched across the orifice of the theca, a character first discovered by Mr. Brown. Minute plants, with the habit of Gymnostomum.

2221. *Tetraphis.* The peculiar character of this genus is to have four teeth (τετρα, four). The lid in the only known species of this genus is remarkably thin and scariose in texture, and the teeth are reticulated, not striated as in most mosses. The calyptra is striated or furrowed ; the leaves are rigid.

2222.	ENCALYP'TA. *Hedw.*	Encalypta.			*Sp.* 4—7.			
14683	streptocárpa *Hedw.*	twisted-fruited	tufts	1½	all months	Bt.G	moist rocks	Musc. brit. t.13
14684	vulgáris *Hedw.*	common	wide patches	½	all months	Dl.G	wall tops	Musc. brit. t.13
	Brýum extinctórium E. B. t. 558							
14685	ciliáta *Hedw.*	ciliated	tufts	⅛	spring	Pa.G	mountains	Musc. brit. t.13
	α *cóncolor* Hooker	*whole-colored*	tufts	⅛	spring	Pa.G	mountains	Eng. bot. t. 1418
	β *alpína* Hooker	*alpine*	tufts	⅛	spring	Pa.G	Scotch alps	Eng. bot. t. 1419
14686	rhaptocárpa *Schwæg.*	straight-fruit.	tufted	½	all months	D.G	Scot. mount.	Gre.cryp.fl.t.163
2223.	GRIM'MIA. *Hedw.*	Grimmia.			*Sp.* 9—29.			
14687	apocárpa *Hedw.*	alpine	dense tufts	1½	all months	D.Ol	rocks & trees	Musc. brit. t.13
	α *nigro-viridis* Hooker	*dark-green*	tufts	1½	all seasons	D.Ol	rocks & trees	Eng. bot. t. 1134
	β *stric'ta* Turner	*straight*	loose tufts	3	all seasons	Ruf	mountains	Tu.mu.hi. t.2.f.1
14688	marítima *Turn.*	sea-coast	tufted	¾	spr. and aut.	Br.G	marine rocks	Musc. brit. t.13
14689	saxícola *Hooker*	rock	subsolitary	⅛	summer	Bt.G	rocks	Musc. brit. t.13
14690	pulvináta *E. B.*	cushion	round tufts	½	all seasons	Br.G	house-tops	Musc. brit. t.13
14691	leucophæ'a *Grev.*	mottled	broad tufts	⅛	all seasons	D.Ol	subalp. rocks	Wer. trans.4. t.6
14692	Daviésii *Turn.*	Welsh	little patches	½	spring	Br.G	marit. rocks	Musc. brit. t.13
	Encalyp'ta Daviésii E. B. t. 1281							
14693	ováta *Web. & Mohr.*	ovate	tufts	¾	spr. and sum.	D.G	alpine rocks	Musc. brit. t.13
	Dicránum ovále E. B. t. 2165							
14694	trichophýlla *Greville*	hair-leaved	tufts	¾	summer	Hoa	stone w., Sc.	
14695	Doniána *Smith*	Don's	little tufts	½	spring	D.G	loose stones	Musc. brit. t.13
2224.	WEIS'SIA. *Hedw.*	Weissia.			*Sp.* 19—54.			
14696	splachnoides *Schwæg.*	Splachnu.-like	broad tufts	3	summer	D.G	Scotch bogs	Grev. cryp. fl.145
	Grim'mia splachnoides E. B. t. 2164							
	Splach'num linguldtum E. B. t. 2095							
14697	Templetóni *Hooker*	Irish	little patches	¼	spring	L.G	banks, Irel.	Musc. brit. t.14
	Funária Templetóni E. B. t. 2524							
14698	núda *Hooker*	naked	little patches	⅛	summer	L.G	clayey soil	Musc. brit. t.14
	Grim'mia núda E. B. t. 1421							
14699	nigrita *Hedw.*	dark-colored	tufts	¾	summer	Br.G	mount. ban.	Musc. brit. t.14
	Grim'mia nigrita E. B. t. 1825							
14700	latifólia *Schwæg.*	broad-leaved	tufted	¼	autumn	Pa.G	Scot. mount.	Grev. cryp. fl.149
14701	Starkeána *Hedw.*	Starke's	little patches	⅛	spring	D.G	banks and ti.	Musc. brit. t.14
	Grim'mia Starkeána E. B. t. 1490							
14702	aff'inis *Hooker*	kindred	subsolitary	1/16	spring	Pa.G	fields	Musc. brit. t.14
14703	lanceoláta *Hook.*	lanceolate	subsolitary	⅛	summer	L.G	moist banks	Musc. brit. t.14
	Grim'mia lanceoláta E. B. t. 1408							
14704	striáta *Hooker*	striated	round tufts	¼	spring	Bt.G	alpine banks	Musc. brit. t.15
	α *minor* Hook.	*small*	round tufts	¼	spring	Bt.G	alpine banks	Hed.sp.mus.t.13
	β *májor* Hook.	*large*	round tufts	¼	spring	Bt.G	alpine banks	Schwæg.sup.t.19
14705	trichódes *Hooker*	hairy	minute patch.	⅛	spring	Bt.G	granite roc.	Musc. brit. t.15
	Grim'mia trichódes E. B. t. 2563							
14706	cirráta *Hedw.*	cirrhate	tufts	⅛	summer	L.G	decay. wood	Musc. brit. t.15
	Grim'mia cirráta E. B. t. 2356							
	Grim'mia Dicksóni E. B. t. 1420							
14707	curviróstra *Hook.*	bent-beaked	tufts	1	all seasons	R.G	roc. and ban.	Musc. brit. t.14
	Grim'mia recurviróstra E. B. t. 1438							
14708	cris'pula *Hedw.*	crisp	dense tufts	⅛	sum. and aut.	D.G	rocks	Musc. brit. t.15
	Grim'mia cris'pula E. B. t. 2203							
14709	controvérsa *Hedw.*	disputed	dense patches	¼	all seasons	Bt.G	banks	Musc. brit. t.15
	Grim'mia controvérsa E. B. t. 1367							
14710	calcárea *Hedw.*	chalk	subsolitary	⅙	spring	Ol.G	chalk cliffs	Musc. brit. t.15
	Brýum calcáreum E. B. t. 191							
14711	recurváta *Hooker*	recurved	solitary	1/16	spring	L.G	rocks	Musc. brit. t.15
	Grim'mia recurváta E. B. t. 1489							



History, Use, Propagation, Culture.

2222. ***Encalypta.*** From εν, within, and καλυπτης, a covering or extinguisher, on account of the unusual size of the calyptra, which entirely encloses the theca; a character by which the genus may be distinguished at first sight. Small plants, forming imperfect tufts of green among moist rocks, or on mud-capped walls.

2223. ***Grimmia.*** Named in honor of I. F. C. Grimm, a German botanist, who published a Flora of Eisenach.

[Calyptra toothed at the base
14683 Stems elong. Lvs. elliptico-lanc. somew. obt. : nerve not produced beyond sum. Thecæ cylind. spiral. striat.
14684 Stems short, Leaves oblongo-elliptical obtuse : their nerve produced a little beyond the summits, Thecæ
cylindrical smooth, Calypt. entire at the base
14685 Stems short, Lvs. obl. acum. : nerve produced considerably bey. summ. Thecæ cylind. Calyp. tooth. at base
α Leaves apiculate : their points of the same color, Theca smooth
β Leaves much acuminate : their points diaphanous, Theca smooth
14686 Leaves oblong acute : nerve as long or longer than the leaves, Theca straight striated

** Fruitstalks scarcely any.*

14687 Stems branched, Leaves ovato-lanceolate recurvo-patent : their margins reflexed ; the perichætial ones
having their nerve disappearing immediately below their summits, Thecæ ovate sess. Lid shortly rost.
α Leaves broad dark-green
β Stem long, Leaves narrow and rufous [running beyond summits, Theca ov. sess. Lid shortly rost.
14688 Stems short pulvin. Lvs. lanc. acum. nearly erect crisp. when dry : marg. recurv. ; perich. ones with nerve

*** Fruitstalks longer than leaves.*

14689 Stem scarcely any, Lvs. lin.-subulate crisped when dry, Theca ovate, Fruitst. geniculate, Lid rost. straight
14690 Stems short pulvinate, Leaves narrow elliptical : their margins recurved ; points diaphanous piliform,
Theca ovate striated, Fruitstalks curved, Lid conical acuminate
14691 Stem rather short, Lvs. ov. with long white pilifer. points, Footst. very short, Theca ov. Lid obscurely rost.
14692 Stems short, Leaves lanceolate acuminate carin. entire much crisped when dry : their margins recurved ;
those of the perichætium broad and convol. Theca turbinate, Lid rostrate
14693 Stems slightly branched, Leaves lanceolate-subulate gradually produced into long diaphanous hair-like
points : their margin incurved, Theca ovate, Teeth of the peristome often perfora. and split, Lid rost.
14694 Lvs. lanc. subul. carin. recurv. at edge with a hair-like point, Seta curv. and flex. Theca ov. ellipt. Lid rost.
14695 Stems short, Leaves lanceolate-subulate produced into long diaphanous hair-like points : their margin
incurved, Theca ovate, Teeth of the peristome quite entire, Lid shortly rostrate

** Theca with an apophysis.*

14696 Lvs. lingul. rounded at top : nerve disappear. before summ. Theca obov. Apophy. obcon. Lid convex acum.

14697 Leaves ovato-lanceolate acute, Theca (with the apophysis) narrowly pyriform, Lid nearly plane

*** Theca destitute of an apophysis.*

1. *Leaves ovate or lanceolate.*

14698 Stems scarcely any, Leaves ovato-lanceolate nerveless, Theca ovate gibbous on one side cernuous

14699 Stems elongat. Lvs. lanc. acum. Theca obovate cernuous gibbous sulcate, Lid hemispheric. obtusely point.
[erect-cernuous, Lid rostrate
14700 Stem simple short, Leaves broad and bluntly ov. with a short point imbric. Nerve shorter than leaf, Theca
14701 Stems very short, Lvs. ov. with an excurr. nerve, Theca ov. erect, Lid cònical, Teeth of perist. subul. acute

14702 Stems very short, Lvs. ov. with an excurr. nerve, Theca ov. erect, Lid conic. Teeth of perist. subulate acute
14703 Stems somew. elongat. Lvs. ov. with an excurr. nerve almost piliferous, Theca ovate, Lid obliquely rostrate

2. *Leaves linear or subulate.*

14704 Leaves linear denticul. crisped when dry, Theca ovato-turbinate sulcate erect, Lid obliquely subulate
α Leaves linear-subulate subserrulate
β Leaves broad-linear denticulate
14705 Stems scarcely any, Leaves subulato-setaceous entire, Theca ovate striated, Lid rostrate

14706 Leaves broadly subulate crisped when dry : their margins recurved, Theca ovate, Lid rostrate

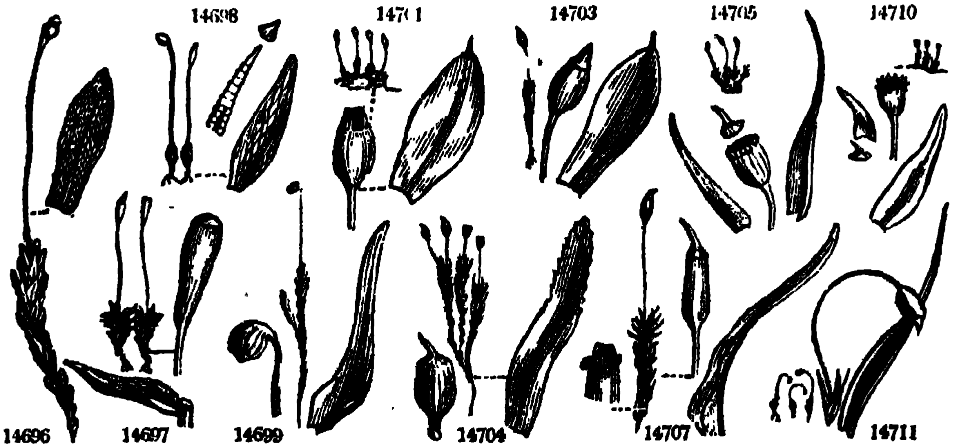
14707 Leaves linear-subulate, Theca ovate cylindraceous, Lid rostrate

14708 Stems divid. Lvs. from a broad base lanc.-subul. crisp. when dry : marg. incurv. Theca ov. ellipt. Lid rostrate

14709 Stems nearly simple, Lvs. lin.-subul. crisp. when dry : their marg. incurv. Theca ovato-ellipt. Lid rostrate

14710 Stems scarcely any, Lvs. from a broad base lin. obt. thick with a very broad nerve, Theca turbin. Lid rost.

14711 Stems scarcely any, Leaves subulate, Theca broadly ovate, Fruitstalks curved, Lid rostrate



and Miscellaneous Particulars.

Plants growing in roundish tufts, and nearly related to Trichostomum. G. pulvinata is the moss which forms those little cushion-like dark brownish green lumps which are so commonly spotted over the tops of old walls and houses.

2224. *Weissia.* In honor of J. W. Weiss, a German cryptogamic botanist. There was also a John

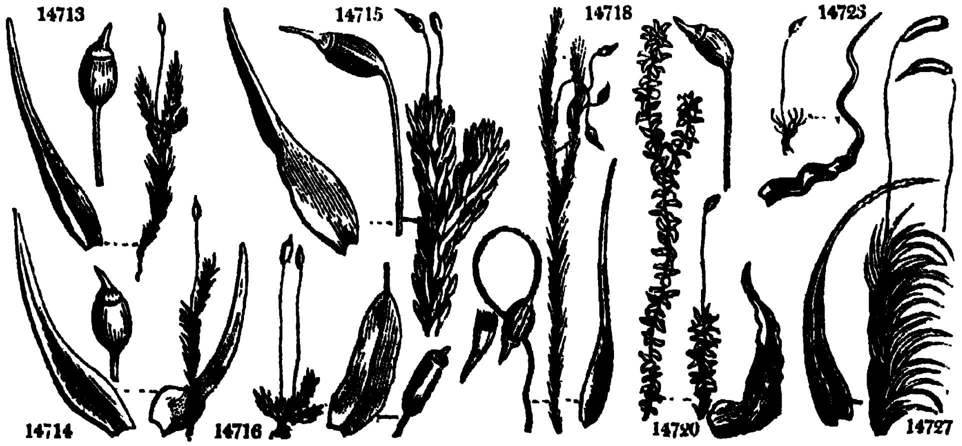
14712	pusílla *Hedw.*	dwarf	dense patches	⅛	spring	Bt.G	calcar. rocks	Musc. brit. t.15
	Grim'mia pusilla E. B. t. 2551							
14713	verticilláta *Schwæg.*	whorled	tufts	¾	summer	Bt.G	moist rocks	Musc. brit. t.15
	Grim'mia verticillata E. B. t. 1258							
14714	acúta *Hedw.*	acute	tufts	1	sum. and aut.	Ol.G	moist rocks	Musc. brit. t.15
	Grim'mia acúta E. B. t. 1644							

2225. DICRA'NUM. *Hedw.* Dicranum. *Sp.* 23—47.

14715	glaúcum *Hedw.*	glaucous	broad tufts	4	autumn	W.G	moors	Musc. brit. t.16
14716	latifólium *Hedw.*	broad-leaved	subsolitary	¾	spring	Bt.G	moun. banks	Musc. brit. t.16
	Trichóstomum piliferum E. B. 2536							
14717	longifólium *Hedw.*	long-leaved	dense tufts	3	win. and spr.	Bt.G	wet rocks	Musc. brit. t.16
14718	flexuósum *Hedw.*	flexuose	loose tufts	3	win. and spr.	D.G	peat bogs	Musc. brit. t.16
14719	flavéscens *Smith*	yellowish	tufts	3	win. and spr.	Y.G	river banks	Musc. brit. t.17
14720	squarrósum *Schrad.*	squarrose	large masses	3	summer	Y	wet san. pl.	Musc. brit. t.17
14721	pellúcidum *Sw.*	pellucid	tufts	1¼	spr. and sum	D.G	wet san. pl.	Musc. brit. t.17
14722	spúrium *Hedw.*	spurious	dense masses	4	summer	Bt.G	bogs	Musc. brit. t.17
14723	cris'pum *Hedw.*	crisp	loose patches	¼	all months	Bt.G	moist banks	Musc. brit t.17
14724	Scottiánum *Turn.*	Scott's	large masses	2¼	sum. and aut.	Bt.G	mount. rocks	Musc. brit. t.18
	flagelláre E. B. t. 1977							
14725	polycárpon *Ehr.*	prolific	round tufts	¼	all seasons	Bt.G	rocks	Musc. brit. t 18
	Bruntóni E. B. t. 2509							
14726	undulátum *Ehr.*	wave-leaved	tufts	2¼	summer	Bt.G	woods & roc.	Musc. brit. t.18
14727	scopárium *Hedw.*	rock	patches	3	win. and spr.	Dp.G	woods & ban.	Musc brit. t.18
	α *május* Hooker	*large*	patches	3	win. and spr.	Dp.G	woods & ban.	Eng. bot. t. 354
	β *fuscéscens* Turner	*brownish*	tufts	2	spring	Brsh	heathy plac.	Eng. bot. t 1597
14728	várium *Hedw.*	various	loose patches	¼	spring	D G	moist banks	Musc. brit. t.17
	α *viride* Hooker	*green*	loose patches	¼	spring	D G	moist banks	Eng. bot. t. 1215
	callis'tomum Smith Fl. Brit							
	β *rufescens*	*brown*	loose patches	¼	spring	Rsh	moist banks	Eng. bot. t. 1216
	γ *lúridum* Hooker	*lurid*	loose patches	¼	spring	Lur		
14729	fulvéllum *Smith*	tawny	dense tufts	¾	spr. and s.	Bt.G	crev of rocks	Grev cryp.fl.188
14730	heteromállum *Hedw.*	interrupted	large patches	¼	spring	Bt.G	moist banks	Musc. brit. t 18
14731	subulátum *Hedw.*	subulate	loose patches	¼	spring	Bt.G	moist banks	Musc. brit. t.18
14732	cerviculátum *Hedw.*	hooked	small spots	¼	spring	Str	bogs	Musc. brit. t.16
	pusillum E. B. t. 2491							
	uncinátum E. B. t. 2261							
14733	virens *Hedw.*	green	tufts	1¼	all seasons	Bt.G	mount. mar.	Musc. brit. t.17
14734	strumiferum *Smith*	thick-necked	tufts	1	all seasons	Bt.G	mount. mar.	Musc. brit. t.17
14735	falcátum *Hedw.*	falcate	large patches	2	spr. and aut	Bt.G	alpine rocks	Hoo.mus.br.t.17
14736	Schreberiánum *Hedw.*	Schreber's	tufted	¼	spring	Bt.G	moi.pl., Scot.	Grev. cryp.fl.116
14737	Stárkii *Web. & Mohr.*	Starke's	tufts	1	spring	Bt.G	alpine rocks	Musc. brit. t.17

2226. TRICHOS'TOMUM. *Hedw.* Trichostomum. *Sp.* 9—18.

14738	pátens *Schwægr.*	spreading	deep patches	6	all seasons	Hoa	mountains	Musc. brit t 19
	Dicranum pátens E. B. t. 1990							
	Tr obtúsum Fl. Brit.							
14739	lanuginósum *Hedw.*	woolly	deep tufts	4	all seasons	Hoa	stonymount.	Musc. brit t.19
14740	canéscens *Hedw.*	hoary	tufted creep.	1¼	all seasons	Y.G	heaths	Musc. brit. t 19
	T. ericoides E. B. t. 1991							
14741	heteróstichum *Hedw.*	branched	broad tufts	1	all seasons	Hoa	ston. on mo.	Musc. brit. t 19
14742	microcárpon *Hedw*	small-fruited	deep patches	2	all seasons	Ol	rocks	Musc. brit. t 19



History, Use, Propagation, Culture,

Christopher Weiss, who published, in 1712, a Dissertation on the pomegranate. These plants are chiefly found in wet places, most frequently in alpine countries; in habit they resemble Gymnostomum.

2225. *Dicranum.* Named by Hedwig, from δικρανος, forked, in allusion to the division of the teeth. This is one of the finest genera of mosses, containing many species which form broad masses of turfy vegetation, giving a decided character to the face of the earth where they grow. Like most of the genera of this order, 14712 Stems scarcely any, Leaves subulate, Theca ovate, Fruitstalks always erect, Lid rostrate

14713 Stems branched, Leaves broadly subulate nearly flat rather flaccid, Theca ovate, Lid rostrate

14714 Stems branched, Leaves subulate-setaceous subsecund rigid canaliculate, Theca turbinate, Lid rostrate

** Theca without a struma.*

14715 Stems branched fastigiate, Lvs. erecto-patent ov. lanc. straight nerveless ent. Theca ov. cern. Lid rostrate
14716 Stems short, Leaves oblong concave entire apiculate or piliferous, Theca erect ovato-oblong, Lid rostrate
[nearly erect, Lid rostrate
14717 Stems elongat. Lvs. very long subul.-setace. falcato-secund serrul. : nerve very broad, Theca oblongo-ovate
14718 Stems nearly simple rigid, Leaves lanceolato-subulate acuminated straight : their nerve very broad, Fruitstalks flexuose, Theca ovate striated, Lid rostrate
14719 Stems branched, Lvs. long lanc. serrul. point. in all directions crisp. when dry, Thecæ obl. erect, Lid rost.
14720 Stems somewhat branched, Leaves from a broad sheathing base lanceolate obtuse recurved and patent directed to every side crisped when dry, Theca ovate subcernuous, Lid rostrate
14721 Stems branched, Leaves lanceolate : their margins slightly undulated serrated rather obtuse pointing in all directions, Theca ovate subcernuous, Lid rostrate
14722 Stems elongated, Leaves fasciculated concave erecto-patent directed to every side ovate : the superior ones lanceolate serrulate, Theca oblong curved, Lid rostrate
14723 Stems short, Leaves from a sheathing base setaceous nearly distichous flexuoso-recurved crisped when dry, Theca erect ovate, Lid with a long beak
14724 Stems branched, Leaves erecto-patent directed to every side subulate : their margins plane subserrated crisped when dry, Theca ovate cylindraceous nearly erect, Lid with a long beak
14725 Stems branched, Lvs. patent directed to every side lanceolate-subulate : their margins recurved flexuose subserrulate crisped when dry, Theca obovate subcernuous, Lid rostrate
14726 Stems elongated, Leaves nearly plane lanceolate attenuate serrulate at the points transversely undul. Theca cylindrac. cernuous, Lid with a long beak
14727 Stems elongated, Lvs. narr. subul. canalicul. sec. Theca cylindrac. arched cernuous, Lid with a long beak
α Leaves falcato secund
β Leaves subsecund narrow crisped when dry
14728 Stems short, Leaves narrow hastato-lanceolate, Theca ovate, Lid rostrate
α Leaves pointing all ways lanceolate green, Theca subcernuous
β Leaves subsecund lanceolate subulate reddish, Theca erect
γ Leaves subsecund subulate lurid, Theca subcernuous [stalk, Lid short rostrate
14729 Stem near. simp. Lvs. very long subul. setac. : nerve obsolete. percurr. Theca obov. erect striat. with a short
14730 Stems branched, Leaves subul. falcato-secund nearly ent. Theca ovate subcernuous, Lid with a long beak
14731 Stems branch. Lvs. from a broad sheath. base subul. setace. sec. ent. Theca ov. subcern. Lid with long beak

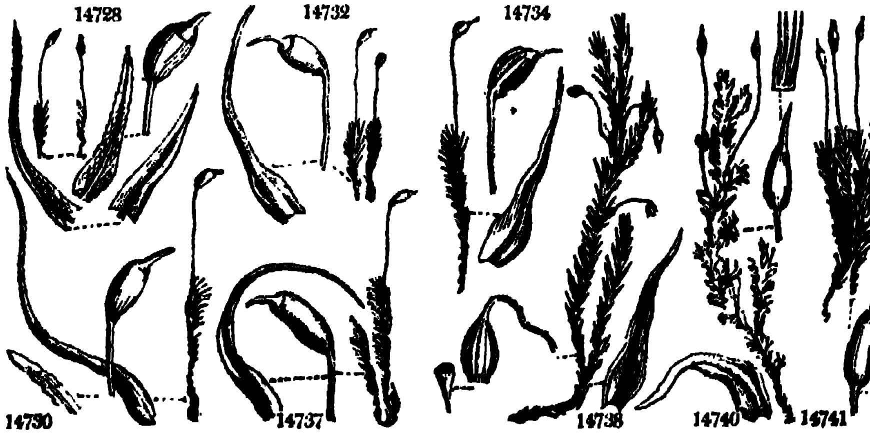
*** Theca with a struma.*

14732 Stems short, Lvs. lanc. subul. ent. subsec : nerve very broad, Theca ovate subcern. strumose, Lid rost.

[tions, Theca furrowed oblongo-ovate subcern strum. Lid rost
14733 Stems elongat. Lvs from a broad sheath. base subul. ent. : marg. plane crisp. when dry pointing in all direc-
14734 Stems elongated, Leaves from a broad sheathing base subulate entire : their margins plane crisped when dry pointing in all directions, Theca furrowed oblongo-ovate subcernuose strumose, Lid rostrate
14735 Stems nearly simple, Lvs. long lanc.-subul. falcato-secund nearly ent. Theca ov. subcern. strum. Lid rost.
14736 Stem erect simple, Lvs spread. long subul. dilated and amplexic. at base, Theca ov. cernu. strum. Lid rost.
14737 Stems somew. branch Lvs. lanc. subul. falcato-secund entire, Theca oblongo-ov. suberect strum. Lid rost.

14738 Stems elongat. Lvs. lanc. acuminated carinated : margins recurv Theca ovate, Fruitst. curved, Lid conic.

14739 Stems elongated subpinnate, Leaves lanceolato-subulate acuminate : their long diaphanous points serrat. ; margins recurved, Theca ovate, Fruitstalk short on lateral branches, Lid rostrate
14740 Stems elongated irregularly branched, Leaves ovato-lanceolate : their diaphanous acuminated points slightly serrated, Theca ovate, Teeth of the peristome very long and filif. Lid subulate
14741 Stems elongated branched, Leaves ovato-lanceolate : their diaphanous acuminated points slightly serrat. Theca oblong, Teeth of the peristome rather short, Lid rostrate
14742 Stems elongated branched, Leaves lanceolate : their diaphanous acuminated points slightly serrated, Theca oblong, Teeth of the peristome rather short, Lid rostrate

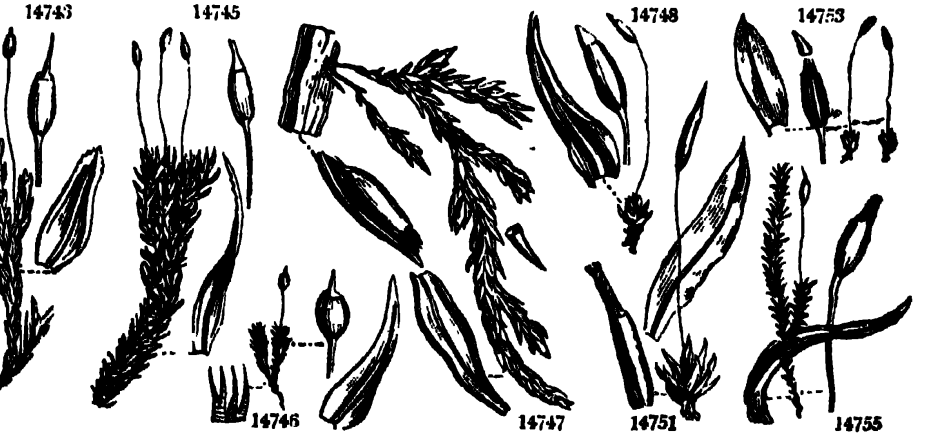


and Miscellaneous Particulars.

there are species included in this which vary considerably from the common appearance of the group. The most distinct of these forms is, however, removed, after the example of the German muscologists, to Fissidens; which see.

2226. *Trichostomum.* From θριξ τριχος, hair, and στομα, a mouth; the divisions of the mouth of the theca being very fine. The species are for the most part dark green mountain plants, with hair-pointed leaves,

14743 aciculáre *Beauv.*	needle-pointed	loose tufts	1½	summer	Ol.G	wet rocks	Musc. brit. t.19
Dicránum aciculáre E. B. t. 1978							
14744 fasciculáre *Schrad.*	bundled	broad patches	2	all seasons	Y.G	moun. rocks	Musc. brit. t.19
14745 polyphýllum *Schwæg.*	many-leaved	round tufts	¾	summer	Bt.G	moun. rocks	Musc. brit. t.19
Dicránum polyphýllum E. B. t. 1217							
Tr. cirrátum Fl. Brit.							
14746 ellípticum *Hook.*	elliptical	little tufts	¾	spr. and sum.	Bt.G	moun. rocks	Musc. brit. t.19
Dicránum ellípticum E. B. t. 1901							
2227. CINCLIDO'TUS. *Pal. de Beauv.*	Cinclidotus.			*Sp.* 1.			
14747 fontinaloides *Beauv.*	water	floating	5	summer	D.Ol	in streams	Musc. brit. t. 11
Fontinalis minor E. B. t. 557							
2228. TOR'TULA. *Ehr.*	Tortula.			*Sp.* 11—38.			
14748 rígida *Swz.*	rigid	small patches	¾	all seasons	D.G	rocks & walls	Musc. brit. t.12
14749 murális *Hedw.*	wall	tufts	1	all seasons	D.G	everywhere	Musc. brit. t.12
14750 rurális *Ehr.*	country	deep patches	2	all seasons	D G	trees & ban.	Musc. brit. t.12
14751 subuláta *Hedw.*	subulate	thick tufts	1½	all seasons	Y.G	banks	Musc. brit. t.12
14752 cuneifólia *Roth.*	wedge-leaved	solitary	¼	spring	Y.G	banks	Musc. brit. t.12
14753 stelláta *Smith.*	stellate	solitary	½	spring	Y.G	riv. sides, Sc.	Musc. brit. t.12
14754 tortuósa *Hedw.*	tortuous	broad masses	1½	spr. and sum	L.G	limest. rocks	Musc. brit. t.12
14755 fállax *Swz.*	deceitful	tufts	1½	all seasons	L.G	everywhere	Musc. brit. t.12
T. unguiculáta E. B. t. 2316							
T. imber'bis E. B. t. 2329							
14756 revolúta *Brid.*	revolute	tufts	¼	spring	L.G	banks	Musc. brit. t.12
T. nervósa E. B. t. 2383							
14757 unguiculáta *Hooker*	unguiculate	tufts	¼	spring	Dp G	ban. & hedg.	Musc. brit. t.12
T. mucronuláta E. B. t. 1299							
T. aristáta E. B t. 2392							
T. barbáta E. B. t. 2391							
T. húmilis E. B. t. 1663							
T. apiculáta E. B. t. 2494							
14758 convolúta *Swz.*	convolute	loose patches	¾	spring	Y.G	moist banks	Musc. brit. t.12
2229. PTEROGO'NIUM. *Swz.*	Pterogonium.			*Sp.* 3—7			
14759 Smith'ii *Swz.*	Smith's	creeping	3	all seaso	Bt.G	trees, S. Eng.	Musc. brit. t.14
14760 grácile *Swz.*	slender	creeping	1½	all seas	Bt.G	subalp. rocks	Musc. brit. t.14
14761 filifórme *Hedw.*	filiform	creeping	1½	all seasons	Bt.G	mountains	Musc. brit. t.14
P. cæspitósum E. B. t. 2526							
2230. DIDY'MODON. *Hedw.*	Didymodon.			*Sp.* 10.			
14762 purpúreum *Hedw.*	purple	large patches	¼	all seasons	Rsh	moist rocks	Musc. brit. t.20
Bryum bipartitum E. B. t. 2357							
Dicránum stríctum E. B t. 2294							
Dicránum Cel'sii E. B. t. 2414							
Trichóstomum papillósum E. B. t. 2533							
14763 inclinátum *Swz.*	inclining	spots	¾	spring	L.G	moun. rocks	Musc. brit. t.20
Grim'mia inclináta E. B. t. 1824							
14764 nervósum *Hook*	nerved	loose patches	¼	spring	Dp G	dry banks	Musc brit. t.20
Grim'mia atrovirens E. B. t. 2015							
14765 flexifólium *Hook.*	bent leaved	loose tufts	¾	spr. and sum.	Bt.G	banks	Musc. brit. t.20
Trichóstomum flexifólium E. B. t. 2490							
14766 rigídulum *Hedw.*	rigid	tufts	¾	spr. and sum.	Br	walls & roc.	Musc. brit. t.20
Trichóstomum rigídulum E. B. t. 2178							
14767 trifárium *Swz.*	three-rowed	tufted	¾	spr. and sum.	Bt.G	moist banks	Musc. brit. t.20
Trichóstomum trifárium E. B. t. 1707							
Trichóstomum linoides E. B. t 2295							



History, Use, Propagation, Culture,

which give them the appearance of being hoary. The genus is nearly related to Grimmia both in natural and essential characters.

2227. *Cinclidotus.* So called from κιγκλιδωτος, grated, in allusion to the peculiar netted manner in which the ciliæ of the peristome are united in parcels. A plant from four to six inches long, growing on stones and wood in streams of water, in many places exceedingly common. Its general appearance is that of Trichostomum, whilst the peristome more resembles that of a Tortula.

2228. *Tortula.* From *torqueo*, to twist, in allusion to the singular manner in which the teeth of the peristome are twisted together. Small plants, frequently forming thick tufts, and common in almost all situations from

14743 Stems elongat. branch. Lvs. lanc. obt. serrulat. at points : nerve vanish. before summ. Theca obl. Lid rost.

14744 Stems elongat. branch. Lvs. lanc. ent. : summ. never diaphan. ; margins recurv. Theca ovato-obl. Lid rost.
14745 Stems branch. Lvs. lanc.-subul. : marg. recurv. serrat. above very much crisp. when dry, Theca obl. Lid rost.

14746 Stems short nearly simple, Lvs. lanc. acum. straight : nerve broad ; margins plane, Theca ellipt. Lid rost.

14747 The only species

14748 Stems scarcely any, Lvs. patent obl. rigid : marg. much inflex. Nerve broad, Theca obl. Lid conic. acum.
14749 Stems short, Leaves patent linear-oblong : their margins recurved, Nerve produced beyond the leaf into a white hair-like point, Theca oblong, Lid conical acuminate
14750 Stems elongated, Leaves oblong carinated patent and recurved, Nerve terminating in a long generally diaphanous serrated point, Theca oblong, Lid subulate, Teeth of the peristome united below in a tube
14751 Stems very short, Leaves oblongo-lanceolate acuminate : the nerve excurrent often forming an apiculus, Theca cylindrical, Lid conico-subul. Teeth of the peristome united nearly to the apex into a long tube
14752 Stems scarcely any, Lvs. broadly obov. conc. Nerve terminating beyond top of leaf in a rather long and frequently serrulated point, Theca oblong, Lid shortly rost. Teeth of the peristome united at the base
14753 Stems scarcely any, Leaves ovate concave, Nerve running beyond points, Theca ovate striated, Lid rost
14754 Stems elongat. branch. Lvs. lin.-subul. carinate undulate much twisted when dry, Theca cylind. Lid rost.
14755 Stems elongat. branch. Lvs. lanc. subul. pat. or recurv. : marg. refl. Theca obl. Lid rost. nearly as long as theca

14756 Stems short, Leaves lanceolate acum. : the margins of those of the stem remarkably revolute ; perichætial leaves sheathing, their sides involute, Theca oblong, Lid rostrate shorter than the theca
14757 Stems branched, Leaves linear-lanceolate obtuse : their nerve produced into an apiculus, the marg. nearly plane, Theca oblong, Lid rostrate nearly as long as the theca

14758 Stems short, Lvs. obl. rather obt. : nerve not protruded ; perichæt. remarkably convol. Theca obl. Lid rost.

[above half-way up, Fruitstalks very short, Lid rostrate
14759 Stems much branch Branches pinn. Lvs. lingul. obt. ent. crisp. when dry : marg. recurv. ; nerve reaching
14760 Branches fascicled curved, Leaves broadly ovate acute concave : their margins plane ; summits serrated, faintly 2-nerved at the base, Lid conical
14761 Stems irregularly branched curved, Leaves ovate subacuminated concave : their margins recurv. serrated ; nerve single or forked : shoots faint, Lid conical

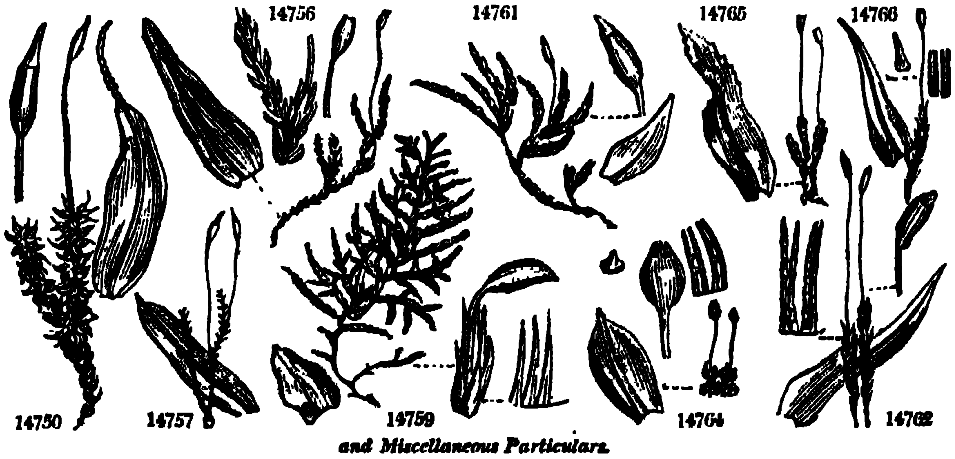
14762 Stems scarcely branched, Leaves lanceolate acuminate carinate : their margins recurved entire, Theca ovato-cylindraceous oblique substrumose furrowed when dry, Lid conical

14763 Leaves bifarious from a sheathing base subulate, Theca ovate inclined, Lid conical

14764 Leaves obovate shortly apiculate : their nerve incrassated above, Theca ovate erect, Lid shortly rostrate

14765 Stems more or less elongat. Lvs. oblon -ov. flexu. strongly serrat. at point, Theca erect cylindrac. Lid rost.

14766 Leaves closely imbricated on all sides lanceolate much acumin. carinate with the rigid nerve running beyond the point, Theca oblongo-ovate erect, Lid rostrate
14767 Leaves rather distant somewhat trifarious lanc. rather obtuse carinated with the nerve scarcely reaching to the point, Theca oblongo-ovate erect, Lid rostrate



and Miscellaneous Particulars.

the banks of the sea-shore to the limits of perpetual snow. The character from which the genus has received its designation, will always indicate the species with perfect truth.

2229. *Pterogonium.* A name altered by Swartz from the Pterigynandrum of Hedwig, which was contrived to express that the male and female flowers of this genus of mosses are both present on a pinnated stem. An elegant collection of species, generally found in subalpine countries, where they enliven the trunks of trees and rocks with their bright green trailing entangled stems, which have altogether the habit of Hypnum. P Smithii has only been found in this country upon trees in the southern counties, especially in Devonshire.

2230. *Didymodon.* So called, by Hedwig, from διδυμος, double, and οδυς, a tooth, in reference to the geminate

14768	**capilláceum** *Schrad.*	hairy	dense tufts	4	all seasons	Bt.G	moun. banks	Musc. brit. t. 20
	Trichóstomum capilláceum E. B. t. 1152							
14769	**heteromállum** *Hook*	variable	patches	½	spring	Y.G	mountains	Musc. brit. t. 20
	Grim'mia heteromálla E. B. t. 1899							
14770	**obscúrum** *Kaulf.*	obscure	broad tufts	1	spr. and sum.	L.G	alpine rocks	Grev. crypt. 193
14771	**glaucéscens** *Greville*	glaucous	closely tufted	1	sum. and win.	Gl	Scot. moun.	Grev. crypt. 127

2231. SPLACH'NUM. *L.* SPLACHNUM. *Sp.* 7—19. ●

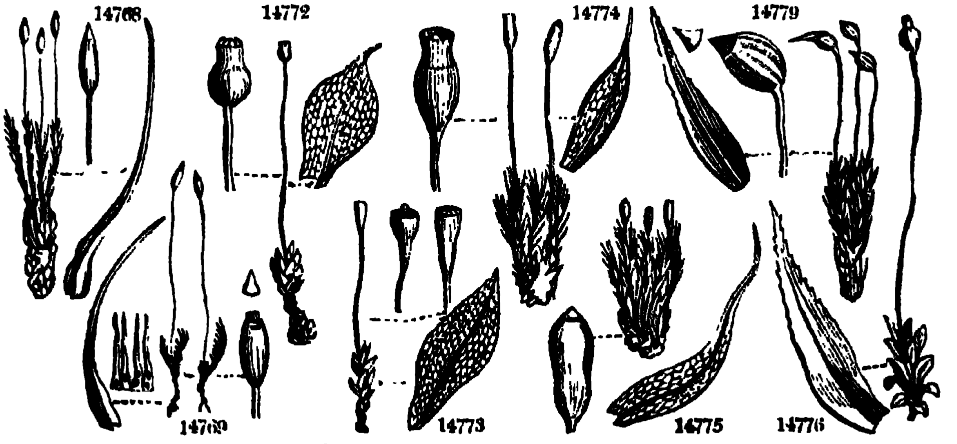
14772	**sphæ'ricum** *Linn.*	spherical	solitary	2	summer	Pa.G	dung. of ani.	Musc. brit. t. 9
	ovátum E. B. t. 1590							
	rugósum E. B. t. 2094							
14773	**ténue** *Dicks.*	slender	subsolitary	1½	summer	Pa.G	Scot. moun.	Musc. brit. t. 9
	Grim'mia splachnoides Fl. Brit.							
14774	**mnioides** *Linn*	clustered	tufts	2	all seasons	Bt.G	mountains	Musc. brit. t. 9
	α minus Hooker	*small*	tufts	1½	all seasons	D.G	mountains	He.sti.cry.2.t.11
	β május Hooker	*large*	tufts	2	all seasons	Pa.G	mountains	He.sti cry.2 t.38
	fastigiátum E. B. t. 786							
14775	**angustátum** *Linn.*	narrowed	tufts	½	spring	Pa G	cow-dung	Musc. brit. t. 9
14776	**ampulláceum** *Linn.*	bottle-headed	solitary	3	sum. and aut.	Pa.G	bogs	Musc. brit. t. 9
	Turneriánum E. B. t. 1116							
14777	**vasculósum** *Hedw.*	vascular	tufts	2	spring	Pa.G	mountains	Grev. cryp. t. 1
	rugósum E. B. t. 2094 ?							
14778	**Frölichiánum** *Hedw.*	Frölich's	little tufts	1½	summer	Pa.G	mountains	Musc. brit. t. 9
	reticulátum E. B. t. 2507							

2232. CONOS'TOMUM. *Swz.* CONOSTOMUM. *Sp.* 1—4.

14779	**boreále** *Swz.*	northern	small tufts	1	summer	Bt.G	moun., Scot.	Musc. brit. t. 10
	Grim'mia conóstoma E. B. t. 1135							

2233. ORTHO'TRICHUM. *Hedw.* ORTHOTRICHUM. *Sp.* 13—49.

14780	**Drummóndi** *Hooker*	Drummond's	creeping	1½	summer	Drk	trun. of trees	Grev. crypt. 115
14781	**anómalum** *Hedw.*	anomalous	broad tufts	¾	all seasons	D.Ol	rocks & walls	Musc. brit. t. 21
14782	**cupulátum** *Hoffm*	naked	tufted	1	all seasons	D.Ol	wo. & stones	Musc. brit. t. 21
	núdum E. B. t. 1325							
	anómalum E. B. t. 1423							
14783	**críspum** *Hedw.*	crisp	round tufts	1	summer	Bt.G	trees & ston.	Musc. brit. t. 21
14784	**Ludwígii** *Bridel*	Ludwig's	creep., branc.	3	sum. and aut.	Pa.G	smth. branc.	Grev. crypt. 133
14785	**rupíncola** *Funck*	rock	branched, lax	1	may to july	Br	rocks & walls	Grev. crypt. 105
14786	**Hutchínsiæ** *Smith*	Miss Hutchins's	tufts	1	spring	Br.G	rocks	Musc. brit. t. 21
14787	**affíne** *Schrad.*	akin	tufts	1½	spring	Pa.G	trun. of trees	Musc. brit. t. 21
	α május Hook.	*large*	tufts	1½	spring	Pa.G	trun. of trees	Eng. bot. t. 1323
	β púmilum E. B.	*dwarf*	tufts	½	spring	Pa.G	trun. of trees	Eng. bot. t. 2168
14788	**diáphanum** *Schrad.*	transparent	tufts	½	spr. and sum.	Hoa	trees & walls	Musc. brit. t. 21
	aristátum Turn. hib. t. 9. f. 2							
14789	**pulchéllum** *Smith*	pretty	tufts	½	all seasons	L.G	trun. of trees	Musc. brit. t. 21
14790	**rivuláre** *Turn.*	rivulet	floating	2	all seasons	Ol.G	roc. in strea.	Musc. brit. t. 21
14791	**striátum** *Hedw.*	striated	tufts	2	all seasons	Bt.G	trees	Musc. brit. t. 21
14792	**Lyéllii** *Hook.*	Lyell's	branched	3	all seasons	Y.G	trees	Musc. brit. t. 22



History, Use, Propagation, Culture,

arrangement of the teeth of the theca. In natural habit, the plants of this genus approach on the one hand to Weissia, and on the other to Dicranum. With the former, Dr. Hooker observes that two species are liable to be confounded, viz. Didymodon inclinatum, and D. heteromallum, each of which has but sixteen teeth, and their approximation in pairs is with difficulty discoverable. D. inclinatum is a very rare plant, having been scarcely found any where in this country, except upon the mountains of Cunnemara, in Ireland.

2231. *Splachnum.* Σπλαγχνον was one of the Greek names of moss. Generally elegant little plants, with thecæ of exquisitely beautiful forms The annual species are usually found growing upon dung, while the perennial are found in more permanent situations. They are in all cases of rare occurrence. S. Frœlichianum was found on the summit of Ben High, in the Scotch Highlands.

2232. *Conostomum.* From κωνος, a cone, and στομα, a mouth, the teeth of the theca being always united at

14768 Stems elongated, Leaves nearly distichous subulato-setaceous, Theca erect ovato-cylindrace. Lid conical

14769 Stems rather short, Leaves subsecund subulate, Theca ovate cylindraceous, Lid conical

14770 Leaves lanceolate subulate tortuose when dry, Nerve strong, Theca suberect ovate, Lid obliquely rostrate
14771 Stem branched erect, Leaves lanc. acum. spreading, Nerve reaching apex, Theca oblong with a short lid

14772 Leaves obovato-rotundate acuminate slightly serrated, Apophysis ovate globose wider than the theca

14773 Leaves obovato-acuminate serrated, Apophysis obconical narrower than the theca, Columella exserted

14774 Leaves ovato-lanceolate much acuminat. concave entire, Apophysis obovate nearly as narrow as the theca
α Deeper color with shorter stems
β Paler color with longer stems
[than the leaves
14775 Lvs. ovato-lanc. much acuminat. serrat. Apophy. obov. somew. narrow. than theca, Fruitst. scarcely longer
14776 Leaves ovato-lanceolate acuminated serrated, Apophysis inversely flagon-shaped twice as wide as theca

14777 Lvs. rhombo-rotund. obt. : the nerve disappearing before point, Apophysis globose much wider than theca

14778 Lvs. ov. rounded at points : nerve disappear. before summ. Apophysis obovate much narrower than theca

14779 Stems rather short, Leaves lanceolate acuminated carinated slightly toothed

* *Peristome without ciliary processes.*

14780 Lvs. obl lanc. slightly curl Theca clav. furrow. Lid with a long beak, Teeth 16 simple, Calyptra very hairy
14781 Leaves lanceolate erecto-patent, Fruitstalks exserted, Peristome of 8 double teeth, Calyptra slightly pilose
14782 Leaves lanc. erecto-patent, Theca nearly sessile, Peristome of 16 double teeth, Calyptra slightly pilose

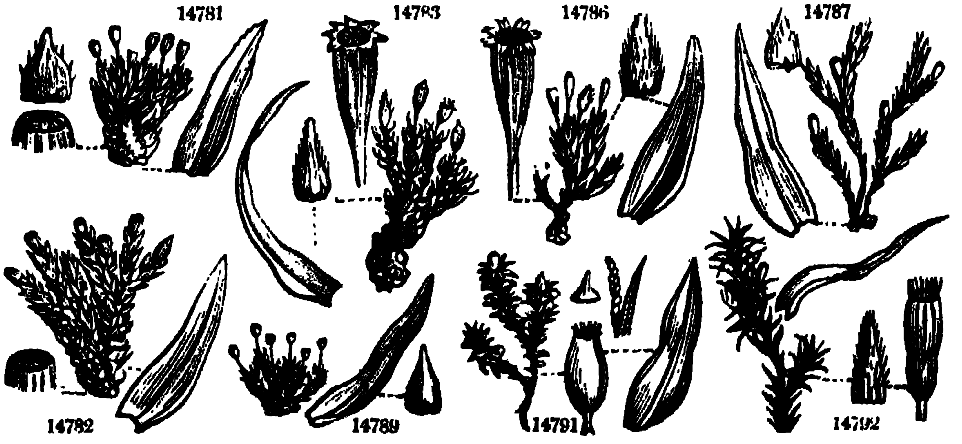
** *Peristome with 8 ciliary processes*

14783 Leaves lanceolato-subulate much crisped when dry, Fruitstalk much exserted, Theca striated, Peristome with 8 ciliary processes, Calyptra very pilose
14784 Leaves erect spreading narrow-lanceolate crisp when dry, Theca pyriform smooth plaited and contracted at orifice, Calyptra very hairy
14785 Lvs. erect rigid broad lanc. Theca somew. immersed striat toward mouth, Teeth 16, Calyptra very hairy
14786 Leaves lanceolate erect and nearly straight when dry, Fruitstalks much exserted, Theca striated, Perist. with 8 ciliary processes, Calyptra very pilose
14787 Leaves patent broadly lanceolate, Theca sessile, Peristome with 8 ciliary processes, Calyptra subpilose

*** *Peristome with 16 ciliary processes.*

14788 Stems short, Lvs. lanc. acum. : points diaphan. Theca sess. Perist. with 16 ciliary process. Calypt. subpilose

14789 Stems short, Lvs pat. narr. lanc. crisp when dry, Footst. exserted, Perist. with 16 slender ciliary processes, Calyptra subpilose
14790 Stems elongated much branched, Leaves broadly lanceolate obtuse, Theca sessile, Peristome with 16 slender ciliary processes, Calyptra smooth
14791 Stems elongated branched, Leaves lanceolate-patent slightly twisted when dry, Theca sess. ovate smooth, Peristome with 16 torulose ciliary processes, Calyptra subpilose
14792 Stems elongated much branched, Leaves long linear lanceolate recurvo-patent much crisped when dry, Theca obl. striat. Peristome with 16 rather broad distinctly jointed ciliary processes, Calypt. very hairy

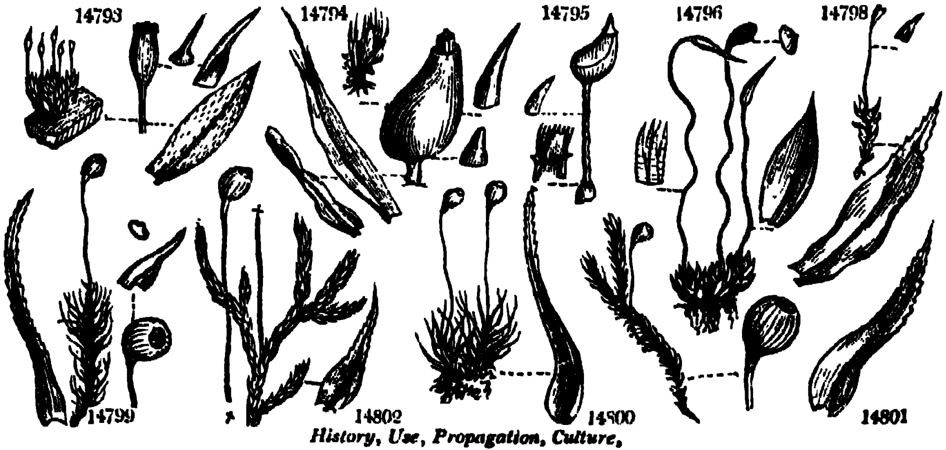


and Miscellaneous Particulars.

the points. A curious genus, first established by Swartz, in Schrader's Journal. The British species approaches in habit to Bartramia fontana. It is quite an alpine plant, not growing in Switzerland at a lower elevation than 7 or 8000 feet. With us it inhabits the summits of the highest Scotch mountains, particularly in the Breadalbane district.

9253. *Orthotrichum.* From ορθος, straight, and θριξ τριχος, hair, on account of the straight, not twisted direction of the teeth of the peristome. No genus can be more natural than this, notwithstanding some variations in the peristome of some of the species from the ordinary structure. Thus O. decipiens and anomalum have no ciliary processes; and O. striatum has them of a peculiar shape and beaded appearance. Many of the plants referred to this genus are common occupants of the aged trunks of trees, where they vegetate among the soft earth which collects in the clefts of the dead bark. O. Lyellii, which is the finest of our species, is only found on trees in the New Forest.

2234. ZY'GODON. *Hook.* ZYGODON.			*Sp.* 1.				
14793 conoideum *Hooker*	conical	small tufts	½	spring	Pa.G	trun. of trees	Musc. brit. t. 21
Mnium conoideum E. B. t. 1239							
2235. DIPHYS'CIUM. *Mohr.* DIPHYSCIUM.			*Sp.* 1.				
14794 foliósum *Mohr.*	leafy	matt. patches	½	spring	D.G	woods	Musc. brit. t. 8
Buxbaumia foliosa E. B. t. 329							
2236. BUXBAU'MIA. *L.* BUXBAUMIA.			*Sp.* 1.				
14795 aphýlla *L.*	leafless	solitary	1	summer	Br	Fir-woods	Musc. brit. t. 22
2237 FUNA'RIA. *Hedw.* FUNARIA.			*Sp.* 3.				
14796 hygrométrica *Hedw.*	Hygrometrical	tufts	1½	winter	Pa.G	everywhere	Musc. brit. t. 20
14797 Muhlenbérgii *Turn.*	Muhlenburg's	tufts	¾	spring	Pa.G	rocks	Musc. brit. t. 20
14798 hibérnica *Hook.*	Irish	tufts	½	spring	Pa.G	cottage roofs	Musc. brit. t. 20
2238. BARTRA'MIA. *Hedw.* BARTRAMIA.			*Sp.* 6—11.				
14799 pomifórmis *Hedw.*	apple-fruited	tufts	2	summer	Bt.G	heaths	Musc. brit. t. 23
α *minor* Hooker	*small*	tufts	1½	summer	Bt.G	heaths	Eng. bot. 998
β *májor* Hooker	*large*	tufts	2	summer	Bt.G	alp. heaths	F. b. 1526. *B cris.*
14800 ithyphýlla *Brid.*	stiff-leaved	tufts	1	summer	Bt.G	dry banks	Musc. brit. t. 23
14801 grácilis *Flærke*	slender	deep patches	3	summer	Dp.G	alpine rocks	Musc. brit. t. 23
14802 fontána *Swz.*	fountain	thin tufts		summer	Bt.G	wet places	Musc. brit. t. 23
α *májor* Hooker	*large*	thin tufts	6	summer	Bt.G	wet places	Dill mus. t. 44. f. 2
Brýum fontánum E. B t. 390							
β *márchica* Swz.	*dwarf*	tufts	1	summer	Bt.G	wet places	Eng. bot. t. 2074
14803 Halleriána *Hedw.*	Haller's	deep patches	6	sum and aut.	Bt.G	moun. rocks	Musc. brit. t. 23
14804 arcuáta *Brid.*	arcuate	loose tufts	4	sum. and aut.	Bt.G	mountains	Musc. brit. t. 23
2239. POH'LIA. *Hedw.* POHLIA.			*Sp.* 4—13.				
14805 inclináta *Schwægr.*	inclined	thin tufts	2	summer	Pa.G	wet sandy pl.	Musc. brit. t. 29
Brýum turbinátum E. B. 1572							
Brýum nigricans E. B 1528							
14806 elongáta *Hedw.*	long	subsolitary	1½	summer	Bt.G	mountains	Musc. brit. t. 30
Brýum elongátum E. B. t. 1663							
14807 cæspitícia *Schw.*	tufted	patches	1½	all seasons	Bt.G	everywhere	Musc. brit. t 29
α *májor* Hooker	*large*	patches	1½	all seasons	Bt.G	everywhere	Eng. bot. t. 1904
β *minor* Hooker	*small*	patches	1	all seasons	Bt.G	everywhere	Eng. bot. t. 1601
Br. bicolor Eng. Bot.							
14808 ventricósa *Schw.*	ventricose	deep tufts	4	spr. and sum.	Br	mar. ground	Musc. brit. t. 30
Brýum ventricósum E. B. t 2270							
Brýum bimum E. B. t. 1518							
Brýum cubitale E. B. t. 2554							
2240. BRY'UM. *Hedw.* BRYUM.			*Sp.* 22—43.				
14809 andrógynum *Hedw.*	androgynous	patches	1	spring	Y.G	wo. and ban.	Musc. brit. t. 28
Mnium andrógynum E. B. t. 1238							
14810 palústre *Swartz.*	marsh	deep tufts	4	sum. and aut.	Pa.G	bogs	Musc. brit. t. 28



History, Use, Propagation, Culture,

2234. *Zygodon.* From ζυγος, a yoke, and οδυς, a tooth, and so called, we presume, in allusion to the yoking together by pairs of the outer teeth; but the name is unexplained by its authors. A singular plant, which was referred to Bryum by Dickson, and to Mnium by Smith. The stems grow in a tufted manner like Gymnostomum viridissimum, but rarely exceed half an inch in length. The peristome is double; the outer consisting of sixteen short obtuse teeth approaching in pairs, which at length become recurved; inner of as many alternate ciliæ lying horizontally over the mouth of the theca.

2235. *Diphyscium.* From δις, twice, and φυσκιον, a vesicle, in allusion to the double nature of the shell of the theca. A little plant found in woods, and on rocks in alpine situations. The stems are exceedingly short, and grow in densely matted patches. The theca is large, ovate, gibbous, and oblique. Dr. Hooker denies the existence of a double peristome, while Hornschuch asserts its presence.

2236. *Buxbaumia.* A very singular plant, destitute of apparent leaves, and resembling a minute fungus rather than a moss. It was named in honor of John Christian Buxbaum, a German botanist, who published, in 1728, an account of the plants of Asia Minor in five centuriæ of figures of little merit. This plant was originally discovered in the vicinity of Astrachan, afterwards in a fir-wood near Norwich, and lately in two stations in Scotland. Its minute size and want of foliage may have caused it to be overlooked.

2237. *Funaria.* From *funis*, a rope, in allusion to the twisted nature of the strongly hygrometrical fruit-stalk. This genus, though sufficiently characterised by the interior teeth or ciliæ being oblique and placed

14793 The only species

14794 The only species

14795 The only species

14796 Leaves very concave ovate apiculate entire, Nerve excurrent, Fruitstalk curved flexuose
14797 Stems short, Lvs. conc. ov. suddenly acuminat. serrat. : the nerve disappear. below point, Fruitst straight
14798 Stems elongat. Lvs. plane ov.-lanc. gradually acuminat. serrat. Nerve disappear. bel. point, Fruitst. straight

* *Fruitstalks long, not curved.*

14799 Leaves patent subulate strongly serrated : the nerve reaching to the summit twisted when dry
α Leaves flexuose
β Leaves crisp [into the substance of the leaf straight when dry, Fruitstalks much elongated
14800 Stems short, Leaves rigid erecto-patent subulate-setaceous almost entire : the nerve half-way up passing
14801 Stems elongated, Leaves recurvo-patent lanc. canaliculate serrat. Fruitstalks lateral from innovations
14802 Stems fastig. Lvs. closely imbricat. rig. erect broadly ovate or lanc. acuminat. nearly plane serr. Fruitst. lat.
α Leaves broad ovate acuminate [from innovations

** *Fruitstalks very short, curved.*

14803 Stems much elongat. prolifer. Lvs. long subul. flexu. serrat. above, Fruitst. lat. from innov very short curv.
14804 Stems much elongated proliferous, Leaves horizontally patent ovato-lanceol. acuminated serrat. striated, Fruitstalks very short arcuate at length lateral, Theca smooth

14805 Stems short branched with innovations, Leaves ovate acuminated nearly entire : the margins slightly recurved ; the nerve running beyond the points, Theca elong.-pyrif. pendulous

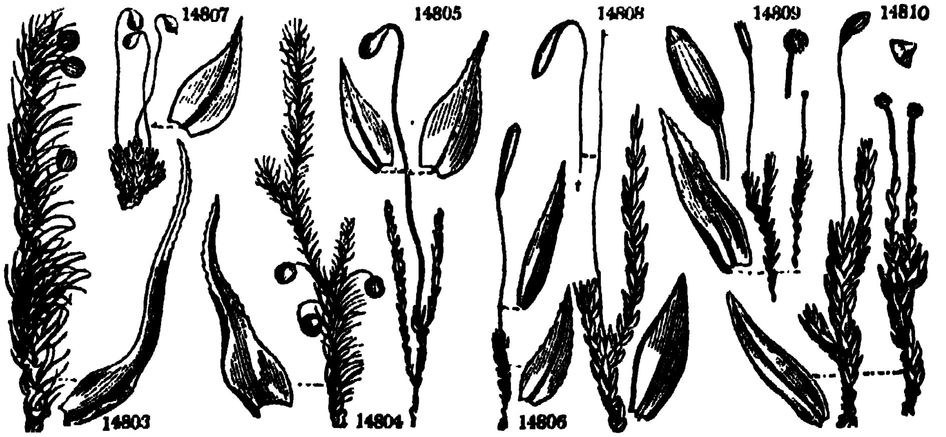
14806 Stems short, Lvs. erect elong.-lanc. acuminat. serrat Nerve reaching to point, Theca elongato-elev. inclined
14807 Stems short, Leaves ovate acuminated entire or very obscurely serrated at the points : the marg. slightly recurved ; the nerve reaching to or beyond the point, Theca between ovate and pyriform pendulous

14808 Stems elongated branched with innovations, Leaves oblong acuminated scarcely serrul. : margins recurved nerve reaching beyond the point, Theca oblongo-obovate pendulous

* *Theca sulcated.*

14809 Stems nearly simple, Lvs. lanc. serrat : their marg. recurv. Theca nearly erect cylind. sulcat. Lid conical

14810 Stems much branch. Lvs. lanc. obt. ent. : their margins revolute, Theca ovate oblique sulcat. Lid conical



and Miscellaneous Particulars.

opposite to those of the outer, is further remarkable in these teeth lying horizontally over the mouth of the theca. In the male flowers of Hedwig, the succulent filaments are remarkably clavate, jointed, pellucid, the joints containing greenish granules. Funaria hibernica has been found only on the roof of a thatched cottage at Blarney, near Cork, Ireland. The long flexuose fruitstalk of F. hygrometrica, one of the commonest of mosses in almost every situation, possesses strong hygrometrical qualities.

2238. *Bartramia.* So called in honor of John Bartram, an Anglo-American, to whose researches in North America the gardens of Europe owe many of their finest trees. He had a son William, who published in 1773, an account of a journey in the interior of North America. This is an elegant genus of mosses, remarkable for their fine capillary light green leaves, and spherical capsules. The genus approaches nearly to Bryum, but differs in almost every species having a spherical capsule ; and the sixteen broad segments of the inner peristome, instead of being entire or only perforated, are cleft like the teeth of a Dicranum.

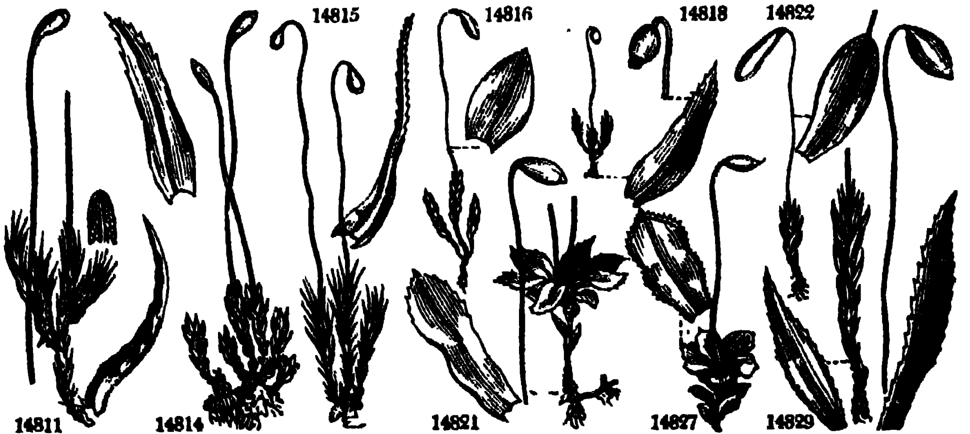
2239. *Pohlia.* Named in honor of I. E. Pohl, a German botanist. Small plants, often refered to Bryum, with which they entirely agree in habit.

2240. *Bryum.* One of the ancient Greek names of moss. These are all dwarf plants producing capsules in abundance, and generally found growing in wet places. In B. palustre are found terminal capitular bodies, which much resemble what are called the anthers of B. androgynum ; but in B. palustre they are considered gemmae, and arise not only from the main stems, but also from the innovations. B. triquetrum has only been

14811 trichódes *L.*	hair-pointed	patches	4	summer	Y.G	highl. moun.	Musc. brit. t. 28
14812 demissum *Hooker.*	dwarf	small tufts	¼	july, august	Y.G	Scot. moun.	Grev. crypt. fl. 92
14813 triquetrum *Turn.*	three-cornered	loose patches	9	july, august	L.G	bor. of lakes	Musc. brit. t. 28
14814 dealbátum *Dicks.*	whitened	patches	1½	summer	Cæs.	mount. bogs	Musc. brit. t. 28
14815 pyrifor'me *Swz.*	pyriform	patches	2	summer	Y.G	rocks	Musc. brit. t. 28
B. aureum E. B. t. 389							
14816 iuláceum *Schrad.*	iuliform	patches	1½	summer	Y.C	mountains	Musc. brit. t. 28
14817 crúdum *Huds.*	simple	tufts	1½	summer	Bt.G	rocks	Musc. brit. t. 28
14818 car'neum *L.*	carneous	patches	½	summer	L.G	banks	Musc. brit. t. 29
14819 argen'teum *L.*	silvery	patches	½	spring	Gl.	on ground	Musc. brit. t. 29
14820 Ziéril *Dicks.*	Zier's	patches	½	spring	Gl.	mountains	Musc. brit. t. 29
14821 róseum *Schreb.*	rose-colored	tufts	2	summer	Pk	heaths	Musc. brit. t. 29
14822 capilláre *L.*	capillary	patches	1	summer	Bt.G	heaths	Musc. brit. t. 29
B. stellare E. B. 2434							
14823 nútans *Schreb*	nodding	little patches	3	summer	Bt.G	walls & hea.	Musc. brit. t. 29
Bryum compáctum E. B. t. 1527 ?							
14824 alpinum *L.*	alpine	tufts	2	summer	Pu	subalp. rocks	Musc. brit. t. 28
14825 punctátum *Schreb*	dotted	solitary	3	sum. and aut.	L.G	mar. places	Musc. brit. t. 30
14826 ligulátum *Schreb.*	ligulate	solitary	4	sum. and aut.	L.G	moist banks	Musc. brit. t. 30
14827 rostrátum *Schrad.*	rostrate	solitary	2	summer	L.G	subalp.coun.	Musc. brit. t. 30
14828 marginátum *Dicks.*	edged	tufts	2	summer	Y.G	shady banks	Musc. brit. t 31
14829 hórnum *Schreb.*	lurid	deep tufts	5	summer	Y.G	mar places	Musc. brit. t. 31
14830 cuspidátum *Schreb.*	cuspidate	subsolitary	2	summer	L.G	wo. & walls	Musc. brit. t. 31

2241. POLY'TRICHUM. *L.* Polytrichum *Sp.* 10—22

14831 undulátum *Hedw.*	wave-leaved	solitary	4	autumn	Ol.G	moist banks	Musc. brit. t.10
14832 hercýnicum *Hedw*	Hercynian	solitary	3	autumn	Ol.G	mountains	Musc brit t 10
14833 piliferum *Schreb.*	hair-pointed	solitary	3	autumn	Ol.G	heaths	Musc. brit. t.10
14834 juniperinum *Willd.*	juniper	solitary	4	autumn	Ol.G	heaths	Musc. brit. t.10
P strictum E. B. 2435							
14835 septentrionále *Swz.*	northern	solitary	3	autumn	Ol.G	Scot. moun.	Musc. brit. t.10
P. sexanguláre E. B. 1906							
14836 commúne *L.*	common	broad masses	9	all seasons	Ol.G	heaths	Musc. brit. t.10
α yuccæfólium Ehr.	*Aloe-leaved*	broad masses	9	all seasons	Ol G	heaths	Eng. bot. t. 1197
β attenuátum Menz.	*narrowed*	broad masses	4	all seasons	Ol.G	heaths	Eng. bot. t. 1198
P. gracile E. B. t. 1827							
14837 alpinum *L.*	alpine	patches	4	summer	Ol.G	alp. regions	Musc. brit. t.11
14838 urnigerum *Menz.*	urn-bearing	scattered	4	summer	Gl.	sides of stre.	Musc. brit. t.11
14839 aloídes *Hedw.*	stiff-leaved	scattered	1½	autumn	Br.G	heaths	Musc. brit. t.11
α májor Hooker	*large*	scattered	1½	autumn	Br.G	heaths	Eng. bot. t. 1649
P rubéllum E. B t 1930							
β Dicksóni Turner	*Dickson's*	scattered	1	autumn	Br.G	heaths	Eng bot. t. 1605



History, Use, Propagation, Culture,

found in Great Britain upon the borders of some lake in the north of Ireland. By Mohr it is considered a distinct genus, and called Diplocomium.

*** Theca destitute of furrows.*
A. *Exterior peristome shorter than interior.*

14811 Stems somew. branch. Lvs. lin. obt. ent. reticulat. Theca obovate recurved subcernu. Fruitstalk very long
14812 Stems branched, Leaves ovate cuspidate reticulated shorter than nerve, Theca curved pyriform pendulous
14813 Stem elongat. branch. Lvs. lanc. carin. ac. serrated reticulat. Theca pyrif. erecto-cernu. Fruitst. very long
14814 Stems short, Leaves lanceolate acute plane serrated at the points reticulated, Theca pyriform nearly erect

B. *Peristomes equal.*
§ 1. *Leaves without a thickened margin.*

14815 Stems slightly branched, Leaves subul.-setaceous flexuose serrated: nerve very broad, Theca pyrif. pendul.

14816 Stems branched, Leaves closely imbricated broadly ovate concave entire obtuse: nerve running nearly to the point, Theca obovato-cylindraceous pendulous
14817 Stems simple, Leaves rigid lanceolate; the upper ones the narrowest and longest; all of them plane serrul. nerve disappearing below the summit, Theca oblong-subpyriform cernuous
14818 Stems simple, Lvs lanc. reticulat. slightly serrul. at point: nerve disappear. bel. summ. Theca obov. pendul.
14819 Stems branched, Leaves closely imbricated broadly ovate suddenly and sharply acuminated subserrulate very concave: nerve disappearing below the point, Theca ovato-pyriform pendulous
14820 Stems branch. Leaves closely imbricated more or less broadly ovate acuminulate very concave reticulated entire: nerve running nearly to the point, Theca clavate cernuous
14821 Lvs. obovato-spathulate acute serrated undul.: nerve running to the point, Theca oblongo-ovate pendul.
14822 Stems short, Leaves obovate twisted when dry entire: their nerve produced into a hair-like point; their margins slightly thickened, Theca oblong pendulous
14823 Stems short, Lvs. erect lanc. acuminated serrated above: nerve reach. to point, Theca oblon.pyrif. pendul.

14824 Stems rig. elongat. branch. Lvs. closely imbricat erect lanc. somew. obt. subserrul. at apex: marg. revolute; nerve reaching to the points, Theca oblongo-ovate pendulous

§ 2. *Leaves with a thickened margin.*

14825 Stems elongated, Leaves obovato-rotundate very obtuse reticulated: their margins thickened entire; nerve disappearing below the point, Theca ovate pendulous, Lid shortly rostrate
14826 Stems elongated, Leaves undul. ligul. reticulated: their margins thickened denticul.; nerve reaching a little beyond the point, Theca ovate pendulous, Lid conical
14827 Stems elongated, Leaves broadly ovate reticulated: their margins thickened denticulated; the nerve reaching a little beyond the point, Theca ovate pendulous, Lid rostrate
14828 Stems elongated, Leaves ovate acute reticulated: their margins thickened serrated; nerve reaching a little beyond the point, Theca ovate pendulous, Lid shortly rostrate
14829 Stems elongated, Leaves lanceolate acute reticulated: their margins thickened denticulate; nerve generally disappearing below the summit, Theca oblongo-ovate pendulous, Lid hemisph. mucronulate
14830 Stems elongated, Leaves obovate acute reticulated: their margins thickened denticulated above; nerve running beyond the point, Theca ovate pendulous, Lid conico-hemispheric. obtuse

** Calyptra naked.*

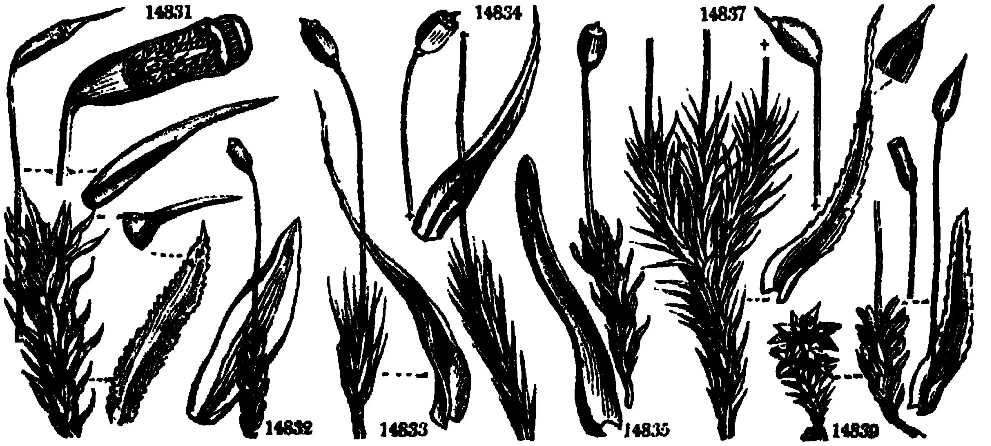
14831 Lvs. lanc. undul.: their margins plane denticulat; their nerve winged, Theca cylind. curved, Lid subul.
14832 Lvs. lanc. rig. ent.: their sides invol.; their nerve broad impress. with furr. Theca obl. suber. Lid conical

*** Calyptra hairy.*

14833 Leaves lanceolate-subulate: their margins involute ent. terminating in a pellucid hair-like point, Theca ovate obtusely quadrangular furnished with an apophysis, Lid conical
14834 Leaves lanceolate-subulate: their margins involute entire; their points acumin. colored subserrated, Theca ovate obtusely quadrangular furnished with an apophysis, Lid conical
14835 Leaves lineari-subul. obtuse: their margins especially towards the top invol. subserrulate, Theca ovate subangulate furnished with a minute apophysis, Lid conical acuminate
14836 Stems elongated, Leaves patent lineari-subulate: their margins plane serrated as well as the points of the keels, Theca erect ovate quadrangular with an evident apophysis
  α Leaves with their margins of the same color
  β Leaves shorter with their margins pellucid

14837 Stems elongated branched, Leaves patent subulato-lanceolate: the margins plane serrated as well as the points of the keels, Theca subovate with an indistinct apophysis
14838 Stems elongated branched, Leaves erecto-patent lanceolate acute: their margins plane serrated, Theca erect cylindrical destitute of an apophysis
14839 Stems short, Leaves linear-lanceolate obtuse: their margins plane serrated principally at the extremity and at the summit of the keels, Theca nearly erect cylindrical without an apophysis
  α Fruitstalks 2 inches long, Stems simple

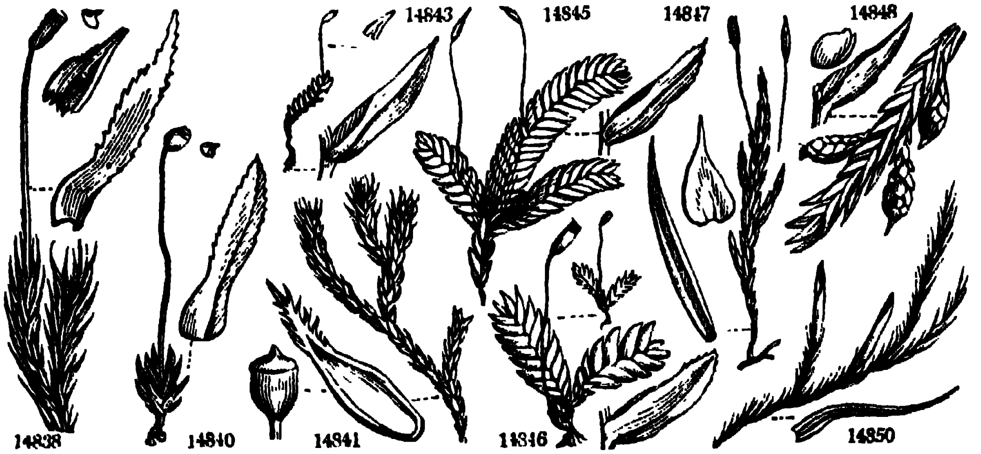
  β Fruitstalks very short, Stems branched



and Miscellaneous Particulars.

2241. *Polytrichum.* From πολυς, many, and θριξ τριχος, hair, on account of the numerous hairs of the calyptra. Easily distinguished by the rigidity of the leaves and the square form of the theca, which is gene-

14840	nánum *Hedw.*	dwarf	scattered	1	autumn	Br.G	moist banks	Musc. brit. t. 11
	P. subrotúndum E. B. t. 1624							
2242.	ANICTANGI'UM. *Hedw.*	ANICTANGIUM.		*Sp.* 2.				
14841	ciliátum *Hedw.*	ciliated	depress. tufts	1	summer	Hoa.	rocks	Musc. brit. t. 6
	Gymnóstomum ciliátum E. B. t. 1179							
14842	imbérbe *Hooker*	beardless	depress. tufts	1	summer	Pa.G	Irish moun.	Musc. brit. t. 6
	Gymnóstomum imbérbe E. B. t. 2237							
2243.	FIS'SIDENS. *Hedw.*	FISSIDENS.		*Sp.* 4—11.				
14843	bryoides *Hedw.*	Bryum-like	patches	¼	spring	Pa.G	moist banks	Musc. brit. t. 16
	Dicránum bryoides E. B. t. 625							
	Dicránum viridulum E. B. t. 1368							
	Dicránum osmundioides E. B. t. 1662							
14844	incúrvus *Schwægr.*	incurved	patches	¼	spring	L.G	moist banks	Schw. suppl. t. 49
	Dicránum tamarindifólium Turner							
14845	adiantoides *Hedw.*	Maidenha.-lv.	patches	2	summer	L.G	wet pastures	Musc. brit. t. 16
	Hýpnum adiantoides E. B. t. 264							
14846	taxifólius *Hedw.*	Yew-leaved	tufts	½	summer	L.G	moist banks	Musc. brit. t. 16
	Hýpnum taxifólium E. B. t. 416							
2244.	LEU'CODON *Schwægr.*	LEUCODON.		*Sp.* 1—17.				
14847	sciuroides *Schwægr.*	Squirrel-tail	creeping	3	summer	D.G	trun. of trees	Musc. brit. t. 20
	Dicránum sciuroides E. B. t. 1903							
2245.	FONTINA'LIS. *L.*	FONTINALIS.		*Sp.* 3—9.				
14848	antipyrética *L.*	nerveless	floating	12	summer	Dl G	rivers	Musc. brit. t. 22
14849	squamósa *L.*	scaly	floating	6	summer	Ol.G	rivulets	Musc. brit. t. 22
14850	capillácea *Dicks.*	capillary	floating	6	summer	Br.G	alp. rivulets	Musc. brit. t. 22
2246.	ANO'MODON. *Hooker.*	ANOMODON.		*Sp.* 2—8.				
14851	curtipéndulum *Hook.*	dark green	pinnate	8	summer	D Ol	roc. & trees	Musc. brit. t. 22
	Neckéra curtipéndula E. B. t. 1444							
14852	viticulósum *Hook.*	pale green	creeping	6	spring	Y.G	trees & roc.	Musc. brit. t. 22
	Hýpnum viticulósum E. B. t. 265							
2247.	NECKE'RA. *Hedw.*	NECKERA.		*Sp.* 3—24.				
14853	púmila *Hedw.*	pigmy	creeping	2	spring	Pa.G	woods	Eng. bot. t. 1443
14854	crispa *Hedw.*	crisp	creeping	6	summer	Bt.G	trees & roc.	E. b. t. 616. *Hypn.*
14855	pennáta *Hedw.*	feathered	flat-branched	3	spr. and sum.	Bt.G	trun. of trees	Gre sc. cry. t. 109
2248.	DALTO'NIA. *Hooker.*	DALTONIA.		*Sp.* 2—5.				
14856	splachnoides *Hooker*	long stalked	tufts	¼	summer	I.G	Irish moun.	Musc. brit. t. 22
	Neckéra splachnoides E. B. t. 2564							
14857	heteromálla *Hooker*	short-stalked	tufts	¼	summer	I.G	trun. of trees	Musc. brit. t. 22
	Neckéra heteromálla E. B. t. 1180							
2249.	HOOKE'RIA. *Smith.*	HOOKERIA.		*Sp.* 2—27				
14858	lúcens *Smith*	shining	procumbent	3	summer	Pa.G	moist banks	Musc. brit. t. 27
14859	læte-virens *Hook.*	bright-green	procumbent	3	summer	Bt G	Irish bog	Musc. brit. t. 27
2250.	LES'KEA. *Ehrhart.*	LESKEA		*Sp.* 10—43.				
14860	trichomanoides *Hedw.*	scymitar-shap.	entangled	2	spring	Y G	trun. of trees	Eng. bot. t. 1493
14861	complanáta *Hedw.*	flattened	entangled	4	spring	Y.G	trun. of trees	Eng. bot. t. 1492



History, Use, Propagation, Culture,

rally covered by a very hairy calyptra: this organ is in some species smooth, by which character they have been distinguished by the accurate Ehrhart, under the name of Catharinea; but Dr. Hooker is of opinion that the genus is not tenable.

2242. *Anictangium.* From *ανοικτος*, open, and *αγγειον*, a vase, on account of the open nature of the theca, which is not enclosed by a peristome. The only British species are two plants with nerveless leaves, and the habit of Trichostomum.

2243. *Fissidens.* From *fissus*, split, and *dens*, a tooth, in allusion to the structure of the peristome. Plants generally referred to Dicranum by British botanists, but differing from that genus entirely in habit, and sufficiently in characters. Dr. Hooker remarks, that the structure of their leaves is highly curious, and totally unlike that of any other plant with which he is acquainted. Besides being vertical, their upper half (taking the nerve for the line of separation) is, from the base beyond the middle, composed of two equal lamellæ, the lower part of which embraces the stem, and the rest very often embraces a portion of the leaf placed immediately above it.

2244. *Leucodon.* Named from *λευκος*, white, and *οδους*, a tooth, from the color of the peristome. The only British species has occasionally been thrown among the Dicrana, Trichostoma, and Pterogonia; from any of which, an attentive consideration of the lateral fruit, deeply divided teeth, and dimidiate calyptra, will keep its genus distinct. The stems are long, and creeping over the bark of trees.

2245. *Fontinalis.* From *fons*, a fountain, in allusion to the places where it grows. F. antipyretica is a common plant, floating in large masses in rivers and pools of water. The specific name was given it because

14840 Stems short, Lvs. lin. lanc. : marg. serrat. principally at extrem. as well as summit of keels, Theca nearly erect subglobose

14841 Leaves ovate much lengthened out and diaphan. at points : those of perichætium laciniated at extremity

14842 Leaves ovato-acuminate colored at the points : those of the perichætium serrated at the extremity

14843 Fruitstalks terminal, Perichætial leaves resembling the cauline ones

14844 Like the last, but theca drooping

14845 Fruitstalks lateral, Perichætial leaves ovate slightly convolute pointed

14846 Fruitstalks radicular, Perichætial leaves ovate sheathing involute pointed

14847 Leaves closely imbricated ovate-cordate acuminate striated, Theca oblong

14848 Leaves nerveless for the most part complicato-carinate
14849 Leaves nerveless plane or very slightly concave
14850 Leaves furnished with a nerve slightly concave

14851 Lvs. ov. acum. serrul. : the nerve disappear. below point, Fruitst. twice as long as perichætium, Theca ov

14852 Leaves ovato lanceolate obtuse entire : the nerve reaching to the point, Fruitst. very long, Theca cylind.

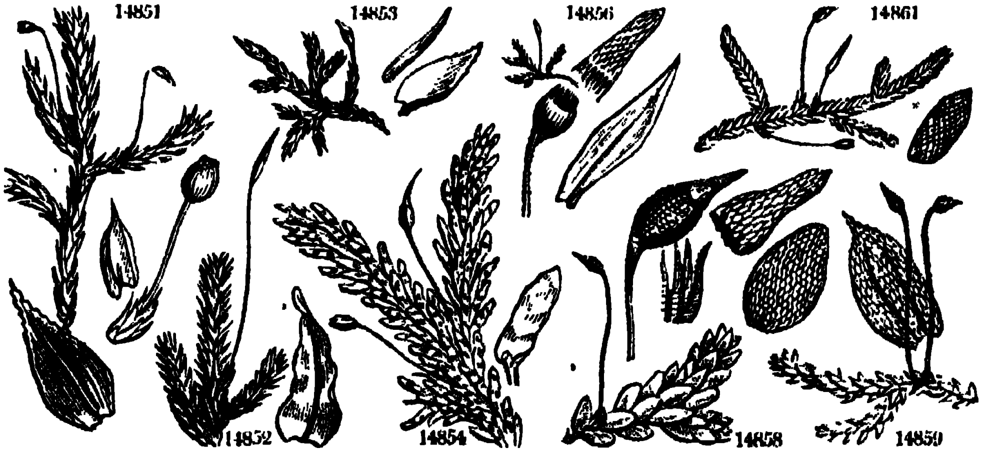
14853 Lvs. ovato-acum. slightly conc. : marg. recurv. Fruitst. scarcely longer than perichæt lvs. Theca oblon.-ov.
14854 Leaves oblong acuminulate transversely rugose, Fruitstalks much exserted, Theca ovate
14855 Lvs. bifar. ov. lanc transversely undul. serrul. at point, Theca ovate subsess. shorter than perichætial lvs.

14856 Leaves oblongo-lanceolate, Fruitstalks long, Calyptra fimbriated at the base

14857 Leaves broadly ovate acute, Theca sessile impressed, Calyptra nearly entire

14858 Leaves broadly ovate entire obtuse nerveless
14859 Lvs. ov. acuminul. margin. very obscure. serrat. at extrem. with 2 nerves nearly reach. their whole length

14860 Lvs. broadly scymitar-shaped serrat at point : nerve reach. to middle of leaf, Theca ovate erect, Lid rost.
14861 Leaves oblong apiculate entire nerveless, Theca ovate erect, Lid rostrate



and Miscellaneous Particulars.

it is employed by the Swedes to fill up the spaces between the chimney and the walls, and thus, by excluding the air, to prevent the action of fire.

2246. *Anomodon.* So called by the authors of Muscologia Britannica, on account of the peculiar nature of the peristome, which has narrow fringed processes arising from the very same range, and from between the teeth ; *ανομος*, irregular, and *οδους*, a tooth. The stems are dark, almost blackish green, long, cylindrical, and straggling. It is not uncommon on the wilds of Dartmoor.

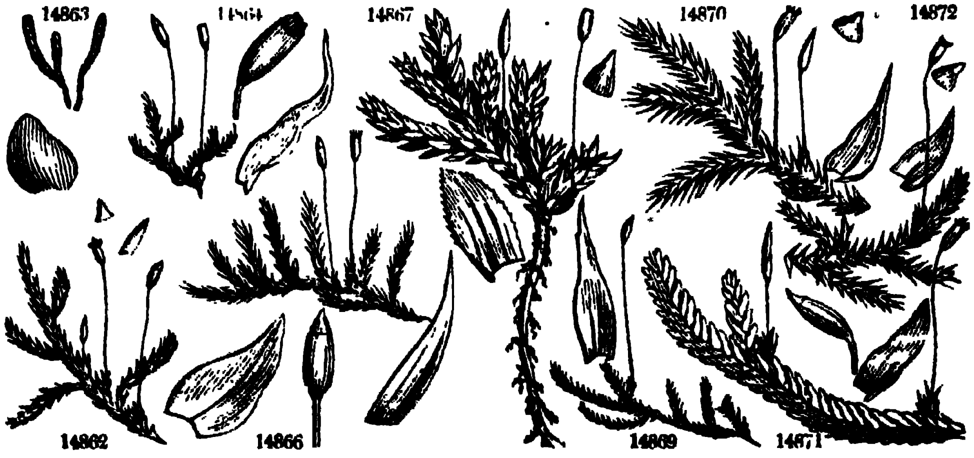
2247. *Neckera.* Named after N. J. Necker, a German botanist, who published in 1791, his Elements of Botany, a work which contained more useful imformation than many of his detractors have been pleased to allow. Beautiful mosses, found in woods and upon trees and rocks. N. crispa has more the appearance of some fine tropical moss, than of those of our own country, where it is far from uncommon in mountainous districts, frequently covering a great extent of surface upon the trunks of old forest-trees.

2248. *Daltonia.* Named in honor of the Rev. James Dalton, a skilful English muscologist. The mitriform calyptra separates this from Neckera. D. splachnoides has only been found by the side of a streamlet on the Secawn mountain, near Dublin, where it grows sparingly in pale green tufts.

2249. *Hookeria.* This beautiful Hypnum-like genus was named by Sir James Edward Smith, in honor of Dr. William Jackson Hooker, F. R. S., &c. professor of botany in the university of Glasgow, one of the most distinguished of modern cryptogamic botanists, and a gentleman whose public reputation is only exceeded by his private excellence. The Hookera of Salisbury, must give way to this on every account. H. lætevirens has hitherto been discovered only in a bog near Cork.

2250. *Leskea.* N. G Leske was an obscure German botanist, of whom little is known, except that he gave

14862	polycárpa *Ehr.*	many-fruited	entangled	3	spring	Lur.	trun. of trees	Eng. bot. t. 1274
	Hýpnum médium E. B.							
	Hýpnum inundátum E. B. t. 1922							
14863	iulácea *Mohr.*	round-leaved	prostrate	3	spring	Y.G	ground	Eng. bot. t. 2595
	Pterogónium? rotundifólium E. B.							
14864	pulchélla *Hedw.*	pretty	dense tufts	½	spr. and sum.	Bt.G	moist banks	Eng. bot. t. 2006
14865	ruféscens *Schwægr.*	rufous	creeping	4	spr. and sum.	Rsh	moun. rocks	Eng. bot. t. 2296
14866	sericea *Hedw.*	silky	entangled	3	spr. and sum.	Y.G	roc. & trees	Eng. bot. t. 1445
14867	dendroides *Hedw.*	tree-like	erect	3	spr. and sum.	Y.G	wo. and bogs	Eng. bot. t. 1565
14868	incurváta *Hedw.*	incurved	procumbent	3	spr. and sum.	D.G	trees & rocks	Eng. bot. t. 2482
	Hýpnum atrovirens E. B.							
	Hýpnum attenuátum E. B. t. 2420							
14869	polyántha *Hedw.*	many-flowered	creep. tangled	3	summer	Y.G	trun. of trees	Gre.cryp.fl.t.151
2251.	HYP′NUM. *L.*	Hypnum.			*Sp.* 53—119.			
14870	ripárium *L.*	water	loose patches	4	sum. and aut.	Bt.G	ban. of ditc.	Eng. bot. t. 2060
14871	undulátum *L.*	wavy	lax masses	6	sum. and aut.	W.G	heathy plac.	Eng. bot. t. 1181
14872	denticulátum *L.*	toothletted	prostrate	1½	sum. and aut.	Bt.G	roots of trees	Eng. bot. t. 1260
	α *angustifólium* Hook.	*narrow-leaved*	prostrate	1½	sum. and aut.	Bt.G	roots of trees	Hed.sti.cr.4.t.31
	β *obtusifólium* Hook.	*blunt-leaved*	prostrate	1½	sum. and aut.	Bt.G	mountains	Eng. bot. t. 1446
14873	tenéllum *Dicks.*	delicate	dense patches	1	spring	Dp.G	roc. & old w.	Eng. bot. t. 1859
14874	sĕrpens *L.*	creeping	patches	1	spring	Bt.G	roots of trees	Eng. bot. t. 1037
	subtile E. B. t. 2496							
14875	popúleum *Hedw.*	matted	entang. patch.	2	spring	D.G	trees & ston.	Tur.mus.hi. t.16
	implèxum E. B. t. 1584							
14876	refléxum *Weber & Mohr*	reflexed	loose masses	2	spring	D.G	mountains	
14877	mólle *Dicks.*	soft	much tufted	3	sum. and aut.	Lur.	alp. rivulets	Eng. bot. t. 1992
14878	Sohrebéri *Willd.*	Schreber's	lax tufts	9	summer	Rsh	wo. and ban.	Eng. bot. t. 1621
14879	catenulátum *Schwæg.*	chained	close tufts	2	spr. and sum.	D.G	wet rocks	Brid. mus.t.5.f.4
14880	stramineum *Dicks.*	straw-colored	loose patches	1½	summer	Pa.G	wet places	Eng. bot. t. 2405
14881	murále *Hedw.*	wall	patches	1½	all seasons	L.G	walls & ston.	Dil.mu. t.41.f.52
	confértum E. B. t. 1038							
14882	púrum *L.*	pure	broad masses	7	spring		wo. and ban.	Eng. bot. t. 1599
	illecébrum E. B. t. 2189							
14883	flúitans *L.*	floating	aquatic	6	spr. and sum.	Var.	pools & stre.	Eng. bot. t. 1448
14884	plumósum *L.*	feathered	dense mat	4	spr. and sum.	Y.G	moist rocks	Eng. bot. t. 2071
	alpinum E. B. t. 1496							
14885	salebrósum *Hoffm.*	smth.-stk. shi.	decumb. bran.	4	summer	Bt.G	roc. & groun.	Grev.cryp.fl.184
14886	lutéscens *Huds.*	yellowish	patches	3	summer	Y.G	trun. of trees	Eng. bot. t. 1301
14887	nitens *Schreb.*	shining	branched	3	summer	Go.Y	bogs	Eng. bot. t. 1646
14888	al′bicans *Neck.*	whitened	patches	2	spring	W.G	hea. & bogs	Eng. bot. t. 1300
14889	alopecúrum *L.*	fox-tail	loose masses	3	spr. and sum.	D.G	moist woods	Eng. bot. t. 1182
14890	curvátum *Sw.*	curved	lax tufts	3	spr. and sum.	Bt.G	trees & roc.	Eng. bot. t. 1566
14891	spléndens *Hedw.*	glittering	lax tufts	9	all masses	Y.G	hea. & banks	Eng. bot. t. 1424
14892	prolíferum *L.*	proliferous	loose patches	6	all masses	Du.G	wo. and ban.	Eng. bot. t. 1494
	recognitum E. B. t. 1495							
14893	prælóngum *L.*	very long	loose tufts	6	all masses	Du.G	woods	Eng. bot. t. 2035
	Stokésii E. B. t. 2036							
	Swártzii E. B. t. 2334							



History, Use, Propagation, Culture,

occasion to Hedwig to name this genus after him. It has entirely the habit of the next, with which it is frequently united.

14862 Leaves ovate obtuse concave entire : nerve reaching to the summit, Theca cylind. nearly erect, Lid conical

14863 Leaves closely imbricated rotundato-ovate obtuse very concave ventricose nerveless, Theca ov. nearly erect

14864 Leaves loosely imbricated : the upper ones subsecund ; all of them lanceolate acuminate entire nerveless, Theca ovato-cylindrical nearly erect, Lid conical

14865 Lvs. erecto-pat. lanc. acuminat. ent. striat. faintly 2-nerved at base, Theca ovate nearly erect, Lid conical

14866 Leaves erecto-patent lanceolate acuminated entire striated ; nerve running to three fourths of the length, Theca ovate cylindrical erect, Lid conical

14867 Stems erect below simple and naked fascicled above, Leaves ovate more or less lanceolate striated serrat. at the point : nerve reaching nearly to the summit, Theca erect ovate cylindrical, Lid rostrate

14868 Stems variously branched procumbent, Lvs. all of them slightly secund broadly ovate with an attenuated obtuse point : nerve running nearly to the summit, Theca ovate cernuous, Lid conical

14869 Leaves 1-sided imbricated erect spreading ovate lanceolate acum. entire obscurely 2 nerved at base, Fruitst. numerous, Theca erect ovate, Lid acutely conical

** Stems plane.*

14870 Lvs. ov.-lanc. acuminat ent. : the nerve reaching nearly to summit, Theca oblong cernuous, Lid conical

14871 Lvs. ov. ac. transversely undulat. with two faint nerves at base, Theca obl. furrow. arcuato cern. Lid rost.

14872 Leaves ovate sometimes approaching to lanceolate more or less acuminated having two short nerves at the base, Theca oblongo-cylindraceous inclined, Lid conical

α Leaves ovate lanceolate distant quite plane

β Leaves ovate more or less obtuse slightly concave

*** Leaves spreading on all sides of the stem.*

14873 Lvs. fascicul. erect lanceolato-subul. ent. : nerve reaching to summit, Theca ovate cernuous, Lid rostrate

14874 Leaves ovato-lanceolate rather obtuse patent entire : their nerve for the most part reaching to the summit, Theca cylindrical curved cernuous, Lid conical

14875 Leaves lanceolate acuminated serrated : margin slightly reflexed : nerve reaching to the point, Theca ovate nearly erect, Fruitstalks rough, Lid conical

14876 Leaves cordato-acuminate serrated : their nerve reaching to the point ; their margin slightly reflexed, Theca ovate cernuous, Fruitstalks rough, Lid conical

14877 Leaves loosely imbricated rotundato-ovate obtuse concave entire faintly two-nerved at the base or with one short nerve, Theca ovate cernuous, Lid conical

14878 Leaves closely imbricated nearly erect elliptical apiculate concave entire faintly two-nerved at the base, Theca ovate cernuous, Lid conical

14879 Leaves subpatent ovate subacuminated papillose on the back and margin with a very short nerve, Theca ovate inclined, Lid conical acuminated

14880 Leaves loosely imbricated erecto-patent oblongo-ovate obtuse entire : their nerve reaching half way, Theca oblongo-ovate curved cernuous, Lid conical

14881 Leaves nearly erect imbricated oval with a very short point concave entire : nerve reaching about half way up, Theca ovate cernuous, Lid rostrate

14882 Leaves closely imbricated oval with a very short point very concave : their nerve reaching half way up, Theca ovate cernuous, Lid conical

14883 Leaves loosely imbricated, the upper ones falcate secund ; all of them lanceol.-subul. scarcely serrated at their points : their nerve reaching more than half way, Theca ovate obl. curved cernuous, Lid conical

14884 Leaves erecto-patent . the upper ones sometimes secund ; all of them ovato-lanceolate acuminated subserrated : the nerve reaching above half way, Theca ovate cernuous, Lid conical

14885 Lvs. nearly erect lanc acum. serrul. tow. end : nerve disappear. beyond end, Theca cern. Lid acute conical

14886 Leaves erecto-patent lanceolate acuminated entire striated : nerve disappearing below the point, Theca ovate cernuous, Fruitstalks rough, Lid conico-acuminated

14887 Leaves erecto-patent narrow lanceolate acuminated nearly entire striated : nerve running nearly to the summit, Theca oblongo-ovate curved cernuous, Fruitstalks smooth, Lid conical

14888 Leaves erecto-patent ovato-lanceolate acuminated striated entire : nerve reaching half way up, Theca ovate cernuous, Fruitstalks smooth, Lid conical

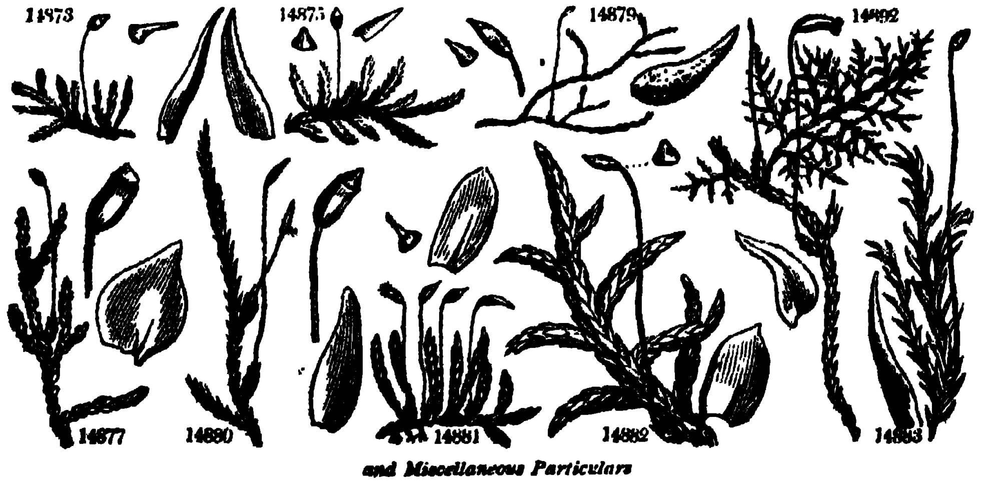
14889 Stems erect below simple and naked, fascicled above, Leaves concave ovate ellipt. acute serrated : nerve running nearly to the point ; marg. reflexed, Theca ovate cernuous, Lid rostrate

14890 Branches fascicled curved, Leaves ovato-elliptical concave serrated at the points : nerve disappearing beyond the middle, Theca ovate erect, Lid rostrate

14891 Stems tripinnate, Leaves ovate with a suddenly acuminated serrated point concave faintly two-nerved at the base: margin below recurved, Theca ovate cernuous, Lid rostrate

14892 Stems tripinnate, Leaves serrated papillose on the back : the cauline ones cordato-acuminate striated with a nerve running nearly to the point ; those of the branches more ov. with a sing. or double nerve at base

14893 Stems subbipinnate, Leaves distantly placed patent cordate or ovate acuminated serrated : nerve disappearing below the summit, Theca ovate cernuous, Lid rostrate



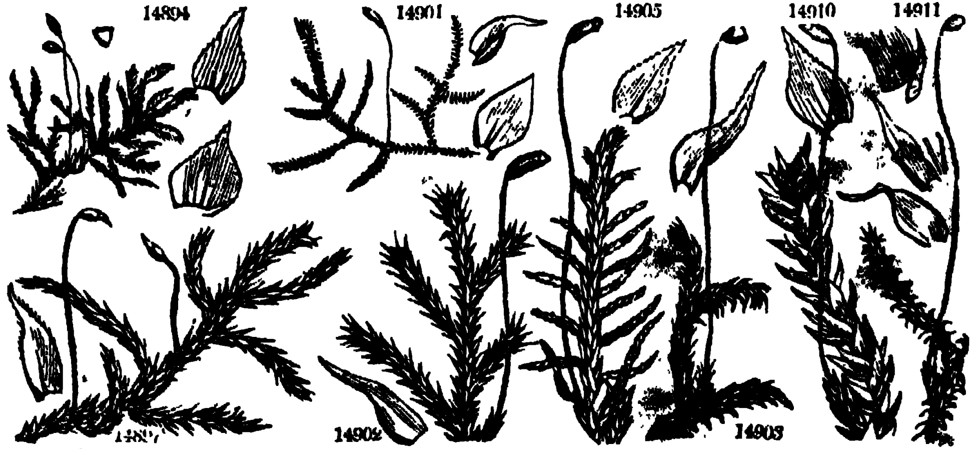
and Miscellaneous Particulars

2251. *Hypnum.* One of the names of moss among the Greeks was ὕπνον This is the most extensive genus among mosses, and is readily known by its prostrate pinnated bright green branches, which form a thick mat.

14894 flagelláre *Dicks.*	shady	broad patches	6	summer	Bt.G	alpine rocks	E.b.t.2565 *H. sembrutum*
14895 abietinum *L.*	fir-leaved	straggling	6	summer	D.G	mountains	Eng. bot. t. 2037
14896 Blandóvii *Web.*	Blandoff's	broad masses	5	spr. and sum.	Bt.G	alpine rocks	
14897 pilíferum *Schreb.*	hair-pointed	straggling	7	summer	D.G	wo. & banks	Eng. bot. t. 1516
14898 rutábulum *L.*	poker	dense mats	3	all seasons	Bt.G	everywhere	E.b.t.1647 *H. brevirostre*
crenulátum E. B. t. 1261							
14899 velutinum *L.*	velvety	dense patches	1½	all seasons	Y.G	hedge banks	Eng. bot. t. 1568
intricátum E. B. t. 2421							
14900 Halléri *L.*	Haller's	creep. dense	2	summer	Y.Br	Scotch rocks	Grev.cryp.fl.174
14901 dimórphum *Brid.*	two-formed	lax procumb.	3	summer	Pa.G	shady places	Grev.cryp.fl.160
14902 stellátum *Schreb.*	stellate	[illegible]d tufts	3	spr. and sum.	Y.Br	marshes	Eng. bot. t. 1302
β *squarrósulum* E. B.	*squarrose*	patches	1½	spr. and sum.	Dp.G	stone walls	Eng. bot. t. 1709
14903 lóreum *L.*	strap-shaped	broad masses	9	spring	Bt.G	wo. and hea.	Eng. bot. t. 2072
14904 ruscifólium *Neck.*	stiff-leaved	floating	6	spr. and sum.	D.Ol	in rivulets	Eng. bot. t. 1275
14905 striátum *Schreb.*	striated	loose tufts	6	spring	Bt.G	woods	Eng. bot. t. 1648
14906 confértum *Dicks.*	compact	small patches	1½	spring	Pa.G	trun. of trees	Eng. bot. t. 2407
H. serrulátum E. B. 1262							
14907 cuspidátum *L.*	cuspidate	loose tufts	5	summer	Y.G	bogs	Eng. bot. t. 1425
14908 cordifólium *Hedw.*	heart-leaved	loose tufts	4	summer	Pa.G	bogs	Eng. bot. t. 1447
14909 polymórphum *Hedw.*	variable	matt. patches	5	win. and spr.	Bt.G	limest. rocks	Hed.sp.mus.t.66
14910 triquetrum *L.*	three-cornered	branch. tufts	9	all seasons	Y.G	wo. and ban.	Eng. bot. t. 1622
14911 squarrósum *L.*	squarrose	patches	7	all seasons	Bt.G	wo. and hea.	Eng. bot. t. 1953
14912 filicinum *L.*	fern-leaved	small masses	3	spr. and sum.	Rsh.	bogs	Eng. bot. t. 1570
dúbium E. B. 2126							
fállax E. B.							
14913 palústre *L.*	marsh	creeping tufts	2	spring	Li.G	ban. of stre.	Eng. bot. t. 1665
fluviátile E. B. t. 1303							
adnátum E. B. t. 2406							
14914 adúncum *L.*	hooked	broad patches	3	spr. and sum.	Var.	bogs	E.b.t.2073. *H. revolvens*
β *rugósum* E. B.	*rugose*	broad patches	3	spr. and sum.	Var	bogs	Eng. bot. t. 2250
14915 uncinátum *Hedw.*	uncinate	thick patches	3	spr. and sum.	Y.G	moist banks	Eng. bot. t. 1600
14916 rugulósum *Web.*	wrinkled	dense tufts	3	spr. and sum.	Y.G	heath. places	Musc. brit. t. 26
14917 commutátum *Hedw.*	changed	droop. masses	9	all seasons	Dp.G	marg. of stre.	Eng. bot. t. 1569
14918 scorpioides *L.*	creeping	dense masses	9	summer	Rsh.	wet bogs	Eng. bot. t. 1039
14919 silesiánum *Beauv.*	Silesian	broad patches	7	summer	Bt.G	mountains	Eng. bot. t. 2016
14920 cupressifórme *L.*	Cypress-leaved	thick mass	4	all seasons	Bt.G	trees & rocks	Eng. bot. t. 1860
nigroviride E. B. t. 1620							
β *polyánthes* E. B.	*many-flowered*	thick mass	4	all seasons	Bt.G	woods	Eng. bot. t. 1664
14921 crista castrénsis *L.*	crested	lax tufts	6	summer	Bt.G	woods	Eng. bot. t. 2108
14922 mollúscum *Hedw.*	soft	entangl. tufts	2	summer	Y.G	rocks	Eng. bot. t. 1327

VAGINULATI SCHISTOCARPI.

2252. ANDREÆ'A. *Hedw.*	Andreæa.			*Sp.* 4.			
14923 alpina *Hedw.*	alpine	loose tufts		summer	D.Br	rocks	Musc. brit. t. 8
14924 rupéstris *Hedw.*	rock	dense tufts	½	summer	D.Br	rocks & ston.	Musc. brit. t. 8
14925 Róthii *Mohr.*	Roth's	dense tufts	½	summer	D.Br	rocks & ston.	Musc. brit. t. 8
14926 nivális *Hooker*	snow	deep patches	½	summer	D.Br	mountains	Musc. brit. t. 8



History, Use, Propagation, Culture,

like covering to the surface on which they grow. H. crista-castrensis is at once the most beautiful and most rare of British species

2252. *Andreæa.* Named by Hedwig, in honor of J. G. R. André, a German botanist, author of Letters upon Switzerland. There was also a Portuguese Andreas de Castro, who published in 1636, a work upon plants. He was physician to one of the dukes of Braganza. There was besides a celebrated physician of antiquity

14894 Stems pinnate (or irregularly bipinnate), Leaves thickly set cordato-acuminate serrated very faintly two-nerved at the base, Theca oblong cernuous, Lid conical
14895 Stems pinnate, Leaves serrated papillose on the back : the margins reflex. ; nerve running nearly to the point ; the cauline ones cordato-acuminate : those of branches cord. ac. Theca cylind. inclined, Lid rost.
14896 Stems pinn. Lvs. serrated smooth on the back : marg. reflexed ; cauline ones cordato-acute with a short nerve, those of branches ovate acum. with nerve disappear. bey. midd. Theca cylind. inclin. Lid conical
14897 Stems somewhat pinnate, Leaves ovate with a long narrow acumination serrated : nerve disappearing below the middle, Theca ovate cernuous, Lid rostrate
14898 Stems variously branched, Leaves patent ovate acuminated serrated at the points striated : their nerve reaching half way, Theca ovate cernuous, Fruitstalk rough, Lid conical
14899 Stems variously branched, Leaves erecto-patent ovate often approaching to lanceolate acuminat. serrated striated : nerve reaching half way, Theca ovate cernuous, Fruitstalks rough, Lid conical
14900 Stems pinn. Branches short erect, Lvs. all recurv. cord. acum. obsol 2-nerv. at base, Lid obtusely conical
14901 Stems somewhat pinnate, Leaves serrulate two-nerved at base : primary cordate acuminate ; of branches broad ovate, Theca ovate cernuous, Lid conical
14902 Leaves loosely set squarrose cord. much acuminated ent. nervel. Theca oblongo-ov. curv. cern. Lid conic.

14903 Leaves recurved squarrose lanceolate much acuminated concave serrated striated faintly two-nerved at the base, Theca globoso-ovate cernuous, Lid conical
14904 Leaves loosely imbricated spreading broadly ovate acute serrated concave with a nerve nearly as far as the middle, Theca ovate cernuous, Lid rostrate
14905 Lvs. spread. cord.-acum. serrat. striat. : nerve reach. beyond midd. Theca obl. ovate cernu. Fruitst. smooth
14906 Lvs. erect. spread. ov. acum. concave serrat. : their nerve reach. half way, Theca ov. cernu. Fruitst. smooth

14907 Leaves loosely set ovate concave nerveless entire : lower squarrose ; upper imbricated in a cuspidate point Theca oblong curved cernuous
14908 Lvs. loosely set squarr.-cord.-ov. obt. concave ent. : nerve running nearly to point, Theca obl. curv. cernu.
14909 Lvs. loosely set squarr. cord. much acum. entire : nerve disappear. half way up, Theca obl. ov. curv. cernu.
14910 Lvs. squarr. cordato-acum. serrat. faintly striated with two nerves at base, Theca globoso-ov. Lid conical
14911 Leaves squarrose widely cordate very much acuminated and recurved serrated faintly two-nerved at the base, Theca ovato-globose cernuous, Lid conical

**** Leaves secund.*

4912 Stems subpinnate, Leaves especially the upper ones falcato-secund broadly ovate acuminated serrated : their nerve reaching to the point, Theca oblongo-ovate curved cernuous, Lid conical

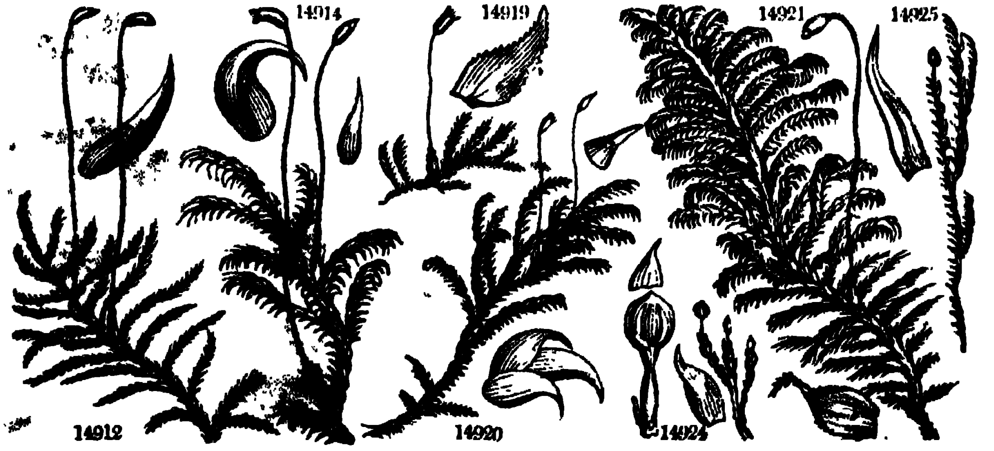
14913 Leaves secund ovate somewhat acuminate concave entire : margins incurved above ; nerve short often forked sometimes obsolete, Theca oblongo-ovate cernuous, Lid conical

14914 Leaves falcato-secund lanceolato-subulate concave or almost semicylind. entire : the nerve disappearing below the summit, Theca oblongo-ovate curved cernuous, Lid conical
β Leaves wider less falcate [cernuous, Lid conical
14915 Lvs. falcato-secund lanceolato-subul. serrat. striat. : nerve disappearing below point, Theca cylind. curv.
14916 Lvs. sec. ovato-lanc. serrat. nearly plane crisp. transverse. when dry : marg. recurv. ; nerve reach. half way
14917 Stems pinnated, Leaves falcato-secund cordate very much acuminated serrated : their margins reflexed ; nerve disappearing below the summit, Theca oblongo-ovate curved cernuous, Lid conical
14918 Leaves secund broadly ovate ventricose obtuse ent. nervel. Theca oblongo-ovate curv. cernu. Lid conical
14919 Leaves loosely imbricated secund narrow-lanceolate acuminated serrated nerveless or very obscurely two-nerved, Theca subcylindrical erecto-cernuous, Lid conical obtuse
14920 Leaves closely imbricated more or less falcato-secund lanceolate acuminated entire, except at the points, which are usually serrated very faintly two-nerved at base, Theca cylind. erecto-cernuous, Lid conical

14921 Stems closely pectinated, Leaves falcato-secund ovato-lanceolate acuminated serrulate striated faintly two-nerved at the base, Theca oblongo-ovate curved cernuous, Lid conical
14922 Stems pectinated, Leaves falcato-secund cordate acuminated serrated not striated faintly two-nerved at base, Theca oblong ovate curved cernuous, Lid conical

VAGINULATI SCHISTOCARPI.

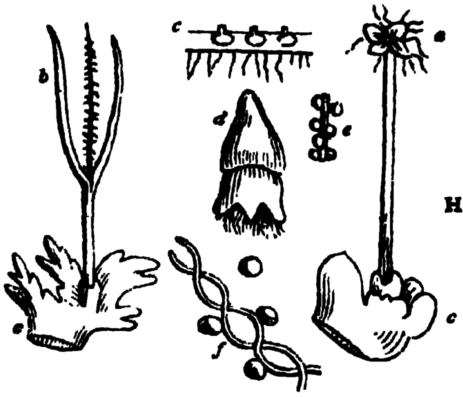
14923 Stems branched, Leaves obovate suddenly acuminate straight imbricating the stem on every side
14924 Stems branched, Leaves ovate gradually acuminated : the upper ones falcate
14925 Stems almost simp. Lvs. lanc. subul. falcato-secund fragile : perichætial obl. nervel. ; their marg. involute
14926 Stems slightly branched, Leaves loosely imbricated lanc. subfalcate secund : perichætial similar to cauline



and Miscellaneous Particulars.

named Andreas, who was cited honorably by Pliny. This remarkable genus differs from all other mosses, in having a theca which splits into four valves, cohering at their ends by means of the persistent lid ; it agrees with Sphagnum in having no fruitstalk, but in its room an elongated receptacle, and appears to be a transition from Musci to Hepaticæ. This is, however, only apparent. All the species are natives of rocks or mountains, and are remarkable for their nearly black or dark brown color.

Order 6. HEPATICÆ.



Reproductive organs of two kinds. 1. Thecæ without an operculum, either naked or sessile, or furnished with a veil through which they are more or less protruded. Sporules naked (e), *or mixed with spiral threads* (f). *2. Minute roundish or oblong bodies variously situated. Plants frondose of a cellulose structure not submersed.*

THIS order is distinguished from Algæ, with which it was formerly united, by the nature of the theca (*a*, *b*), and of the foliaceous frond (*c*) which is never submersed, and which bears a greater affinity to that of Musci. From

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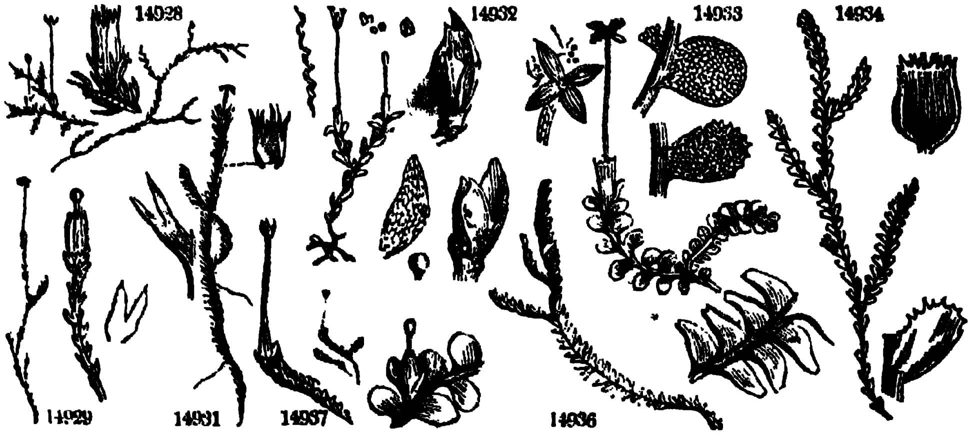
2253. JUNGERMAN'NIA. *L.* JUNGERMANNIA. *Sp.* 81—159.

14927 trichophýlla *Wahl.*	hair-leaved	loose tufts	1½	summer	Br	turfy heaths	Hook. jung. t. 7
14928 setácea *E. B*	setaceous	dense tufts	2	spring	Pa.G	bogs	H.ju. t.8 sup. t.1
14929 juláce a *Hook.*	creeping	dense patches	½	summer	Pa.Ol	mountains	Hook. jung. t 2
14930 laxifólia *Hook.*	loose-leaved	cush.-like pat.	¼	spr. and um	Pa.G	mountains	Hook. jung t.59
14931 juniperína *Hook.*	rigid	crowded tufts	3	summer	R.Br	mountains	Hook. jung t. 4
14932 Hookéri *E. B.*	Hooker's	small patches	½	wint. and spr.	G	ditches	Hook. jung. t 54
14933 asplenioídes *Hook.*	Asplenium-like	loose patches	3	all seasons	Ol G	moist woods	Hook. jung. t.13
14934 spinulósa *Hook.*	spinulose	crowded tufts	3	all seasons	Y.G	mountains	Hook. jung t.14
14935 decípiens *Hook.*	deceitful	dense tufts	1	autumn	Ol.G	Irish heaths	Hook. jung. t.50
14936 Doniána *Hook.*	Don's	entangl. tufts	2½	september	P.Br	Scot. mount.	Hook. jung. t.39
14937 púmila *Hook.*	dwarf	small patches	½	wint. and spr.	Ol	rocks	Hook. jung. t.17
14938 lanceoláta *Hook.*	lanceolate	dense clusters	¼	autumn	Pa.G	damp woods	Hook. jung t.18
14939 cordifólia *Hook.*	heart-leaved	dense tufts	2	august	D.Ol	mountains	Hook. jung. t.32
14940 Sphágni *Hook.*	Sphagnum	entangl. patc.	3	autumn	Y.G	marshy plac.	H.ju. t.33.su. t.2
14941 crenuláta *Hook.*	crenulate	matted patch.	¾	oct., novemb.	R G	bogs	Hook. jung. t.57
14942 sphærocárpa *Hook.*	round-fruited	dense tufts	½	early spring	Pa.G	Irish bogs	Hook. jung t.74
14943 hyalína *Hook.*	transparent	broad tufts	1	early spring	D.G	bogs	Hook. jung. t.63
14944 compréssa *Hook.*	compressed	dense tufts	4	june	Pu	rivulets, Irel.	Hook. jung. t.58
14945 emarginàta *Hook.*	emarginate	large patches	¾	may, june	Br	wet pl. on m.	Hook. jung. t.27
14946 concinnáta *Hook.*	notched	thick tufts	½	may, june	Sil	wet pl. on m.	Hook. jung t. 3
14947 orcadénsis *Hook.*	Orcades	loose patches	1	may, june	Bt G	mountains	Hook. jung. t 71
14948 infláta *Hook.*	inflated	dense patches	¼	jan. to july	Ol.G	boggy places	Hook. jung. t.38
14949 excísa *Hook.*	bitten	scatter patch.	¼	spring	D.G	shady woods	Hook. jung. t 9
14950 ventricósa *Hook.*	ventricose	dense patches	½	aug., novem.	Pa.G	woods	Hook. jung. t.28



History, Use, Propagation, Culture,

2253. *Jungermannia.* Named by Ruppius, to perpetuate the memory of Louis Jungermann, a German these Hepaticæ differ in being destitute of an operculum or lid to the theca, and, with the exception of Marchantia (*d*) and Jungermannia, of a calyptra. The order is composed of seven genera, all very different from each other, and forming an assemblage which is only natural in regard to the organs of vegetation. It does not appear possible to reconcile those of reproduction. The herbage consists of a variously dilated frond lying flat upon the substance on which it grows, generally naked, but in many Jungermannias covered with small leaves, which are often divided, but never really nerved, so that, in fact, they should rather be considered dilatations of the frond: the substance is generally loosely cellular, sometimes compact, as in Marchantia, in which Hooker asserts that pores of the epidermis exist.

2253. *Jungermannia.* Theca 4-valved, supported on a peduncle longer than the calyx. Valves free.

2254. *Marchantia.* Theca on the under surface of a common peltate pedunculate receptacle. Anthers imbedded in the disk of distinct peltate pedunculate or sessile receptacles.

2255. *Riccia.* Theca spherical, immersed in the frond (not opening), crowned with the style, which is alone protruded.

2256. *Anthoceros.* Theca stalked, linear, 2-valved, with a central columella to which the sporules are attached.

2257 *Targionia.* Perianth? globose, arising from the underside of the extremity of the frond, at length opening vertically into 2-valves. Theca globose, nearly sessile, included in the perianth, opening irregularly at the extremity, and filled with spiral filaments.

2258. *Sphærocarpus.* Thecæ minute, spherical, seated upon obpyriform receptacles, and filled with minute sporules unmixed with filaments.

A. *Leafy.*

† *Stipules none.*

* *Leaves inserted many ways.*

14927 Stem creep. irregul. branch. Lvs. imbricated on all sides setace. joint. straight, Fr. term. : mouth contract.
14928 Stem creep. pinnated. branch. Lvs. imbricat. on all sides setace. joint. incurv. Fr. term. : mouth expanded
14929 Leaves quadrifarious ovate closely imbricated erect acutely bifid, Theca terminal plaited at end
14930 Stem erect nearly simple filif. Lvs. dist. quadrifar. ov. somew. keel. acutely bif. Fr. term. Cal. somew. plait.
14931 Lvs. quadrifarious falcato-secund lin.-lanc. bipart. : segments straight acum. Fr. terminal, Cal. ovate leafy
14932 Leaves imbricated on all sides ovate or oblong-ovate here and there lobed and angled, Fr. term. Cal. none

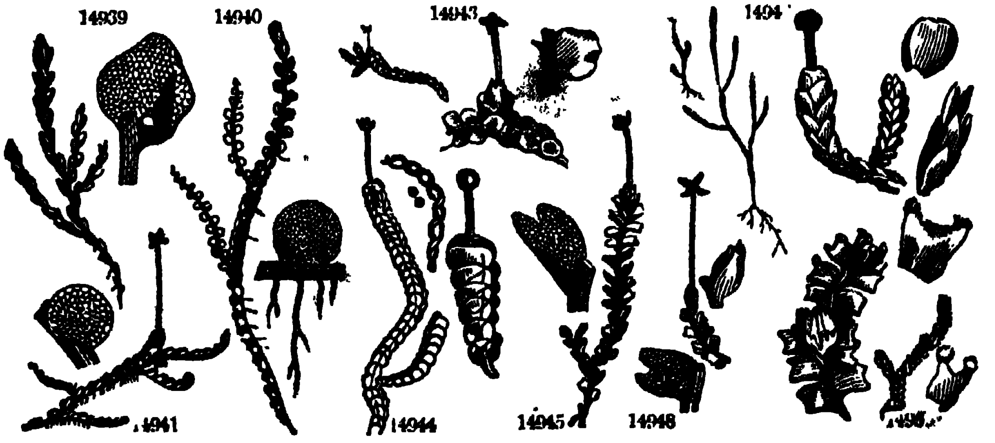
** *Leaves bifarious.*

a Leaves undivided.

14933 Leaves obovate roundish ciliate toothed subrecurved, Fruit term. and lateral, Cal. obl. compressed oblique
14934 Lvs. obl. recurv. with margin on one side and apex dentato-spinul. Fr. lat. and axill. Cal. round. compr.
14935 Stem erect flexuose nearly simple, Lower leaves smaller ovate entire: upper rounded-ovate or nearly square, with one or more spiniform teeth
14936 Stem erect nearly simple filiform flexuose, Leaves closely imbricated nearly horizontal oblong ovate concave 2-toothed at end falcate 1-sided
14937 Leaves elliptical ovate, Fruit terminal, Cal oblong ovate acuminate: mouth contracted denticulated
14938 Leaves spreading ovate-rounded, Fruit terminal, Cal. oblong cylindrical depressed and flat at the extremity: mouth much contracted cut and toothed
14939 Lvs. erect concave cord. circumvol. Fr. term. and axill Cal. obl. ov. subplicate: mouth minute toothed
14940 Lvs. orbicul. Fr. upon short prop. branches, Cal. obl. attenuat. at each extrem.: mouth contracted toothed
14941 Lvs. orbicular margin. Fruit term. Cal. obov. compressed longitudin. quadrang.: mouth contract. toothed
14942 Stem ascending simple, Leaves orbicular, Fruit terminal, Cal. obl. ovate cylind. quadri. Theca spherical
14943 Stem ascending flexuose dichotomous, Leaves rounded somewhat wavy, Fruit terminal, Cal. ovate angul. with a contracted 4-toothed orifice
14944 Stem erect divided, Leaves orbicular: upper reniform appressed, Fruit terminal, Cal. immersed oblong fleshy with an open 4-toothed orifice

b Leaves emarginate or bifid: segments equal.

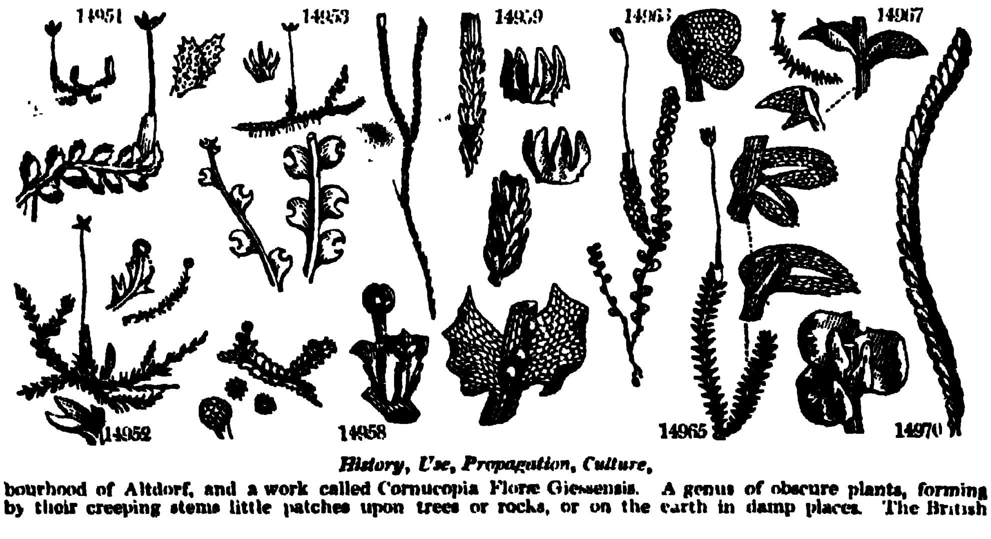
14945 Leaves loosely imbric. spreading obcordate emarginate, Fruit term. Cal. ovate toothed immersed in lvs.
14946 Leaves very closely imbricated erect concave ovate obtuse emarginate, Fruit terminal, Cal. O
14947 Leaves closely imbric erect or spreading cordate ovate plane notched at extremity: their marg. recurv.
14948 Lvs. roundish concave acutely bifid: segm. straight obt. Fruit term. Cal. obpyrif.; mouth contract. tooth.
14949 Leaves spreading subquadrate deeply emarginate, Fruit terminal, Cal. oblong: mouth plaited toothed
14950 Leaves spreading subquadrate obtusely and broadly emarginate: their sides incurved, Fruit terminal, Cal. oblong. mouth contracted plaited toothed



and Miscellaneous Particulars.

botanist, who was born in 1572, and died in 1653, after having published a catalogue of the plants of the neigh-

14951 Turnéri *Hook.*	Turner's	small patches	⅛	march	Pa.G	Irish rivul.	Hook. jung. t.29
14952 bicuspidáta *Hook.*	two-pointed	large tufts	1	march, april	Pa.G	damp banks	Hook. jung. t.11
14953 byssácea *Hook.*	Byssus-like	dense tufts	⅛	march, april	D.Ol	heaths	Hook jung t.12
14954 connívens *Hook.*	connivent	loose patches	⅛	april, may	Y.G	wet places	Hook. jung. t.15
14955 curvifólia *Hook.*	curve-leaved	small patches	¼	april, may	Dp.P	mountains	Hook. jung. t.16
14956 capitáta *Hook.*	capitate	very smll. pat.	¼	septem., jan.	Pa.G	bogs	Hook. jung. t.80
14957 incísa *Hook.*	cut	sml.dense pat.	¼	july	Pa.G	heaths	Hook. jung. t.10
14958 pusílla *Hook.*	dwarf	sol. or thk.pat.	¼	october, may	Bt.G	moist banks	Hook. jung. t.69
14959 setifórmis *Hook.*	bristly	dense tufts	2	spring	G.Br	mountains	Hook. jung. t.20
14960 nemorósa *Hook.*	grove	matted tufts	2½	july, october	Pu	woods	Hook. jung. t.21
14961 planifólia *Hook.*	flat-leaved	crowded patc.	2	......	Dm.Br	mountains	Hook. jung. t.67
14962 umbrósa *Hook.*	shady	dense tufts	¼	march, april	G.Br	shady places	Hook. jung. t.24
14963 unduláta *Hook.*	wavy	large tufts	3	may, june	Bt.G	wet places	Hook. jung. t.22
14964 resupináta *Hook.*	resupinate	very sml. tufts	⅛	may, june	Br.G	heaths	Hook. jung. t.23
14965 álbicans *Hook.*	whitish	broad tufts	1½	april, july	Pa.G	hedge banks	Hook. jung. t.25
14966 obtusifólia *Hook.*	blunt-leaved	little tufts	¼	march, april	Pa.G	damp places	Hook. jung. t.26
14967 Dicksóni *Hook.*	Dickson's	dens. mat. tuf.	¼	august	Ol.Br	mountains	Hook. jung. t.48
14968 minúta *Hook.*	minute	loose patches	¼	spr and sum.	Ol.Br	mountains	Hook. jung. t.44
14969 exsécta *Hook.*	scooped out	small patches	¼	summer	Pa.G	heaths	Hook. jung. t.19
14970 cochleariformis *Hook.*	cup-shaped	large patches	4	summer	R.Br	mount. bogs	Hook. jung. t.68
14971 complanáta *Hook.*	flattened	cush.-like pat.	1½	summer	Pa.G	trun of trees	Hook. jung. t.81
14972 anómala *Hook.*	anomalous	loose patches	2	oct., novem.	Br.G	bogs	Hook jung. t 34
14973 Taylóri *Hook.*	Taylor's	large patches	3	summer	Pk	mountains	Hook. jung t.57
14974 scaláris *Hook.*	scaly	broad patches	¼	summer	Pa.G	loamy soil	Hook. jung. t.61
14975 polyánthos *Hook.*	many-capsuled	loose patches	1½	april, m[illegible]	[illegible].G	wet places	Hook. jung. t.62
14976 cuneifólia *Hook.*	wedge-leaved	parasitical	⅓	summer	[illegible]r	inland	Hook. jung. t.64
14977 viticulósa *Hook.*	wiry	loose patches	1½	spring	Y.Br	ear damp pl.	Hook. jung. t.60
14978 trichómanis *Hook.*	twisted	large patches	1½	summer	Bt G	moist places	Hook. jung. t.79
14979 bidentáta *Hook.*	two-toothed	crowded patc.	1½	oct., novem	Pa.G	moist places	Hook. jung. t.30
14980 heterophýlla *Hook.*	various-leaved	small tufts	⅛	april, novem.	Pa.G	stems of trees	Hook. jung t.31
14981 stipulácea *Hook.*	large-stipuled	cush -like tuf.	¼	summer	Pa.Ol	shady places	Hook. jung. t.41
14982 Francísci *Hook.*	Francis's	crowded patc.	⅛	april, july	Pk	moist places	Hook. jung. t.49
14983 barbáta *Hook.*	bearded	crowded patc.	1½	spring	Ba.G	woods & hea.	Hook. jung t.70
14984 albéscens *Hook.*	whitened	loose patches	⅛	summer	Pa.G	Ben Nevis	H.jun t.72.su t.4
14985 réptans *Hook.*	creeping	dense tufts	1	summer	Pa.G	woods	Hook. jung. t.75
14986 trilobáta *Hook.*	three-lobed	large patches	3	summer	Ol.G	rocks	Hook. jung. t.76
14987 platyphýlla *Hook.*	broad-leaved	wide patches	2	march, aug.	Br G	old walls	H.jun.t 40.su t.3
14988 lævigáta *Hook.*	polished	loose tufts	2½	summer	Br.Ol	woods	Hook. jung. t 35
14989 ciliáris *Hook*	ciliated	dense patches	2	spr. and sum.	R.Br	rocks & hea.	Hook jung t 65
14990 Woódsii *Hook.*	Woods's	crowded tufts	5	spr. and sum.	R.Br	Irish mount.	Hook. jung. t.66
14991 tomentélla *Hook.*	downy	broad patches	3	march, oct.	Pa.G	moist places	Hook. jung. t.36
14992 Mackáii *Hook.*	Mackay's	dense patches	1	febr., novem	Bk.G	trees & rocks	Hook. jung. t 53



History, Use, Propagation, Culture,

bourhood of Altdorf, and a work called Cornucopia Floræ Giessensis. A genus of obscure plants, forming by their creeping stems little patches upon trees or rocks, or on the earth in damp places. The British

14951 Stem procumbent flexuose branched in a starry manner, Leaves broad-ovate acutely 2-parted : segments folded together with spiny teeth, Fruit terminal

14952 Lvs. subquad. acutely bifid : segm. acute straight ent. Fruit terminal, Cal. obl. plaited : mouth toothed

14953 Leaves subquadrate obtusely bifid : segments acute, Fruit terminal, Cal. oblong plaited : mouth toothed

14954 Lvs. orbicul. concave at extrem. lunul. emarg. Fruit term. upon short prop. central branches Cal. obl. ov.

14955 Lvs. round. very conc. bif. : segm. long acum. incurv. Fr. term. upon short prop. branch. Cal. obl. subplicate

c Leaves 3-4-fid : segments equal.

14956 Stem prost. nearly simp. Lvs. round. square : lower bifid ; upp. 3-4-fid, Fr. term. Cal. obl. ov. somew. plait.

14957 Leaves subquadrate waved subtrifid ; segm. equal here and there toothed, Fruit terminal, Cal. obovate

14958 Leaves spreading horizontally quadrate waved obtusely bitricrenate, Fruit terminal, Cal. campanulate, Theca spherical bursting irregularly

14959 Leaves bifarious closely imbricated erect quadrate quadrifid : their inferior angles here and there spinul. toothed, Fruit terminal and lateral, Cal. oblong plicate : the mouth open

d Leaves bifid : segments unequal folded together.

14960 Lvs. unequally 2-lobed ½-bifid tooth cili. Lobes fold together : lower ones larger obov. ; upp. subcord. obt.

14961 Stem erect nearly simple, Leaves unequally 2-lobed as deep as base : tooth ciliated, Lobes folded together

14962 Lvs. uneq. 2-lob. Lobes folded together serrated at extrem. acute : lower ones larger ov. ; upp. round. ov.

14963 Leaves unequally 2-lobed wavy entire, Lobes roundish folded together ; lower ones largest, Fruit term. Cal. oblong incurved compressed

14964 Leaves roundish nearly equally 2-lobed entire, Lobes folded together, Fr. term. Cal. obl. incurv. compres.

14965 Leaves unequally 2-lobed folded together with a pellucid line in the middle serrated at the extremity, Fruit terminal, Cal. obovate cylindrical

14966 Lvs. unequally 2-lobed folded together obtuse entire, Fruit term. Cal. obov. : mouth contracted toothed

14967 Lvs. unequally 2-lobed folded together narr. ov. acute, Fr. term. Cal. ov. plaited : mouth contract. toothed

14968 Leaves horizontally spreading somewhat folded together : upper equally, lower unequally 2-lobed, All the lobes rather acute, Cal. obovate

14969 Stem prostrate nearly simple, Leaves unequally 2-lobed, Lobes folded together : lower larger ovate concave acute ; upper minute tooth-like

14970 Leaves imbricated on the upper side unequally 2-lobed folded together . upper lobes the larger convex bifid and toothed at the extremity

14971 Lvs. distich. imbricat. above unequ. 2-lobed : upp. lobes larger orbicul ; lower ov. appres. flat, Cal. truncat.

†† Furnished with stipules.

** Leaves entire or rarely emarginate.*

14972 Leaves orbicular and ovate acuminate, Stipules broadly subulate

14973 Lvs. all rounded, Stip. broadly subul. Fruit term. Cal. ovate compressed at the extremity truncate 2-lipped

14974 Lvs. round concave entire and emarg. Stipules broadly subul. Fruit terminal, Cal. immersed in the leaves

14975 Lvs. horizontal rounded quad. plane ent. and emarg. Stip. obl. bifid, Fr. upon very short proper branches

14976 Stem creeping simple, Lvs rather rem. cuneiform ent. or bluntly emarg at end, Stip. minute ovate bifid

14977 Leaves horizontal plane ovate entire, Stipules broadly ovate toothed lanc Fr. lat. Cal. subterr. obl. fleshy

14978 Leaves horizontal convex ovate ent. Stipules round lunate-emarg. Fruit lat. Cal. subterr. obl. fleshy hairy

*** Leaves 2 or 3 cleft : segments equal.*

14979 Leaves broadly ovate decurrent bifid at the apex : segm. very acute entire, Stipules bitrifid and laciniate

14980 Stem creeping branched, Leaves round-ovate decurrent rarely acutely often obtusely emarginate or entire, Stipules bitrifid, Fruit terminal, Cal. ovate

14981 Leaves round acutely emarginate : segments acute straight, Stipules large ovate acuminate with a single tooth at the base on each side

14982 Stem nearly erect simple or branched, Leaves ovate concave acutely emarginate, Stipules minute ovate bifid, Fruit terminal, Cal oblong cylindrical little plaited

14983 Leaves rounded quadrate 5-4-fid, Stipules lanceolate acutely bifid : their margins lacerated

14984 Lvs. very concave nearly hemispherical emarg. Stip. ovate lanc. obtuse, Fruit term. upon short branches

14985 Leaves imbricated above subquadrate incurved acutely 4-toothed, Stip. broadly quad. 4-tooth. Fr. radical

14986 Lvs. imbricat. above ov. convex obtusely trident. Stip. broadly subquad. cren. Fr. from lower part of stem

*** Leaves bifid : segments unequal folded together*

a Lower segments or smaller ones flat.

14987 Lvs. unequal. lob. : upper lobes round ov. nearly ent. ; lower and stip. ligulate quite entire, Fruit lateral

14988 Lvs. unequal. 2-lobed spinul.-toothed : upper lobes roundish ov. ; lower ligul. Stip obl. quad. spiny toothed

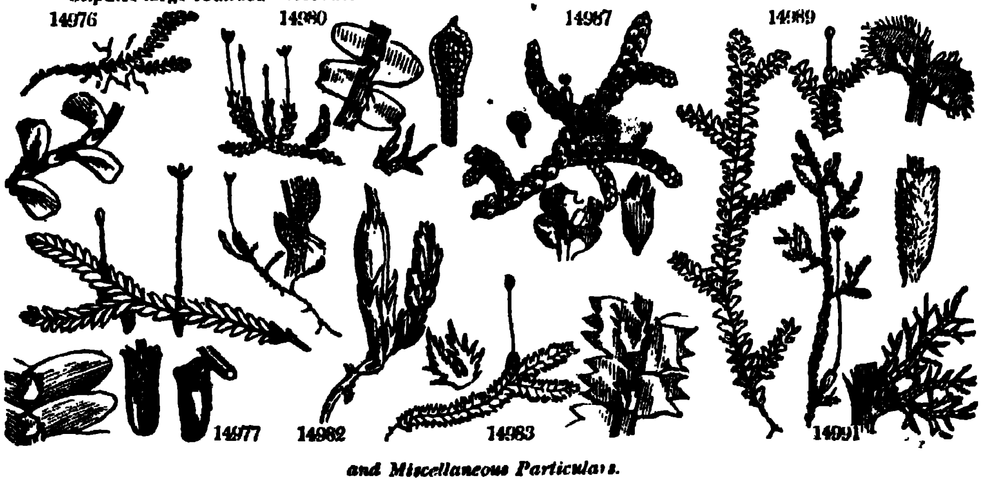
14989 Leaves very convex unequally 2 lobed : lobes and lobules ovate bipart. fringed with long and slender cilia

14990 Stem procumbent bitripinnate, Leaves very convex unequally 2-lobed : upper lobes 2-parted spiny toothed ; lower very minute oblong entire

14991 Leaves nearly flat unequally 2-lobed cut into numerous capillary segments : upper lobes 2-partite ; lower minute, Stipules subquadrate laciniate

b Lower segments or smaller ones involute.

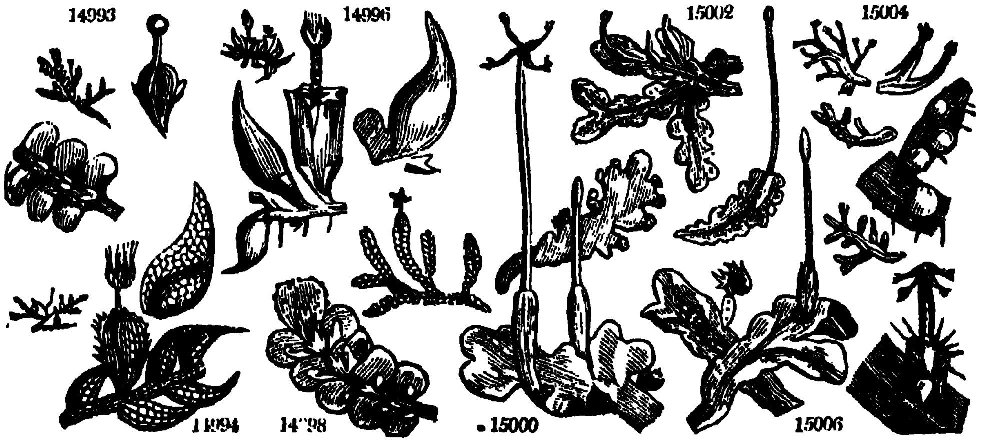
14992 Stem creeping unequally branched, Leaves unequally 2-lobed : upper lobes rounded ; lower minute invol. Stipules large rounded obcordate



and Miscellaneous Particulars.

species have been admirably illustrated by Hooker, to whose Monograph no other botanical work can be compared.

14993 serpyllifólia *Hook.*	thyme-leaved	imbric. masses	¼	april, june	Pa.G	trun. of trees	Hook. jung. t.42
14994 hamatifólia *Hook.*	hook-leaved	very smll. pat.	¼	spring	G	rocks	Hook. jung. t.51
14995 minutissima *Hook.*	very minute	little patches	¼	april, may	Y.G	bark of trees	Hook. jung. t.52
14996 calyptrifólia *Hook.*	calyptra-leav.	little tufts	¼	summer	Pa.G	on Ulex nan.	Hook. jung. t.43
14997 Hutchinsiæ *Hook.*	Miss Hutchins's	loose patches	1	summer	D.Ol	damp pl., Ir.	Hook. jung. t. 1
14998 dilatáta *Hook.*	dilated	round patches	¾	winter	Br.P	trun. of trees	Hook. jung. t. 5
14999 Tamarisci *Hook.*	Tamarisk	large patches	3	april, sept.	Br.G	on the earth	Hook. jung. t. 6
15000 pinguis *Hook.*	fat	loose patches	2	summer	Pa.G	moist sha. pl.	Hook. jung. t.46
15001 multifida *Hook.*	many-cut	crowded tufts	1	spring	Pa.G	moist pl. hea.	Hook. jung. t.45
15002 Blásia *Hook.*	Blasia	patches	1	spring	D.G	moist heaths	H. jun. t.82,83,84
15003 epiphýlla *Hook.*	epiphyllous	large patches	3	spr. and aut.	Pa.G	moist hedges	Hook. jung. t.47
15004 furcáta *Hook.*	forked	large patches	¼	oct., march	Pa.G	trun. of trees	Ho. jung. t.55,56
15005 pubéscens *Hook.*	downy	patches	1	spring	Gl	rocks	Hook. jung. t.73
15006 Lyéllii *Hook.*	Mr. Lyell's	loose patches	1	may	Pa.G	bogs	Hook. jung. t.77
15007 hibérnica *Hook.*	Irish	loose patches		april	Pa.G	shores of Ir.	H. ju. t.78.s.t4.f.1
2254. MARCHAN'TIA. *Mich.*	MARCHANTIA.			*Sp.* 4—7.			
15008 polymórpha *E. B.*	variable	broad patches	2	winter	D.G	moist rocks	Eng. bot. t. 210
15009 hemisphæ'rica *E. B.*	hemispherical	broad patches	1¼	winter	D.G	moist rocks	Eng. bot. t. 503
15010 cónica *E. B.*	conical	broad patches	2	winter	D.G	shady banks	Eng. bot. t. 504
15011 andrógyna *E. B.*	androgynous	broad patches	1¼	winter	Pa.G	wet rocks	Eng. bot. t. 254
2255. RIC'CIA. *E.B.*	RICCIA.			*Sp.* 4.			
15012 glaúca *E. B.*	glaucous	patches	¼	spring	Gl	rocks	Eng. bot. t. 2546
15013 nátans *E. B.*	swimming	floating	¼	spring	G	ditches	Eng. bot. t. 252
15014 flúitans *E. B.*	floating	floating	¼	spring	Pa.G	ditches	Eng. bot. t. 251
15015 spúria *Dicks.*	spurious	patches	¼	spring	Pa.G	mount. mar.	Dick. cr t. 11. f. 16
2256. ANTHO'CEROS. *E. B.*	ANTHOCEROS.			*Sp.* 3—5.			
15016 multifidus *Dicks.*	multifid	patches	¼	summer	G	crev. in roc.	Dill. mus. t.68 f.4
15017 punctátus *E. B.*	dotted	patches	1¼	spring	Pa.G	damp places	Eng. bot. t. 1537
15018 májor *E. B.*	large	broad patches	¼	spring	D.G	damp places	Eng. bot. t. 1538
2257. TARGIO'NIA. *E. B.*	TARGIONIA.			*Sp.* 1—3.			
15019 hypophýlla *E. B.*	flat-leaved	broad patches	¼	wint. and spr.	D.G	wet places	Eng. bot. t. 287
2258. SPHÆROCAR'PUS. *E. B.*	SPHÆROCARPUS.			*Sp.* 1—4.			
15020 terrestris *E. B.*	earth	spots	¼	winter	Bt.G	damp places	Eng. bot. t. 299



History, Use, Propagation, Culture,

2254. *Marchantia.* Named by Nicholas Marchant, in honor of his father John Marchant, the first botanist whom the Academy of Sciences of Paris admitted among its members, in 1666. Soft-leaved creeping plants, with green cellular fleshy fronds spreading over the surface of the ground in wet places. M. hemisphærica and polymorpha are often the pest of the florist, whose flower pots are overrun by them, and continually disfigured.

2255. *Riccia.* Pietro Francisco Ricci, was a Florentine botanist, who left some of his works to the academy of Florence. Little, generally floating, simple plants, of the nature of which very little is known. Only one kind has been observed in fructification, and that is of a very ambiguous character. The thecæ, or the organs so called, are little round bodies immersed in a cavity of the frond, and containing minute sporules.

2256. *Anthoceros.* From ανθος, a flower, and κερας, a horn, on account of the horn-like form of the theca, which old botanists considered to be the flower. Minute frondose plants, with a linear 2-valved theca, containing a columella to which the sporules are attached. In habit they resemble Jungermannia.

14993 Lvs. unequal. 2-lobed : upper lobes rounded ; lower minute invol. Stip. roundish acutely bifid, Fruit lateral
14994 Lvs. unequally 2-lobed : upper lobes ovate-acum. mostly curved at extremity ; lower ovate acutely bifid
14995 Stem creeping unequally branched, Leaves unequally 2-lobed : upper lobes hemispherical ; lower minute almost obsolete, Stipules ovate rounded bifid, Fruit lateral
14996 Stem creeping branched, Leaves unequally 2-lobed : upper lobes larger calyptriform ; lower bluntly square circumvolute, Fruit lateral

c Lower segments or smaller ones saccate.

14997 Stem creeping branched, Leaves unequally 2-lobed : upper lobes ovate spiny-serrated : lower minute saccate generally 1-toothed at base, Fruit lateral
14998 Lvs. unequally 2-lobed : upper lobes ovate rounded ; lower rounded saccate, Stip. rounded flat emarginate
14999 Lvs. unequally 2-lobed : upper lobes ovate roundish ; lower minute obov. saccate, Stip. subquadrate emarg.

§ 2. *Frondose.*

† *Nerveless.*

15000 Frond obl. decumb. nervl. fleshy nearly plane above : swell. ben. ; irregularly branch. The margin sinuated
15001 Frond lin. nerveless fleshy compressed branched in a pinnated manner, Fruit marginal, Cal. very short

†† *Nerved.*

15002 Frond obl. submemb. dichot. costate having scattered scales on the underside, Cal. and calyptra within frond
15003 Frond obl. submembranous irregularly divided obsoletely ribbed : the margin entire or lobed and sinuated, Fruit from upper part of frond near the apex
15004 Frond lin. dichotomous membranous costate glabr. above : more or less hairy beneath and on the margin, Fruit from the lower surface of the nerve
15005 Frond lin. dichotomous membranous costate pubescent in every part [of the fronds
15006 Frond obl somew. branch. memb. costate : the margin nearly entire, Fruit arising from the superior surface
15007 Frond obl. dichotomous membranous costate with the margin entire, Fruit arising from the upper surface of the frond

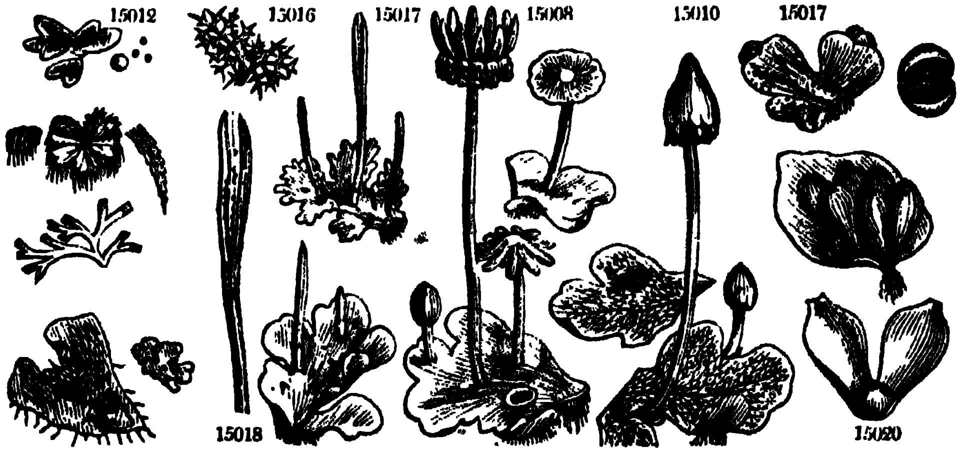
15008 Recept. of thecæ deeply cut in a stellated manner into about ten narr. segm. : that of the anthers pedunculat.
15009 Recept. of thecæ hemispherical cloven into about 5 oval segments
15010 Recept. of thecæ entire conical ovate somewhat angular : that of the anthers sessile
15011 Recept. of thecæ hemispherical half 4-cleft of 4 cells

15012 Frond small obl. somew. divid. : the segments 2-lobed at the end fleshy glaucous dotted on the surface
15013 Frond triangular cordate covered with long linear lanceolate segments on one side
15014 Frond membranous dichotomous, Lobes retuse
15015 Fronds membranous lobed pellucid, Theca beneath the sinuses of the lobes solit. exserted turbinate tooth.

15016 Fronds bipinnatifid linear
15017 Fronds multifid lobed sinuated, Theca subulate half bifid
15018 Fronds lobed rounded flat, Theca short

15019 Frond flat imbricated lobed, Lobes rounded retuse

15020 Frond simple ovate, Thecæ pyriform clustered at the base of frond

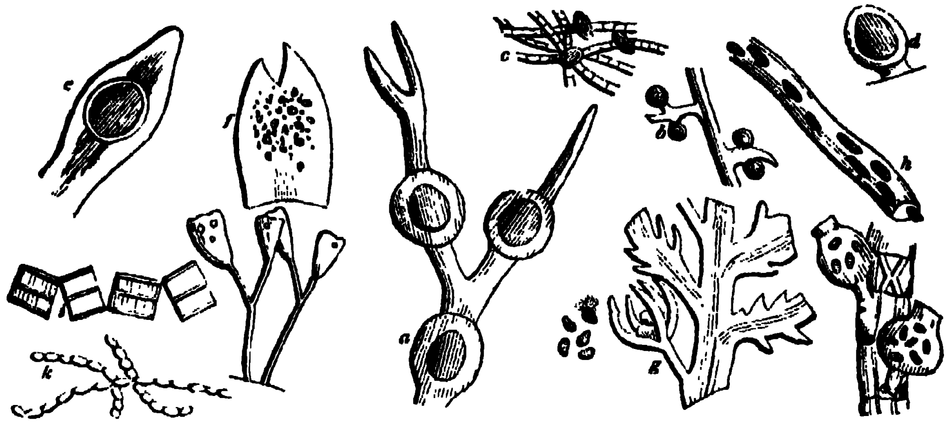


and Miscellaneous Particulars.

2257 *Targionia.* So called in remembrance of John Anthony Targioni, a meritorious Florentine botanist, who published in 1734 a work for the purpose of shewing the importance of botanical lectures, with reference to a course of studies in medicine. There was also another Florentine physician called John Targioni Tozzetti, after whom Tozzettia has been named. This genus consists of only one species, which is frondose and lobed. The theca is concealed and almost sessile within the involucre, globose, bursting at the apex, and discharging its sporules mixed with spiral filaments. This genus is very near Jungermannia.

2258. *Sphærocarpus.* From σφαιρα, a globe, and καρπος, fruit, in allusion to the form of the fruit. The plant consists of a roundish delicate membranous frond, bearing on its disk a cluster of obpyriform receptacles, each of which has a globose transparent finely membranous seed-vessel, filled with minute sporules unmixed with elastic filaments.

Order 7. ALGÆ.



Reproductive organs of two kinds. 1. *Thecæ or tubercles variously situated.* 2. *Sporules or granules naked or immersed in the frond. Plants always aquatic and submersed.*

This order is constituted of the sea-weeds of our ocean, and of the floating scum-like substances of our ditches and rivers. Little is known of the functions which what are called their reproductive organs perform. The nature and structure of those organs are so various as to render it improbable that they should all be destined for the same purposes. The bodies which are called sporules are variously situated; now filling distinct thecæ (*a*), or even tubercles (*b*), which are either free (*b*, *c*, *d*), or imbedded in the substance of the frond (*e*, *f*); now appearing to be naked and surrounded by an involucre (*g*); now scattered or arranged in some determinate manner in the interior of the frond. (*h*) The fronds are either cylindrical (*h*), or plane (*i*), sometimes little more more than a mere membrane, sometimes hard and horny, and extends to the length of many feet. Many are articulated (*i*, *k*): their line of separation is then called a joint, and the space between two joints an articulation.

Professor Agardh, of Lund, one of the most celebrated of modern cryptogamists, and whose disposition of Algæ is adopted here, in his latest work, called Systema Algarum, published at Lund, in 1824, defines the order thus:

"Aquatic plants destitute of cotyledons and of sexual organs; gelatinous, membranous, or coriaceous; filamentous, laminose, or even leafy; in color green, purple, or olivaceous; jointed or continuous; bearing sporidia" (little transparent bodies containing sporules), "either included in pericarps or scattered over the surface."

The Algæ form one of the three forms of the lowest order of vegetation, Lichens and Fungi the two other. Of the former, many are considered by some botanists to be animalcula, and others, to be the young seedling plants of mosses.

Tribe I. DIATOMEÆ.

Bodies of various forms, flat and crystalline, and separating into fragments.

2259. *Achnanthes.* Frond stalked, vexilliform. *Marine.*

2260. *Diatoma.* Filaments jointed, hyaline, rigid, simple, united in pairs longitudinally, at length separating into articulations cohering by their alternate angles.

2261. *Fragillaria.* Filaments jointed, simple, gelatinous, compressed, fragile, separating at the joints.

2262. *Meloseira.* Filaments jointed, contracted at the joints, very fragile, and easily separating.

2263. *Desmidium.* Filaments transversely and densely striated, mucous, flexible, green, half separated into articulations, and in that state pinnatifid.

2264. *Schizonema.* Filaments bead-like, composed of narrower cohering filaments inclosing elliptical granules, into which they are finally dissolved. *Marine.*

Tribe II. NOSTOCHINÆ.

Individuals numerous, globular or filiform, suspended in a gelatine of a definite form.

2265 *Palmella.* Minute or small, somewhat diaphanous gelatinous plants, filled with solitary granules unmixed with filaments.

2266. *Echinella.* A roundish gelatine crammed with elliptical radiant corpuscles. *Marshy.*

2267. *Alcyonidium.* A spongy fleshy lobed frond filled with granules. *Marine.*

2268. *Nostoc.* Plants roundish or shapeless, gelatinous. Substance composed of curved moniliform simple filaments, lying irregularly in a gelatinous nidus.

2269. *Corynephora.* A gelatinous roundish puckered frond filled with jointed filaments, bearing here and there clavate processes.

2270. *Rivularia.* A gelatinous subglobose frond filled with filaments, radiating from a common centre, continuous, placed on a globule, and marked with annulations inside.

2271. *Chætophora.* Plant elongated or globose gelatinous. Substance composed of branched articulated filaments.

2272. *Scythymenia.* A coriaceous tough stratum, formed of fibres and granules mingled together.

Tribe III. CONFERVOIDEÆ.

Filaments jointed either externally or internally, separate, and not combined in any definite form.

2273. *Byssocladium.* Filaments like cobwebs, scattered externally with sporidia. *Slightly inundated.*

2274. *Mycinema.* Filaments membranous, opaque, tenacious, colored (usually tawny). *Slightly inundated.*

2275. *Chroolepus.* Filaments rigid, nearly solid, opaque, crumbling into powder, torulose. *On rocks or bark.*

2276. *Trentepohlia.* Filaments flexible, colored, bearing capsules, which generally proceed from the last articulation, which is inflated. *Inundated or fluviatile.*

2277. *Scytonema.* Plant not gelatinous, coriaceous Filaments short, forming dark dense tufts, beaded internally, or filled with annular transverse bodies. *On rocks or inundated, rarely marine.*

2278. *Stigonema.* Filaments continuous, coriaceous, naked, marked inside with dots disposed in rings. *On rocks.*

2279 *Protonema.* Filaments somewhat jointed, rooting very minute.

2280. *Hygrocrocis.* Filaments hyaline, arachnoid, obsoletely articulated, floating in a shapeless gelatine or in a colored membrane.

2281. *Leptomitus* Filaments hyaline or slightly colored, arachnoid, obsoletely articulated, separate, erect, not entangled.

2282. *Mesogloia.* Frond filiform, cylindrical, gelatinous, with compact somewhat moniliform branches radiating from a medullary pith, and bearing capsules.
2283. *Batrachospermum.* Frond filiform, gelatinous, sending out from the primary filament moniliform gemmiferous branches.
2284. *Draparnaldia.* Filaments green, jointed, very gelatinous. Ramuli penicillate fascicled. Fructification a granular mass in the articulations of the main filaments.
2285. *Oscillatoria.* Plants gelatinous. Filaments simple, continuous, membranaceous, filled internally with transverse parallel striæ.
2286. *Calothrix.* Filaments destitute of a mucous matrix, stiffish, straight, motionless, with a continuous tube annulated inside.
2287. *Lyngbya.* Filaments without a mucous matrix, freely floating, flexible, motionless, with a continuous tube annulated inside.
2288. *Bangia.* Filaments capillary, mostly simple, tubular, continuous. Fructification; granules disposed in regular transverse series or strata.
2289. *Zygnema.* Filaments jointed, simple, gelatinous, compressed, fragile, separating at the joints.
2290. *Mougeotia.* Filaments articulated, connected like a net, with irregularly placed granules, and thecæ attached to the angles of the meshes
2291. *Hydrodictyon.* Filaments articulated, connected like a net. Articulations viviparous, including young individuals.
2292. *Conferva.* Filaments uniform, jointed, membranaceous, simple or branched, mostly green. Fructification, granules scattered in the articulations. *Salt and fresh water.*
2293. *Bulbochæte.* First filament articulated, sending out from the apex of the articulations an accessory branchlet. Thecæ alternating with the accessory branches. *Marshy.*
2294. *Nitella.* Filaments consisting of a single tube, membranous, jointed, with whorled branches. Organs of fructification twofold and separate, first nucules spirally striated, without bractes, and not crowned; second, colored globules. *Sea and marshes.*
2295. *Chara.* Filaments spirally striated, jointed, with whorled branches. Organs of fructification twofold, and close together; first, nucules spirally striated, furnished with bracteæ, and crowned; second, colored globules *Sea and marshes.*
2296. *Ceramium.* Filaments jointed, subdichotomous, red, articulations veined or diaphanous. Fructification; capsules with an involucre of short ramuli. *Marine.*
2297. *Griffithsia.* Filaments jointed, rose red, branched. Articulations marked with one broad tube-like line, the joints pellucid. Fructification; pedunculated capsules on the ramuli. *Marine.*
2298. *Chætospora.* Filaments obsoletely articulated, rosy, covered by axillary articulated fruit-bearing branches, which either include in the middle a globe of sporules, or change to a lanceolate receptacle covered with setæ, among which the sporules nestle. *Marine.*
2299. *Polysiphonia.* Filaments jointed, longitudinally striated, with internal parallel tubes. Fructification; double ovate capsules, and granules in swollen branchlets. *Marine.*
2300. *Rytiphlæa.* Frond flattened, distichous, transversely striated, becoming black when dry, with incurved ramenta. Fruit twofold; first, spherical capsules with pyriform sporidia; and second, lanceolate pods with roundish sporidia. *Marine.*
2301. *Ectocarpus.* Filaments jointed, much branched, fuscous. Fructification; lanceolate pods or ovate capsules solitary or racemose. *Marine.*
2302. *Sphacellaria.* Filaments jointed, branched, olivaceous, distichous or dichotomous; apex of the branches sphacellate or hyaline, abrupt. Fructification; granules in the sphacellated apex, or capsules. *Marine.*
2303. *Cladostephus* Plant olivaceous. Main filaments opake, inarticulate; branches jointed, mostly whorled with ramuli. Fructification; capsules. *Marine.*

TRIBE IV. ULVACEÆ.

Frond membranous, continuous, tubular or flattened, never ribbed, herbaceous, or very rarely purple. Fruit a heap of sporules, either naked, or forming scattered granules covered by coniocystas.

2304. *Vaucheria.* Filaments dichotomous or irregularly branched, somewhat rigid. Fructification; a granulated mass within the frond, and external dark vesicles variously sinuated.
2305. *Codium.* Frond spongy, of a determinate figure formed of filaments densely packed, which are tubular and continuous, and colored by a granular green powder. Coniocystas clustered at the surface of the frond.
2306. *Bryopsis.* Root minutely scutate. Filaments tubular, continuous, aggregated, branched, pinnate, or imbricated upwards with branchlets Fructification a dark internal granular mass.
2307. *Solenia.* Frond tubular, membranous, with a striated areolated surface. Sporidia very minute and compact.
2308. *Ulva.* Root scutate. Frond plane, ribless, flabelliform or wedge-shaped, or linear and dichotomous. Fructification naked immersed; granules distributed in fours throughout the frond.
2309. *Porphyra.* Frond flat, purple, with the membrane of equal texture Fruit twofold; first, sori of oval sporidia collected in a disorderly manner; second, two parallel lines marked on each side by a globule.

TRIBE V. FLORIDEÆ

Frond coriaceous or rarely membranous, flat or filiform, continuous, purple or pink. Sporidia purple, included in capsules or clustered in sori.

2310. *Polyides.* Frond filiform, fastigiate, cartilaginous, softish, composed of radiating fibres. Fruit, spongy warts composed of fibres supporting sporidia.
2311. *Ptilota.* Root scutate. Fronds compressed or plane, pinnate. Fructification; a cluster of naked granules surrounded by a linear cleft involucre.
2312. *Rhodomela.* Frond either flat or foliaceous, and somewhat ribbed or filiform. Fruit twofold; first, lomenta filled longitudinally with globules of sporaceous matter; second, capsules with a few pyriform sporidia sessile in the capsule (blackish when dry).
2313. *Chondria.* Frond continous, gelatinoso-cartilaginous. Fructification double; naked granules immersed in the substance of the ramuli and external tubercles.
2314. *Sphærococcus.* Root scutate. Frond submembranaceous or cartilaginous. Fructification uniform; tubercles or capsules.
2315. *Halymenia.* Frond flat or tubular, somewhat membranous. Fruit, dot-like tubercles half immersed in the lamina of the frond.
2316. *Bonnemaisonia.* Frond filiform, compressed, pectinate, ciliated. Fruit, capsules with pyriform sporidia fastened together in a chain-like manner.
2317. *Delesseria.* Root scutate. Frond plane, membranaceous, with or without ribs. Fructification double, tubercles and clusters of naked immersed granules.

TRIBE VI. FUCOIDEÆ.

Frond coriaceous, rarely membranous, continuous, olive-green, flat or filiform. Sporidia black, included in capsules, which are either ovate, and surrounded by a hyaline border, and nestling in a peculiar receptacle, or pyriform, and immersed in the frond.

2318. *Lemanea.* Frond filiform, torulose, tubular. Chains of sporæ adhering to the inner surface of the filament, pencilled moniliform. *In fresh water.*

2319. *Chordaria.* Root scutate. Frond filiform of an olive color and cartilaginous substance. Fructification; clavate, pyriform, concentric filaments constituting the whole frond.

2320. *Scytosiphon.* Root scutate. Frond filiform, tubular, subcoriaceous. Fructification; naked pyriform granules covering the whole frond.

2321. *Sporochnus.* Root mostly scutate. Frond plane, with distichous branches, bearing, in most instances, delicate pencil-like deciduous tufts of confervoid filaments. ("Receptacles composed of concentric, clavate, articulated corpuscules.")

2322. *Haliseris.* Frond flat, linear, ribbed, membranous. Capsules heaped in sori.

2323. *Encalium.* Frond tubular or bladdery, dotted. Fruit, the tips of the frond filled with a black sporaceous matter.

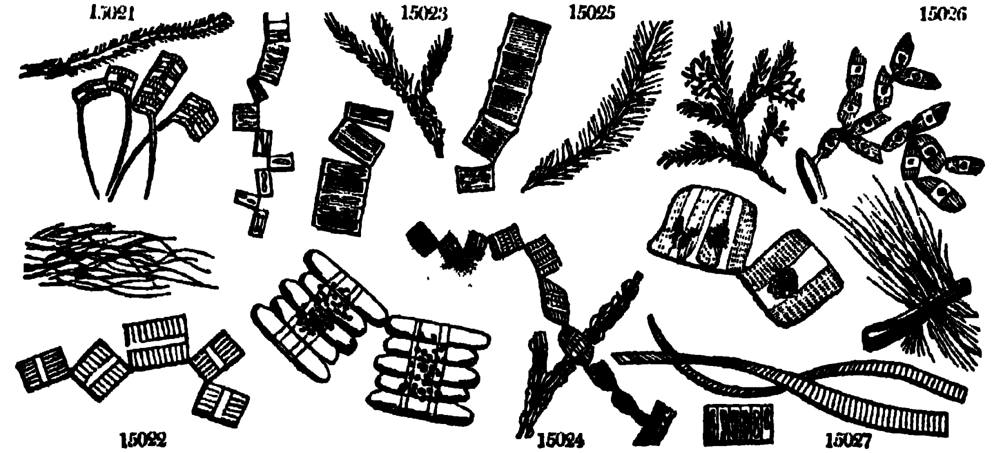
2324. *Zonaria.* Root downy. Frond plane, ribless, flabelliform or wedge-shaped, or linear and dichotomous. Fructification, adnate tubercles collected into parallel lines on the frond.

DIATOMEÆ.

2259. ACHNAN'THES. *Agh.*		Achnanthes.			*Sp.* 1—2.			
15021	lóngipes *Ag.*	long-stalked	fine down	1/12	july	Gsh	dit., sea coast	E.b.t.2488. *Conf stipitata*
2260. DIA'TOMA. *Ag.*		Diatoma.			*Sp.* 5—16.			
15022	flocculósum *Ag.*	floccose	fine film	1/12	sum.	Y.Br	ditches	E. bot. t. 1761. *Conferva*
15023	marinum *Ag.*	marine	little tufts	1/12	febr.	Y.G	ocean	E.b. t.1883 *Conf.tæniæf.*
15024	Biddulphiánum *Ag.*	Miss Biddulph's	short down	1/12	nov.d.	G	sea coast	E. bot. t. 1762. *Conferva*
15025	striátulum *Ag.*	striated	short down	1/12	april	G	ocean	E. bot. t. 1928. *Conferva*
15026	obliquátum *Ag.*	oblique	minute branc.	½	sum.	Lt.Br	ocean	E. bot. t. 1869. *Conferva*
2261. FRAGILLA'RIA. *Ag.*		Fragillaria.			*Sp.* 2—3.			
15027	pectinális *Ag.*	silvery	loose tufts	½	march	Y.G	on wat. plan.	E. bot. t. 1611. *Conferva*
15028	hyemális *Ag.*	winter	dense fl. tufts	3	april	O.Br	rivulets	Lyngb. phyt. dan. t. 63
2262. MELOSEI'RA. *Ag.*		Meloseira.			*Sp.* 3—5.			
15029	nummuloides *Ag.*	necklace	down-like	1/12	march	Ysh	salt marshes	Eng. bot. t. 2287
15030	lineáta *Ag.*	striated	short down	1/12	march	Ysh	rivulets	Dil.con.24. t. B. *Conferva*
15031	discigera *Ag.*	cup-bearing	short down	1/12	sum.	Brsh	lvs. of aquat.	Di.co 25.t.B. *C.nummul.*
2263. DESMI'DIUM. *Ag.*		Desmidium.			*Sp.* 1—2.			
15032	Swártzii *Ag.*	pinnatifid	loose masses	1½	sum.	G	still waters	E.b.t.2464 *Con.dissiliens*
2264. SCHIZONE'MA. *Ag.*		Schizonema.			*Sp* 5—9.			
15033	Smithii *Ag.*	Smith's	slipp. threads	½	sum.	Brsh	sea coast	E. b. t.2101. *Conf. fœtida*
15034	lacústre *Ag.*	lake	slipp. threads	½	sum.	Brsh	lakes	
15035	Dillwýnii *Ag.*	Dillwyn's	entangl. tufts	1½	sp su.	Ol.G	sea coast	Di co. t.104. *Conf fœtida*
15036	apiculátum *Ag.*	pointed	lax tufts	½	spring	Y G	sea in basins	Grev. crypt. t. 30
15037	dichótomum *Grev.*	dichotomous	erect tufts	1	sum.	Y.G	sea in basins	

NOSTOCHINÆ.

2265. PALMEL'LA. *Ag.*		Palmella.			*Sp.* 6—12.			
15038	protúberans *Ag.*	lobed	mass	½	sp aut.	G	rocks	Eng. bot. t. 2583. *Ulva*
15039	botryoides *Ag.*	bunched	thin skin	...	aut.	G	damp places	
15040	adnáta *Ag.*	adnate	gregarious	½	aut.	Y.Br	mount. rocks	Lyngb. phyt. dan. t. 69



History, Use, Propagation, Culture,

2229. *Achnanthes.* From αχνη, the froth of the ocean, and ανθος, a flower. Marine productions, separating into fragments, but by degrees. In the middle of each articulation are one or two crystalline points.

2230. *Diatoma.* From διατομη, incision, in allusion to the curious manner in which the filaments are divided into joints cohering alternately by their angles.

2231. *Fragillaria.* So named on account of their fragile nature, which is more remarkable than that of other Confervæ. The filaments when complete are flat and composed of little fragments glued together crosswise. These are very narrow, and when once separated do not cohere again.

2232. *Meloseira.* From μελος, a membrane, and σειρα, a chain, with reference to the form of the filaments. This genus differs from the last, as Conferva from Oscillatoria.

2263. *Desmidium.* From δεσμος, a bond, in allusion to the singular manner in which the parts cohere when in a state of dissolution. At that period the articulations become half separated one from the other in such a way as to represent a pinnatifid appearance.

2264. *Schizonema.* From σχιζω, to divide, and νημα, a filament; the filaments are finally divided into compound granules. These plants have entirely the habit and flexible substance of Confervæ. When fresh they are sparkling and brown, when dry olive-green, and very shining. They are composed of many filiform individuals, which include nearly the same corpuscles as are visible in the foreign genera Frustulia and Meridion.

2325. *Laminaria.* Root fibrous. Stipes dilated into a plane frond. Fructification, naked granules immersed and forming irregular groups in the frond.

2326. *Lichina.* Fronds minute, tufted, greenish-black when growing. Fructification solitary tubercles with a pore, at length scutelliform.

2327. *Furcellaria.* Frond cylindrical. Fructification concealed in the swollen extremities of the frond, capsules in the centre, and pyriforme granules in the circumference.

2328. *Fucus.* Root scutate. Frond plane or compressed, (rarely filiform) dichotomous. Fructification, tubercles contained in a common mucose receptacle, and filled with sporules and filaments.

2329. *Cystoseira.* Root scutate. Stipes cylindrical. Lower leaves plane, upper ones filiform, furnished with pinnate vesicles. Fructification, tubercles in common receptacles, the receptacles with several loculaments.

DIATOMEÆ.

15021 Articulations with one dot, Stem long

15022 Filaments striated, Articulations nearly equal in diameter with parallel striæ
15023 Articulations half as long again as wide granular transversely
15024 Filaments greenish, Articulations square striated
15025 Filaments arcuate transversely striated, Articulations nearly square with pellucid joints
15026 Articulations half as long again as wide oblique marked with a pellucid transverse band and a dot

15027 Filaments tapering very rigid with parallel transverse dense striæ
15028 Filaments tapering orange-colored, Articulations twice as short as their diameter

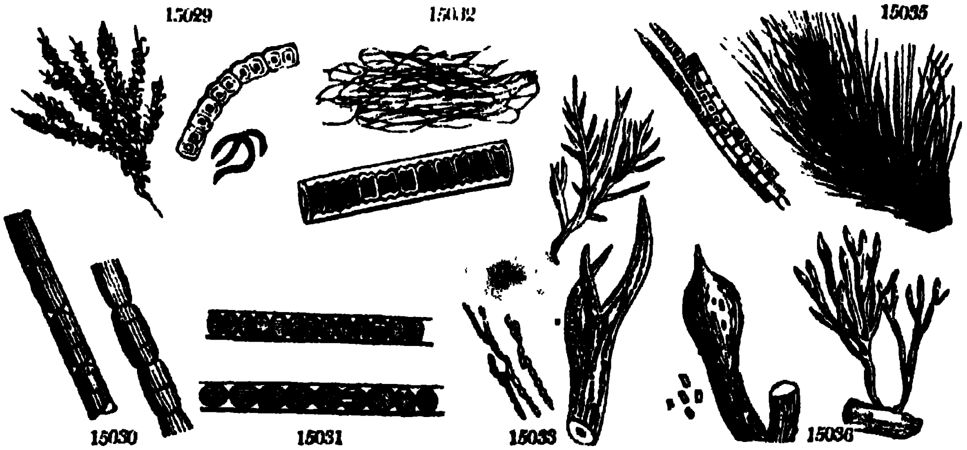
15029 Filaments unequal containing nearly circular moniliform globules in rows
15030 Joints contract. Articulations transversely striat. with 1 [illegible] 2 very fine lines about 3 times as long as wide
15031 Articulations shorter than broad finally changed into somewhat oval close moniliform heaps

15032 Filaments after copulation pinnatifid traversed by a longitudinal green streak, Articulations 2-toothed

15033 Filaments somewhat branched cæspitose acute, Granules parallel clustered
15034 Filam. somew. branched cæspitose acute, Granules clustered appressed, Membrane of filam. inconspicuous
15035 Filaments densely branched virgate, Granules elliptical
15036 Filaments minute continuous erect branched containing cylindrical oblong scattered granules
15037 Filaments slender erect dichotomous, Branches swollen here and there into roundish knobs: interior gelatinous with numerous cylindrical oblong granules

NOSTOCHINÆ.

15038 Frond thick angular-lobed, Granules elliptical
15039 Fronds aggregate minute globose, Granules globose
15040 Frond deformed rugose, Granules globose brown



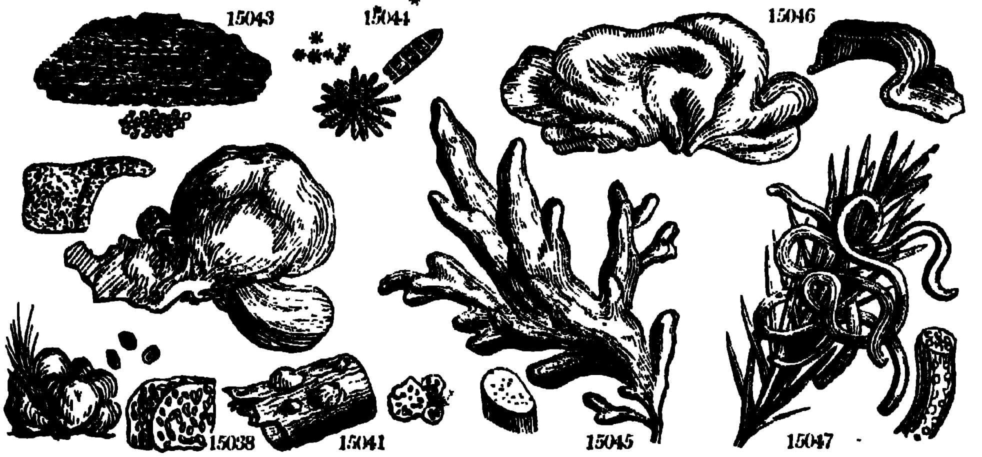
and Miscellaneous Particulars.

2965. *Palmella.* Apparently a diminutive of *Palma*, a little palm; but the application of the name is not obvious in that sense. The plants are found in marshy or inundated places, and consist of globules nestling in a gelatine; in which respect the genus differs from Protococcus, the Red Snow plant. It is supposed that many of the species are only the ova of animalcules.

The Red Snow plant, which, as we have just said, is nearly related to this genus, has not hitherto been noticed in this country, but as it has been found in many countries similar to our own regions of snow, it is so probable that it exists in Great Britain, that we insert some particulars of it here, especially as it may be considered to have been *introduced* at least in 1819, by Captain Ross's expedition to the North Pole. When viewed under the highest powers of a simple microscope, it appears to consist of globules containing a red fluid. We select the following observations upon its history, from a communication made to the News of Literature and Science, on the twenty-first of January, 1826.

"Our scientific readers will remember the interest which was excited on the subject of this natural production, upon the return of Captain Ross from his Polar expedition, some years since. At that time it was examined by three of the most acute observers in this country, especially of microscopical objects, Wollaston, Brown, and Bauer, who all formed a similar conclusion in one respect, that it was of vegetable origin, but were of different opinions as to its precise nature: Dr. Wollaston supposing it to be the seed of a moss; Mr. Brown, a substance belonging to Algæ, and nearly related to Tremella cruenta, a common British plant; and Mr.

15041	rósea *Lyngb.*	rosy	gregarious	...	sum.	Pk	on lichens	Grev. crypt. t. 51
15042	montána *Ag.*	mountain	leaf-like	1½	sum.	R.G	alpine rocks	Eng. bot. t. 2195. *Ulva*
15043	cruénta *Ag.*	bloody	thin crust	...	all sea.	R.Br	shady places	E. bot. t. 1800. *Tremella*
2266.	ECHINEL'LA. *Ag.*	Echinella.			*Sp.* 1—3.			
15044	articuláta *Ag.*	jointed	thin film	...	jn.jl	G	lakes	E.b. t. 1378. *C.echinulata*
2267.	ALCYONI'DIUM *Ag.*	Alcyonidium.			*Sp.* 3—7.			
15045	diáphanum *Ag.*	transparent	fleshy mass	6	sum.	Y	ocean	Eng. bot. t. 263. *Ulva*
15046	flavéscens *Ag.*	yellowish	fleshy mass	3	sum.	Y	ocean	Fl. dan. t. 1245. *Ulva*
15047	defráctum *Ag.*	broken	vermicular	4	sum.	Y.Pk	ocean	Eng. bot. t. 1626. *Ulva*
2268.	NOS'TOC. *Ag.*	Nostoc.			*Sp.* 4—22.			
15048	commúne *Ag.*	common	lobed mass	2	sum.	Ol.G	damp places	E. bot. t. 461. *Tremella*
15049	prunifórme *Ag.*	plum-shaped	little balls	¼	sum.	Ol.G	lakes	
15050	sphæ'ricum *Ag.*	spherical	little balls	⅛	sum.	Ol.G	still waters	
15051	verrucósum *Ag*	warted	gregarious	1	april	Ol.G	rocks	
2269.	CORYNE'PHORA. *Ag.*	Corynephora.			*Sp.* 1.			
15052	marina *Ag.* *Rivularia tuberiformis* E. B.	marine	lobed mass	1½	aug.	Br	sea shore	Eng. bot. t. 1956
2270.	RIVULA'RIA. *Ag.*	Rivularia.			*Sp.* 3—11.			
15053	átra *Ag.*	dark	minute dots	1/12	oct.	D.G	sea plants	Eng. bot. t. 1798
15054	angulósa *Ag.*	angular	little balls	¼	sum.	Dl.G	ditches	Eng. bot. t. 968
15055	calcárea *E. B.* *Linckia dura* Lyngb.	calcareous	conflu. mass.	1¼	all sea.	G	lakes & mar.	Eng. bot. t. 1799
2271.	CHÆTO'PHORA. *Ag.*	Chætophora.			*Sp.* 2—12.			
15056	tuberculósa *Ag.*	warty	balls	¼	sept.	G	ditches	E. bot. t. 2366. *Rivularia*
15057	endiviæfólia *Ag.*	endive-leaved	branched	2	sum.	G	still waters	Lyngb. phyt. dan. t. 65
	β *crassa* Ag.	*thick-leaved*	branched	2	sum.	G	lakes	E. b. t. 967. *U.incrassata*
2272.	SCYTHYME'NIA. *Ag.*	Scythymenia.			*Sp.* 1.			
15058	rupéstris *Ag.*	rock	broad mass	24	sum.	Br	rocks	Eng. bot. t. 2194



History, Use, Propagation, Culture,

Bauer refering it to a genus of Fungi, called Uredo. We have lately seen a curious paper upon this subject, by Professor Agardh, of Lund, whose opinions upon all matters connected with the lower orders of vegetation demand deep attention

" That snow occasionally assumed a red color, had long been a fact of which there could be no doubt; and that water was also under particular circumstances stained with red, we have the popular traditions of showers of blood, and water changed to blood, to attest. In the year 1608, a shower of blood fell near Aix, in France, which was examined by Peirese, and found to be caused by insects; and to the same cause was undoubtedly to be ascribed the bloody rain that fell at Schonen, in 1711, which the learned Bishop Swedberg looked upon as a supernatural phenomenon, and a direct sign of the anger of the Divinity. The red pools which are occasionally met with, even in this country, are generally stained by the presence of an immense number of animalcules, called Daphinia Pulex, or Cyclope quadricornus The red stains sometimes seen upon the sea-shore are occasioned by a particular sort of Fucus. Professor Agardh proceeds to observe, that the red snow is very common in all the alpine districts of Europe; where it is probably, for the most part, of the same nature as that brought from the North Pole by Captain Ross. Saussure saw it in abundance upon Mount Brevern, in Switzerland, and elsewhere; Ramond found it on the Pyrenees, and Sommerfeldt in Norway. In March, 1808, the whole country about Cadore, Belluno, and Feltri, was in a single night covered to the depth of twenty centimetres with a rose-colored snow; at the same time a similar shower was witnessed on the mountains of Valtelin, Brescia, Carinthia, and Tyrol. But the most remarkable red-snow shower was that which fell on the night between the 14th and 15th of March, 1823, in Calabria Abruzzo, in Tuscany, and at Bologna, and upon the whole chain of the Appennines. We may add, that both snow and ice were seen stained with red, green, and blue, by the late expedition under Baron Wrangel to the Frozen Ocean.

" With this information before him, Professor Agardh proceeds to consider the nature of this remarkable substance, which he concludes, with Brown, to be referable to the lowest order of Algæ, and to stand as a distinct genus, which he calls Protococcus, upon the very limits of the animal and vegetable kingdoms. Saussure, indeed, from finding that the red snow of the Alps gave out, when burnt, a smell like that of plants, concluded that it was of vegetable origin; but he supposed it to consist of the farina of some plant, although he could neither account for its having ascended to such elevated regions, nor mention a plant whose farina was of that color.

" Besides the plant called Palmella cruenta, which is similar in its structure to the red-snow plant, other low vegetable productions have been noticed by different authors, as possessing a similar color. Such are the Lepraria Kermesina, which, by the way, is considered only a particular state of the red-snow plant itself, and the Byssus cobaltiginea. These are always found in situations in which they are exposed to the intense action of light, such as vast plains of snow, or masses of glittering limestone. Whence it is inferred, that the color of the red snow is attributable to the action of light, modified in some mysterious manner, by the nature of the body on which it strikes. In confirmation of which hypothesis, it is remarked, that when the Lepraria

15041 Minute roundish [illegible] rose-colored containing extremely minute sporules
15042 Frond deformed rugose, Granules ovate red
15043 Frond crust-like crimson

15044 Corpuscles radiant lanceolate jointed

15045 Branches elongated
15046 Branches short obtuse
15047 Frond filiform simple

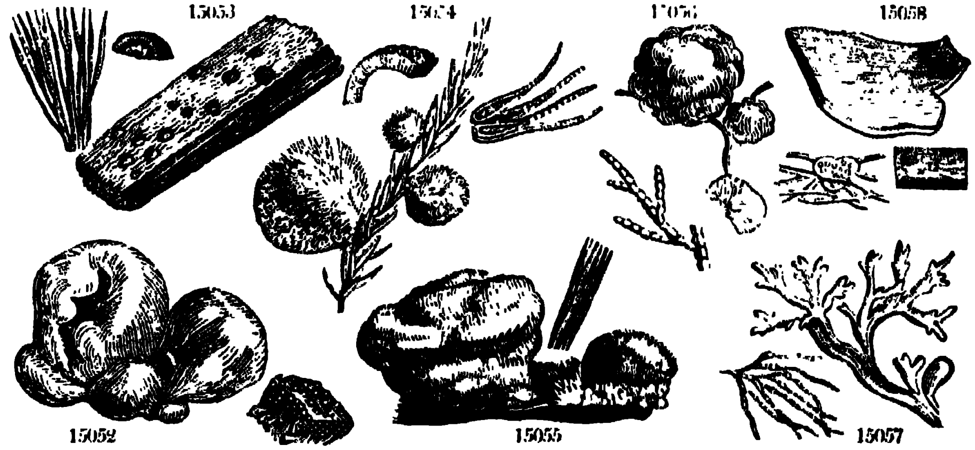
15048 Frond expanded deformed plaited wavy
15049 Frond globose watery inside, Integument coriaceous very smooth
15050 Frond globose solid smooth
15051 Frond bladdery subcoriaceous hollow plaited smooth

15052 The only species

15053 Frond hemispherical hard, Filaments very dense branched by apposition
15054 Frond globose hollow, Filaments simple
15055 Filaments intermingled with calcareous particles hard and crustaceous when dry

15056 Frond tubercular hollow, Filaments distributed in many little orbs
15057 Frond linear flattish dichotomous at base much pinnated at end
  β Branches very short

15058 The only species



and Miscellaneous Particulars

Kermesina is found under stems, stones, or in crevices of limestone, where light can scarcely gain admittance, its color gradually passes from red to green.

"The only difficulty in the way of this explanation of its nature is in the statements of so many observers, that the red snow falls from the air. But Professor Agardh shrewdly remarks, that all the persons agree that it fell in the night, *which is as much as to say, that no one saw it fall* He is of opinion that the Protococcus, or Red Snow, is called into existence by the vivifying power of the sun's light, after its warmth has caused the snow to dissolve, and accompanied by that incomprehensible power in white snow, of producing a color; and, moreover, that it first attracts the eye when there is a considerable quantity, in the same way that we do not see the color of drops of water till they have accumulated in the ocean."

2266. *Echinella.* From *echinus*, an hedgehog, in allusion to the bristly appearance presented by its radiant particles. Many naturalists believe the bodies referred to this genus to be animalcula.

2267. *Alcyonidium.* So called, from αλκυονιον, the foam of the sea, among which the plants referred to this genus are naturally produced. This also is supposed to be the nidus of animalcula. Lamouroux who originally fixed it here, afterwards referred it to Zoophytes, in which last opinion Gaillon agrees with him, declaring that he has actually seen the animalcula nestling in it. D'Orbigny and Ellis consider it the ova of a testaceous animal.

2268 *Nostoc.* A name first used by Paracelsus, without an explanation of its meaning. Agardh thinks this singular substance changes into the genus Collema among the Lichens.

2269. *Corynephora* From κορυνη, a club, and φερω, to bear, in allusion to the clavate filaments which are found on different parts of it. The species are found in the ocean."

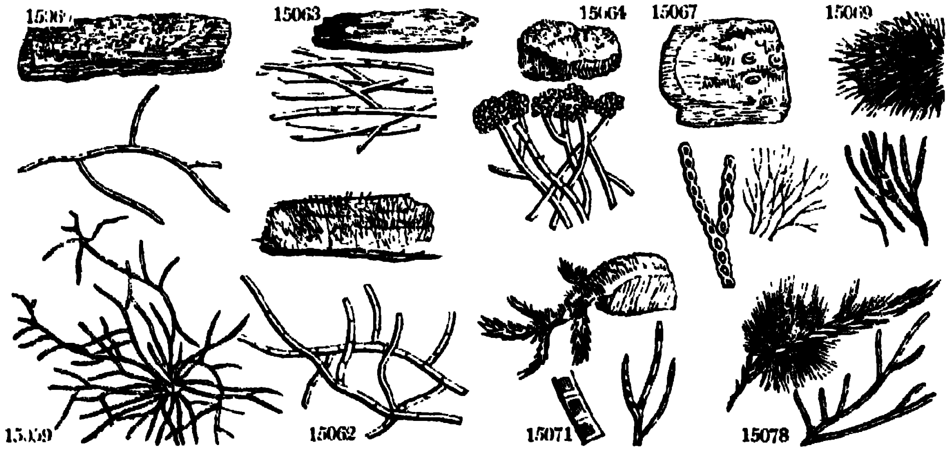
2270. *Rivularia* So named on account of the places in which the species grow. They have a globose frond, of a gelatinous but toughish texture Their color is dark-green, and not as in the next genus, pale-green. The filaments are very singular, seated on a globule, simple, cylindrical, and terminated by a very fine point; they are densely compact, continuous, and filled with a green annular matter.

2271. *Chætophora.* From χαιτη, a bristle, and φερω, to bear; the filaments are terminated by a bristle-like point. This genus is chiefly distinguished from Confervoideæ by its gelatine. The color is bright green, and the texture softer than in the preceding. The manner of propagation, which has been noticed in so small a number of Algæ, has been observed by Agardh in two species of this genus. In Chætophora pisiformis little hard crystalline corpuscles, like grains of sand, may be seen, which separate from the mother plant and produce young filaments. But in C. clavata, the points of the filaments fall off and sink to the bottom of the water, where they unite by three, four, five, or by a greater number at a time, in a common point, which is first green, afterwards blackish, and apparently inorganic. From this beginning new individuals arise.

2272. *Scythymenia.* Derivation unknown. A very singular plant, formerly referred to Ulva. It has the habit of a fungus, and grows upon damp walls. It is supposed to be most nearly related to Palmella.

CONFERVOIDEÆ.

2273. BYSSOCLA'DIUM. *Ag.*		Byssocladium.			*Sp.* 1—3.			
15059	fenestrâle *Ag.*	window	fine tuft	¼	all sea.	G	on windows	Dillw. conf. t. 94
2274. MYCINE'MA. *Ag.*		Mycinema.			*Sp.* 5—6.			
15060	arachnoideum *Ag.*	cobweb	patch	T¼	all sea	Pa.G	dead trees	Dillw.conf.t.C. *Conferva*
15061	fúlvum *Ag.*	tawny	down-like	T¼	aut.	Br	rotten wood	
15062	rubiginósum *Ag.*	rusty	patch	¼	all sea.	Rust	rotten wood	Dillw. conf. t. 68. *Conf.*
15063	phosphóreum *Ag.*	phosphoric	patches	T¼	all sea.	V	rotten wood	Dillw. conf. t. 88 *Conf.*
15064	pulvéreum *Ag.*	powdery	thin crust	T¼	all sea.	G	rotten wood	Dillw.conf.78. t. D. *Conf*
2275. CHROOLE'PUS. *Ag.*		Chroolepus.			*Sp.* 5—6.			
15065	Jólithus *Ag.*	purple	patches	T¼	all sea.	Pu	rocks	Fl. dan. t. 899. f. 1
15066	odorátus *Ag.*	sweet-scented	patches	T¼	wint.	Br	trees	Lyngb.hydrop. dan. t.57
15067	lichenícola *Ag.*	Lichen	down	T¼	sum.	R.O	on lichens	Eng. bot. t. 1609
15068	rubicúndus *Ag.*	pink	patches	T¼	sum.	R.Br	bark of ap tr.	
15069	ebéneus *Ag.*	ebony	patches	¼	all sea.	Bk	rocks	E. b. t. 702. *Byssus nigra*
2276. TRENTEPOH'LIA. *Ag.*		Trentepohlia.			*Sp.* 3—4.			
15070	purpúrea *Ag.*	purple	patches	T¼	all sea.	Pu	sea coa , roc.	Eng. bot. t. 192. *Byssus*
15071	aúrea *Ag.*	golden	patches	T¼	all sea.	Y	roc. & sub.w.	Eng. bot. t. 212. *Byssus*
	β *ilicícola* Ag.	*Holly*	branch. patc.	T¼	spring	Y	holly bark	En.bot. t.1639. *Conferva*
15072	pulchélla *Ag.*	pretty	downy tufts	¼	spring	R.Br	on Confervæ	Eng. bot. t. 2585. *C.nana*
	β *chalýbea* Ag.	*iron*	tufts	¼	sept.	D.Ol	fresh water	Eng. bot. t. 1996
2277. SCYTONE'MA. *Ag.*		Scytonema.			*Sp.* 5—17.			
15073	compáctum *Ag.*	compact	tufts	1	sum.	Bksh	mountains	Lyngb.hydrop dan. t. 28
15074	byssoídeum *Ag.*	byssus-like	tufts	1	sum.	B	rocks	Dillen. t. 1. f. 18
15075	myochróus *Ag.*	mouse-skin	slimy coat	1	sum.	D.Br	rocks	
	β *ocellátum* Ag.	*mottled*	slimy coat	1	sum.	D.Br	aquat. plants	Eng. bot. t. 2530
	γ *inundátum* Ag.	*inundated*	slimy coat	1	sum.	D Br	inund. places	Eng. bot. t 1555
15076	Bángii *Lyngb.*	spiral	compact tufts	1¼	sum.	Ærug	subalp.banks	Lyngb hydrop.dan. t. 28
15077	Sowerbyánum *Ag*	Sowerby's	short down	¼	sum.	Ol.Br	ocean	E. b. t. 2219. *C mirabilis*
15078	comoídes *Ag.*	tufted	broad patches	¼	oct.	Rs.br	ocean	Eng. bot. t. 1700. *Conf.*
2278. STIGONE'MA. *Ag.*		Stigonema.			*Sp.* 1—3.			
15079	atrovírens *Ag.*	dark green	bushy tufts	¼	sum.	Bk	rocks	Dillw. conf. t. 25 *Conf.*
2279 PROTONE'MA. *Ag.*		Protonema			*Sp.* 7—10			
15080	répens *Ag.*	creeping	patches	¼	sum.	G	pots in hoth.	
15081	umbrósum *Ag.*	shady	patches	¼	sum.	G	on the earth	Dillw. conf. t. 61. *Conf.*
15082	velutínum *Ag.*	velvety	patches	¼	nov.	G	on the earth	Dillw. conf t 77. *Conf.*
15083	frágrans *Ag.*	fragrant	patches	¼	nov.	G	on the earth	Eng. bot. t. 1556. *Conf*
15084	cryptárum *Ag.*	vault	patches	¼	sum.	G	caverns	Eng. bot. t. 2588. *Conf.*
15085	Orthótrichi *Ag.*	Orthotrichum	dense tufts	¼	sum	Br	on Orthotr.	E. b t. 1638. *C.muscicola*
15086	muscícola *Ag.*	moss	minute down	T¼	april	Br	on mosses	E.b. t.1701. *Con castanea*
2280. HYGROCRO'CIS. *Ag.*		Hygrocrocis.			*Sp.* 7—9			
15087	barýtica *Ag.*	Barytes	fine tufts	¼	all sea.	Tr	sol.of mur. B	
15088	atraménti *Ag.*	ink	fine tufts	T¼	all sea.	Wsh	surf. of ink	Lyngb. hydroph. t. 57
15089	typhlodérma *Ag.*	Gum Arabic	fine tufts	¼	all sea.	Ol	in sol. g arab.	Dillw. conf. t 83. *Conf.*
15090	pállida *Ag.*	pallid	fine tufts	¼	all sea.	Y	sol of ochre	Dillw. conf. t. 78. *Conf.*
15091	Rósæ *Ag.*	Rose-water	fine tufts	T¼	all sea.	Tr	rose water	
15092	sanguínea *Ag.*	blood-colored	fine tufts	¼	all sea.	C	isinglass size	
15093	víni *Ag.*	Wine	fine tufts	¼	all sea	Y	in Mad. wine	
2281. LEPTOMI'TUS. *Ag.*		Leptomitus.			*Sp* 4—15			
15094	minutíssimus *Ag.*	very minute	little tufts	T¼	all sea.	Tr	on mar. algæ	
15095	lácteus *Ag.*	milky	patches	T¼	wint.	Tr	pools	Dillw. conf. t. 79. *Conf.*



History, Use, Propagation, Culture,

2273. *Byssocladium.* From *byssus*, a kind of fungus, and *κλαδος*, a branch; the filamentous branches of this plant being very similar to those of Byssus. These plants grow in places occasionally overflowed with water.

2274. *Mycinema.* From *μυκης*, a kind of minute fungus, and *νημα*, a thread; in allusion to the resemblance of the filaments to those of some Fungi.

2275. *Chroolepus.* So called on account of the change which is undergone by the exterior membrane, which changes to powder; from *χρως*, skin, and *λεπω*, to decorticate.

2276. *Trentepohlia.* So named, in honor of an obscure German botanist This is an ill-defined genus, which is much in need of reformation.

2277. *Scytonema.* From *σκυτος*, leather, and *νημα*, a filament; in allusion to the coriaceous nature of the filamentous frond. The species grow chiefly on stones in inundated places, and are rarely found in salt water.

CONFERVOIDEÆ.

15059 Filaments appressed very minute short radiant cobweb-like branched sinuous wavy

15060 Filam. thin entangled in a cobweb-like membr. Branches scatter. rem. simp Articulat. of various lengths
15061 Filam. decumb. long membran equal branched entangled in a soft layer, Articulat. thrice as long as broad
15062 Filaments much branched rigid erect entangled in a nearly solid mass, Articulat. 4 times as long as broad
15063 Filam. branch. ascend. very short entangled in a dense unif. crust, Articulat. about ½ as long again as broad
15064 Filam. branch. dichotom. creeping very minute having caps.at end and ærugin. Dissepiments nearly obsol.

15065 Filaments cæspitose erect very short dichotomous, Articulations half as long again as broad
15066 Filaments cæspitose branched short erect, Branches spreading stiffish, Articulations as broad as long
15067 Filaments erect fascicled alternately branched rigid, Articulations tumid as broad as long
15068 Filam. cæspit. rig. short ascend. curved densely branched, Artic. as broad as long by a line except granules
15069 Filaments cæspitose branched erect rigid somewhat cartilaginous obtuse, Articulations as broad as long

15070 Filam dichotomous cæspitose entangled very minute, Artic. about twice as long as broad
15071 Filam. flexu. collect in a dense soft cushion-like tuft, Branch. long spread. rig. Artic. twice as long as broad
β Much smaller, Articulations as broad as long
15072 Filaments virgate cæspitose, Branches straight, Artic. twice as long as broad, Thecæ racemose

15073 Filaments decumbent rigid flexuose branched entangled in a crustaceous layer, Branches appressed
15074 Filaments simple erect very short flexuose-crisp entangled in a black layer
15075 Tuft with olive-yellow filaments, Branches double 1-sided

15076 Filaments simple erect flexuose spirally twisted into pointed masses greenish above brownish below
15077 Tuft loose, Filaments netted branched, Branches divaricating
15078 Tuft loose, Filaments flexuose, Branches solitary remote ascending

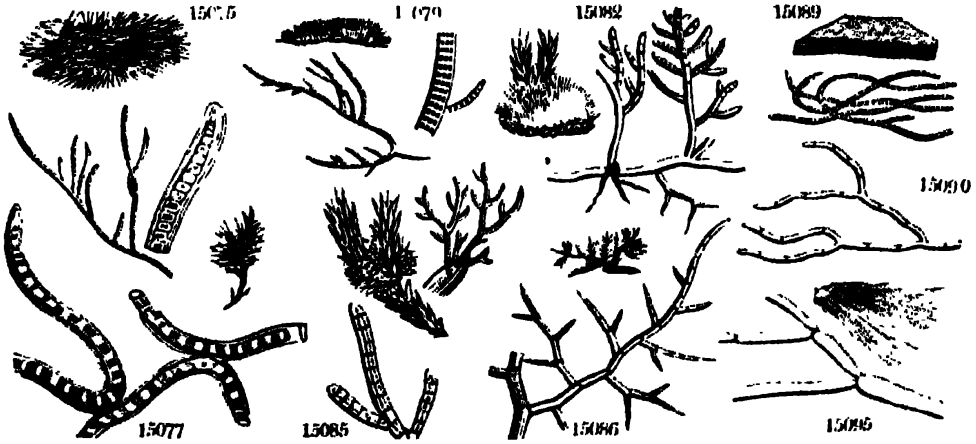
15079 Filaments rigid branched, Branches slender, Granules disposed in rings

15080 Runner creeping transparent emitting round green erect branches, Artic. cylindrical, Joints obsolete
15081 Layer velvety, Filaments erect obtuse clustered brittle, Articulations gibbous
15082 Layer velvety, Runner creeping rooting sending out erect obtuse branches, Artic cylind Joints obsolete
15083 Layer velvety, Filaments erect blunt rigid, Branches alternate, Articulations oval twice as long as broad
15084 Filaments dichotomous, Branches divaricating acuminate, Artic. thrice as long as broad
15085 Filaments olivaceous branched blunt erect in a cushion-like tuft, Artic about as broad as long
15086 Filaments branched, Branches alternate divaricating subulate, Artic. three times as long as broad

15087 Tuft globose, Filaments very fine like cobweb hyaline much entangled without joints wavy branched
15088 Filam. dichot branch. very min. decumb. very densely entang. in a whit. layer, Artic twice as long as broad
15089 Filam. somewhat branched densely entangled in an olive-green pellicle, Artic as broad as long
15090 Filam. dichot. curved flexuose entangled in a coriaceous gelatin. pellicle, Axillæ round, Artic. very long
15091 Filam hyali. somew. branch entang. cobw.-like entang in a pucker. cloud-like memb or a comp. gelatine
15092 Filam. branched densely entangled in a gelatin. pellicle, Branches divaric Artic. half as long again as broad
15093 Filaments hyaline entangled branched, Branches tapered acute, Artic. as long as broad

* *Growing on vegetables.*

15094 Filam. somew. branched minute hyaline, Branches scattered forked bluntish, Joints obsol. Artic. various
15095 Filam. at every joint branched and clustered in a shapeless gelatinous mass, Articulations very long



and Miscellaneous Particulars.

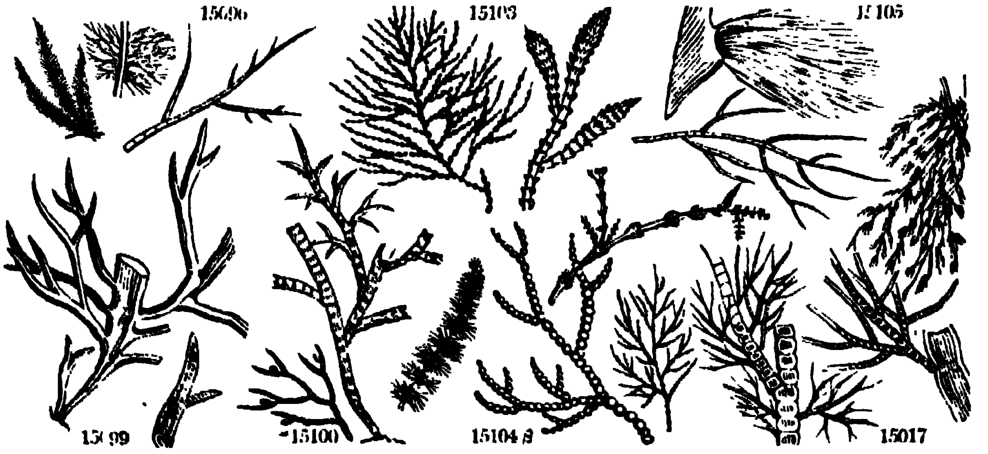
2278. *Stigonema.* So named in allusion to the regular annular dots of the filaments; from στιγον, dotted, and νημα, a thread. This genus is similar in habit to the Lichens. The color is opaque and brown; the filaments are branched with spines, and marked internally with distinct dots.

2279. *Protonema.* It is uncertain whether this genus is not rather the young state of germinating mosses; it is named in allusion to the simplicity of its structure, from πρωτος, first, or primary, and νημα, a thread.

2280. *Hygrocrocis.* From ὑγρος, any thing belonging to water, and κροκις, a little tuft. These plants are found in chemical solutions of vegetable matter, as in ink, &c.

2281. *Leptomitus.* Substances floating in the water, and produced by animal matter in a state of decay. They consist of exceedingly fine intertangled filaments, whence the name, λεπτος, slender, and μιτος, a thread.

15096 nánus *Ag.*	dwarf	like down	1/12	aut.	G	rotten algæ	Dillw. conf. t. 30. *Conf.*
15097 clavátus *Ag.*	clavate	minute	1/12	aut.	Tr	dead fishes	Lyngb. hydroph. t. 22
2282. MESOGLO'IA. *Ag.* Mesogloia.			*Sp.* 5—8.				
15098 multífida *Ag.*	multifid	tufts	3	aut.	R	Germ. ocean	Lyn. hy. t. 1669. *Chordar.*
15099 Hudsóni *Ag.*	Hudson's	branched	6	aut.	R	ocean	E. b. t. 1627. *Ulva rubra*
15100 coccínea *Ag.*	scarlet	bushy	4	sum.	R	ocean	Eng. bot. t. 2466
Rivularia verticillata E. B.							
15101 capillária *Ag.*	capillary	tufts	3	sum.	R	ocean	Lyngb. hydroph. t. 12
15102 vermiculáris *Ag.*	vermicular	bushy	5	august	Brsh	ocean	Lyngb. hydroph. t. 65
β *coriácea* Ag.	*leathery*	bushy	5	august	Brsh	ocean	Eng. bot. t. 1819
Rivularia vermiculata E. B.							
2283. BATRACHOSPER'MUM. *Ag.* Batrachospermum.			*Sp* 2—6.				
15103 vágum *Ag.*	turfy	fine tufts	1½	may	Bsh	ditches	Lyngb. hydroph. t. 64
β *tenuis'simum* Ag.	*very slender*	fine tufts	1½	may	D.Ol	ditches	E. bot. t. 690. *Conf. atra*
15104 monilifórme *Ag.*	necklace	fine tufts	1	sum.	G	fresh waters	
α *stagnále* Ag.	*pool*	fine tufts	1	sum.	G	pools	Dillenius, t. 7. f. 44
β *simplícius* Ag.	*simple*	fine tufts	1	sum.	B	pools	Dillenius, t. 7. f. 45
γ *purpuráscens* Ag.	*purple*	fine tufts	1	sum.	Pk	sea shore	Dillenius, t. 7. f. 40
δ *detérsum* Ag.	*knotted*	fine tufts	1	sum.	D Ol	pools	Dill con. t. 11. *Conf. atra*
2284. DRAPARNAL'DIA. *Ag.* Draparnaldia.			*Sp.* 3—6.				
15105 ténuis *Ag.*	fine	fine tufts	¼	all sea.	Dl.G	pools	Dill con. t. 67. *C. protensa*
15106 plumósa *Ag.*	feathery	broad tufts	6	sum.	Bt.G	rivulets	E. bot. t. 2087. *C. lubrica*
15107 glomeráta *Ag.*	heaped	gelatin. tufts	4	sp. su.	Bt.G	pools	E. b. t. 1746. *C mutabilis*
2285. OSCILLATO'RIA. *Ag.* Oscillatoria.			*Sp.* 11—47.				
15108 tenuíssima *Ag.*	very fine	patches	⅛	sum.	Pa.G	warm springs	Eng. bot. t. 2584. *Conf.*
15109 autumnális *Ag.*	autumnal	slimy mass.	1½	sum.	Ol.G	on the earth	
β *vagináta* Ag.	*sheathed*	slimy mass.	1½	sum.	Ol G	on the earth	Dillw. conf t. 99
15110 nigra *Ag*	black	floating tufts	¼	sum.	D.G	still waters	Dil co t. 64. *O fontinali*
15111 Córium *Ag.*	leather-like	broad layer	¼	spring	Ysh	rocks in wat.	
15112 subfúsca *Ag.*	brownish	tufts	1	all sea.	Br V	stones in riv.	
15113 spléndida *Grev.*	splendid	thin masses	1½	all sea.	Pa.B	wat. in hoth.	
15114 ténuis *Ag.*	fine	slippery layer	¼	spring	Pa.G	still waters	Dill. conf. t 20 *C. limosa*
15115 limósa *Ag.*	mud	floating mass.	6	all sea.	Æru	mud bot. po.	Fl dan. t 1549. f 2
15116 cyánea *Ag.*	blue	thin film	...	all sea.	B	church walls	E. bot. t. 2578. *Conferva*
15117 decórticans *Ag.*	unbarking	thin flakes	¼	march	B.G	damp wood	Dillw. conf. t. 26
15118 ochrácea *Lyngb.*	ochre-colored	gelat. masses	¼	all sea.	Och	pools	Dill. conf. t. 62 *Conferva*
2286. CA'LOTHRIX. *Ag.* Calothrix.			*Sp.* 7—12.				
15119 nívea *Ag.*	snowy	fine tufts	¼	all sea.	Pa.Y	sulph. sprin.	Dill. conf. t. C *Conferva*
15120 confervícola *Ag.*	conferva	minute tufts	¼	sum.	Gla	marine algæ	E. bot. t. 2576. *Conferva*
15121 scopulórum *Ag*	rock	patches	1/12	sum.	Pa G	marine algæ	E. bot. t. 2171 *Conferva*
15122 fasciculáta *Ag.*	fascicled	tufts	¼	sum.	Y.G	roc. on sea c.	Dillw conf.
15123 mirábilis *Ag.*	wonderful	little patches	¼	sum.	Ærug	on H. fluitans	Dill. conf. t 96. *Conferva*
15124 distórta *Ag.*	distorted	floating patc.	1½	sum.	B.G	lakes	E bot. t 2577. *Conferva*
15125 lanáta *Ag.*	woolly	floating patc.	1½	sum	G	springs on st.	
β *fuscéscens* Ag.	*fulvous*	floating patc.	1½	sum.	Taw	pools	E. bot. t. 2577. fig. sinistr.
2287. LYNG'BYA. *Ag.* Lyngbya.			*Sp.* 1—7.				
15126 murális *Ag.*	wall	patch	1/12	all sea.	G	damp earth	Eng. bot. t. 1554
2288. BAN'GIA. *Ag.* Bangia.			*Sp.* 2—5.				
15127 lamináriæ *Ag.*	Laminaria	broad tufts	1/12	sum.	G	on L. escul	Lyngb hydrop dan. t. 24
15128 atropurpúrea *Ag*	dark-purple	silky tufts	2	sum.	D.Pu	marine rocks	Dill. con t. 103. *Conferva*
β *fúsco-purpúrea* Ag.	*brown-purple*	silky tufts	2	sum.	Br.pu	sea coast	Dill. conf. t 22. *Conferva*



History, Use, Propagation, Culture,

2282. *Mesogloia.* From μεσος, the middle, and γλοιος, viscid: the spines of little branches radiating from a common centre, and forming what appears to be a solid mass. These plants were formerly referred to Chætophora, from which they differ in the want of any fixed gelatine.

2283. *Batrachospermum.* From βατραχος, a frog, and σπερμα. So called in allusion to the places in which the species grow; they are mostly found in marshes, less frequently in the sea.

2284. *Draparnaldia.* James Philip Ralph Draparnaud, was a French botanist, who wrote some memoirs on the subject of botany in the beginning of this century. He is also known for his acquaintance with fresh-water Confervæ.

2285. *Oscillatoria.* The singular motion of these curious plants has suggested their generic name. The oscillation of the filaments seems almost of an animal nature, although it frequently arises from mechanical

15096 Filam. branched very minute, Branches and branchlets acuminate, Joints pelluoid, Artic. cylindrical

*** Growing on animals.*

15097 Filaments simple hyaline clavate at end

15098 Frond dichotomous, Axillæ rounded: upper spreading
15099 Frond virgate with all the branches divaricating
15100 Frond somewhat moniliform virgate filiform, Branches scattered obtuse spreading

15101 Frond much branched, Branchlets tapering at each end divaricating
15102 Frond yellowish-brown, Branches divaricating

15103 Frond dichotomous cylindrical equal, Branches thickened at end
β Frond setaceous minute
15104 Frond moniliform much-branched, Branches rather acute, Cauline whorls nearly distinct globose
α Filaments thick, Whorls of stem confluent: those of the branches distinct
β Thinner bluish with distant whorls

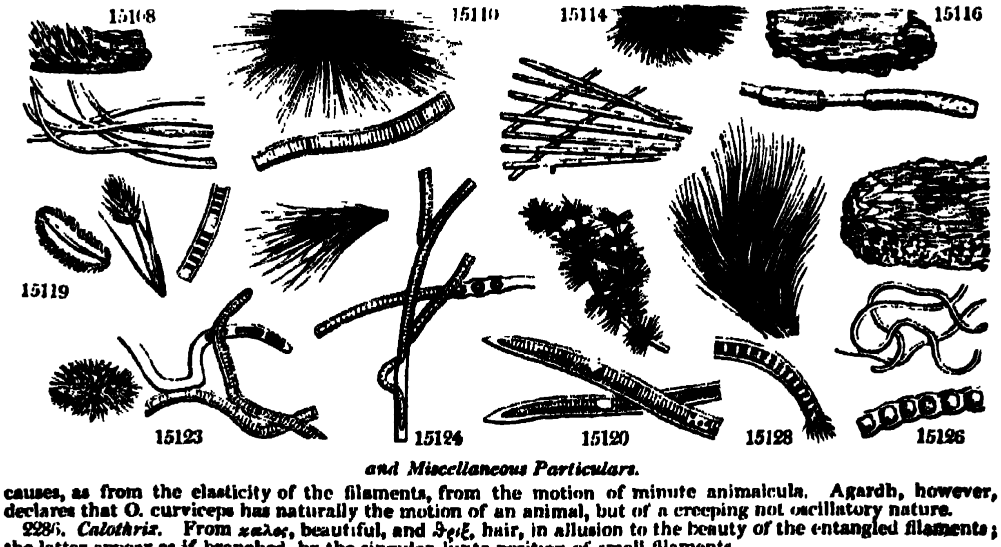
15105 Branches simple clustered, First filament nearly homogeneous
15106 Pencils of branches lanceolate acute erect
15107 Pencils of branches ovate blunt spreading

15108 Filaments hyaline very fine tufted entangled in nearly parallel lines
15109 Filaments rigid straight entangled in a gelatinous black layer which has short rays
β Filaments twisted in bundles
15110 Filaments rigid straight entangled in a gelatinous black layer with long rays
15111 Filaments stiffish curved entangled in a compact somewhat coriaceous layer
15112 Filaments transparent rigid straight entangled in a compact brownish-violet layer with short rays
15113 Filaments very minute densely entangled: transverse striæ wholly invisible
15114 Filaments stiffish straight entangled in a gelatinous green layer with short rays
15115 Filaments rigid rapidly oscillating straight entangled in a gelatinous layer with long rays
15116 Filaments covered with a deciduous crust entangled in a blue layer
15117 Filaments very slender flexuose densely interwoven into thin masses
15118 Filaments very slender simple greenish lying in a thick very tender fragile ochraceous stratum

15119 Filaments very fine rigid snow-white packed in a dull-yellow tuft
15120 Filaments glaucous erect minute subulate fascicled at base separate at end
15121 Filaments curved-wavy erect minute entangled in a dense layer
15122 Filaments stiffish erect acuminate simple at the beginning finally branched
15123 Filaments curved variously united entangled in a lax globule
15124 Filaments mucous stiffish erect branched tufted
15125 Filaments stiffish erect branched packed in a dark-green tuft

15126 Filaments stiffish curved wavy thickish with lax rings

15127 Filaments tufted fastigiate equal, Bands approximating in pairs many dotted
15128 Filaments dark-purple straight, Bands 5-dotted



and Miscellaneous Particulars.

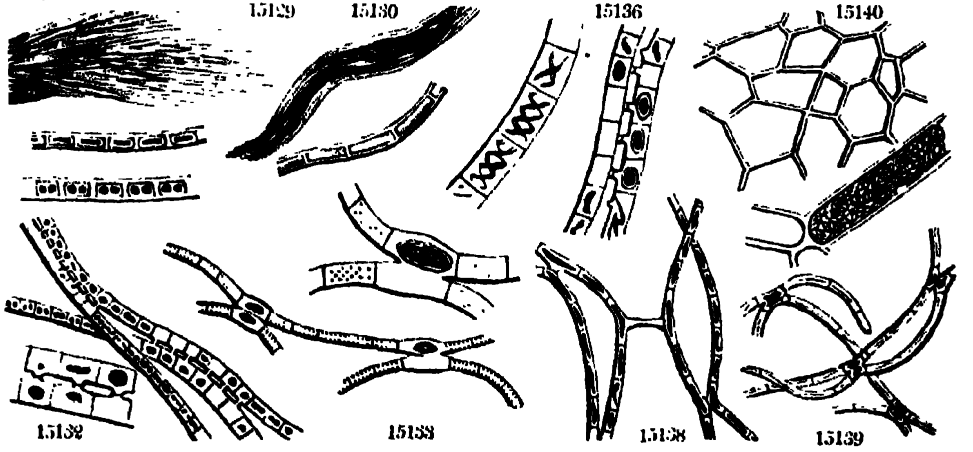
causes, as from the elasticity of the filaments, from the motion of minute animalcula. Agardh, however, declares that O. curviceps has naturally the motion of an animal, but of a creeping not oscillatory nature.

2286. *Calothrix.* From καλος, beautiful, and θριξ, hair, in allusion to the beauty of the entangled filaments; the latter appear as if branched, by the singular juxta-position of small filaments.

2287. *Lyngbya.* H. C. Lyngbye, a Danish botanist, is the author of an excellent work on Algæ, which he calls Hydrophytologiæ Danicæ Tentamen, published at Copenhagen, in 1819, in one volume quarto. This genus differs from Oscillatoria in the absence of a mucous matrix, and from Calothrix in being curved and quite distinct. In habit it approaches Conferva.

2288. *Bangia.* So called in honor of Christian Frederick Bang, the author of a dissertation upon the plants of sacred history, published in 1767.

2289.	ZYGNE'MA. *Ag*	ZYGNEMA.		*Sp.* 9—21.				
15129	cruciátum *Ag.*	crossed	entangl. mass.	¼	april	Y.G	ditches	E.b.t.2463. *C. bipunctata*
	β longi-articulátum Ag.	*long jointed*	entangl. mass.	¼	april	Y.G	ditches	Dillw. conf. t. 2. f. A
	γ brevi-articulátum Ag.	*short jointed*	entangl. mass.	¼	april	Ysh	rivulets	Dillw. conf. t. 2. f. B
15130	decussátum *Ag.*	decussate	floating tufts	1½	sum.	G	ditches	Dillw. conf. No. 39
15131	bicolor *Ag.*	two-colored	floating tufts	3	sum.	G	sto. in rivul.	E. b. t. 2288 *Conferva*
15132	pectinátum *Ag.*	pectinate	patches	1½	march	G	rivulets	E.b.t.2463.f.B. *Conferva*
15133	curvátum *Ag.*	curved	patches	1½	march	G	rivulets	E.b.t.2463. A. *C. stictica*
15134	quininum *Ag.*	quinate	large masses	¼	sp. su.	Dl.G	still waters	Vauch. conf. t. 5. f. 1
15135	deciminum *Ag.*	decimate	large masses	¼	sum.	Bt.G	still waters	Di.co.t.4.f. A.B. *C. nitida*
15136	nitidum *Ag.*	shining	float. patches	2	sum.	Bt.G	ditches	E. b. t. 1656. *C. spiralis*
15137	punctátum *Ag.*	dotted	floating cloud	¼	sum.	Bt.G	pools	Dill.conf.t.51. *Conferva*
2290.	MOUGEO'TIA. *Ag.*	MOUGEOTIA.		*Sp.* 2—6.				
15138	genufléxa *Ag.*	knee-jointed	entangl. mass.	1/12	april	Y.G	ditches	Dill. conf. t. 6. *Conferva*
15139	cæruléscens *Ag.*	bluish	pale patches	1½	july	Pu.B	ditches	E. b. t. 2457. *Conferva*
2291.	HYDRODIC'TYON. *Ag.*	HYDRODICTYON		*Sp.* 1—2.				
15140	utriculátum *Ag.*	bladdery	floating web	6	jn. sep.	G	riv. & lakes	E.b.t.1687. *C. reticulata*
2292.	CONFER'VA. *Ag.*	CONFERVA.		*Sp.* 52—130				
15141	ericetórum *Roth.*	heath	fine web	¼	sp. su.	Br.pu	dry bogs	E. b. t. 1553. *Conferva*
15142	alpina *Bory*	alpine	fine web	¼	sp. su.	Br	mountains	Lyngb. hydrop.dan.t 47
15143	fasciáta *Dillw.*	banded	fine web	¼	spring	Pu br	dit. on carr.	Dill.conf. t.B. *Conferva*
15144	bombycina *Ag.*	silky	floating cloud	¼	sum.	G	pools & dit.	Dill.con.t.60. *C. sordida*
15145	floccósa *Ag.*	floccose	float masses	1½	spring	G	ditches	E b t. 2303 *C. sordida*
15146	mucósa *Mert.*	mucous	float. masses	1½	spring	G	bogs	Dill.conf. t.B. *Conferva*
15147	zonáta *Web. & Mohr*	zoned	long tuft	3	all sea.	G	sto. in rivul.	Dill. conf t 47 *C. lucens*
15148	dissiliens *Dillw.*	elastic	floating tufts	3	sum.	G	ditches	Eng. bot. t. 2461
15149	implexa *Dillw.*	entangled	broad mat	3	sum.	G	sea-shore	E. b. t. 2309. *C. implexa*
15150	tumidula *E. B.*	tumid	fine film	1	march	G	pools	E. b t. 1670 *C. inflata*
15151	vesicáta *Ag.*	blistered	float masses	6	march	G	ditches	E. b t 2304 *C. alternata*
	β fuscéscens Ag.	*brownish*	float. masses	6	march	G	ditches	Dillw conf. t. B.
15152	rivuláris *L.*	rivulet	long tufts	24	sp su	G	rivers	Eng. bot t. 1654
	β an'glica Ag.	*English*	long tufts	24	sp. su.	G	ditches	Dillw conf t. 79
15153	capilláris *Ag.*	capillary	long tufts	¼	sp. su.	G	ditches	Dillenius, t. 5 f 25 B.
15154	linum *Roth.*	Flax	long tufts	¼	sp su.	G	ocean	Lyngb. hydroph. t. 50
15155	intricáta *Grev.*	matted	small tufts	¼	spring	G	sea shore	
15156	tortuósa *Dillw.*	tortuous	crisp masses	2½	april	G	sea shore	Eng bot t. 2220
15157	crássa *Ag.*	thick	crisp masses	1	april	G	salt marshes	Dillw. conf. t. 9
15158	melagónium *Web.*	black-jointed	tufts	4	sum	G	ocean	Dillw. conf. t. B.
15159	æ'rea *Dillw*	verdigrease	long tufts	6	all sea.	G	ocean	Dillw. conf. t. 80
15160	Youngána *Dillw.*	Young's	minute tufts	¼	sum.	G	sea shore	Dillw. conf. t. 102
15161	hormoides *Lyngb.*	pencilled	minute tufts	¼	sum.	G	sea shore	Lyngb. hydroph. t 49
15162	collábens *Ag.*	slippery	floating tufts	4	sum.	G	Germ. ocean	Eng.bot.t.1929. *C. ærea*
15163	flácca *Dillw.*	flaccid	tufts	2	all sea.	G	on Hutchins.	Dillw. conf. t. 49
15164	isogóna *E. B.*	equal-jointed	float. patches	1	spring	G	on F. vesicul.	E.b.t.1930. *C. youngana*
15165	fucórum *Roth.*	Fucus	tufts	¼	sum.	Brsh	on Fuci	Dill.con.t.C. *C. flaccida*
15166	flac'cida *Lyngb.*	drooping	tufts	¼	may	Brsh	on Fuci	Eng. bot. t. 2310
15167	ferruginea *Roth.*	rusty	tufts	1	all sea.	Rus.	on Fuci	Dill.con t 66. *C. fucicola*
15168	cúrta *Dillw.*	cropped	minute tufts	¼	sum.	Ol.Br	on Fuci	Dillw. conf. t. 76
15169	car'nea *Dillw.*	pink	tufts	1½	aut.	Pk	on Algæ	Dillw. conf. t. 84
15170	æruginósa *Huds.*	copperas	tufts	1½	sum.	Bt.G	sea shore	Dillw. conf. t. E.
15171	Brównii *Dillw.*	Brown's	patches	1/12	spring	G	Irishcaverns	Dillw. conf. t. D.



History, Use, Propagation, Culture,

2289. *Zygnema.* From ζυγος, a yoke, and νημα, a filament; in reference to the singular manner in which the filaments are jointed together in pairs.

2290. *Mougeotia.* Named in honor of J. B. Mougeot, the coadjutor of Nestler, in the publication of their useful work, the Stirpes Cryptogamæ Vogeso-Rhenanæ, which, we believe, is still continued.

** Two dotted.*

15129 Articulations twice as long as broad, Stellæ roundish, Fruit spherical
β Articulations thrice as long with two approximated stellæ in the middle
γ Articulations about as long as broad
15130 Articul. 4 times as long as broad: in fruit convolute, Sporaceous matter continuous obscure on each side
15131 Articulations about as broad as long, Stellæ transversely linear-oblong parallel, Rays obsolete
15132 Filam. adnate, Articul. half as long again as broad, Stellæ transversely obl. pectinated, Fruit spherical

*** Marked with spires.*

15133 Filam. equal curved and flexuose conjugate at angles and twice as long as broad, Spires simple
15134 Filam. equal, Spires simple contracted in beginning, at length arcuate, Artic. 3 times as long as broad
15135 Artic. 4 times as long as broad: in fruit elliptical, Spires cruciate lax, Crosses about 4, Fruit elliptical
15136 Articulations about as broad as long, Spires cruciate thin contracted, Fruit elliptical
15137 Filaments simple slippery very fine, Dissepiments obscure, Articulations shortish cylindrical

15138 Filaments knee-jointed, Articulations six times as long as broad
15139 Filaments purple-blue, Sporidia of the crosses of the filaments green

15140 Spots 5-cornered

A. *Simple.*
1. *Floating, arachnoid, colored.*

15141 Filaments simple creeping entangled in a brownish purple layer, Joints half as long again as broad
15142 Filaments simple very fine adnate straight brown, Articulations four times as long as broad
15143 Filam. simple fine mucous, Articulations about as long as broad marked in the middle with a narrow band

2. *Floating, arachnoid, mucous, green.*

15144 Filaments arachnoid simple very long in an uniform puckered layer, Artic. thrice as long as broad: when young dotted in the middle
15145 Filam. arach. simp. very muc. entang. in a puckered layer, Artic. about as long as broad or ½ as long again
15146 Filam. simple mucous slippery capillary, when dry traversed by a longitudinal band, Artic. as long as broad
15147 Filaments simple fine gelatinous tapered marked by a transverse band, Artic. about as long as broad
15148 Filaments simple very fine gelatinous equal, Articulations twice as broad as long
15149 Filaments simple fine curled entangled smooth, Artic. half as long again as broad

3. *Capillary or setaceous. Articulations filled with globose granules, when dry alternately compressed.*

15150 Filaments simple fine, Artic. 3 times as long as broad inflated elliptical
15151 Filaments simple fine, Artic. half as long again as broad with globular inflations at intervals

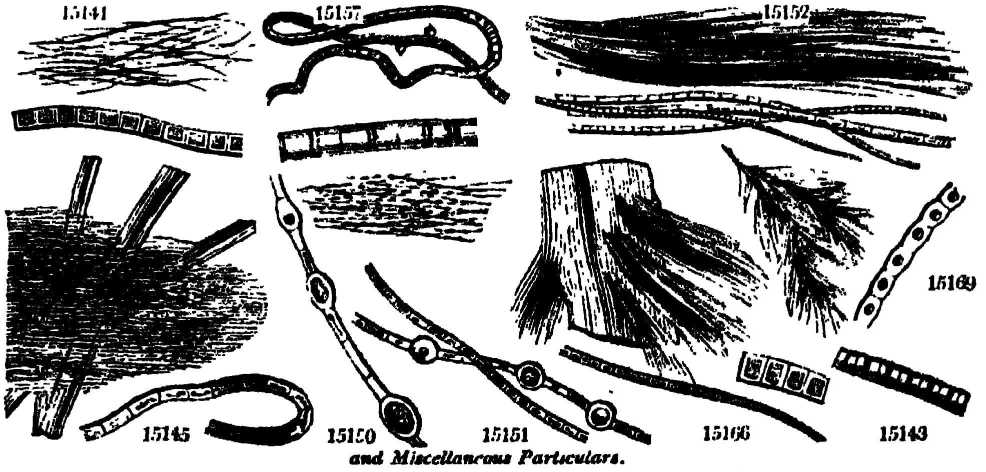
15152 Filam. simp. capill. very long straight equal, Artic. grain-bear. 2 or 4 times as long as broad shin. when dry
β Artic half as long again as broad
15153 Filam. simple variously bent and loosely entangled, Artic. about as long as broad, Granules scattered
15154 Filam. simple filiform rigid crisp loosely entangled, when dry variegated, Artic. turgid dotted
15155 Filam. simple very short and minute entangled tortuous, Artic. twice as long as broad
15156 Filam simple stiffish curled entangled fine, Artic. 3 times as long as broad [moniliform
15157 Filam. simple filif rigid crisp loosely entang. when dry variegated, Artic about as long as broad, when dry
15158 Filam. simple thicker than a bristle adnate straight rigid erect, Artic. elliptical when dry
15159 Filam. simple thicker than a bristle adnate rigid erect, Artic. cylindrical 3 times as long as broad
15160 Filam. simple very fine adnate stiffish curved, Artic. about as long as broad somewhat moniliform
15161 Filam simple very fine adnate straight pendulous, Artic. about as long as broad moniliform
15162 Filam. simple fine adnate mucous, Artic. as long as broad and variable, Interstices pellucid
15163 Filam. simple very fine, Artic. rather shorter than broad, Joints pellucid
15164 Filam. simple very fine adnate mucous straight, Artic as long as broad, Interstices pellucid
15165 Filaments simple straight minute, Articulations oval half as long again as broad
15166 Filaments simple very fine adnate rigid tapered, Lower artic. shorter than broad: upper as long as broad

4. *Adnate, pencilled, fastigiate, colored.*

15167 Filaments simple rigid fastigiate, Artic twice as long as broad
15168 Filaments simple fascicled rigid short attenuated at each end, Artic. somewhat longer than broad
15169 Filam. simple fine short, Artic torose about 3 times as long as broad, Sap contained in a central globule

B. *Branched.*

15170 Filam. branched flexuose short, Branches scattered spreading blunt, Artic. half as long again as broad
15171 Filam. branched densely tufted rigid short, Branches 1-sided, Artic. generally thickest at the end about 3 times as long as broad

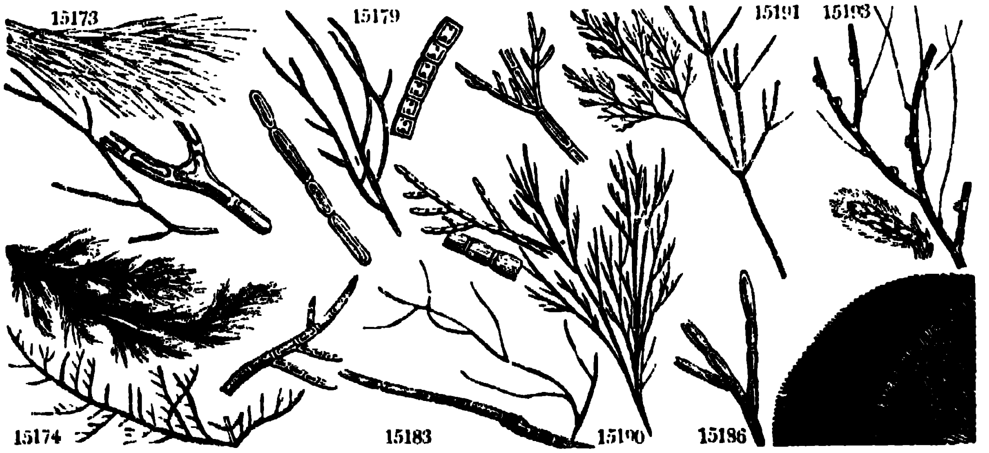


and Miscellaneous Particulars.

2291. *Hydrodictyon.* From ὕδωρ, water, and δίκτυον, a net; water-net; so named on account of its singular reticulated structure.

2292. *Conferva.* A syncope of the Latin *conferruminare*, to consolidate. Plants of this kind were formerly

15172 stelláris *Fl. Dan.*	starry	floating tufts	2 sum.	G	ins.ofwa.ves.	Fl. Danica, t. 660. f. 1
15173 ripária *Dillw.*	bank	floating tufts	3 sum.	G	salt ditches	Eng. bot. t. 2100
15174 glomeráta *L.*	clustered	bushy tufts	1 sum.	Bt.G	riv. on stones	E.b.t. 1854. *C lætevirens*
15175 crispáta *Roth.*	curled	patches	2 sp. su.	G	lakes	Eng. bot. t. 2350
15176 frácta *Dillw.*	broken	large tufts	6 sp. su.	G	pools	Eng. bot. t. 2338
15177 pátens *Ag.*	spreading	large tufts	½ sum.	G	ditches	
β *prolífera* Ag.	*proliferous*	large tufts	½ sum.	G	ditches	Dil.con.t.10. *C flexuosa*
15178 congregáta *Ag.*	heaped	tufts	1 sum.	G	roc. sea coa.	Ly.hy.d.t.56 *C. uncialis*
15179 lanósa *Ag.*	woolly	tufts	1 sum.	G	on Algæ	Dillw. conf. t. E.
15180 flavéscens *Dillw.*	yellowish	tufts	6 sum.	Y.G	salt ditches	Eng. bot. t. 2088
15181 serícea *Huds.*	silken	shining tufts	3 sum.	Y.G	sea shore	
15182 retrácta *Roth.*	whitish	crispent. tufts	4 jn. jl.	Pa.G	ocean	E. b. t. 2327 *C. albida*
15183 áspera *Ag.*	rough	tufts	¼ all sea.	G	ocean	Dil.con.t.E. *C nigricans*
15184 heterochlóa *Ag.*	dense	tufts	½ all sea.	D.G	ocean	
15185 rupéstris *L.*	rock	dense tufts	4 sum	Gl.	ocean	Eng. bot. t. 1699
15186 ægagrópila *L.*	VegetableBalls	soft ball	3 sum.	G	lakes	Eng. bot. t. 1377
15187 arcta *E. B*	close	floating tuft	3 sum.	Tran.	ocean	Eng. bot. t. 2098
15188 Vaucheriæfórmis *Ag.*	mucous	branched	1½ sum.	G	ocean	Dillw.conf.t.E. *C. arcta*
15189 catenáta *L.*	chain-like	patches	1 sum.	Br	ocean	Dillenius, t. 5. f. 27
15190 Hutchínsiæ *Dillw.*	Miss Hutchins's	dense tufts	4 sum.	Gl.	ocean	Dillw. conf. t. 109
15191 pellúcida *Huds.*	pellucid	finely branch.	5 august	Pa.G	ocean	Eng. bot. t 1716
15192 distans *Ag.*	distant	loose bundles	6 aut.	Pa.G	ocean	Dill.con.t. 21. *C. diffusa*
2293. BULBOCHÆ'TE. *Ag.*	Bulbochæte		*Sp.* 1.			
15193 setígera *Ag*	setigerous	delicate tufts	6 aut.	Dl.G	lakes & riv.	Dil.conf.t.59. *C.vivipara*
2294. NITEL'LA *Ag.*	Nitella.		*Sp.* 5—11.			
15194 translúcens *Ag.*	transparent	branched	2 sum.	Y.Ol	pools	Eng. bot. t. 1855. *Chara*
15195 fléxilis *Ag.*	flexible	branched	1 sum.	Y.Ol	pon. & rivul.	
15196 opáca *Ag.*	opaque	branched	1 jl aug.	Y.Ol	pools	E.b.t.1070. *Chara flexilis*
15197 nidífica *Ag.*	nest-like	branched	1 jl. aug.	Y Ol	pools	Eng. b. t 1703. *Chara*
15198 grácilis *Ag.*	slender	much branch.	½ sept.	Y.Ol	pools	Eng b. t 2140. *Chara*
2295. CHA'RA. *L.*	Chara.		*Sp.* 2—16.			
15199 híspida *L.*	hispid	branched	1½ jl. aug.	Y.G	ponds	Eng. bot. t 465
15200 vulgaris *L.*	common	branched	1½ july	Y G	ponds	Eng. bot. t. 336
2296. CERA'MIUM. *Ag.*	Ceramium.		*Sp.* 21—.			
15201 lanuginósum *Ag.*	woolly	fine down	1/12 all sea	.	on Algæ	Dill conf.t 45. *Conferva*
15202 floridulum *Ag.*	flowering	little tufts	¼ all sea.	Pa.G	roc. sea shor	Dillw. conf. t. F
15203 répens *Ag.*	creeping	short down	1/12 july	Pk	on large Alg.	E. b. t 1608. *Conferva*
15204 plúma *Ag.*	feather	fine tufts	½ sum	R	on large Alg.	Dillw conf. t f.
15205 Daviésii *Ag.*	Davies's	small tufts	½ july	R	sea shore	Eng. bot. t. 2329
15206 Róthii *Ag.*	Roth's	broad tufts	¼ sum.	Vi	sea shor roc.	Eng bot. t 1702
15207 diáphanum *Ag.*	diaphanous	diffuse	5 sum	Var.	ocean	Eng. bot t. 1742
β *pilósum* Ag.	*pilose*	diffuse	5 sum	Var.	ocean	E. b. t. 2428. *Conferva*
15208 rúbrum *Ag.*	red	solitary weak	10 sum.	Pu	ocean	E. b. t. 1166. *Conferva*
15209 tetragónum *Ag.*	square	tufts	3 sum.	R	ocean	Eng. bot. t. 1690
15210 pedicellátum *Ag.*	stalked	dense tufts	4 sum.	Or	sea shore	Dillw. conf. t. 108
15211 Hookeri *Ag.*	Hooker's	fine tufts	1½ sum.	Pa br	sea shore	Dill. conf t. 106
15212 arbúscula *Ag*	little tree	bushy tufts	3 all sea.	D.R	sea shore	Eng. bot. t. 1916



History, Use, Propagation, Culture,

held to be efficacious in healing fractured limbs. Pliny declares, he was witness to a cure of this kind. Some of the species of this genus are believed to be merely the young of mosses.

2293 *Bulbochæte.* From *βολβος*, a club, and *χαιτη*, a bristle, in reference to the bristly end of the primary filaments.

2294. *Nitella.* From *niteo*, to shine. A genus separated by Agardh from Chara, because the stem is composed of a simple tube, and not of one spirally striated. The plants have the habit of Chara.

2295. *Chara.* The origin of this word is unknown. It first occurs in Cæsar's Commentaries, where it is mentioned as the name of a plant, the root of which was used by the Roman soldiers as food. That plant could have had no relation to the plant of the moderns. Various opinions have been held with regard to the station of this genus. Linnæus referred it to the perfect plants, and he has been followed by many botanists. Dr Hooker and Mr. Lindley, in the former's Flora Scotica, formed it into a particular order, placed between Algæ and Hepaticæ; and with this opinion Dr. Greville coincides. But Professor Agardh thinks it cannot even be separated from true Algæ, in the midst of which he has placed it. The nature of the fructification is so paradoxical, that it is scarcely possible to trace an analogy between it and the fructification of any other plant.

15172 Filam. branched very minute equal parallelly exserted from an orbicular base
15173 Filam. branched remotely capillary very long, Branches short divaricating, Artic. twice as long as broad
15174 Filam. branched capillary, Branches alternate: those at the end clustered one-sided erect, Artic. cylind. about twice as long as broad
15175 Filam. branch. Branches altern. rem. Artic. cylind. 6-10 times as long as broad alternately compr. when dry
15176 Filam. branch. capill. Branch. divaricat. 1-sid.: upp. numer. somew. recurv. Artic. 4 times as long as broad
15177 Filam. branched capillary, Branches spreading somewhat alternate, Artic. 3 times as long as broad
β Artic. elliptical proliferous, Pullulating filaments very fine

C. *Heaped.*

15178 Tufts fascic. clav. form. a hemisphere, Filam. intric. branch. Branch. ascend. Artic about as long as broad
15179 Filaments tufted, Branchlets long remote, Artic. oblong oval 3 times as long as broad
15180 Filaments much branch. capillary, Branches spreading somew. alternate, Artic. 6 times as long as broad
15181 Filaments much branch. capillary dichotom. at base, trichotom in middle, Artic. 5 times as long as broad
15182 Filam. much branch. capill. Branches divaricat. somew. recurv. very numer. Artic. twice as long as broad
15183 Filam dichotom. setac. rigid finally becoming blackish, Branc. erect rem. Artic. 3 times as long as broad
15184 Filaments opposite much branched: first branches blackish; second greenish [as broad
15185 Filam. much bran. setac. when dry dot. with black, Bran. erect, Joints pelluc. Artic. cylind. 3 times as long
15186 Filam from a common centre forming a globe rigid branched obtuse, Artic. 5 times as long as broad
15187 Filam. branch. straight virg. capil. Branch. erect somew. hyal. and thicken. at end, Artic. of various lengths
15188 Filam. branched straight virgate capillary mucous, Branches erect when dry black at the ends
15189 Filam. more than bristly trichotom. shin. when dry dott. with black at joints, Artic. 3 times as long as broad
15190 Filam. much branch flexuose somew. cartilaginous fragile, Branches and branchl scatter. Artic. torulose
15191 Filam. much branched straight rigid, Branches generally in threes obtuse, Articul. very long
15192 Filam. setac. dichotom. flexuose, Branch. rem. Branchl. short blunt, Artic. cylind. 4 times as long as broad

15193 The only species

15194 Stem long, Branchlets blunt, Nucules nearly naked in heaps at the joints of the stem
15195 Stem trichotomous pellucid, Branchlets forked, Nucules axillary solitary
15196 Stem 2-3-chotomous opaque, Branchlets forked or with broken joints, Globules solitary
15197 Fruit branches filiform with other long jointed ones between, Nucules clustered axillary
15198 Stem slender long, Branches acute forked, Fruit solitary

15199 Stem twisted furrowed strigose, Strigæ reflexed, Bractes aculeate
15200 Stem twisted ash-colored, Branches not jointed, Bractes linear twin thrice as long as nucule

1. *Filaments short, fastigiate.*

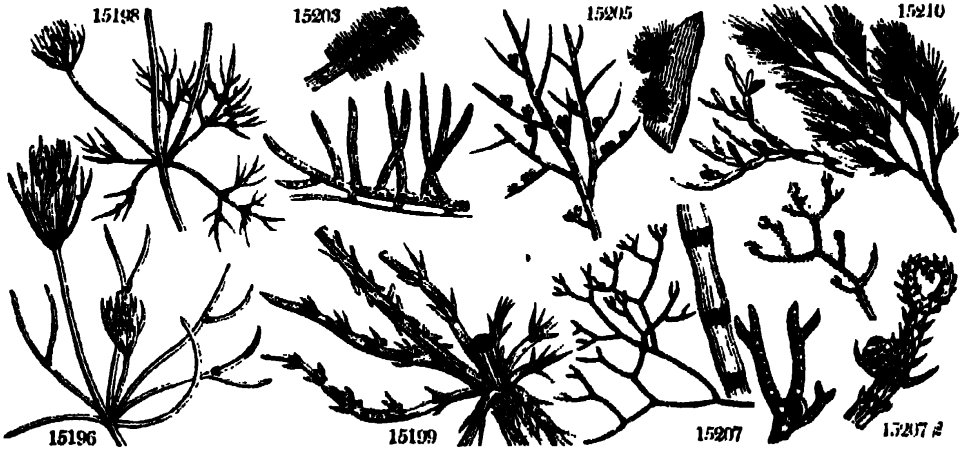
15201 Filam somew branch minute ferrug. Branch. scatter blunt, Artic. pelluc. in mid. 3 times as long as broad
15202 Filam. branched fine tufted, Branches scattered simple remote, Articul. 3 times as long as broad
15203 Filam. creeping rooting densely entangl. much branch Joints somew. contract. Artic. narrowest in middle
15204 Filam. creeping minute branched, Branches erect naked at base pinnat. upw. Artic. twice as long as broad
15205 Filam much branch fastig. short, Branc. erect acute, Artic. thrice as long as broad, Caps. lateral clustered
15206 Filam. short cæspitose pulvinate, Branches and branchlets fastigiate erect, Artic. twice as long as broad

2. *Filaments dichotomous, Branchlets forked, Joints obscure, Thecæ involucred.*

15207 Filam. dichotom. much branched somewhat membranous variegated with purple and hyal. Joints elevated
β Joints hairy
15208 Filam. dichotom. much branched somewhat cartilaginous, Branchlets forked, Artic. ovato opaque

3. *Branches furnished with branchlets, which are more or less dense and shortened.*

15209 Filam branched virgate, Primary articulations twice as long as broad
15210 Filam. setaceous dichotomous, Artic. thickened upwards about 5 times as long as broad
15211 Filam. much branch.: prim. thick and contiguous, Altern. pinnules with artic. half as long again as broad
15212 Filam much branched: primary without joints, Artic as long as broad



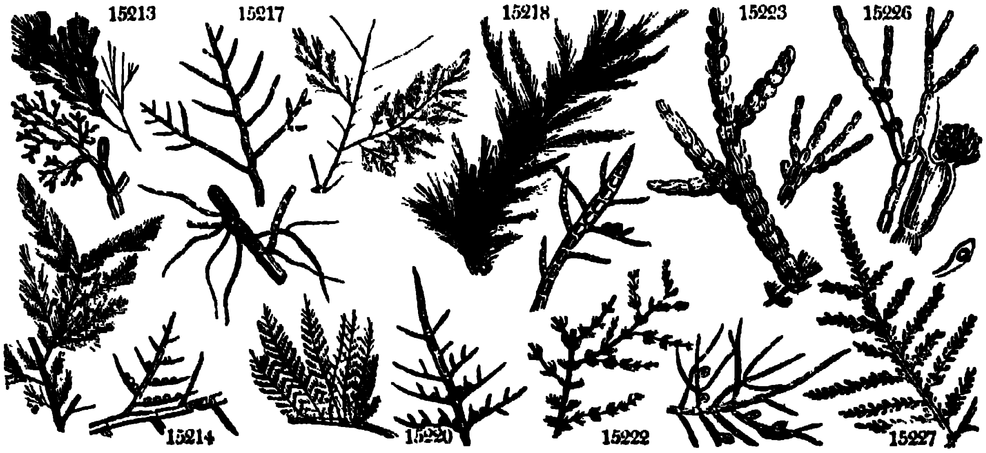
and Miscellaneous Particulars.

Greville observes, "This is a most curious tribe of plants, whose structure, I am convinced, is by no means well understood. At present, I have only minutely examined the fruit of C. vulgaris Under a high power of the microscope, the globule is found to consist of seven triangular scales, which in maturity separate from each other, and produce the dehiscence of the globule. Each of these scales has a vacant portion in its centre, but the margin, which has a fluted appearance under a small magnifier, consists of a number of parallel, linear-oblong, hyaline, hollow tubes, placed at small intervals from each other, those forming the angles of the scale being branched. Within these tubes are a profusion of orange, globular, minute bodies (exactly similar to the sporules of many cryptogamic plants), arranged in no order, and escaping on the least injury to the tubes. It is these little bodies which give the orange color to the globule. Within the globule is a mass of elastic white filaments, much convoluted, and distinctly either jointed or transversely rugose."

The calcareous matter of the stem and branches is not an adventitious incrustation, but is the result of some peculiar economy in the plant itself, as it evidently originates from within, and is covered with the cuticle. It is supposed to be analogous to the siliceous deposit beneath the cuticle of Equisetum.

2296. *Ceramium.* So called from *κεραμος*, a little measure, in reference to the appearance of the capsules. All the species are found in the sea, and among the substances cast up upon the shore.

15213 corymbósum *Ag.*	corymbose	little tufts	1¼	july	R	sea shore	Eng. bot. t. 2352
15214 róseum *Ag.*	rosy	finely branch.	1¼	sum.	R	ocean	Dillw. conf. t. 17
15215 thujoides *Ag.*	Arbor-Vitæ	finely branch.	6	july	R	ocean	E.b.t.2465. *C. purpurea.*
15216 versícolor *Ag.*	changeable	fine tufts	3	sum.	Pu.R	on Fuci	Eng.bot. t. 966. *C. rosea*
15217 Borréri *Ag.*	Borrer's	little patches	1¼	oct.	Or.R	ocean	Eng. bot. t. 1741
15218 tétricum *Ag.*	livid	tufts	6	spring	Dl.pu	sea shore	Eng. bot. t. 1915
15219 interrúptum *Ag.*	interrupted	little tufts	¼	july	Dl.pu	sea shore	Eng. bot. t. 1838
15220 Turnéri *Ag.*	Turner's	delicate bran.	2	sp. su.	Pk	sea shore	Eng. bot. t. 2339
15221 plúmula *Ag.*	feather-like	delicate bran.	2	sp. su.	Pk	sea shore	E.bot.t.1637. *C. Turneri*
2297. GRIFFITH'SIA. *Ag.* Griffithsia.				*Sp.* 5—7.			
15222 multífida *Ag.*	multifid	fine tufts	3	july	R	sea shore	E. bot. t. 1816. *Conferva*
15223 equisétifolia *Ag.*	equisetum-lv'd	sponge-lik.tuf.	6	sum.	R	sea shore	Eng. bot. t. 1479
15224 setácea *Ag.*	bristly	lax tufts	4	all sea.	R	sea shore	Eng. bot. t. 1689
15225 barbáta *Ag.*	bearded	flocculent	1¼	july	C	sea shore	Eng. bot. t. 1814
15226 corállina *Ag.*	coralline	branch. tufts	3	july	Or.R	sea shore	Eng. bot. t. 1815
2298. CHÆTOSPO'RA. *Ag.* Chætospora.				*Sp.* 1.			
15227 Wig'gii *Ag.*	Wigg's	finely branch.	5	sum.	R.Br	sea shore	Eng. bot. t. 1165. *Fucus*
2299. POLYSIPHO'NIA. *Grev.* Polysiphonia.				*Sp.* 18—49.			
15228 parasítica *Ag.*	parasitical	small patches	1¼	sum.	R.Br	on Fuci	E. bot. t. 1429. *Conferva*
15229 spinulósa *Grev.*	rough-stemm.	small patches	1¼	sum.	R.Br	sea shore	Grev. crypt. 90
15230 coccínea *Ag.*	scarlet	bushy tufts	4	all sea.	S	ocean	E. bot. t. 1055. *Conferva*
15231 divaricáta *Ag.*	divaricating	tufts	3	sum.	R	ocean	Lyngb. hydroph. t. 34
15232 grácilis *Ag.*	slender	long tufts	4	all sea.	Pu	ocean	Dill.conf.t.40. *C. stricta*
15233 violácea *Ag.*	violet	little bushes	9	sum.	Vi	ocean	Lyngb. hydrop.dan t.35
β *májor* Ag.	*large*	bushy tufts	6	sum.	D.Pu	sea shore	Eng.bot.t.2340. *C nigra*
15234 nigréscens *Ag.*	blackish	fine tufts	6	sum.	D.Pu	ocean	E bot. t. 1717. *Conferva*
β *pectináta* Ag.	*pectinate*	little tufts	1¼	sum.	D Pu	ocean	E. bot. t 1239 *C fibrata*
15235 urceoláta *Ag.*	urceolate	long branches	8	all sea.	R !	ocean	Dill. con t.G. *Conferva*
15236 elongáta *Ag.*	elongated	shrubby	8	all sea.	R [illegible]	ocean	Dill con. t. 33.*Conferva*
15237 allochróa *Ag*	various	small tufts	1¼	all sea.	Vi	ocean	Dill. con. t.G. *C.fibrata*
15328 Brodiæ'i *Ag.*	Brodie's	large tufts	15	all sea	D R	ocean	Dill.con t.107. *Conferva*
15329 atrorubéscens *Ag.*	dark red	long tufts	6	sum.	Bl.R	marine roc.	Dill. con. t.70. *Conferva*
15240 fastigiáta *Ag.*	fastigiate	little bushes	2	sum	D.Br	ocean	E.b.t.1764. *C. polymorp.*
15241 bádia *Ag.*	brown	fine tufts	3	sum.	D.Br	ocean	Dill.con. t. G. *Conferva*
15242 recúrva *Ag.*	recurved	fine tufts	3	sum.	D.Br	sea shore	Dill. con. t. G. *C. patens*
15243 byssoides *Ag.*	byssus-like	slender tufts	6	spring	R	sea shore	Eng bot t.547. *Conferva*
15244 fruticulósa *Ag.*	shrubby	finely branch.	4	sum.	Br	ocean	Eng. bot. t. 1686. *Fucus*
15245 filamentósa *Ag.*	filamentous	branch. tufts	4	march	R	ocean	E. b. t. 2312. *C. Griffith.*
2300. RYTIPHLÆ'A. *Ag.* Rytiphlæa.				*Sp.* 1—3.			
15246 tinctória *Ag.*	dyer's	masses	6	all sea.	Ol.G	ocean	Turn. fuci, t. 224. *Fucus*
2301. ECTOCAR'PUS. *Ag.* Ectocarpus.				*Sp.* 4—8.			
15247 siliculósus *Ag.*	podded	bushy	6	spring	D.G	ocean	Dillw. conf. t. E. *Conf.*
β *atrovirens* Ag.	*dark-green*	bushy	6	spring	Rus.	ocean	E. b. t. 2319. *C.siliculosa*
γ *ferrugineus* Ag.	*ferruginous*	bushy	6	spring	Rus.	ocean	E. b. t. 2290. *C.littoralis*
15248 brachiátus *Ag.*	brachiate	floating tufts	3	april	Pa.br	ocean	E. bot. t. 2571. *Conferva*
15249 granulósus *Ag.*	granular	flocculent	3	july	Ol.G	on Fuci	E. bot. t. 2351 *Conferva*
15250 tomentósus *Ag.*	downy	fine down	¼	july	Br	ocean	Dillw. conf. t. 56. *Conf.*



History, Use, Propagation, Culture,

2297. ***Griffithsia.*** Named after Mrs. Griffiths, of Devonshire, whose many discoveries in marine vegetation truly entitle her to this distinction: the highest which one botanist can bestow upon another.

2298. *Chætospora.* From χαιτη, a bristle, and σπορα, a sporule: the latter are placed upon fine capiliary divisions of the filaments.

2299. *Polysiphonia.* From πολυς, many, and σιφων, a siphon, in reference to the numerous little canals by which the colored matter is carried from one end of the plant to the other. Agardh calls these plants

4. *Branches pinnulate, Pinnulæ alternate.*

15213 Filam. branch. Branches virg. surround. by short corymbose fastig. branchl. Artic. 3 times as long as broad
15214 Filam branched, Branchlets alternate rigid spreading subulate, Artic. 3 times as long as broad
15215 Filam. branched, Branchlets scattered decompound-pinnate, Artic. 3 times as long as broad
15216 Filam. branched, Branchlets scattered virgate, Artic. 8 times as long as broad
15217 Filam. virgate with many simple or multifid pencilled ramuli, Artic. 3 times as long as broad
15218 Primary filaments downy, Branches straight decompound pinnate, Artic. 3 times as long as broad
15219 Filam. much branch. Artic. 4 times as long as broad by degrees becoming thickened, Caps. stalked ellipt.

5. *Filaments pinnated, Pinnæ opposite.*

15220 Filam. pinnated, Pinnæ opposite nearly simple, Artic. many times longer than broad
15221 Filam. with irregular branches, having at each joint short slender opposite spreading recurved branchlets

1. *Branches fascicled.*

15222 Filam. branched, Branchlets subternate distant short multifid, Artic. much longer than broad [broad
15223 Filam. branch. cover. all over with somew. whorl. imbricat. short multif. branchl. Artic. much longer than

2. *Dichotomous, chained.*

15224 Filam. dichotom. straight, Branches erect long, Articulations cylindrical about 5 times as long as broad
15225 Filam. dichotom. Fibres multifid very fine, Articulations thickened upwards about 5 times as long as broad
15226 Filaments dichotomous slippery, Articulations thickened 2-4 times as long as broad

15227 The only species

a. Purple or scarlet, flat, somewhat pinnated.

15228 Filaments bipinnate veiny rigid, Pinnæ and pinnules alternate, Articulations rather shorter than long
15229 Dark-red, Branches divaricate rigid, Articulations 3-tubed as long as broad, Stem rough with tubercles
15230 Filam. very much branch. Primary not jointed, Branches decomp.-pinn. Pinnules heterogen. multif. fascic.

b. Creeping, Branches divaricating, often one-sided.

15231 Filaments entangled with scattered branches, Branches divaricating, Articulations twice as long as broad

c. Purple, whole-colored, adhering to paper.

15232 Filaments nearly equal branched virgate, Branches erect, Lower articulations 5 times as long as broad

d. Pencilled, black above, generally rose-colored above, adhering to paper.

15233 Filam. much branched diffuse, Branches virgate spread. Lower artic. obsol. Artic. much longer than broad

15234 Filaments much branched at end diffuse, Lower articulations very short when dry noduloso: upper about as long as broad with 3 veins
β Filaments short somewhat pectinated, Branches nearly simple
15235 Filaments much branched diffuse, Branchlets spreading short, Articulations half as long again as broad
15236 Filam. dichotom. pencilled much branched, Articulations shorter than long netted veiny: lower obsolete
15237 Filam. much branched diffuse, Lower artic. 5-veined 4 times as long as broad: upp. 3-veined twice as long
15238 First filament not jointed spirally veiny, Articulations as long as broad, Capsules axillary
15239 Filaments branched veiny, Branches long, Artic of stem long, of the branches thrice as short

e. Black or blackish-brown when dry, rigid, scarcely adhering to paper.

15340 Filam. dichotomous nearly equal fastigiate, Artic. shorter than broad with a black point in the middle
15241 Filaments dichotomous irregularly branched at end, Branches and branchlets very straight: upper artic. 3 times as long as broad
15242 Filam. much branched long diff. Branchl. short spread squarr. recurved, Lower artic. long: upper short

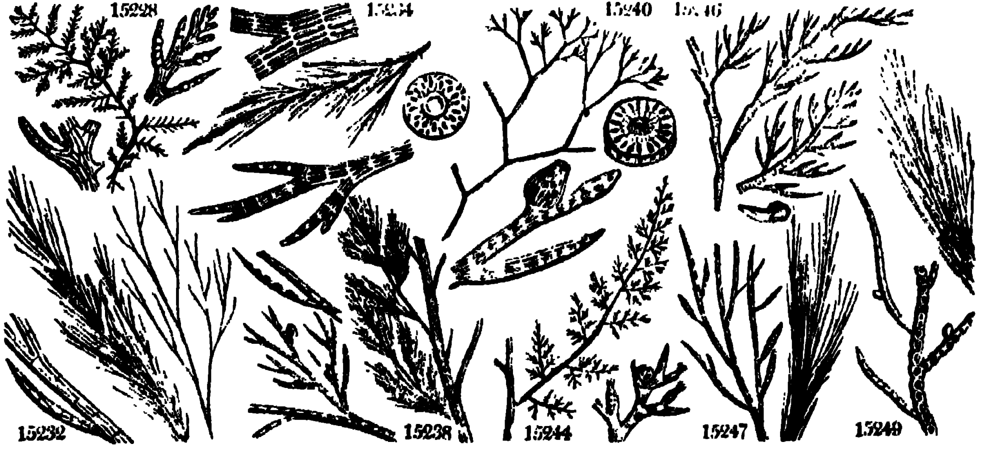
f. Branchlets lateral, short, fascicled.

15243 Filaments decompound pinnated, Branchlets very short and fine, Articulations 3 times as long as broad
15244 Filaments branched virgate, Branch. alternately pinnated, Branchlets short multifid, Theca sessile ovate
15245 Filam. much branched covered with heterogeneous hair-like simple branchlets, Artic. very short obsolete

15246 Frond somewhat cartilaginous compressed transversely rugose bipinnated, Pinnules in fruit incurved

15247 Filam. nearly separate, Branches erect subulate, Artic. rather longer than broad, Pods linear subulate

15248 Filam. much branched very fine, Branches and branchlets opposite spreading attenuated acute, Artic half as long again as broad
15249 Filam. much branch. Branches scatt. spread. taper. ac.: at tips hyal Artic. as long as broad finally tumid
15250 Frond rope-like somew. spongy divid into branches, Filam. densely entang. Artic. 4 times as long as broad



and Miscellaneous Particulars.

Hutchinsias, not being aware that the name of Miss Hutchins had previously been applied to a genus of Cruciferæ, by Mr. Brown. The species of this genus are, perhaps, the most beautiful of all the tribes of Confervæ.

2300. *Rytiphlæa.* So called, it is presumed, from ρυτις, a wrinkle, and φλεω, to be filled with any thing. The filaments are essentially characterized by their numerous transverse rugosities.

2301. *Ectocarpus.* From εκτος, outside, and καρπος, fruit, because the thecæ are not included in the substance of the frond, as in the next genus, but placed on the outside. Marine plants.

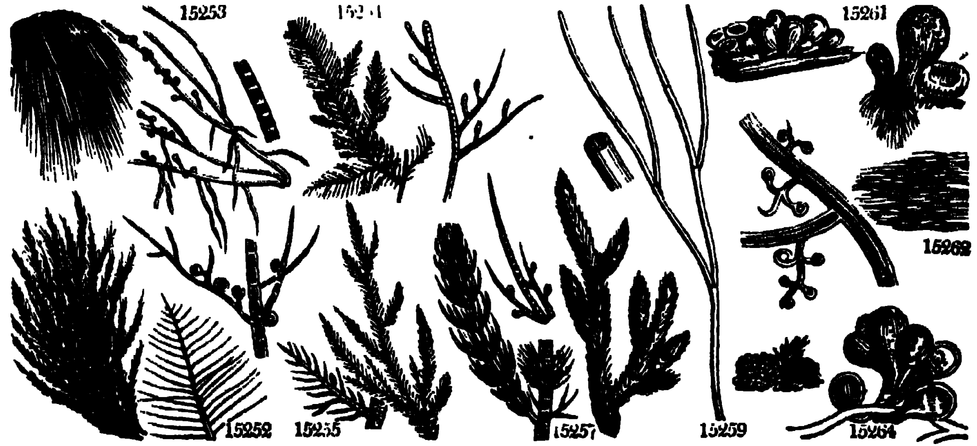
2302.	SPHACELLA'RIA. *Ag.*	SPHACELLARIA.			*Sp.* 6—14.			
15251	racemósa *Grev.*	racemose	tufts	1	febr.	Ol.G	sea shore	
15252	cirrhósa *Ag.*	cirrhous	dense tufts	1	sum.	Ol.G	ocean	Dillw. conf. t. 86. *Conf.*
15253	rádicans *Ag.*	rooting	fine tufts	¾	sum.	Br.Ol	marine roc.	Dillw. conf. t. C. *Conf.*
15254	plumósa *Ag.*	plumose	flaccid	3	spring	G.Br	ocean	E.bot. t.2330. *C.pinnata*
15255	Merténsii *Ag.*	Mertens's	elegant tufts	4	sum.	Ol.Br	sea shore	E. bot. t. 999. *Conferva*
15256	scopária *Ag.*	rock	dense tuft	3	sum.	Br	ocean	E. bot. t. 1552. *Conferva*
2303.	CLADOSTE'PHUS. *Ag.*	CLADOSTEPHUS.			*Sp.* 2—7.			
15257	spongiósus *Ag*	spongy	rigid tuft	3	sum	G	ocean	E b. t.2427. f.1. *Conferva*
15258	myriophýllum *Ag.*	many-leaved	rigid tuft	5	sum.	G	ocean	E.b.t.1718. *C.verticillata*

ULVACEÆ.

2304.	VAUCHE'RIA. *Ag*	VAUCHERIA.			*Sp* 6—20.			
15259	dichótoma *Ag.*	dichotomous	large tufts	12	sum.	D.G	ditches	E. bot. t. 932. *Conferva*
	β *submarina* Ag.	*submarine*	large tufts	12	sum.	D.G	submar. ditc.	Lyng. hydrop. dan. t.20
15260	Dillwýnii *Ag.*	Dillwyn's	thin mat	1	sp. su.	D.G	on the earth	Dill. conf. t.16. *C.frigida*
15261	radicáta *Ag*	rooting	patches	¼	sept.	D.G	dry ditches	E b. t.324. *Trem granul.*
15262	gemmáta *Ag.*	double	large masses	6	sum.	D.G	still waters	Eng. bot. t 1766
15263	racemósa *Ag.*	racemose	large masses	4	su. au.	D.G	ditches	Lyng. hydrop dan. t.23
15264	multicapsuláris *Ag.*	many-fruited	patches	7¼	su. au.	D.G	dry banks	Dill. conf. t.71. *Conferva*
2305.	CO'DIUM. *Ag.*	CODIUM.			*Sp.* 2—7.			
15265	tomentósum *Ag.*	downy	coralloid	6	june	G	ocean	Eng. bot. t. 712. *Fucus*
15266	Bur'sa *Ag*	purse	spongy mass	3	all sea.	G	ocean	Eng. bot. t. 2183. *Fucus*
2306.	BRYOP'SIS. *Ag.*	BRYOPSIS.			*Sp* 1—7.			
15267	plumósa *Ag.*	feathery	fine tufts	2	sept.	Dp.G	ocean	E.b. t.2375. *Ulv.plumosa*
2307	SOLE'NIA. *Ag.*	SOLENIA.			*Sp.* 4—18.			
15268	intestinális *Ag.*	intestinal	simple	24	sum.	G	ditches	
	β *max'ima* Ag.	*very large*	simple	24	sum	G	ditches	Dillenius, t. 9. f. 7
15269	Lin'za *Ag.*	crisp	simple	18	sum.	G	ocean	Dillenius, t. 9. f. 6
	β *lanceoláta* Ag.	*lanceolate*	simple	18	sum.	G	ocean	Dillenius, t. 9. f. 5
15270	compréssa *Ag.*	compressed	simple	12	sum.	G	ocean	Eng. bot. t. 1739 *Ulva*
	β *crinita* Ag	*crinite*	compound	12	sum.	G	ocean	Dillenius, t. 2. f. 7
15271	clathráta *Ag.*	grated	branched	3	sum.	Ysh	fresh water	Dil con.t.F. *C paradoxa*
	β *uncinata* Ag.	*hooked*	irregul branc.	3	sum.	Ysh	ocean	E. b t. 2137. *Ulv. ramul.*
2308.	UL'VA. *L.*	ULVA.			*Sp.* 3—12.			
15272	lactúca *L.*	Green Laver	soft leaves	12	su. au.	G	ocean	Eng bot. 1551
15273	bullósa *Roth.*	puckered	soft leaves	6	su. au.	G	ditches	Eng. bot. 2320
15274	críspa *Lightf.*	crisp	broad mass	¼	sum.	G	on the earth	Dillenius, t. 10. f. 12
2309.	POR'PHYRA. *Ag.*	PORPHYRA.			*Sp.* 2—3.			
15275	laciniáta *Ag.*	torn	soft leaves	2	sum.	Pu	sea shore	Lightf. fl. scot. t. 33
15276	purpúrea *Ag.*	purple	soft leaves	2	sum.	Pu	sea shore	

FLORIDEÆ.

2310.	POLYI'DES. *Ag.*	POLYIDES.			*Sp.* 1.			
15277	lumbricális *Ag.*	Worm-like	coralloid	6	nov.	Br	ocean	E.b. t.1738. *Fuc.rotund.*
2311.	PTILO'TA. *Ag.*	PTILOTA.			*Sp.* 1—4.			
15278	plumósa *Ag.*	feathery	fine tufts	4	su. au.	R	ocean	Eng. bot. t. 1308. *Fucus*
	β *tenuis'sima* Ag.	*delicate*	fine tufts	4		R	sea shore	



History, Use, Propagation, Culture.

2302. *Sphacellaria.* This name has been suggested by the *sphacelated* appearance of the truncated extremities of the shoots, in which the reproductive organs are immersed.

2303. *Cladostephus.* From κλαδος, a branch, and στεφος, a crown, in allusion to the manner in which the first stem is crowned as it were by the little compound whorled branches.

2304. *Vaucheria.* So named, in honor of M. Vaucher, of Geneva, an indefatigable collector of submersed Algæ.

2305. *Codium.* From κωδιον, a skin, with reference to the appearance of the second species.

2306. *Bryopsis.* The filaments of this genus form little pinnated or imbricated branches, resembling bits of moss; whence the name has been formed, from βρυον, a moss, and οψις, resemblance.

15251 Filam. twice or thrice dichotom. Artic. as long as broad, Tubercles ovate racemose on branched peduncles
15252 Filam. much branched fine striated, Branches alternate somew. pinnated, Articulations as long as broad
15253 Filaments branched rooting straight rigid, Branches scattered simple erect obtuse tapering at the base, Artic. about twice as broad as long
15254 Primary filaments branched not jointed surrounded by pectinated spreading branchlets
15255 Filaments bipinnate very fine, Pinnæ and pinnules opposite, Artic. very short, Theca ovate stalked
15256 Stem covered with confervoid filam. Branches somew. bipinnate, Pinnæ pectinate, Altern. pinnules subul

15257 Setæ simple densely imbricated
15258 Setæ incurved forked or crested imbricated

ULVACEÆ.

15259 Filaments setaceous dichotomous fastigiate, Thecæ globose sessile solitary
β Filaments finer, Thecæ lanceolate and ovate
15260 Filaments flexuose, Thecæ sessile lateral globose
15261 Filaments descending rooting, Thecæ solitary terminal globose
15262 Filaments dichotomous, Thecæ obovate stalked opposite on a common cornute pedic
15263 Filaments branched cæspitose, Thecæ racemose
15264 Filaments branched creeping, Branches erect nearly simple, Thecæ heaped towards the tips

15265 Frond dichotomous fastigiate cylindrical
15266 Frond globose hollow

15267 Filam. branched naked below, pinnated in the middle, Branchlets opp. nearly simple approximating

15268 Frond tubular inflated simple

15269 Frond lanceolate ensiform much tapered at each end wavy crisp

15270 Frond tubular lined clathrate branched filiform compressed, Branches simple tapering at base

15271 Frond tubular irregularly clathrate filiform, Branches tapered

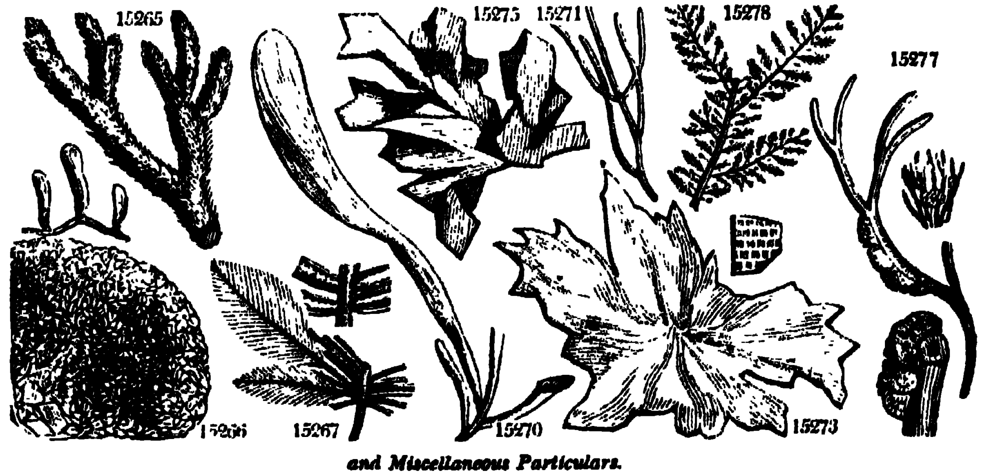
15272 Fronds obovate or lanceolate flat wavy laciniate-crisp
15273 Frond obovate slippery sinuous blistered finally expanded
15274 Fronds blistered plaited-crisp rugose heaped in an expanded layer

15275 Frond flat with numerous dilated segments
15276 Frond flat ovate lanceolate flat wavy crisp at the edge

FLORIDEÆ.

15277 The only species

15278 Jugament filiform compressed, Pinnules opposite pectinate-cut



and Miscellaneous Particulars.

2307. *Solenia.* So called, from σωλην, a tube, in allusion to the tubular nature of the frond.

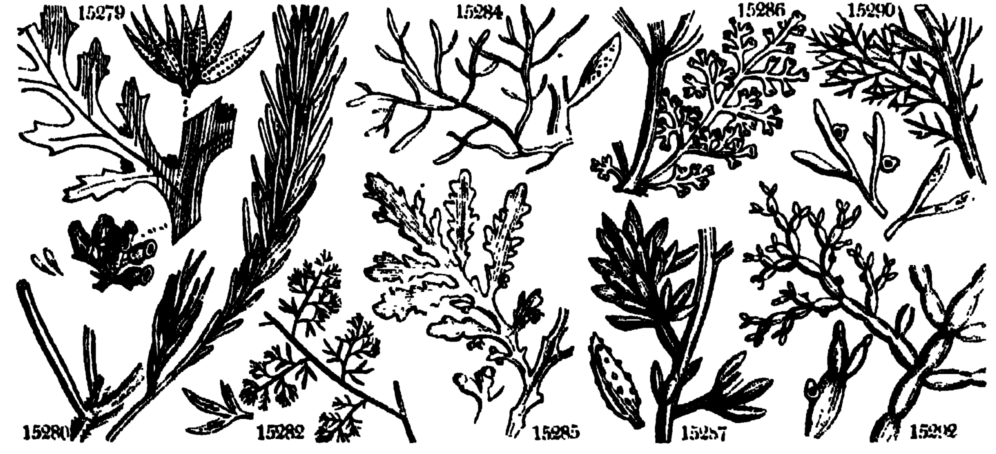
2308. *Ulva.* This was the common name applied by the Latins to all kinds of marine plants. The word is said to have been derived from the Celtic *ul*, water. The green laver which, stewed with lemon juice, is so much esteemed in England, is the U. lactuca.

2309. *Porphyra.* This genus has received its name from πορφυρος, purple, on account of its being remarkable among Ulvaceæ for possessing that color.

2310. *Polyides.* From πολυειδὴς, multifarious, in allusion to the diversity of appearance of the single species.

2311. *Ptilota.* Named in allusion to the form of the frond: from πτιλωτος, pennated.

2312.	RHODOME'LA. *Ag.*	Rhodomela.			*Sp.* 5—21.			
15279	dentáta *Ag.*	toothed	flat branched	4	sum.	Ol.Br	sea shore	Eng. bot. t. 1241. *Fucus*
15280	lycopodioides *Ag.*	lycopodium-like	coralloid	6	sum.	Ol.Br	ocean	Eng. bot. t. 1163. *Fucus*
15281	subfúsca *Ag.*	brownish	finely branch.	6	sum.	Ol.Br	ocean	Eng. bot. t. 1164. *Fucus*
15282	scorpioides *Ag.*	amphibious	feathery	4	sum.	R Pu	ocean	Eng. bot. t. 1428. *Fucus*
15283	pinastroides *Ag.*	Pine-like	acicular	3	sum.	Br	ocean	Eng. bot. t. 1042. *Fucus*
2313.	CHON'DRIA. *Ag.*	Chondria.			*Sp.* 9—38.			
15284	pusílla *Hook.*	dwarf	entangled	¼	sum.	Psh	marine roc.	Greville crypt. t. 79
15285	pinnatífida *Ag.*	Pepper dulse	bushy	6	sum.	Psh	ocean	Eng bot. t. 1202. *Fucus*
15286	obtúsa *Ag.*	blunt	bushy	4	sum.	Y.Pk	ocean	Eng. bot. t. 1201. *Fucus*
15287	ovális *Ag.*	oval	rigid branch.	4	sum.	Br	ocean	Eng. bot. t. 711. *Fucus*
15288	dasyphýlla *Ag.*	thick-leaved	Sedum-like	4	all sea.	Pu	ocean	Eng. bot. t. 847. *Fucus*
15289	tenuíssima *Ag.*	slender	asparagoid	6	all sea.	Pa.Ol	ocean	Eng. bot. t. 1882. *Fucus*
15290	clavellósa *Ag.*	clavellose	gelatinous	9	jl. aug.	Pa.pk	ocean	Eng. bot. t. 1203 *Fucus*
15291	Kalifórmis *Ag.*	Kaliform	coralloid	5	june	Dl.P	ocean	Eng. bot. t. 640. *Fucus*
15292	articuláta *Ag.*	jointed	much bracch.	6	sum.	R.Pk	ocean	Eng. bot. t. 1574. *Fucus*
2314.	SPHÆROCOC'CUS. *Ag.*	Sphærococcus.			*Sp.* 17—128.			
15293	rúber *Ag.*	red	tufts	4	wint.	Psh	ocean	Eng. bot. t. 1053. *Fucus*
15294	Brodiæ'i *Ag.*	Brodie's	proliferous	4	su. au.	Psh	ocean	Lyngb. hydrop dan. t.3
15295	membranifólius *Ag.*	membranous	branched	6	oc. jan.	R.Pu	ocean	Turn. fuci, t 74. *Fucus*
15296	palmétta *Ag.*	Palmetto	flat branched	3	sum.	Dl.P	sea shore	Eng. bot. t. 1120. *Fucus*
15297	críspus *Ag.*	crisp	branched	4	s. my.	R.Br	ocean	Turn fuci, t. 216 *Fucus*
15298	mammillósus *Ag.*	teated	branched	4	all sea.	R.Br	ocean	Eng. bot. t. 1054. *Fucus*
15299	ciliátus *Ag.*	ciliated	flat lobed	6	wint.	R.Br	ocean	Eng. bot. t. 1069 *Fucus*
	β *palmátus* Ag.	*palmated*	flat lobed	6	wint.	R.Br	sea shore	
	γ *jubátus* Ag	*maned*	finely cut	6	wint.	R.Br	sea shore	Lin.trans.3.t.17.f.2.*Fuc.*
	δ *angústus* Ag.	*narrow*	finely cut	6	wint.	R.Br	sea shore	
	ε *spinósus* Ag.	*spiny*	finely cut	6	wint.	R.Br	sea shore	
15300	gigartínus *Ag.*	branched	coralloid	3	all sea.	R.Br	sea shore	Eng bot. t. 908. *Fucus*
15301	córneus *Ag.*	corneous	finely pinnat	3	sum.	dp pk	ocean	Eng bot. t. 1970. *Fucus*
	β *pinnátus* Ag.	*pinnated*	finely pinnat.	3	sum.	dp pk	sea shore	Turn. fuci, t 257 f d.
	γ *pulchellus* Ag.	*pretty*	finely pinnat.	3	sum.	dp pk	sea shore	Turn. fuci, t. 257 f p.
	δ *Nereideus* Ag.	*graceful*	finely pinnat	3	sum.	dp pk	sea shore	
	ε *clávifer* Ag.	*club-bearing*	finely pinnat.	3	sum.	dp pk	sea shore	Turn. fuci, t. 257. f. 9
15302	cartilagíneus *Ag.*	cartilaginous	finely pinnat.	8	all sea	Dp.Br	ocean	Eng. bot t 1477 *Fucus*
15303	corónopifólius *Ag.*	buckshorn-lvd.	rigid bushy	6	sum.	Dp.R	ocean	Eng. bot. t. 1478. *Fucus*
15304	laciniátus *Ag.*	jagged	flat lobed	3	f. may	Pk	ocean	Eng. bot. t. 1068. *Fucus*
15305	bífidus *Ag.*	bifid	bushy lobed	2	f may	pu pk	sea shore	Eng. bot. t. 773 *Fucus*
15306	cristátus *Ag.*	crested	small tuft	1¼	sum.	Pk	ocean	Greville crypt t. 85
15307	confervoides *Ag.*	conferva-like	much branch.	6	aut wi.	Ol.G	ocean	Eng. bot. t. 1668 *Fucus*
15308	plicátus *Ag*	plaited	coarse bush	3	all sea.	Ol.Br	ocean	Eng. bot. t. 1089. *Fucus*
15309	purpuráscens *Ag.*	purplish	thinly branc.	6	all sea.	Pa.Y	ocean	Eng. bot. t. 1243. *Fucus*
2315.	HALYME'NIA. *Ag.*	Dulse.			*Sp.* 7—21.			
15310	renifórmis *Ag.*	reniform	broad leaves	8	aut.	R	sea shore	Turn. fuci, t. 113 *Fucus*
15311	édulis *Ag.*	true	broad leaves	8	aut.	Dl.R	ocean	Eng. bot. t. 1307. *Fucus*
	β *média* Ag.	*intermediate*	broad leaves	8	aut	R	sea shore	Turn. fuci, t. 113 f. g.
15312	palmáta *Ag.*	common	broad leaves	8	oc. ap.	psh.R	ocean	E.b t. 1306. *F palmatus*
	β *marginífera* Ag.	*margined*	broad leaves	8	wint	Pu	ocean	Stackhouse, fuci, t. 12
	γ *sarniénsis* Ag.	*Guernsey*	broad leaves	8	wint.	Pu	sea shore	Turn. fuci, t. 44. *Fucus*
15313	liguláta *Ag.*	strap-shaped	lobed fronds	4	wint.	Pu	ocean	Eng. bot. t. 421. *Ulva*
15314	furcelláta *Ag.*	forked	much lobed	3	wint.	Pu	ocean	Eng. bot. t. 1881. *Ulva*
15315	opúntia *Ag.*	Indian Fig	matted	1	sp. aut	Pa.pu	ocean	E. bot.t.1868. *Rivularia*
13516	purpuráscens *Ag.*	purple	much branch.	6	sum	Psh	ocean	Eng. bot. t. 641. *Ulva*
2316.	BONNEMAISO'NIA. *Ag.*	Bonnemaisonia.			*Sp.* 1—3.			
15317	asparagoides *Ag*	Asparag.-like	finely branch.	4	jl. to n.	Dl pu	sea shore	Eng. bot. t. 571 *Fucus*



History, Use, Propagation, Culture,

2312. *Rhodomela.* From ῥοδος, red, and μελος, a limb; in allusion to the color of the fronds.

2313. *Chondria.* The fronds of this genus are particularly cartilaginous, on which account its name has been formed from χονδρος, cartilage. C. pinnatifida is eaten in Scotland; it has a pungent flavor.

2314 *Sphærococcus.* From σφαιρα, an orb, and κοκκος, fruit. The thecæ of the genus are round, and contain a globose nucleus full of round sporidia.

15279 Frond flat obsoletely ribb. alternately bipinnatifid, Pinnæ linear cuneate, Pinnules cut, Thecæ urceolate
15280 Stem filiform covered with setaceous densely imbricated ramenta
15281 Frond filiform much branched, Branchlets setaceous subulate pinnate fascicled
15282 Frond filiform attennuate flexuose branched, Branches bipinnate : upper involute
15283 Frond filiform equal, Ramenta simple about one-sided clustered involute

15284 Frond compres. filif. somew. contract. here and there, Fructif. either min. tuberc. or scatter. spor. in ramuli
15285 Frond compressed 2-3-pinnate, Pinnæ alternate, Pinnules obtuse callous
15286 Frond round filiform many-times pinnated, Pinnæ opposite cylindrical clavate short horizontal
15287 Stem roundish filiform dichotomous, Ramenta elliptical scattered much attenuated at base
15288 Stem round filiform much branched, Ramenta clavate much attenuated at base
15289 Stem round filiform irregularly branched, Ramenta setaceous much tapered at base
15290 Stem filiform much pinnated, Ramenta linear-lanceolate distichous tapering at base
15291 Frond filiform contracted in joints tubular, Branches whorled
15292 Frond filiform chain-like in joints tubular, Branches fastigiate dichotomous and whorled

15293 Stem scarcely any, Laminæ chained obsoletely ribbed cuneate 2-forked or lanceolate, Thecæ rugose sessile in the disk of the frond
15294 Stem filiform somewhat dichotomous, Branches terminating in oblong 2-forked somewhat proliferous laminæ, Thecæ spherical subulate terminal
15295 Stem filiform dichotom. Branches expanded in cuneiform multifid laminæ, Thecæ stalked ovate cauline
15296 Stem filif. nearly simple expanded into a cuneif. palm. laminæ : segm. ligulate, Thecæ hemisph. sess. in disk
15297 Frond flat dichotomous, Segments linear-cuneiform, Thecæ hemispherical sess. on the disk of the frond
15298 Frond somew. channel. dichotom Segm. lin cuneif. Thecæ spheric. scatter on short stalks on disk of frond
15299 Frond membran. leathery flat somew. lanc. somew. branched ciliat. Ciliæ subulate bearing thecæ at end

15300 Frond cartilagin. compressed lin. somew. dichotom. Segm. ciliated, Ciliæ bear. thecæ either at sides or ends
15301 Frond cartilagin. corneous distich. branched, Segm compressed flat linear bipinn. Pinnæ opp. spread. obt.

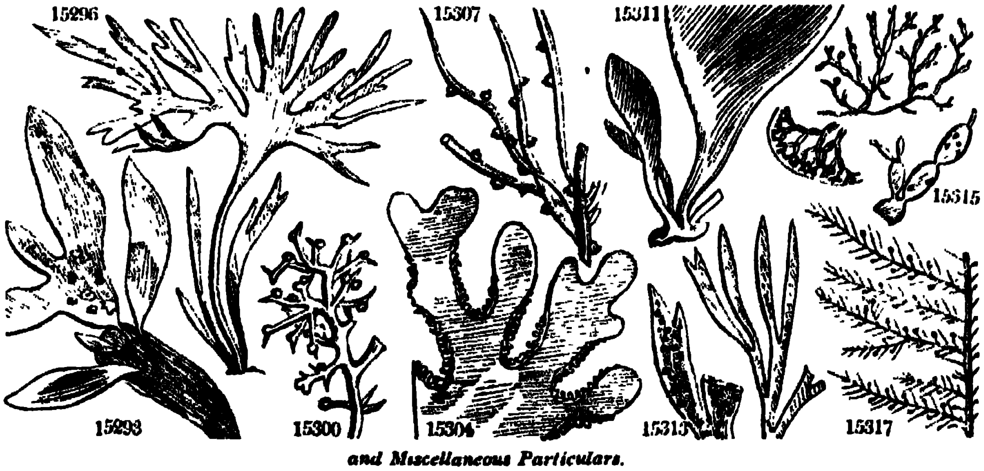
15302 Frond cartilagin. filif. compress. decomp. pinnated, Pinnæ horizontal altern. Pinnules bearing thecæ at end
15303 Frond cartilaginous much branched dichotomous pinnated, Segments tapered at base : lower compresed 2-edged ; the last furcate acute
15304 Frond cartilaginous membranaceous dichotomous or palmate, Segments obtuse somewhat proliferous, Thecæ immersed in minute unequal processes
15305 Frond membranous dichotomous, Theca spherical marginal sessile
15306 Frond membranous dichotomous, Segm. linear : upper palmate crested entire, Theca margin. immersed
15307 Frond cartilagin round filif. Branch long simp. surround. by little branch. Theca hemispher. sess. scatter.
15308 Frond filif corneous rigid equal with entang. branches, Branches horizontal 1-sided cluster. forked at end
15309 Fronds filif. much branch. Branchl. setaceous tapered at each end setac. Theca speric. attach. to branchl.

15310 Stem filiform dilated into a cartilaginous reniform or orbicular entire frond
15311 Frond fleshy flat simple cuneiform tapered at base into the footstalk rounded at end

15312 Frond coriaceous flat palmate entire, Segments cuneate oblong nearly simple

15313 Frond membranous tubular flat dichotomous, Axillæ rounded, Segments linear narrow by degrees sending out from the margin many simple ramenta
15314 Frond gelatinous coriaceous dichotomous, Segments filiform : end membranous dilated elliptical lanceol.
15315 Frond filiform with contracted articulations
15316 Frond subgelatinous filiform, Branches remote long, Sporules naked in the substance of the branches

15317 Frond filiform compressed much branched, Branchlets setaceous distichous simple pertinate on each side



and Miscellaneous Particulars.

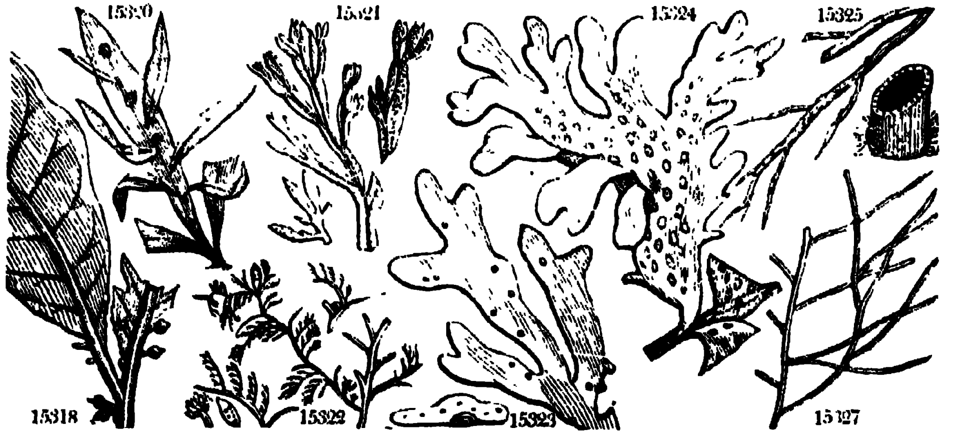
2315. ***Halymenia.*** From ἁλς, the sea, and ὑμην, a membrane. Marine plants with flat or tubular membranous fronds. H. edulis is the true Dulse, and H. palmata the common Dulse, both of which are eaten in Scotland.

2316. ***Bonnemaisonia*** So called in honor of M. Bonnemaison, a French cryptogamic botanist, who particularly attended to Confervæ

2317. **DELESSE'RIA.** *Ag.*	Delesseria.			*Sp.* 7—24.			
15318 sanguínea *Ag.*	blood-colored	bushy	6	ja. my.	Fi.Pk	ocean	Eng. bot. t. 1041. *Fucus*
15319 ruscifólia *Ag.*	ruscus-leaved	flat lobed	4	ja. feb.	Ri.pu	ocean	Eng. bot. t. 1395. *Fucus*
15320 hypoglóssum *Ag.*	proliferous	tufts	3	jn. sep.	Ri.pk	ocean	Eng. bot. t. 1396. *Fucus*
15321 aláta *Ag.*	winged	finely branch.	6	jan.au.	dp.pk	ocean	Eng. bot. t. 1387. *Fucus*
• β *dilatáta* Ag.	*dilated*	finely branch.	6	jan.au.	dp.pk	sea shore	
γ *angustíssima* Ag.	*very narrow*	finely branch.	6	jan.au.	dp.pk	sea shore	
15322 plocámium *Ag.*	scarlet	finely branch.	4	su.aut.	dp pk	ocean	E. b.t.1242. *F. coccineus*
15323 laceráta *Ag.*	torn	nearly simple	6	jl. oct.	Pa.R	ocean	Eng. bot. t. 1067. *Fucus*
15324 punctáta *Ag.*	dotted	very tender	4	sum.	Bt.pk	sea shore	Eng. bot. t. 1573. *Fucus*

FUCOIDEÆ.

2318. **LEMA'NEA.** *Ag.*	Lemanea.			*Sp.* 2—5.			
15325 fluviátilis *Ag.*	fluviatile	lax tufts	6	sum.	Dl G	stones in riv.	
β *média* Ag	*intermediate*	lax tufts	6	sum.	Dl.G	rivers	E. bot. t. 1763. *Conferva*
15326 torulósa *Ag.*	torulose	tufts	4	aut.	Dl.G	rivers	Act. holm. 1814. t. 2. f. 1
2319. **CHORDA'RIA.** *Ag.*	Chordaria.			*Sp.* 1—5.			
15327 flagellifórmis *Ag.*	flagelliform	long masses	24	sum.	Ol.O	ocean	Eng bot. t. 1222. *Fucus*
2320. **SCYTOSI'PHON.** *Ag*	Scytosiphon.			*Sp.* 2.			
15328 fílum *Ag.*	cord	simple	240	sum.	Br Ol	ocean	Turn. fuci, t. 86. *Fucus*
β *Thrix* Ag.	*hair*	simple	24	sum	Br Ol	ocean	Stackh fuci, t.12. *Fucus*
γ *tomentósus* Ag.	*downy*	simple	60	sum.	Br Ol	sea shore	Lyng.hydroph.dan t.19
δ *fistulósus* Ag.	*fistular*	simple	120	sum.	Br.Ol	ocean	Eng. bot. t. 642. *Ulva*
15329 fœniculáceus *Ag.*	fennel-leaved						Tu fuci, t. 234 *F subtilis*
2321. **SPOROCH'NUS.** *Ag.*	Sporochnus.			*Sp* 6—14.			
15330 pedunculátus *Ag.*	stalked	downy	6	sum.	Lt G	sea shore	Eng. bot t. 545. *Fucus*
15331 aculeátus *Ag.*	aculeate	much branch.	24	sp su.	Ol G	ocean	Turn fuci, t.187. *Fucus*
15332 víridis *Ag*	green	very finely br.	18	sum.	Ol.G	ocean	Eng. bot. t. 1669 *Fucus*
15333 villósus *Ag*	villous	downy	6	sum.	Pa.Y	sea shore	Eng bot t 546 *Conferva*
15334 rhizodes *Ag.*	warted	smth. branch	2	sum.	Y Br	ocean	Lyngb hydrop.dan t 13
β *major* Ag.	*large*	smth. branch	3	sum.	Y Br	ocean	E b t 1638. *C. verrucosa*
15335 ligulátus *Ag*	ligulate	much branch	48	sum.	Ol G	ocean	Eng bot t 1636 *Fucus*
2322. **HALI'SERIS.** *Ag.*	Haliseris			*Sp* 1—5.			
15336 polypodioídes *Ag.*	polypodi.-like	flat branched	6	all sea	Ol.G	ocean	E b.t 1758 *F membran.*
2323. **ENCŒ'LIUM.** *Ag.*	Encœlium.			*Sp* 1—4.			
15337 bullósum *Ag.*	blistered	simple tubul	6	sum.	Ol G	sea coast	E. b t. 2570. *U. Turneri*
2324. **ZONA'RIA.** *Ag.*	Zonaria.			*Sp* 3—34.			
15338 pavónia *Ag*	Turkey feath.	flat lobed	3	sum	Br G	ocean	Eng. bot. t. 1276. *Ulva*
15339 dichótoma *Ag.*	dichotomous	branched	4	sum.	Ol G	ocean	Eng. bot. t. 774. *Ulva*
15340 multífida *Ag.*	multifid	flat cut	3	aug	Pa.Ol	ocean	Eng. bot. t. 1913. *Ulva*
2325. **LAMINA'RIA.** *Ag.*	Laminaria.			*Sp.* 6—25.			
15341 agárum *Ag.*	perforated	large masses	60	sum.	Br	ocean	Turn fuci, t. 75. *Fucus*
15342 esculénta *Ag*	esculent	large masses	60	sum.	Br	ocean	Eng. bot t 1759 *Fucus*
15343 digitata *Ag*	digitate	large masses	60	all sea	Ol G	ocean	Eng. bot. t. 2274. *Fucus*
15344 bulbósa *Ag*	bulbous	large masses	60	all sea.	Ol Br	ocean	Eng bot. t. 1760. *Fucus*
15345 saccharína *Ag.*	saccharine	large masses	48	all sea	Ol G	ocean	Turn. fuci, t 163. *Fucus*
β *bulláta* Ag.	blistered	large masses	48	all sea	Ol.G	ocean	E. b t 1376. *F sacchari.*
15346 phýllitis *Ag.*	tender	simple	12	sum.	Bt.G	ocean	Eng. bot t. 1331. *Fucus*



History, Use, Propagation, Culture.

2317. *Delesseria.* The most beautiful of the Fucus tribe, so named in honor of M Benjamin Delessert, a distinguished French patron of botany; and now holding the same station among the scientific men of Paris, as was lately occupied in London by Sir Joseph Banks.

2318. *Lemanea.* Named in honor of M. Leman, a French botanist, who possessed a considerable knowledge of Algæ. This genus is the puzzle of writers upon Algæ. It differs from all the Nostochinæ in its substance, being in no way gelatinous, and in its compound structure, and separate fruit; from Confervoideæ it is distinguished by its continuous frond, olivaceous color, and leathery texture. To Fucoideæ it most nearly related in color, substance, and structure, but it is akin to no other genus, and its habits are entirely different from those of Fucoideæ; the species being all found floating in fresh water.

2319. *Chordaria.* So called from the cord-like appearance of the species.

2320. *Scytosiphon.* The fronds of this genus are tubular and coriaceous; whence the name has been contrived, from σκυτος, leather, and σιφων, a siphon.

15318 Stem distinct, Leaves ovate stalked entire costate, Nerves transverse parallel
15319 Stem winged, Leaves linear oblong subsessile proliferous from the costa, Veins diaphanous nearly parallel
15320 Stem winged, Leaves linear-lanceolate costate veinless proliferous from the mibrib netted
15321 Frond ribbed obsoletely nerved linear dichotomous alternately pinnatifid towards end, Pinnæ rather lingul.

15322 Frond pinnated dichotomous much branched, Last branches falcate inwards and pectinate
15323 Frond very fine linear irregularly split entire at end, Segments rounded at end not veined, Sori marginal
15324 Frond very thin veinless roundish irregularly split at the end, Sori on the disk of the frond

FUCOIDEÆ.

15325 Filaments simple papillose, Papillæ usually ternate, Articulations 5 times as long as broad
β Branched torulose in a moniliform manner here and there
15326 Filaments simple moniliform incurved 1-colored

15327 Frond much branched, Branchlets virgate somewhat distichous spreading at base

15328 Frond quite simple

15329 Frond setaceous branched in an irregular manner

15330 Recept. elliptical lateral as long as peduncle
15331 Branches spiny alternate
15332 Frond many times pinnated, Pinnæ opposite capillary
15333 Frond many times pinnated nodose, Pinnæ opposite, Nodi villous
15334 Frond irregularly branched, torulose and rugose in every direction

15335 Frond flat membranous scarcely nerved bipinnate, Pinnæ and pinnules opp. lin.-lanc. tapering at base

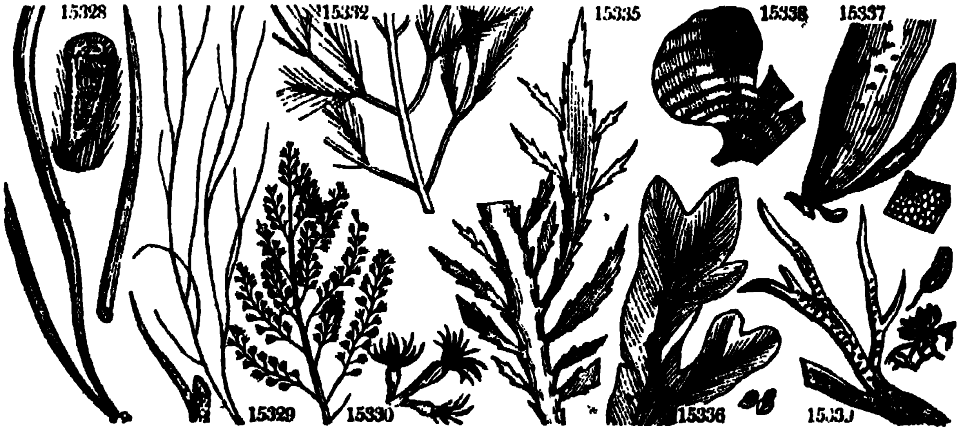
15336 Frond linear dichotomous entire, Sori heaped about the costa

15337 Frond inflated clavate

15338 Fronds reniform flabelliform smooth membranous, Zones concentric
15339 Dichotomous entire, Segments erect linear rounded blunt, Thecæ scattered on the disk
15340 Frond dichotomous entire, Segments long slender acute

15341 Stalk running through the lamina which is riddled with holes
15342 Stalk winged with pinnæ and running through the ensiform lamina
15343 Stalk round expanded into a roundish digitate split entire lamina
15344 Root inflated-bulbous, Stalk flat expanded into a digitate split entire lamina
15345 Stalk compressed expanded into an entire linear-oblong laminæ

15346 Stalk compressed expanded into a thin linear-lanceolate entire lamina



and Miscellaneous Particulars.

2321. *Sporochnus.* The meaning of this word is not explained. The genus is remarkable for the nature of the reproductive organs, which consist of a minute receptacle formed by some clavate corpuscles, which are jointed and arranged in a concentrical manner, and crowned with tufts of hair.

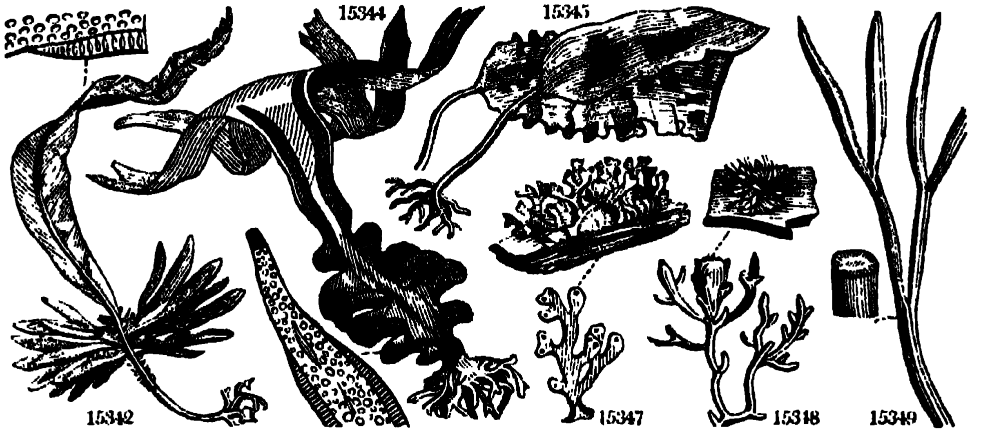
2322. *Haliseris.* This name literally signifies sea-cabbage; from ἁλς, the sea, and σερις, a sort of cabbage. The broad membranous fronds are not unlike the leaves of cabbage.

2323. *Encœlium.* From ἐν, within, and κοιλος, hollow. The fronds are all tubular and bladdery.

2324. *Zonaria.* Beautiful marine plants marked with transverse *zones* of lines, in which the organs of reproduction are supposed to exist.

2325. *Laminaria.* The reproductive organs of this genus are situated in the form of large sori upon the *lamina* of the frond. L. esculenta is eaten in Scotland, where it is called *Badderlocks*. From L. saccharina, when dried in the sun, exudes a dry white sweetish substance, which is eaten as sugar by the poor inhabitants of Iceland. L. buccinalis furnishes the singular vegetable production called the sea-trumpet.

2326. LICHI'NA. *Ag.*	Lichina.			*Sp.* 2.			
15347 pygmæ'a *Ag.*	pygmy	small patches	¼	sum.	G.Bl	roc. on se. co.	Eng. bot. t. 1332. *Fucus*
15348 confi'nis *Ag.*	allied	small patches	1/12	sum.	G.Bl	roc. on se. co.	Eng. bot. t.2575. *Lichen*
2327. FURCELLA'RIA. *Ag.*	Furcellaria.			*Sp.* 1.			
15349 fastigiáta *Ag.*	fastigiate	much branch.	9	aut.sp.	R.Ol	ocean	E.b.t.894. *F. lumbricalis*
2328. FU'CUS. *L.*	Fucus.			*Sp.* 8—18.			
15350 nodósus *L.*	knotty	leathery bran.	36	dec.	Ol.G	ocean	Eng. bot. t. 570
β *Mackáii* Turn.	*Mackay's*	leathery bran.	24	dec.	D.Br	ocean	Eng. bot. t. 1927
15351 vesiculósus *L.*	bladdery	loose masses	24	sp. su.	Ol.G	ocean	Eng. bot. t. 1056
β *longifrúctus* Ag.	*long-fruited*	loose masses	24	sp. su.	Ol.G	ocean	
γ *lineáris* Ag.	*linear*	loose masses	24	sp. su.	Ol.G	ocean	Esper fuci, t. 146
15352 ceranoídes *L.*	horn-like	bushy	12	sp. su.	Ol.G	ocean	Eng. bot. t. 2115
15353 dis'tichus *L.*	distichous	bushy	12	sp. su.	Ol.G	ocean	Turner fuci, t. 4
15354 serrátus *L.*	serrated	masses	36	sp. au.	D.Ol	ocean	Eng. bot. t. 1221
15355 canaliculátus *L.*	channelled	small masses	6	sp. au.	Y.Ol	ocean	Eng. bot. t. 823
15356 tuberculátus *Esp.*	warted	branch. wart.	6	june	Y.Ol	ocean	Eng. bot. t. 726
15357 lóreus *L.*	strap-like	masses	36	sum.	D.Ol	ocean	Eng. bot. t. 569
2329. CYSTOSE'IRA. *Ag.*	Cystoseira.			*Sp.* 5—45.			
15358 ericoídes *Ag.*	heath-like	coralloid	6	su. au.	Ol.Br	ocean	Eng. bot. t. 1968. *Fucus*
15359 barbáta *Ag.*	bearded	much branch.	6	su. au.	Ol.Br	ocean	Eng. bot. t. 2179. *Fucus*
15360 dis'cors *Ag.*	variable	bushy	6	su. wi.	Ol.Br	ocean	Eng. bot. t. 2131. *Fucus*
15361 fibrósa *Ag.*	fibrous	bush. deform.	6	su. wi.	Ol.Br	ocean	Eng. bot. t. 1969. *Fucus*
15362 siliquósa *Ag.*	podded	loose masses	24	au. sp.	D.Ol	ocean	Turn. fuci, t.159. *Fucus*
β *minor* Ag.	*small*	loose masses	8	au. sp.	D.Ol	ocean	Stackh. fuci,t.11. *Fucus*
γ *denudáta* Ag.	*naked*	loose masses	24	au. sp.	D.Ol	ocean	



History, Use, Propagation, Culture,

2326. *Lichina.* So called in allusion to its supposed convertibility into some one of the Lichen tribe. Sir James Smith has made one species a Lichen and the other a Fucus.

2327. *Furcellaria.* Named on account of the dichotomous forked or *furcellate* arrangement of the fronds.

2328. *Fucus.* So called by the Greeks. In Latin, the word signifies paint of any kind; a pigment staining red is afforded by certain species of Fucus. Fucus vesiculosus is much employed in the manufacture of kelp. It is common in great variety upon all the sea-coasts of these islands. It is known at first sight by its spherical vesicles filled with air. When the plant is dried, it becomes brittle, and of a dull black color, and sometimes it is covered with a saline efflorescence. Medically it is considered deobstruent, and has been found efficacious in scrofulous swellings. (*Thom. Lond. Disp.* 308.)

15347 Frond flat with spherical tubercles
15348 Frond roundish with elliptical tubercles

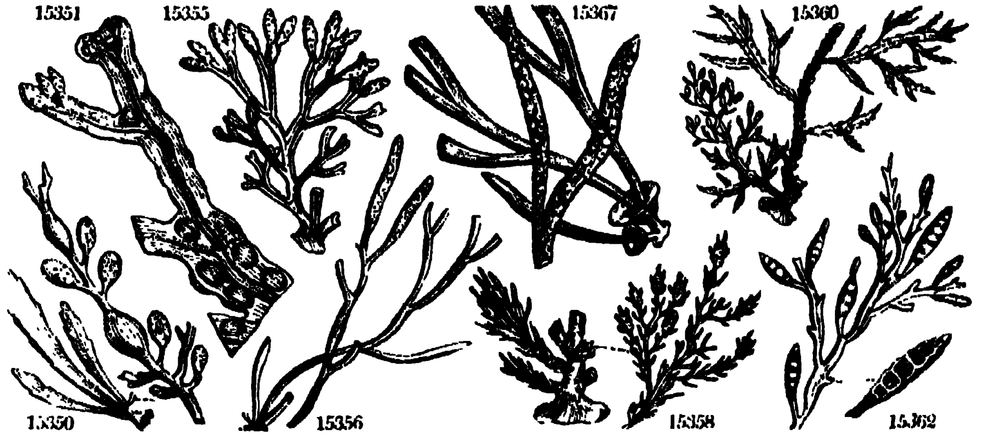
15349 The only species

15350 Stem compressed here and there inflated with internal vesicles, Receptacles lateral distic. stalk. pyriform

15351 Frond flat ribbed lin. dichotom. entire, Vesicles spherical innate upon frond in pairs, Recept. term. elliptical

15352 Frond lin. costate ent. somew. dichotom. without vesicles, Lateral segm. narrowest multif. fruit-bearing
15353 Frond linear entire dichotomous without vesicles ribbed, Receptacles linear-elliptical
15354 Frond dichotomous ribbed serrated, Recept. solitary flat serrated
15355 Frond linear nerveless channelled dichotomous, Recept. terminal
15356 Frond filiform somewhat dichotomous, Recept. terminal cylindrical
15357 Cup radic. circular plano-convex emitt. from its centre a frond terminat. in a very long dichotom. recept.

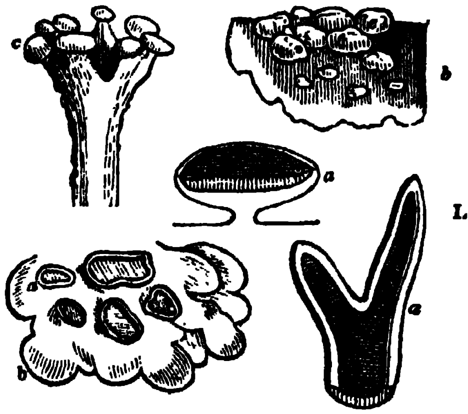
15358 Lvs. densely spiny all over, Vesic. ellipt. somew. term. crown. solit. Recept. warty from inflat. base of spines
15359 Lvs. filiform dichotom unarmed, Vesicles lanceolate chained, Recept. terminal ovate ellipt. mucronate
15360 Lower leaves thin costate pinnate, Pinnæ lanceolate crenulate, Vesicles lanceolate somewhat solitary
15361 Lvs unarmed filif. much branched, Vesicles innate ovate-elliptical somew. chained, Recept. filif. terminal
15362 Stem compressed pinnated, Leaves distichous flat linear entire, some bearing vesicles, others receptacles



and Miscellaneous Particulars.

For rural economy, this and other species of Fucus are burned for their ashes, which produce the kelp or potash of commerce. On those shores of the sea where these plants do not abound, and where the water is sufficiently saline, the different species of fuci are raised artificially, by depositing stones at regular distances, on which the fuci spring up of themselves, and in four years yield a crop fit for cutting. Those who are interested on this subject will find ample information in the Transactions of the Highland Society of Scotland (vol. viii.), and in Headrick's Survey of Forfarshire. A condensed view of what is known on the subject will be found in the Encyclopædia of Agriculture *in loco.*

2329. *Cystoseira.* From *κυστις*, a bladder, and *σειρα*, a chain. The upper parts of the frond have the appearance of little bladders chained together.



Order 8. LICHENS.

Reproductive organs uniform. Sporules deposited in receptacles of various forms, distinct in substance from the thallus or frond, which is either pulverulent, crustaceous, membranous, foliaceous, or branched and shrub-like.

This, Algæ, and the collateral order Fungi, may be said to exhibit the lowest stage of vegetable developement, and to contain the simplest forms of which plants are susceptible. Indeed it seems that each is resolved into the other when in the least stage of composition. Of this order, the lowest tribe, Pseudo-Lichenes, are considered Fungi by some authors, and have been formed into a distinct order by others, under the name of Hypoxyla. Here it seems best to consider them Lichens.

The fructification is usually in the form of shields or cup-like receptacles (*a*), dispersed over the surface of the frond or *thallus* (*b*), and bearing various names according to their nature. *Apothecia* is the common term used to designate the fructification. *Podetia* are the stalk-like processes of the frond (c), which bear the apothecia on their summit. *Scyphæ* are cup-like apothecia. *Cyphellæ* are pale tubercular spots on the under side of the frond. *Lacunæ* are small hollows or pits on the upper surface of the frond. *Soredia* are little heaps of free, pulverulent bodies, mostly of a whitish color, placed on various part of the frond (*c*). *Pulvinuli* are spongy, excrescence-like bodies arising from the frond, and often resembling minute trees. *Nucleus proligerus*, or kernel, is a distinct cartilaginous body coming out entire from the apothecia, and containing sporules. *Lamina proligera* is a distinct body containing the sporules, separating from the apothecia, often very convex and variable in form, and mostly dissolving into a gelatinous mass. The arrangement of Acharius, which is the most celebrated, is here followed.

Tribe I. IDIOTHALAMI.

Apothecia differing in color from the rest of the plant, and formed of a distinct substance.

§ 1. *Apothecia simple, entirely formed of a sub-uniform, pulverulent, or cartilaginous substance.* Homogenii.

* *Apothecia destitute of a raised margin.*

2330. *Spiloma.* Plant crustaceous, spreading, plane, adnate, uniform. Apothecia composed of minute bodies, collected into a compact, homogeneous, subpulverulent, naked, and shapeless colored mass.

2331. *Solorina* Plant foliaceous, coriaceous, lobed, separate beneath, and veiny or fibrous with down. Recept. adnate, roundish, not edged, covered by a colored membrane, and containing a solid, cellular, bladdery parenchyma.

** *Apothecia with a raised border.*

2332. *Lecidea.* Plant various, crustaceous, spreading, adnate, and uniform or foliaceous. Apothecia scutelliform, sessile, surrounded by a cartilaginous membrane; the disk of the same nature as the raised border.

2333. *Calicium.* Plant crustaceous, plane, spreading, adnate, uniform. Apothecia cup-shaped, sessile, or stipitate, cartilaginous, containing a compact pulverulent mass, plane or convex, and forming a naked disk.

2334 *Gyrophora.* Plant foliaceous, coriaceous, or cartilaginous, peltate, mostly monophyllous, free beneath. Apothecia subscutelliform, sessile, or adnate, covered with a black cartilaginous membrane; the disk warty or plaited in circles, and bordered.

§ 2. *Apothecia subsimple, included, formed of a single covering, containing a capsular body or nucleus.* Heterogenii.

2335. *Endocarpon.* Plant crustaceous, adnate, of some determinate figure, or foliaceous and peltate. Apothecia globose, concealed in the substance of the plant, surrounded by a thin membrane, furnished with a slightly prominent orifice, and containing a nucleus.

Tribe II. CŒNOTHALAMI.

Apothecia partly formed from the substance of the plant.

§ 1. *Apothecia included in wart-like processes, formed from the substance of the plant.* Phymatoidei.

2336. *Thelotrema.* Plant crustaceous, cartilaginous, plane, spreading, adnate, uniform, with wart-like receptacles, furnished with a wide pore, and bordered. Apothecia included, and containing a nucleus within a double covering.

2337. *Pyrenula.* Plant crustaceous, plano-expanded, adnate, uniform. Recept. wart-like, formed of the thallus, enclosing or surrounding at the base a solitary thalamium, with a simple, thick, papillose perithecium, containing a globose cellular nut.

2338. *Variolaria.* Plant crustaceous, plane, spreading, adnate, uniform. Apothecia wart-like, formed from the crust (resembling soredia), submarginate, white, including a naked nucleus.

§ 2. *Apothecia scutelliform, subsessile, the disk of a peculiar color different from the border, which is formed from the crust.* Discoidei.

2339. *Urceolaria.* Plant crustaceous, spreading, adnate, uniform. Apothecia shield-like, the disk concave, colored, immersed in the crust; border formed from the crust, and the same color.

2340. *Lecanora.* Plant crustaceous, spreading, adnate, plane, uniform. Apothecia shield-like, thick, adnate, and sessile, the disk plano-convex, colored; border thickish, somewhat free, formed from the crust, and the same color.

2341. *Parmelia.* Plant foliaceous, between coriaceous and membranaceous, spreading, appressed, orbicular, lobed, and stellate, variously divided, fibrous beneath. Apothecia shield-like, attached by a central point; the disk concave, colored, with a border formed from the crust.

2342. *Borrera.* Plant cartilaginous, branched, and laciniate, the segments free, channelled beneath, and ciliate at the margin. Apothecia shield-like, with a colored disk; the border formed from the frond.

2343. *Cetraria.* Plant cartilagino-membranaceous, ascending or spreading, lobed, smooth, and naked on both sides. Apothecia shield-like, obliquely adnate with the margin, the disk colored, plano-concave; border inflexed, derived from the frond.

2344. *Sticta.* Plant foliaceous, coriaceo-cartilaginous, spreading, lobed, free and pubescent beneath, with little cavities or hollow spots. Apothecia shield-like, fixed by a central point, the disk colored, plane; border formed from the crust.

2345. *Peltidea.* Plant foliaceous, coriaceous, spreading, subadnate, lobed, with woolly veins beneath. Apothecia orbicular, adnate, on produced portions of the frond, the disk colored; border very thin, formed from the frond.

2346. *Nephroma.* Plant foliaceous, coriaceous, membranous, expanded, lobed, beneath separate, and naked or villous. Recept. resupinate, formed of the ascending lengthened lobes of the thallus. Fertile lamina reniform, entirely attached to the thallus and its lower side, and surrounded by an elevated inflexed margin.

2347. *Roccella.* Plant coriaceous, cartilaginous, branched, laciniated, round or flat, erect or pendulous, woolly inside. Recept. shield-like, thick, growing into the thallus. Fertile lamina forming a disk, plano-convex, colored, and cartilaginous, in the inside hyaline, and of a similar nature, surrounded by a margin, which is elevated, sessile, and as deep as the disk, and which contains a compact black powdery mass, which is hidden within the substance of the thallus.

2348. *Evernia.* Plant branched, laciniate, angular, or compressed, subercct or pendulous, with a central filament within. Apothecia shield-like, sessile, the disk concave, colored; border formed the frond.

§ 3. *Apothecia subglobose, terminating the branches or podetia, or scattered, sessile, and emarginate.*
CEPHALOIDEI.

* *Apothecia covered by the mass of the fructification.*

2349. *Cenomyce.* General receptacle subcartilaginous, foliaceous, laciniate, subimbricated, free (rarely adnate, uniform, or wanting). Apothecia on podetia, orbicular, immarginate at length, capituliform, bearing thick colored masses of fructification.

2350. *Bæomyces.* Plant crustaceous, spreading, plane, adnate. Apothecia on short, soft, solid, simple podetia, capituliform, solid, immarginate, colored, convex, reflexed at the margin.

2351. *Isidium.* Plant crustaceous, plane, spreading, adnate, uniform. Apothecia on very short solid podetia, orbicular, convex, solid, terminal; the disk subimmersed, having a border formed from the substance of the podetia.

2352. *Stereocaulon.* Plant shrubby, cartilaginous, branched. Apothecia turbinate, sessile, solid, plane above, at length subglobose, with a border formed from the frond.

** *Apothecia clothed with the substance of the frond, and containing a pulverulent mass.*

2353. *Sphærophoron.* Plant cartilaginous, fibrous within, solid, shrubby, branched. Apothecia sessile, terminal, subglobose, bursting irregularly, and containing a black, globular, pulverulent mass.

TRIBE III. HOMOTHALAMI.

Apothecia entirely formed of the substance of the frond, and of a similar color.

2354. *Alectoria.* Plant cartilaginous, subfiliform, fibrous, and somewhat fistulose within, branched, prostrate, or pendulous. Apothecia shield-like, thick, sessile, bordered, wholly formed from the frond.

2355 *Ramalina.* Plant cartilaginous, fibrous, and nearly solid within, branched, somewhat shrubby, mostly sorediferous. Apothecia shield-like, thick, subpedicellate and subpeltate, plane, bordered, wholly formed from the substance of the frond.

2356 *Cornicularia.* Plant cartilaginous, fibrous, and nearly solid within, branched, shrubby. Apothecia orbicular, terminal, obliquely peltate, at length convex, somewhat inflated; the border dentate.

2357. *Usnea.* Plant much branched, filiform, mostly pendulous, furnished within with a bundle of elastic fibres. Apothecia orbicular, terminal, peltate, often ciliate at the border.

2358 *Collema.* Plant subgelatinous, homogeneous, crustiform, foliaceous, or somewhat branched, membranaceous or cartilaginous when dry Apothecia shield-like, bordered, formed from the substance of the frond; the disk sometimes differing in color when dried.

TRIBE IV. ATHALAMI.

Lichens destitute of apothecia, and whose fructification is unknown.

2359. *Lepraria.* Whole plant crustaceo-pulverulent, spreading, adnate, uniform. Apothecia unknown.

TRIBE V. PSEUDO-LICHENES.

Apothecia black, corneous, imbedded in a receptacle. Sporules in slender tubular cells, lying in a pulp, not spontaneously emitted.

2360. *Opegrapha.* Plant crustaceous, flat, expanded, adnate, uniform. Receptacle oblong and elongated, sessile, covered with a cartilaginous dark membrane, enclosing a solid parenchyma. Disk linear, edged on each side.

2361. *Verrucaria.* Plant crustaceous, plane, expanded, adnate, uniform. Recept. hemispherical, roundish at the base, growing into the thallus, with a double perithecium; exterior somewhat cartilaginous and thick, having above a little pimple or perforation; inner very fine, and membranous. Kernel cellular.

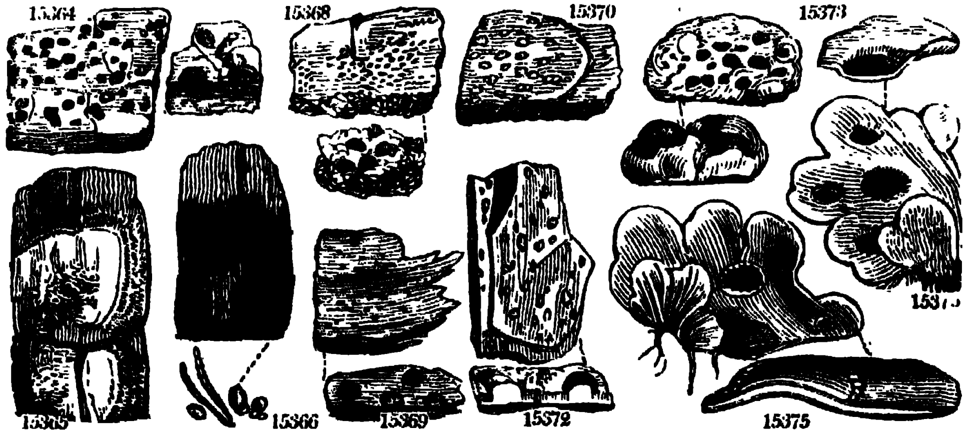
2362. *Porina.* Plant crustaceous, cartilaginous, plano-expanded, adnate, uniform. Recept. wart-like, formed out of the thallus, and not margined. Thalamium imbedded in the substance of the wart, with a simple very thin perithecium, and a colored orifice thicker at the surface of the wart. Kernel roundish, cellular.

2363. *Arthonia.* Plant crustaceous, plano-expanded, adnate, uniform. Recept. innate, sessile, of an irregular roundish figure, without an edge, covered by a somewhat cartilaginous membrane, and containing a solid uniform kernel.

2364. *Graphis.* Plant crustaceous, plano-expanded, adnate, uniform. Recept. long, immersed in the thallus, with a simple cartilaginous perithecium, which forms an edge all round the linear kernel, which is naked at top and bottom, and cellular inside.

IDIOTHALAMI.

2330. SPILO'MA. *Ach.*	Spiloma.			*Sp.* 12—20.			
15363 tumidulum *Ach.*	tumid	thin skin	4	all sea.	O	bark of trees	Eng. bot. 2151
15364 versicolor *Ach.*	changeable	spotted crust	3	all sea.	Gr	bark of trees	Eng. bot. 2070
15365 microclónum *Ach.*	fine-branched	cloudy	1½	all sea.	Wsh	aged oaks	Eng. bot. 2150
15366 melanópum *E. B.*	sooty	sooty spots	2	all sea.	Bl	apple trees	Eng. bot. 2358
15367 microscópicum *E. B.*	microscopic	obl. patches	1½	all sea.	Sea G	old boards	Eng. bot. 2396
15368 murále *E. B.*	wall	crust	3	all sea.	Ysh	old mortar	Eng. bot. 2397
15369 dispérsum *E. B.*	scattered	even crust	1	all sea.	Gr	old rails	Eng. bot. 2398
15370 decolórans *E. B.*	staining	lobed patches	1½	all sea.	Gr	old wood	Eng. bot. 2399
15371 punctátum *E. B.*	dotted	crust	2	all sea.	Gr	old oaks	Eng. bot. 2472
15372 variolósum *E. B.*	speckled	cracked crust	2	all sea.	Wsh	old trees	Eng. bot. 2077
15373 aurátum *E. B.*	golden	tumid crowd.	1½	all sea.	Wsh	old walls	Eng. bot. 2078
15374 tuberculósum *E. B.*	warted	even patch	3	all sea.	Cæs.	sandst. rocks	Eng. bot. 2556
2331. SOLORI'NA. *Ach.*	Solorina.			*Sp.* 2—10.			
15375 crócea *Ach.*	yellow	leafy frond	1½	sp. su.	Ol.G	tops of mou.	Eng. bot. t. 498
15376 saccáta *Ach.*	bagged	leafy frond	2	sum.	Grsh	on the earth	Eng. bot. t. 288
2332. LECIDE'A. *Ach.*	Lecidea.			*Sp.* 66—183.			
15377 atro-cinérea *E. B.*	dark-grey	close patches	1½	all sea.	Bl	rocks	Eng. bot. 2096
15378 corácina *Ach.*	raven	tessellated	2	all sea.	Gr.Bl	granite rocks	E. b. t. 2335 *L. coracinus*
15379 atro-álba *Ach.*	black & white	cracked crust	3	all sea.	Bl	rocks	Eng. bot. t. 2336
15380 fusco-átra *Ach.*	dark-brown	thin crust	2	all sea.	Bl	rocks	E. b. t. 1734. *L. dendritic.*
15381 fumósa *Ach.*	smoky	tessellated	3	sum.	Br.Gr	alpine rocks	E. b. t. 1830. *L. cechumen.*
Lichen athrocarpus	E. B. 1829.						
15382 lapicida *Ach.*	stone-splitting	broad patches	3	all sea	„	brick walls	E. bot. 821. *L. contiguus*
15383 petræ'a *Ach.*	rock	thin crust	1½	all sea.	W	roc. & stones	Eng. bot. 246
15384 cónfluens *Ach.*	confluent	tartareous	2	aut.	Gr.Br	rocks	Eng. bot. 1964
15385 parasé'ma *Ach.*	black-fruited	membranous	3	aut.	Wsh	bark of trees	Eng. bot. 1450
15386 sanguinária *Ach.*	red-fruited	rugose crust	2	all sea.	Wsh	rocks	Eng. bot. 155
15387 sabuletórum *Ach.*	heath	thin cuticle	1½	all sea.	Wsh	bark of trees	
β *geochróa* Ach.	*earth-skin*	thin cuticle	1½	all sea.	Gr	bark of trees	E. b. 1450. *L. parasemus*
15388 miscélla *Ach.*	mixed	lobed crust	2	all sea.	Pa.Ol	whinst. rocks	Eng. bot. 1831
15389 escharoídes *E. B*	scarred	granul. crust	1½	june	D.Br	earth & rocks	Eng. bot. 1247
15390 aromática *Ach.*	aromatic	lobed crust	1½	all sea.	Ol	old walls	Eng. bot. 1777
15391 dolósa *Ach.*	rusty spongy-crust.	broad cuticle	4	all sea.	Cæs.	rocks	Eng. bot. 2581
15392 atro-virens *Ach.*	dark-green	thin coat	2	all sea.	Bl	rocks	
β *geográphica* Ach.	*geographical*	figured crust	3	all sea.	Y.Ol	rocks	Eng. bot. 245
15393 silácea *Ach.*	flint	tessellated	2	all sea.	Y.R	rocks	Eng. bot. 1118
15394 Œdéri *Ach.*	Œder's	tessellat. powd	2	all sea.	Rsh	rocks	Eng. bot. 1117



History, Use, Propagation, Culture,

2330. *Spiloma.* This word signifies in Greek, a spreading discoloration of the cuticle, and well expresses the general character of the genus.

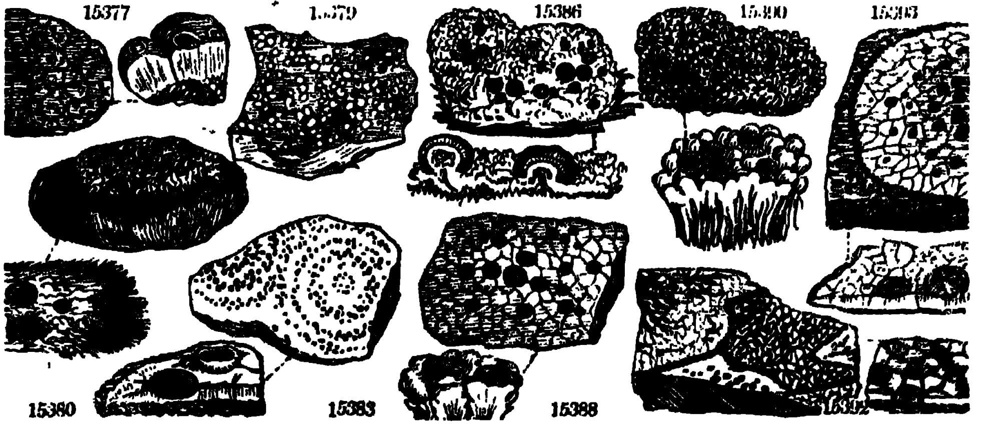
IDIOTHALAMI.

15363 Crust somewhat cartilaginous whitish, Apothecia crowded tumid oblong varying in figure roughish reddish at length brownish black and somewhat pruinose
15364 Crust somewhat cartilaginous powdery cracked variegated with cinereous and yellow, Apothecia immersed superficial roundish finally confluent
15365 Crust very thin glauc. Apothecia burst. forth min. convex cluster. and conflu somew. branch. dark-color.
15366 Crust very thin greyish, Apothecia flat diluted irregular somewhat confluent black
15367 Crust spread. widely very thin membran. greyish, Apothecia dot-like very min. black lead-color. when dry
15368 Crust obsolete or white, Apothecia very minute black confluent without bristles
15369 Crust filmy very thin green. grey, Apothecia mostly dispers. hemispher. sooty : internally yellowish green
15370 Crust spreading widely very thin ; for the most part membranous greyish white, yellowish green when rubbed, Apothecia minute flat confluent blueish grey
15371 Crust thin somew. powd. white, Apoth. scatter. min. dot-like solid black with superfic. dark-brown powder
15372 Crust tartar. rugg. greyish-white cracked, Apothecia convex round. very black : their centers often decid.
15373 Crust tartar. rugged greyish or greenish-white, Apothecia convex rounded black orange-colored within
15374 Crust calcareous greenish-white, Apothecia scattered somew. confluent unequal elevated granulat. black

15375 Thallus green. (brown when dry) lobed : ben. veiny and of a fine saffron-col. Apothecia somew. tum. brown
15376 Thallus lobed grey.-green whiter and fibrous ben. Apothecia at length sunk into deep pits or hollows brown

† *Thallus crustaceous reniform.*
* *Apothecia constantly black, naked,* (*not pruinose*).

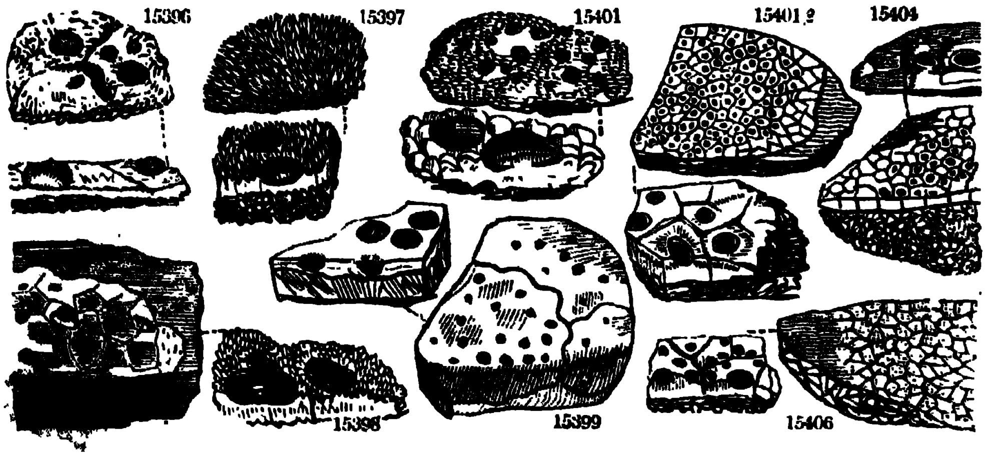
15377 Crust tessellated greyish-black smooth, Apothecia several together depressed brownish-black with a paler border, at length crowded elevated the border being obliterated
15378 Crust continued tessellat. greyish-black, Apothecia immersed between the areolæ plane at length convex somewhat angular black of the same color within
15379 Crust spreading very thin cracked black with swelling whitish scattered areolæ, Apothecia plane or slightly convex often in the interstices black, of the same color within
15380 Crust very thin black cracked and tessellated areolæ chesnut-brown plane marginated shining scattered, Apothecia rather convex black margined white within
15381 Crust subcartilaginous tessellat. smoothish brownish grey, Apothecia buried in the crust plane margined at length convex clustered and losing their margin black within greyish-black
15382 Crust tartareous cracked whitish ash-color, Apothecia within the spaces of the crust depressed flat finally convex somewhat confluent dark with a thin edge
15383 Crust thin roundish very finely cracked somewhat powdery white, Apothecia grown into the crust thick protuberant somewhat concentrical dark-colored with a tumid elevated contracted margin
15384 Crust tartareous somew. spreading tessellated nearly even greyish-brown, Apothecia sessile at length irregular convex subglobose confluent black emarginate within having a thin greyish stratum ben. disk
15385 Crust thin submembranaceous greyish-white bordered with black at length spreading somew. granulated, Apothecia nearly plane sessile margined black blackish within
15386 Crust rugose and warted greyish-white, Apothecia at length convex hemispherical somew. tuberculated black horny and black within having beneath a powdery bright red stratum
15387 Crust scattered granular irregularly lobed cinereous whitish, Apothecia clustered convex sessile plano-convex hemispherical somewhat confluent dark powdery inside
β Crust scattered granular somewhat cohering white cæsious or cinereous brown, Apothecia hemispherical somewhat globose often clustered shining
15388 Crust tartareous broken into cracks with wart-like smooth cracked cinereous areolæ, Apothecia deeply immersed convex aggregate scarcely edged dark-colored
15389 Crust tartareous brownish ash-colored composed of granulated warts, Tubercles convex irregular black with an obsolete black border
15390 Crust somewhat cartilaginous scaly granular glaucous cinereous, Granules flattish crenulated, Apothecia sessile plano-concave edged finally wavy
15391 Crust rugose somewhat granular ferruginous ash-colored, Apothecia superficial flat edged finally flexuose and convex, Edge finally obliterated
15392 Crust spreading thin black scattered with planeish subcontiguous bright-yellow areolæ, Apothecia plane or slightly concave black of the same color within
β Areolæ bright-yellow plane angular black between and with a black margin
15393 Crust tartareous tessellated yellowish-red, Apothecia sessile plane at length convex irregular confluent black internally cernuous and black
15394 Crust granulated and tessellated somewhat pulverulent ochraceous red, Apothecia minute elevated with the margin tumid : the disk depressed black nearly of the same color internally



and Miscellaneous Particulars.

2331. *Solorina.* From σολος, solid, and ρινος, a skin, in allusion to the firm texture of the fond.
2332. *Lecidea.* An unexplained name contrived by Acharius for the Lichenes tuberculati of Linnæus, whose shields have no border from the substance of the frond or crust.

15395 alba *Ach.*	white	membranous	3	aut.	W	bark of trees	E. bot. 1349. *Lepraria*
15396 citrinélla *Ach.*	lemon-peel-crust.	cracked coat	3	spring	Y.G	sand. ground	Eng. bot. 1877
15397 uliginósa *Ach.*	marsh	whole colored	3	spring	Bl	sandy heaths	Eng. bot. 1466
15398 scabrósa *Ach.*	rugged-shield.	lobed patches	2	all sea.	Pa.G	tiled roofs	Eng. bot. 1878
15399 immérsa *Ach.*	immersed	even crust	4	all sea.	Pa.Y	calcar. rocks	Eng. bot. 193
15400 rivulósa *Ach.*	rivulet	broad incrust.	6	all sea.	Br.Ol	rocks	Eng. bot. 1737
15401 albo-cæruléscens *Ach.*	whitish-blue	tartare. crust	3	sum.	Wsh	Scotch alps	E. b. t.2944. *L.pruinosus*
β túrgida Ach.	*turgid*	sinuated crust	3	sum.	W	stone walls	E.b. t.820. *L.multipunct.*
15402 abietina *Ach.*	pine-tree	pruinose	2	all sea.	Gl.	trunks,Abies	
15403 speirea *Ach.*	wavy	sinuated crust	4	spring	W.Y	flint. pebbles	Eng. bot. 1864
15404 epipólia *Ach.*	thick	tartare. crust	2	sum.	W	Scotch alps	Eng. bot. 1137
15405 corticola *Ach.*	black & white bark	small verruc.	1	aut.	Cæs.	old trees	Eng. bot. 1892
15406 conspurcáta *E. B.*	dusty	rimose crust	1½	aut.	Cæs.	old walls	Eng. bot. 964
15407 Lightfoótii *Ach.*	Lightfoot's	sinuat. patch.	⅔	all sea.	Pa.G	smooth bark	Eng. bot. 1451
15408 quérnea *Ach.*	oak	thin crust	3	all sea.	Y.G	clefts of bark	Eng. bot. 485
15409 viridéscens *Ach.*	greenish	thin crust	1½	all sea.	Pa.G	dead trees	
15410 incána *Ach.*	hoary	leprous	2	aut.	Gl.	trun. of trees	Eng. bot. t. 1683
15411 sulphúrea *Ach.*	sulphur	cracked crust	2	aut.	Sul.	rocks	Eng. bot. t. 1186
15412 orósthea *Ach.*	downy	toment. crust	3	all sea.	[illegible]	trees & pales	Eng. bot. t. 1549
15413 decolórans *Ach.*	discoloring	granular	2	sum.	Grsh	on earth	
β granulósa Ach.	*granular*	granular	2	sum.	Grsh	on earth	E. b. t.1185. *L.quadricol.*
Lichen escharoides	E. B. 1247						
15414 anómala *Ach.*	anomalous	spotted patch.	3	aut.	Pa.Ol	on earth	E. b. t. 2155. *L.cyrtellus*
15415 rupéstris *Ach.*	rock	tartareous	2	sum.	Grsh	rocks	Eng. bot. 2345
Lichen calvus E. B.	948						
15416 lutéola *Ach.*	yellowish	thin crust	3	all sea.	Wsh	bark of trees	Eng.bot.846. *L. vernalis*
15417 carnéola *Ach.*	horny-cupped	papillose crust	3	all sea.	Wsh	on oaks	Eng.bot.965. *L. corneus*
β arceutina Ach.	*Griffithian*	smooth coat	2	all sea.	W.Br	bark of trees	E.bot.1735. *L.Griffithii*
15418 fusco-lútea *Ach.*	yellow-brown	thin crust	3	sum.	Grsh	mountains	Eng. bot. 1007
15419 cinéreo-fúsca *Ach.*	cinereo.-brown	cracked crust	3	all sea.	Grsh	trun. of trees	
15420 anthracina *Ach.*	dark	scaly crust	2	sum.	D.Br	rocks & trees	E. bot. t.432. *L. byssinus*
15421 cæ'sio-rúfa *Ach.*	bluish-brown	tessellat. crust	3	sum.	D.Gr	rocks & trees	E.b.1650. *L.ferrugineus*
15422 icmadóphila *Ach.*	Heath	leprous crust	2	all sea.	G.W	on ear. in he.	E.b.t.372. *L. ericetorum*
15423 marmórea *Ach.*	marbled	thin crust	3	all sea.	Gr.W	bark of trees	Eng. bot. t. 739
15424 alabástrina *Ach.*	Alabaster	thin crust	2	sum.	Gr.W	Scotland	E. bot.t.1651. *L. rosellus*
15425 melizea *Ach.*	yellow-shield.	cracked crust	1½	spring	Y.Ol	moss. trunks	Eng. bot.1263. *L. luteus*
15426 Ehrhartiána *Ach.*	Ehrhart's	cartilag. crust	2	all sea.	Gsh	rocks	Eng. bot. 1136
15427 polýtropa *Ach.*	variable	tessellated	2	all sea.	Pale	rocks	Eng. bot. 1264



15395 Crust membranaceous white with a greyish or whitish-grey powdery substance scattered over it in small clusters, Apothecia minute appressed plane black
15396 Crust leprous granul. powdery green.-yell. Apothecia sess. margin. finally convex dark : of same col. inside
15397 Crust granular somewhat gelatinous greenish-brown, Apothecia appressed margined finally hemispherical clustered dark : of the same color inside
15398 Crust globose warted powdery cinereous yellowish, Apothecia convex scabrous

** *Apothecia black, naked : when moistened becoming red or brown.*

15399 Crust thin whitish, Apothecia plano-convex immersed in the stone margined dark : disk pruinose ; when moistened crimson, white inside
15400 Crust cracked into areolæ brownish ash-color edged with dark lines, Apothecia sessile flat becoming convex edged irregular black

*** *Apothecia black with a grey bloom.*

15401 Crust tartareous contiguous even at length somewhat tessellated and whitish, Apothecia sessile and elevated plane black with a grey bloom and a black smooth border
β Crust of a regular figure contiguous whitish cæsious, Apothecia immersed : disk depressed hollowish
15402 Crust spreading very thin smooth glaucous : fructification subsessile plane black with a grey bloom ; the border raised and swelling
15403 Crust tartareous contiguous very white, Apothecia sessile thick black powdery margined becoming convex with an ash-colored layer under the disk
15404 Crust tartareous defined tessellated white areolæ swelling, Apothecia sessile hemispherical with a grey bloom black within with a thin persistent margin
15405 Crust somewhat tartareous granular areolated uneven very white, Apothecia minute somew. immersed cæsious becoming subglobose not margined dark cinereous inside
15406 Crust thick greyish-white cracked rugose at length mealy very white within, Apothecia numerous scattered minute : at first prominent and pale-brown ; then concave and black

**** *Apothecia black-brown, brownish, or deadened by some other color.*

15407 Crust somewhat effuse granular cinereous greenish, Apothecia appressed flat dark-brown : inside dirty-white with a thin flexuose edge paler than the disk
15408 Crust lep. granul. pale yellow.-brown, Apoth. somew. immers. becom. conv. not margin. brown and black
15409 Crust thin granulat. somew. farin. green or green.-brown : fructific. conv. rug. irregul. conflu. black.-brown
15410 Crust spread. leproso-farin. soft uneven glauc. green, Apothecia scatter. sess. brown with marg. ent. paler
15411 Crust tartareous cracked and broken uneven smoothish pale sulphur-color, Apothecia adnate plane scarcely margined brown and scarcely paler in the margin, at length irregular and convex
15412 Crust cracked areolated uneven somewhat powdery sulphureous, Apothecia minute sessile convex not margined whole-colored becoming hemispherical
15413 Crust granulated greyish-white, Granules becoming pulverulent, Apothecia nearly plane red flesh-colored livid or brown with the elevated margin paler, at length flexuose

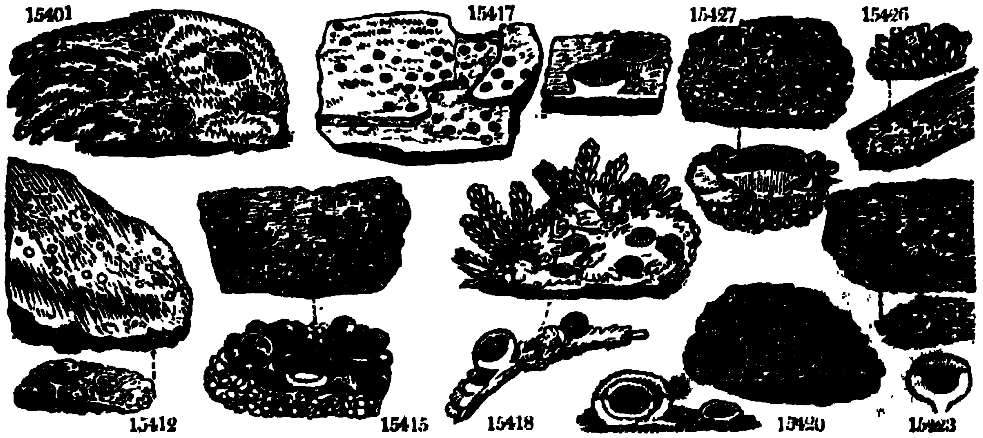
15414 Crust firmer granulat. and subpapill. Apothecia at length hemispheric. rug. brown.-black and black conflu.
15415 Crust thin tartareous contiguous greyish-white, Apothecia immersed plane margined, at length convex : the margin persistent glabrous reddish-brown ; of the same color within
15416 Crust thin whit. cover. with somew. globul. pale gran. at length grey. Apoth. sess. becom. conv. yel.-brown
15417 Crust thin membranous hoary finally granular powdery, Apothecia sessile concave thick tumid brown flesh-colored with an edge of the same color
β Crust very thin naked whitish, Apothecia flattish scarcely margined waxy purple brown and black
15418 Crust spreading very thin membranaceous white or greyish somew. shining subgranulose, Apothecia plane yellow-brown, at length red-brown with the margin paler elevated, at length flexuose
15419 Crust thin somewhat cracked uneven greyish-white : fructification plane, at length angular and irregular yellowish or reddish-brown ; the border narrow persistent
15420 Crust spreading somewhat scaly uneven roughish darkish-brown, Apothecia minute plane reddish yellow with the margin paler, at length somewhat convex and brownish

***** *Apothecia dark-red, or whitish flesh-color.*

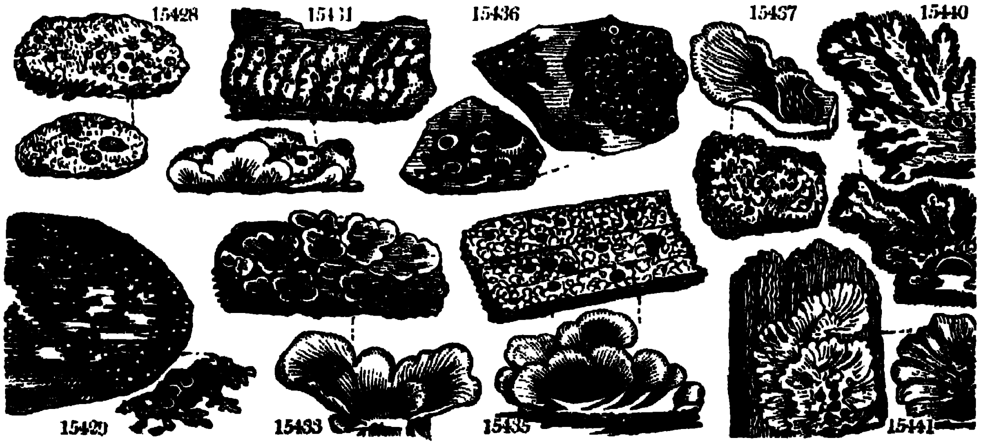
15421 Crust tessellated rugose darkish-grey, Apothecia plane rusty orange : the margin sometimes crenulate, at length convex with the margin obsolete blackish-red
15422 Crust leprose uneven somewhat granulated greenish-white, Apothecia nearly sessile plane flesh-colored, at length waved roughish in the disk : margin scarcely any
15423 Crust thin grey.-white, Apothecia somew. glob. at length urceol. white : disk flesh-color. ; marg. tum. ent.
15424 Crust thin smoothish minutely granulated greyish-white, Apothecia slightly convex entire whitish rose-color paler at the margin

****** *Apothecia pale, yellowish, waxen or orange-colored.*

15425 Crust thin white powdery, Apothecia plano-convex smooth edged pale-yellow
15426 Crust cartilaginous cracked rugoso-plicate granulated white or greenish, Apothecia nearly sessile plane at length slightly convex waved unequal clustered pale yellowish
15427 Crust subtartareous tessellated pale, Apothecia nearly plane with the margin lobed waved clustered, at length subglobose destitute of margin yellowish flesh-color



15428 lúcida *Ach.*	shining	soft crust	2	sum.	G.Y	rocks	Eng. bot. 1550
15429 atro-fláva *Ach.*	black & yellow	ragged crust	2	all sea.	Br	expos. flints	Eng. bot. 2009
15430 luteo-álba *Ach.*	yellow-white	smooth crust	1½	all sea.	W	rocks	Eng. bot. 1426
15431 cándida *Ach.*	hoary	sinuous	3	all sea.	Wsh	old walls	Eng. bot. 1138
15432 vesiculáris *Ach.*	blistered	imbricated	3	sum.	Br.Bl	Highl. rocks	E.b.1139. *L.cæruleo-nig.*
15433 lúrida *Ach.*	lurid	imbricated	3	sum.	G.Br	Scotch alps	Eng. bot. 1329
15434 atro-rúfa *Ach.*	red-brown	imbricated	4	sum.	Br	red san. gro.	Eng. bot. 1102
15435 scaláris *Ach.*	scaly	imbricated	3	aut.wi.	Pa.Ol	rocks&earth	Eng. bot. 1501
15436 verruculósa *E. B.*	warted	*irregul. patch.	1	aut.wi.	Bl	hard rocks	Eng. bot. 2317
15437 rubifórmis *Ach.*	blackberry	patches	¼	wint.	Pa.G	turfy earth	Eng. bot. 2112
15438 decipiens *Ach.*	deceitful	imbricated	2	spring	F	earth	Eng. bot. 870
15439 pholidióta *Ach.*	scaly	leafy crust	4	spring	Cæs.	quartz. rocks	E. b. 1955. *L. glebulosus*
15440 microphýlla *Ach.*	small-leaved	broken patch.	2	spring	Gr.G	trees	Eng. bot. 2128
15441 canéscens *Ach.*	hoary	round. patch.	1¼	spring	W	bark of trees	Eng. bot. 582
15442 dædálea *E. B.*	intricate	leafy lobed	¾	spring	Y.G	rocks	Eng. bot. 2129
2333. CALI'CIUM. *Ach.* CALICIUM.				*Sp.* 17—29.			
15443 tigilláre *Ach.*	rail	soft crust	2	aut.	Gl.	trees	Eng. bot. 1530
15444 stigonéllum *Ach.*	black sessile	pimpled	3	aut.	Pa.Ol	on Lichens	Eng. bot. 2520. *C. sessile*
15445 microcéphalum *Ach.*	small-headed	cloudy streaks	⅛	dec.	Ol.G	oak rails	Eng. bot. 1865
15446 claviculáre *Ach.*	club-headed	granul. crust	¼	aut.	Grsh	naked wood	
15447 sphærocéphalum *Ach.*	pin-headed	thin crust	½	spring	Grsh	old pales	Eng. bot. 414
15448 hyperéllum *Ach.*	convex	irregular coat	2	spring	Bt G	old oak	Eng. bot. 1832
15449 chrysocéphalum *Ach.*	yellow-head.	patches	3	aut.	Le.n	trun. of trees	Eng. bot. 2501
15450 trabinéllum *Ach.*	brown	dense granul.	4	aut.	Br.Ol	boards	Eng. bot. 1540
15451 canthcréllum *Ach.*	cinnamon	obscure crust	½	aut.	Wsh	decay. wood	Eng. bot. 2557
15452 capitellátum *Ach.*	sulphureous	regular patch.	½	july	G.Y	sandy soil	Eng. bot. 1539
15453 aciculáre *Ach.*	acicular	irreg. incrust.	3	sum.	Ol	Scotch firs	Eng. bot. 2385
15454 ferrugíneum *E. B.*	rusty	lobed crust	4	aut.	Pa.Ol	pales	Eng. bot. 2473
15455 in'quinans *E. B.*	sooty-knobbed	tessellat. crust	4	wint.	W.Br	dead wood	Eng. bot. 810
15456 róscidum *E. B.*	grained	mealy coat	4	all sea.	G	old boards	Eng. bot. 1464
15457 débile *E. B.*	weak	close-set patc.	½	aut.	Br	old timber	Eng. bot. 2462
15458 æruginósum *E. B*	verdigrease	granular	1½	wint.	Dl.G	old boards	Eng. bot 2502
15459 cúrtum *E. B.*	short-stalked	crowd. patch.	1½	wint.	Dl.G	decay. wood	Eng. bot. 2503
2334 GYRO'PHORA. *Ach.* GYROPHORA.				*Sp.* 8—19.			
15460 glábra *Ach.*	smooth	leafy thallus	2	sum.	D.Ol	rocks	
β *polyphýlla* Wahl.	*many-leaved*	leafy thallus	2	sum.	D.Ol	rocks	Eng. bot. t. 1282
15461 proboscídea *Ach.*	snouted	netted frond	3	spring	Smo.	rocks	Eng. bot. t. 2483
β *arc'tica* Ach.	*arctic*	smooth lobed	1½	wint.	Br	rocks	Eng. bot. 2485
15462 cylíndrica *Ach.*	cylindrical	folded frond	2	spring	Gr.Ol	rocks	Eng. bot. 522



History, Use, Propagation, Culture,

2333. *Calicium.* From καλυκιον, a little cup, well expressing the appearance of the organs of reproduction. All the species form grey, white, or yellow patches, of various extent, on old wrought wood, or boards exposed to the weather.

2334. *Gyrophora.* So named, from γυρος, a circle, and φερω, in allusion to the concentric circles, more or less

15428 Crust thin leprose powdery soft pale green.-yellow, Apothecia slightly convex pale yellowish : marg. obsol.

15429 Crust thin effuse somew. granul. black, Apothecia min. cluster. flat yellow. with an elevat. ent. paler marg.

15430 Crust thin smooth. white, Apoth. crowd. at length convex hemispher. margin. orange-color. white within

†† *Thallus crustaceous, of a regular figure or leaf.* Lepidoma.

15431 Crust somewhat imbricated white hoary, Lobes crenate reflexed tumid, Apothecia appressed black glaucous ; edge finally wavy

15432 Crust somewhat imbricated brownish-black covered with a greyish powder, Lobes entire swelling, Apothecia black naked, at length hemispherical with the margin obsolete

15433 Crust imbricat. green.-brown, Lobes round. cren. paler ben. Apothecia plane, at length somew. conv. black

15434 Crust somewhat contiguous lobed areolate and imbricated cinereous brownish-lurid, Lobes becoming flexuose cut-crenate, Apothecia appressed not edged flattish finally confluent

15435 Crust imbricated pale olive-green, Lobes distinct reniform nearly erect beneath and the margin powdery, Apothecia plane margined glaucous black

15436 Crust indeterminate very thin fibrous black with white convex crowded smooth warts, Apothecia solitary in each wart depressed coal-black with a border of the same color

15437 Crust somewhat imbricated, Lobes rounded crenate livid-brownish white beneath surrounding the apothecia, which are hemispherical clustered reddish not margined

15438 Crust subimbricated, Lobes distinct subpeltate roundish flesh-colored and red brown whitish beneath, Apothecia in their border convex and subglobose black & margin obsolete

15439 Crust imbricated glaucous white, Lobes minute rounded convex, Apothecia convex rufous brown becoming blackish : margin thin entire

15440 Thallus slightly imbricated fragmentary grey.-green on a dense black fibrous cushion : its segm. somewhat linear lobed crenate and granular at the margin, Apothecia scattered tawny paler at the marg. at length convex brown obliterating the margin

15441 Crust orbicul. rugose plait. hoary lobed-plait. in circumfer. Apothecia central plano-convex dark-colored

15442 Closely imbricated radiated membranous very smooth brownish-grey pale with black fibres below : its segments linear obtuse undulated, Apothecia black with a black border of their own substance

15443 Crust areolated-warted smoothish wavy, Apothecia sessile dark opaque, Disk flat tumid at edge

15444 Crust somewhat contiguous unequal whitish or none, Apothecia sessile subglobose dark smooth : disk dot-like becoming flattish with a thin shining margin

15445 Crust somewhat tartareous contiguous wrinkled olive-green, Apothecia roundish dark shining : disk depressed opaque, and stalks short whole-colored

15446 Crust effused greyish somewhat pulverulent : fructification subglobose, at length flattened greyish-black with a cylindrical thickish-black peduncle

15447 Crust very thin grey. smooth, Apothecia subglob. : disk dark-brown ; margin greyish, Stripes filif. black

15448 Crust cartilaginous areolate rugose smooth yellow-green, Apothecia lentiform ferruginous powdery, Stems short cylindrical dark-pitch color thicker at base

15449 Crust lemon-yellow granulated and conglomerated : fructification subturbinate ; disk brown convex, the border yellow and pulverulent, Peduncle filiform blackish and shining at the base

15450 Crust thin white ash-color. Apothe. becom. lentif. : disk black.-brown ciner. pruin. with a yell.-green marg.

15451 Crust thin whitish powdery, Apothecia lentiform : disk flesh-colored becoming brown powdered, Stalks filiform naked pale becoming brownish or black

15452 Crust effuse powdery greenish-yellow, Apothecia globose, and stalks filif. very long flexuose yellow.-green

15453 Crust leprous powdery pale yellowish-green, Apothecia hemispherical globose and stalks tapering upwards straight powdered with fulvous

15454 Crust thin granulated tartareous rusty white, Apothecia on short stalks thick black often compound with a pale rusty disk

15455 Crust white granulat. Tuber. a little prominent round flatt. gray.-black powdery with a smooth black edge

15456 Crust granulated smooth greyish-white, Tubercles scattered roundish black polished wrinkled irregular without a border mostly sessile

15457 Crust membran. very thin white, Tuber. black convex with recurv marg. on long slend. wavy black stalks

15458 Crust thin tartareous somewhat granulated of a verdigrease-grey, Apothecia on slender black stalks black hemispherical with a convex brownish-black disk

15459 Crust filmy very thin whitish, Apothecia on thickish black stalks obovate or hemispherical black with black prominent loose powder

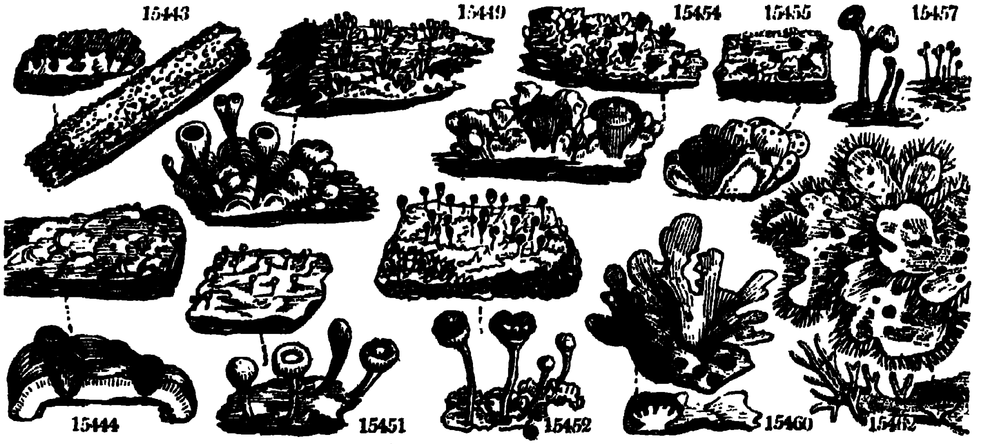
15460 Thallus smooth blackish-green : ben. smooth black and naked, Apothecia at length conv. rough and plait.

β Thallus of many lvs. or lobes variously fold. black -green quite black ben. on each side naked and smooth.

15461 Thallus membranaceous with elevated reticulations, at length of a smoky ash-color rough smoother paler and subfibrillose beneath, Apothecia turbinate, at length convex variously plaited

β Thallus thick hard rigid with elevated dots rugose olive-brown becoming black naked smooth pale-yellow beneath, Apothecia globose

15462 Thallus somewhat naked dark greenish-grey folded and lobed strongly ciliated beneath smooth pale with branching fibres, Apothecia elevated nearly plane with concentric and plaited lines



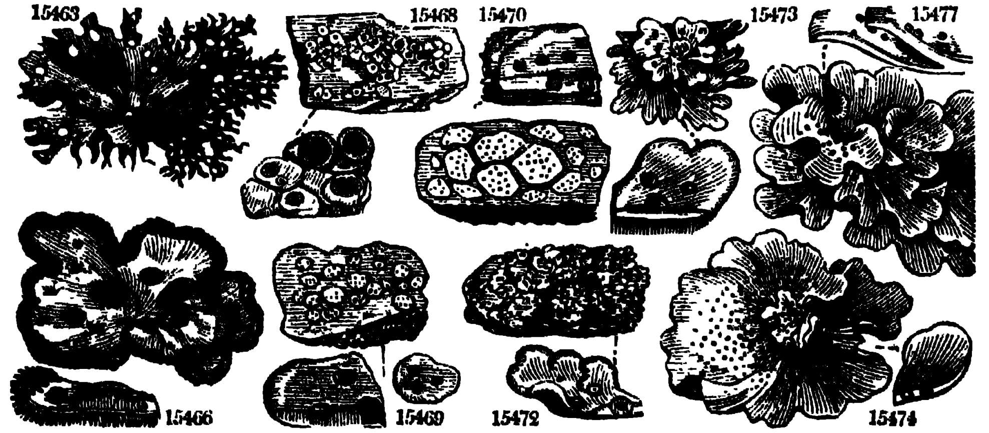
and Miscellaneous Particulars.

complicated, observable in the disk of the receptacles of the shields. The species grow chiefly upon exposed alpine rocks, chiefly on granite or volcanic stones. The vitrified forts in the Highlands of Scotland produce some of them.

15463 erósa *Ach.*	knawed	ragged	3	all sea.	Ol.Br	rocks	Eng. bot. 2066
15464 deústa *Ach.*	scorched	rough leafy	3	all sea.	Ol.Br	rocks	Eng. bot. 2483
15465 pustuláta *Ach.*	pimpled	blister'dfrond	2	spring	Cin.G	rocks	Eng. bot. 1283
15466 pellita *Ach.*	furred	sinuated	2	all sea.	G.Br	rocks	Eng. bot. 931
15467 murina *Ach.*	mouse-skin	irregular lob.	1	all sea.	Br	rocks	Eng. bot. 2486
2335. ENDOCAR'PON. *Ach.* ENDOCARPON.				*Sp.* 10—22.			
15468 sinópicum *Ach.*	cracked	tessellat. mass.	1	sum.	Or	schist	Eng. bot. 177
15469 smarágdulum *Ach.*	yellow	little patches	¾	sum.	Y.G	rocks	Eng. bot. 1512
15470 tephroides *Ach.*	brownish	little patches	1	sum.	Gl.	earth	Eng. bot. 2013
Lichen fuscellus E. B. 1500							
15471 Hedwigii *Ach.*	Hedwig's	crowd. patch.	½	sum.	Ol	on the earth	E. b.t.595. *L. trapezifor.*
β *lach'neum* Ach.	*black-woolled*	crowd. patch.	½	sum.	D.G	on the earth	Eng. bot. 1698
15472 pállidum *Ach.*	pallid	finely lobed	¾	all sea.	Pa.Ol	rocks	Eng. bot. 2541
15473 parasiticum *Ach.*	parasitical	round. patch.	½	sum.	Cop.	on Lichens	Eng. bot. 1866
15474 miniátum *Ach.*	vermilioned	thick crust	1	all sea.	Grsh	rocks	Eng. bot. 593
15475 leptophýllum *Ach.*	fine-leaved	round patches	¾	spring	Br	rocks	Eng. bot. 2012
15476 complicátum *Ach.*	entangled	coriaceous	¾	all sea.	Grsh	rocks	E.b.593 f.2. *L. amphibius*
15477 Webéri *Ach.*	Weber's	cartilaginous		win.sp.	G.Br	wet rocks	E. bot. 594. *L. aquaticus*

CŒNOTHALAMI.

2336. THELOTRE'MA. *Ach.* THELOTREMA.				*Sp* 5—19.			
15478 lepadinum *Ach.*	enclosed	smooth crust	1½	all sea.	W	holly bark	Eng.bot.678. *L. inclusus*
15479 exanthemáticum *Ach.*	pallid	tartareous	2	all sea.	Grsh	calcar. rocks	Eng. bot. 1184
15480 variolarioides *Ach.*	Variolaria-like	tessellated	2	all sea.	Pa.Ol	bar. of trees	
β *agelæ'um* Ach.	*inelegant*	tessellated	2	all sea.	Pa.Ol	bar. of trees	Eng. bot. 1730
15481 melaleúcum *E. B.*	brownish	obscure crust	3	all sea	Y	young oaks	Eng. bot. 2461
15482 hyménium *E. B.*	wrinkled	granular	4	all sea.	G	old oaks	Eng. bot. 1731
2337. PYRE'NULA. *Ach.* PYRENULA.				*Sp.* 4—34.			
15483 nitida *Ach.*	shining	cartilaginous	1½	all sea.		bar. of beech	Weig. obs. t. 2. f. 14
15484 nigréscens *Ach.*	blackish	tartareous	1½	all sea.	Br.Bl	rocks	E. b. 1499. *Ver. umbrina*
15485 tesselláta *Ach.*	tessellated	circular dots	2	all sea.	Ol.G	slate rocks	E. b. 2455 *L. viridulus*
15486 umbonáta *Ach.*	nipple shielded	even coat	1½	all sea.	Br	rocks	E b.2153. *L. thelostomus*
2338. VARIOLA'RIA. *Ach.* VARIOLARIA.				*Sp.* 9—46.			
15487 veláta *Ach.*	veiled	sinuous surf.	1½	aut.	Gl.	ash trees	Eng. bot. 2062
15488 multipúncta *Ach.*	much dotted	granular	2	win.	Gl.	beech trees	Eng. bot. 2061
15489 globulifera *Ach.*	globuliferous	uneven crust	1½	all sea.	Grsh	trees & rocks	Eng. bot. 2008



History, Use, Propagation, Culture,

2335. *Endocarpon.* From ενδον, within, and καρπος, fruit, because the receptacles of the sporules are deeply imbedded in the substance of the frond. The species form small roundish or angular plants, commonly closely sessile upon earth or stone; of a grey or olive hue; their fructification appearing like little black dots over the surface.

2336. *Thelotrema.* From θηλη, a nipple, and τρημα, an orifice. The protruberances of the thallus are perforated. This genus has been reduced to Endocarpon by Sir James Smith.

15463 Thallus rugged olivaceous brown, its circumference perforated and laciniated dark-grey : beneath glabrous somewhat granulated and fibrous, Apothecia somewhat convex variously plaited
15464 Thallus roughish olivaceous brown with a brown scattered dust smooth beneath with pits and reticulations naked of the same color, Apothecia plane with circular plaits, at length convex
15465 Thallus blistered and warty greenish ash-color ben. deeply pitted smooth palish-brown naked, Apothecia few plane margined : disk somewhat even papillose and plaited
15466 Thallus smooth sinuato-lobate of a greenish coppery-brown : beneath black with dense pulvinate fibres, Apothecia sessile, at length somewhat globose variously plaited intricate
15467 Thallus very rig. mouse-col. ben. black.-brown rough with elevat. paler spots, Apoth. conv. various. plait.

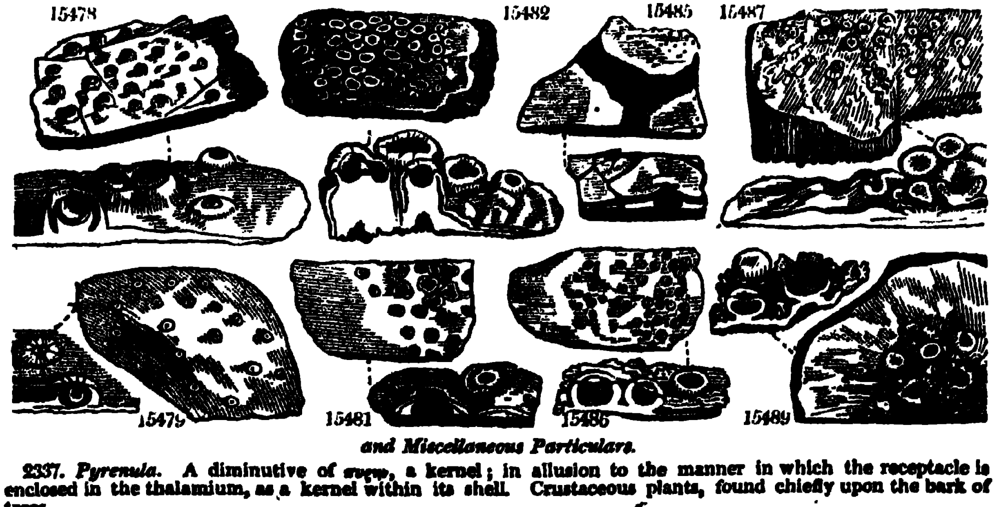
15468 Thallus crustaceous cracked into areolæ figured somewhat lobed greenish rubiginous depressed at the circumference, Orifices depressed black
15469 Thallus crustaceo-cartilaginous somewhat foliaceous minute subpeltate appressed plane roundish entire yellow-green, Orifices of the apothecia depressed reddish-brown
15470 Thallus crustaceous submembranaceous spreading and subfoliaceous contiguous wavy cracked glaucous ash-col. irregul. lob. and crenat. at marg. ben. black somew. spongy, Orifi. elevat. conv. black perforat.
15471 Plant subcartilaginous roundish or somewhat angular lobed of an olive-green : beneath pale at margin ; the rest blackish and fibrillose, Orifice of the fructification subprominent dark-brown
β Lobes of thallus aggregat. somew. imbricat. : margin elevated repand-lobed wavy with black wool beneath
15472 Thallus coriaceous membranous pallid leafy greenish crenate-lobed becoming irregularly ragged, Orifices hemispherical pale with a black dot
15473 Thallus coriaceous convex rounded lobed copper-colored, at length rugged black and shaggy beneath, Orifices scattered sunk minute coal black, at length convex
15474 Thallus thick crustaceo-cartilaginous foliaceous orbicular peltate greyish spread at marg. somewhat lobed and waved beneath smooth, at length rugose and tawny, Orifices minute slightly prominent brownish
15475 Thallus cartilaginous foliaceous orbicular peltate brown or greyish : the border spread and wavy smooth naked rough and black beneath, Orifices of the apothecia very minute slightly prominent black
15476 Thallus coriaceo-cartilaginous lobed greyish : beneath brownish-black ; the lobes nearly erect rounded plicate and convolute, Orifices of the apothecia numerous convex black
15477 Thallus cartilagineo-coriaceous lobed greenish-brown olivaceous : beneath rather tawny or blackish on both sides smooth ; the lobes laciniated waved plaited and crisped crowd. Orifices rather convex black

CŒNOTHALAMI.

15478 Crust smooth whitish, Warts of the apothecia smooth somewhat cone-shaped with the margin of the aperture thin simple somew. inflexed and contracted covered at bottom with a membrane which bursts
15479 Crust subtartareous thin contiguous greyish, Warts of the apothecia convex half immersed whiter, Orifices much contracted radiated with fissures concealing the flesh-colored apothecia
15480 Crust nearly regular smooth rugulose cinereous, Warts of apothecia clustered irregular whitish with a large black aperture and a thick somewhat angular lacerated edge
β Crust white powdery with granul. and min. soredia, Warts of apothecia appres. few and immers. in crust
15481 Crustaceous cream-colored with scattered rather convex warts opening by an irregular inflexed orifice, Apothecia immersed depressed brown
15482 Crust cartilaginous uneven somewhat polished greenish-grey, at length extremely tumid and uneven, Apothecia elevated crowded hollow very irregular

15483 Crust cartilaginous membranous polished pale brownish cinereous, Warts of apothecia closed closing surrounding the upper projecting part of the thalamium
15484 Crust tartareous somewhat tessellated unequal brownish-black, Warts of the apothecia spreading at the base depressed somewhat rugose surrounding the greater part of the prominent apothecia
15485 Crust tartareous unequal cracked into areolæ cinereous yellowish, Warts of apothecia enlarged at their base depressed closed clustered about the edged orifice
15486 Crust tartareous regular finely cracked cinereous rufous, Warts of apothecia smooth reddish depressed above forming a margin to the papilla-like prominent orifice

15487 Crust determined somewhat cartilaginous smooth very white plaited in rays, Warts of apothecia polished compressed tumid : kernel covered with a thin powdery skin
15488 Crust subcartilaginous cracked into areolæ granular cinereous, Warts of apothecia convex clustered granular : kernel lentiform enclosed
15489 Crust subcartilaginous greyish uneven with granules and soredia scattered in an irregular manner, Warts of fructificat. subglob. smooth, at length depressed above and soredifer. and contain. a concave nucleus

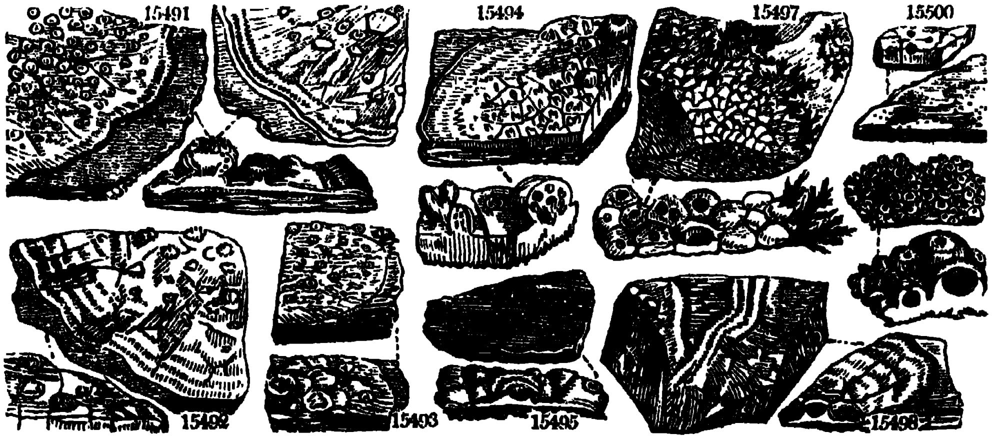


and Miscellaneous Particulars.

2337. *Pyrenula.* A diminutive of *πυρην*, a kernel ; in allusion to the manner in which the receptacle is enclosed in the thalamium, as a kernel within its shell. Crustaceous plants, found chiefly upon the bark of trees.

2338. *Variolaria.* The shields of these plants resemble the eruptive spots of the variolæ or measles. The whole genus was referred by Linnæus to his Lichen fagineus and lacteus. The species are of a crustaceous nature, found upon the trunks of trees, rocks, walls, or the ground.

15490 commúnis *Ach.*	common	radiated	1½	all sea.	Dl.W	trees	
β *aspergilla* Ach.	*sprinkled*	radiated	1½	all sea.	Y.Ol	rails	Eng. bot. 2401
15491 amára *Ach.*	bitter	cracked crust	2	all sea.	Grsh	bark of trees	Eng.b.1713. *L. fagineus*
β *discoídea* Ach.	*discoid*	pulverulent	2	all sea.	W	bark of trees	Eng. bot. 1714
15492 láctea *Ach.*	milky	tartar. crack.	1½	wint.	W	rocks	Eng. bot. 2410
15493 grisco-virens *E. B.*	greyish green	tubercular	1½	aut.	D.Ol	smooth bark	Eng. bot. 2400
15494 dealbáta *E. B.*	whitened	cracked crust	3	all sea.	Lt.Br	hard rocks	Eng. bot. 2519
15495 cinérea *E. B.*	cinereous	tubercular	2	all sea.	Ol.G	whinstone	Eng. bot. 2411
2339. URCEOLA'RIA. *Ach.* URCEOLARIA.				*Sp.* 6—23.			
15496 Achárii *Ach.*	Acharius's	cracked crust	2	all sea.	Pa.R	rocks	Eng. bot. 1087
β *cyrtáspis* Ach.	*red*	tessellat. crust	2	all sea.	Rsh	rocks	Eng.b.450. *L. punctatus*
15497 gibbósa *Ach.*	gibbous	fringed patch.	3	all sea.	Br	flints	Eng. b. 1732. *L. fibrosus*
15498 cinérea *Ach.*	cinereous	concent. zones	3	all sea.	G.Br	flints	Eng. bot. 1751
15499 scrupósa *Ach.*	rock	solid crust	1	all sea.	Grsh	rocks	Eng. bot. 266
15500 Gágii *E. B.*	Gage's	obscure crust	1½	all sea.	Pa.Y	rocks	Eng. bot. 2580
15501 calcárea *Ach.*	calcareous	crowd. warts	1½	all sea.	W	roc. & stones	
β *Hoffmánni* Ach.	*Hoffmann's*	sinuous patc.	1½	all sea.	Cæs.	roc. & stones	Eng. bot. 1940
2340. LECANO'RA. *Ach.* LECANORA.				*Sp.* 46—79.			
15502 átra *Ach.*	dark	granulated	1½	all sea.	Grsh	bark of trees	Eng. bot. 949
15503 argópholis *Ach.*	pallid	warted crust	2	sum.	P [illegible]	rocks	
15504 oculáta *Ach.*	mottled	smooth. crust	2	spring	[illegible]	roc. & earth	Eng. bot. 1833
15505 coarctáta *Ach.*	contracted	broad patches	4	all sea.	Br	brick walls	Eng. bot. 534
15506 pericléa *Ach.*	rough	little spots	¼	all sea.	Wsh	old posts	Eng. bot. 1850
β *exigua* Ach.	diminutive	little spots	¼	all sea.	Br	old pales	Eng. bot. 1849
15507 sophódes *Ach.*	obscure	mealy crust	1½	aut.	G	on trees	Eng. bot. 1791
15508 subfúsca *Ach.*	brownish	cartilaginous	2	all sea.	Grsh	trun. of trees	Eng. bot. 2109
15509 ventósa *Ach.*	exposed	warted	2	all sea.	Y.G	rocks	Eng. bot. 906
15510 frustulósa *Ach.*	broken	tartareous	½	all sea.	Var.	rocks	Eng. bot. 2273
15511 effúsa *Ach.*	scattered	thin coat	3	aut.	G	bark of firs	Eng. bot. 1863
15512 chloroleúca *Ach.*	whitish green	Leprous	1½	sum.	W	mountains	Eng. bot. 1373
15513 vária *Ach.*	variab. shield.	crowded	½	all sea.	Lt.G	old walls	Eng. bot. 1666
15514 apocræ'a *Ach.*	leprous	cloudy crust	1½	wint.	[illegible]	old posts	Eng. b. 2075. *Sp. Vitiligo*



History, Use, Propagation, Culture,

2339. *Urceolaria.* From *urceolus*, a little pitcher, with reference to the form of the shields, which are sunken in the crust. Natives of hard stones occasionally inundated, or upon naked exposed rocks; occasionally upon the trunks of trees. The crust of U. esculenta, a native of Tartary, is eatable.

2340. *Lecanora.* An unexplained name. Lecanora perellus affords a purple dye, and is called in the south of France, where it is employed in lieu of the L. tartarea, *Perelle d'Auvergne*, whence the specific name, as Smith

15490 Crust cartilaginous polished whitish becoming unequal and ash-colored scattered with white soredia having no margin, Warts of apothecia spheroidal powdery
β Crust tartareous cartilaginous determined glaucous with a polished radiated cracked circumference, Soredia scattered superficial flat not margined
15491 Crust rugose cracked uneven subpulverulent white or greyish, Warts of the apothecia appressed plano-concave margined bearing soredia of the same color as the crust
β Crust pulverulent white, at length greyish naked, Soredia crowded, at length spreading waved plano-concave with the margin raised swollen
15492 Crust tartareous distinctly bordered cracked smooth white: the circumference somewhat zoned crenato-lobate, Warts of the apothecia crowded margined very white and pulverulent
15493 Crust elliptical thin slightly tartareous rugged grey scarcely limited, Apothecia rounded with a narrow border, Powder greenish
15494 Crust tartareous thickish greyish-white cracked tumid papillary and rugged obscurely zoned at the circumference, Apothecia orbicular prominent white
15495 Crust orbicular tartareous thin ash-colored cracked: its circumference indeterminate, Apothecia orbicular very small white with an elevated margin and flesh-colored disk

15496 Crust with a rather decided edge smooth with narrow cracks pale brick-colored: disk redd.; marg. tum.
β Crust bordered smooth tessellated reddish, at length white, Apothecia becoming elevated with the disk rather convex reddish-brown reaching the margin of the crust
15497 Crust papillose warted polished white ash-color: disk concave black immersed in the tip of the warts, Border contracted protuberant crenated entire
15498 Crust cracked areolate warted cinereous bordered with black: disk somewhat concave dark immersed among the warts becoming elevated, Border thickish projecting
15499 Crust rugoso-plicate granulated white or greyish: fructification urceolate; the disk black, the border swelling inflexed subrugose covering the disk
15500 Crust continued calcareous smooth brownish-white irregularly cracked when dry, Apothecia very minute blackish sunk in the crust
15501 Crust determined finely cracked somewhat powdery very white becoming cinereous: disk minute concave black powdered with white, Border prominent discoid thin
β Crust thin cracked into areolæ equal dull ash-colored, Fertile areolæ raised in the middle whitish lead-color: disk somewhat concave dark cæsious powdery

† *Thallus adnate uniform.* Rinodina.
* *Disk of apothecia constantly dark and black.*

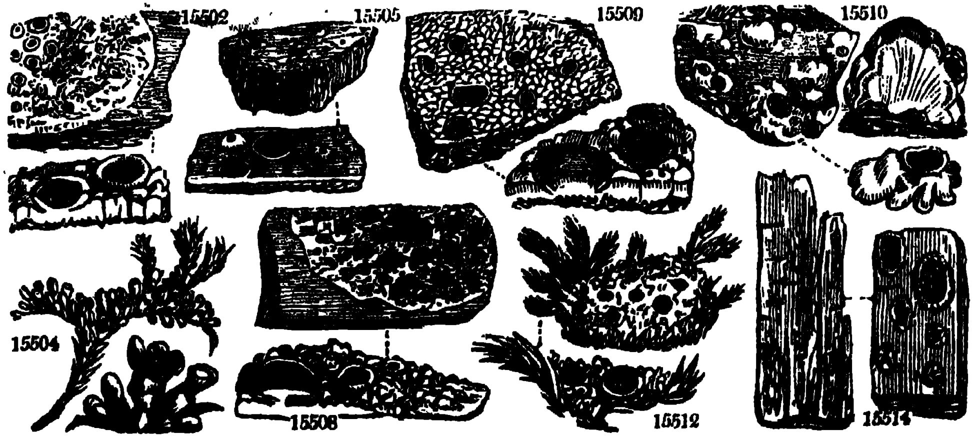
15502 Crust with a somewhat decided edge granulated and cracked greyish-white, Disk of the apothecia plane at length swelling and black: the margin free raised, at length waved and crenulate
15503 Crust smooth uneven warted pale, Warts at length subimbricated somewhat lobed and deformed, Disk of the fructification concave brownish-black: the border sharp crenulate contracted
15504 Crust glab. papill and branch. white, Apothecia sess. scattered: disk slightly concave black; marg. tumid
15505 Crust effuse thin cracked rugose unequal cinereous, Disk of apothecia somewhat immersed finally elevated flat dark with an elevated inflexed powdery border
15506 Crust thin somewhat leprous and dispersed whitish, Disk of apothecia plano-convex dark dotted rough. Border obscure powdery
β Crust uneq. obscure. ciner. black. Apothecia min. aggreg. flat with a white cren. border and brown. edge

** *Disk of apothecia black, naked, brownish when moistened.*

15507 Crust verrucose-granular from cinereous brownish-green, Apothecia heaped with a flat coarse dark disk brown when moistened, Border tumid inflexed entire

*** *Disk of apothecia black, brown, brownish, or clouded with other colors, naked.*

15508 Crust cartilaginous smooth, at length granulated unequal white or greyish, Disk of the apothecia plano-convex brown or almost black: margin tumid entire, at length waved and crenate
15509 Crust tessellated with tumid warts yellow green or grey, Apothecia appressed, at length irregular with the disk plane or swelling red brown, at length rising above the entire margin
15510 Crust tartareous very much cracked variegated with black and white (yellowish-white in dispersed tumid warts), Apothecia pale-brown, at length convex dark-brown. margin white
15511 Crust effuse thin powdery cinereous æruginous, Apothecia minute appressed: disk flat becoming convex pale-brown, Border thin obscure
15512 Crust thin leprose white, Apothecia crowded elevated: disk plane olive; the margin waved
15513 Crust unequal granular somewhat warted pale-green, Apothecia clustered: disk flat pale-brown and variegated, Border raised inflexed finally crenulate
15514 Crust effuse very thin polished whitish sometimes bearing soredia, Apothecia sessile; disk flattish pale livid-brown, Border pale becoming crenulate



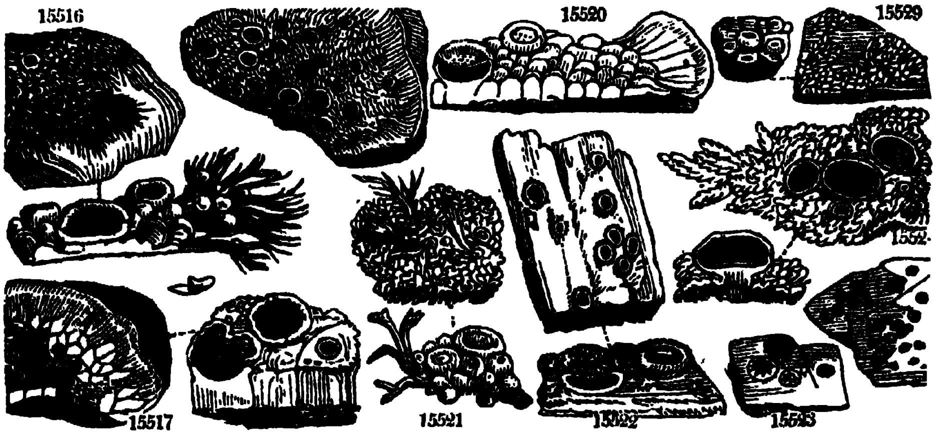
and Miscellaneous Particulars.

tells us, though generally spelled Parellus. L. Turneri is probably only a variety growing upon the bark of trees.

Lecanora candelaria derives its name from the circumstance of the Swedes employing it to stain the candles that are used in their religious ceremonies.

Lecanora tartarea is the famous Cudbear (so called after a Mr. Cuthbert, who first brought it into use)

15515 rubricósa *Ach.*	red shielded	round patch.	1	all sea.	Grey	old walls	E.b.1040. *L. cæsio-rufus*
15516 tuberculósa *Ach.*	warted	warted fring.	3	all sea.	D.Ol	rocks	Eng. bot. 1733
15517 glaucóma *Ach.*	glaucous	tessellated	2	all sea.	D.Ol	rocks	Eng. bot. 2156
15518 Hagéni *Ach.*	Hagen's	spotted	½	wint.	D.Ol	bark of trees	Hagen. hist. lich. t.1.f.5
β *crenuláta* Ach.	*crenulated*	small spots	½	wint.	Dl.G	limest. rocks	Eng. bot. 930
15519 albélla *E. B.*	cream-colored	obscure crust	1½	wint.	Wsh	smooth bark	Eng. bot. 2154
15520 parélla *Ach.*	equal	warted	2	all sea.	W	rocks	Eng. bot. 727
15521 upsaliénsis *Ach.*	Upsal	membranous	2	all sea.	Gl.W	rocks	Eng. bot. 1634
15522 Turnéri *Ach.*	Turner's	mealy crust	3	aut.	Dl.G	old trees	Eng. bot. 857
15523 carneo-lútea *Ach.*	yell.-flesh-col.	cracked crust	1	sum.	Wsh	trun. of elms	Eng. bot. 2010
15524 tartárea *Ach.*	Cudbear	tartareous	2	all sea.	Grsh	rocks	Eng. bot. 156
β *frigida* Ach.	*northern*	thin crust	2	aut.	Gl.	earth	Eng. bot. 1879
15525 cerìna *Ach.*	waxen	oblong patch	2	wint.	G	trun. of trees	Eng. bot. 627
15526 Stónei *Ach.*	Stone's	oblong patch	1½	wint.	G	trun. of trees	
15527 vitellìna *Ach.*	yolk of egg	granular	1½	all sea.	Y	pales	Eng. bot. 1792
15528 salicìna *Ach.*	Willow	granular	1½	spring	Br	on trees	Eng. bot. 1305
15529 erythrélla *Ach.*	reddish	crack. rugose	2	all sea.	Gsh	stone walls	Eng. bot. 1993
15530 rúbra *Ach.*	red	membranous	1½	sum.	W	trun. of trees	Eng. bot. t.2218. *L. Ulmi*
15531 hæmatom'ma *Ach.*	bloody spotted	powdery	2	sum.	Wh	rocks	Eng. bot. 486
β *porphýria* Ach.	*smooth*	thin crust	2	sum.	Gl.	rocks	Eng. b.223. *L. coccineus*
15532 epigéa *Ach.*	earth	plaited	1½	all sea.	W	earth	E. b. 1778. *L. candicans*
15533 lentìgera *Ach.*	white	round. patch.	1½	all sea.	Wsh	dry heaths	Eng. bot. 871
15534 saxìcola *Ach.*	rock	scaly crust	2	all sea.	Pa.G	roc. & walls	Eng. bot. 1695
15535 mur[illegible] *Ach.*	wall	cracked crust	1½	all sea.	Y.Or	rocks	Eng. bot. 2157
15536 élegans *Ach.*	elegant	imbricated	1	all sea.	Tawn.	rocks	Eng. bot. 2181
15537 ful'gens *Ach.*	refulgent	small patches	½	sum.	Y	rocks	Eng. bot. 1667
15538 circináta *Ach.*	circled	cracked crust	½	aut.	Grsh	flat stones	Eng. bot. 1941
15539 gélida *Ach.*	frozen	cracked crust	1	all sea.	R.Gr	rocks	Eng. bot. 699
15540 galáctina *Ach.*	milky	rugose crust	1½	all sea.	Wsh	roc. & walls	
15541 cervìna *Ach.*	grey	lobed scales	½	sum.	Ciner.	roc. & stones	E.b.t.2011. *L. squamulo.*
15542 crássa *Ach.*	thick	scaly crust	½	sum.	Gsh	earth on roc.	Eng. bot. 1893



History, Use, Propagation, Culture,

employed to produce a purple for dying woollen yarn; and no where, perhaps, used to so great an extent as the manufactory of Mr Mackintosh, at Glasgow. The manufacturers import it largely from Norway, whe

15515 Crust cracked and areolate somewhat granular whitish, Disk of apothecia rufous becoming brown, Border white or yellowish becoming flexuose

**** *Disk of apothecia black, cæsious, glaucous, or variously colored, always pruinose.*

15516 Crust greenish ash-color with roundish warts, Circumference fibrous, Apothecia mixed: disk concave becoming flat blackish-glaucous; border elevated thick
15517 Crust tartareous tessellated even greyish-white, Apothecia immersed in the crust: the disk plane, at length convex subglobose glaucous and powdery; margin entire afterwards obliterated
15518 Crust cartilaginous membranous whitish ash-color, Apothecia clustered minute: disk flat becoming convex variegated with brown and black; border entire naked persistent
β Crust becoming unequal somewhat granular ash-colored or blackish, Apothecia much clustered: disk flat brown and black; border crenulate powdery
15519 Crust thin leprous continuous cream-colored somewhat polished, Apothecia sessile whitish-buff uneven with a thin white wavy border

***** *Disk of apothecia somewhat flesh-colored, pale, testaceous, waxen, or orange-colored.*

15520 Crust granulated or somewhat warted white, Apothecia thick crowded by pressure angular: the disk concave, and as well as the tumid entire margin of the same color as the crust
15521 Crust very thin membranaceous smooth glaucous white bearing awl-shaped bristles, Disk of the apothecia at length spreading plane pale-yellowish
15522 Crust leprous granular powdery whitish-grey, Apothecia scattered thick powdery: disk concave pale flesh-colored; border tumid entire and flexuose
15523 Crust thin polish. hoary, Apothecia somew. inn.: disk flat fleshy-yell.; border thin somew. inflex. crenat.
15524 Crust tartareous with clustered granules greyish white, Apothecia scattered: disk plano-convex a little wrinkled flesh-color; the margin inflexed, at length waved
β Crust thin glaucous white running out into papillæ and spiniluferous branches [becoming black
15525 Crust granul. ciner. Disk of apothecia flat convex yellowish wax-colored; border elevated inflexed hoary
15526 Crust leprous-tartareous granular powdery dirty-white, Apothecia scattered: disk waxen covered by the powdery inflexed border becoming convex and dilated
15527 Crust granulated bright-yellow, Apothecia crowded: the disk plane of the color as the crust, at length convex deeper colored and powdery; the margin elevated thin, at length waved pulverulent
15528 Crust granular unequal dirty-yellow, Disk of apothecia flat becoming convex somewhat orange-colored; border thin crenulated becoming entire and flexuose
15529 Crust cracked subrugose greenish-yellow, Apothecia at length subglobose deep orange shining when the entire margin becomes obliterated

****** *Disk of apothecia red, scarlet, or purple, and sanguine.*

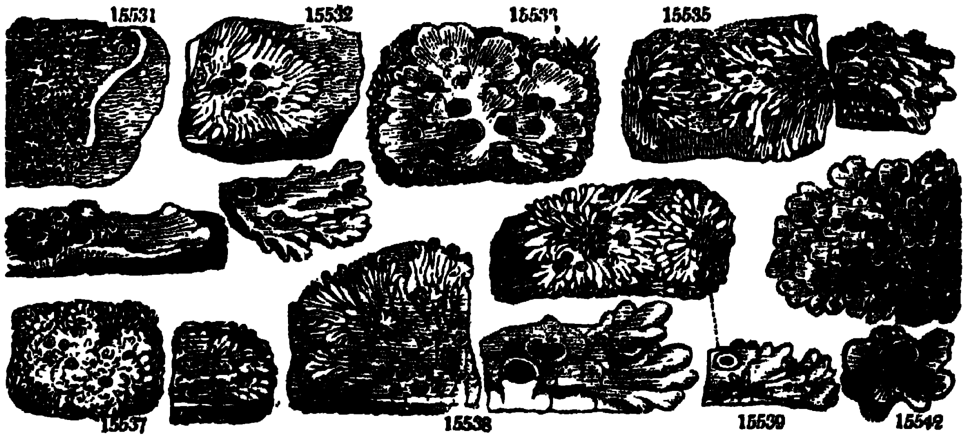
15530 Crust submembranaceous smooth, at length unequal pulverul. and granular white, Apothecia crowded: the disk concave red; margin tumid inflexed crenulate
15531 Crust tartareous pulverulent whitish, Apothecia imbedded scattered subconfluent: the disk scarlet rather convex; the margin sometimes obliterated
β Crust tartar. granul. powd. whit. Apothecia sess.: disk flat deep sanguine; bord. elevat. thick rug. persist.

†† *Thallus adnate, radiate, stellate, and lobed in the circumference.* Placodium.

15532 Crust plaited and wrinkled white: the circumference smooth lobed, Disk of the apothecia at length rather convex brownish-black: the margin thin entire
15533 Crust somewhat imbricated white, Lobes somewhat concave flexuose cut-crenate, Disk of apothecia flat yellowish-brown: border elevated tumid
15534 Crust subimbricated scaly somew. rugose uneven pallid-green radiated and lobed in the circumference: fructification extremely crowded; the disk plane yellowish-brown or subochraceous with a border, at length crenate waved
15535 Crust plaited and lobed cracked bright-yellow orange pulverulent: the circumference plicate and rayed; segm. lin. convex cut, Apothecia crowd.: disk at length convex of a deeper orange; marg. ent. waved
15536 Crust somew. imbricated plaited and rugose tawny orange naked, Lobes lin. lanc. waved convex somew. distant radiating, Disk of the apothecia concave of the same color with the crust marg. somew. inflex. ent.
15537 Crust somew. contiguous pale yellow with a plaited lobed edge, Lobes flexuose flat, Apothecia scattered, Disk very red plano-convex
15538 Crust cracked greyish plaited and rayed in the circumference lin.-laciniate, Apothecia much crowded at at length angular: disk plane brownish black even with the margin of the crust
15539 Crust cracked pale reddish grey the circumference rayed and lobed having brown warts in the centre cracked and rayed: disk of the apothecia depressed reddish margin thick elevated entire
15540 Crust subimbricat. rugulose whitish lobed and cren. at the circumference: fructification crowd. angular; the disk plane brownish flesh-color pruinose with a raised and at length crenate flexuose border

††† *Thallus imbricated throughout.*

15541 Crust with lobed scales of a brownish ash-color: disk of the apothecia immersed nearly plane blackish brown with the margin at length prominent
15542 Crust scaly greenish, Lobes imbricated inciso-crenate waved irregular, Disk of the apothecia slightly swelling brownish orange margin thin entire at length obliterated



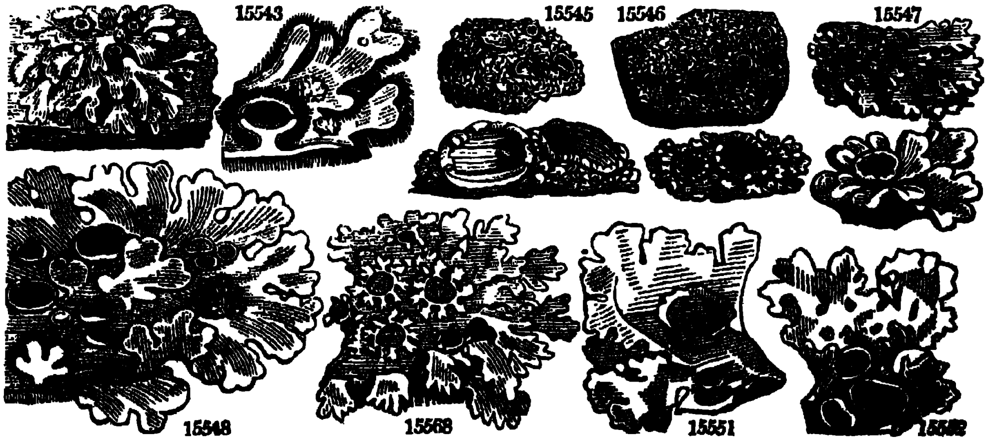
and Miscellaneous Particulars.

it grows more abundantly than with us; yet, in the Highland districts, many an industrious peasant gets a living by scraping this Lichen with an iron hoop, and sending it to the Glasgow market. When I was in the

15543 virélla *Ach.*	greenish	multifid patc.	1	all sea.	Bt.G	trees & pales	Eng. bot. 1696
15544 candelária *Ach.*	Candle-dyeing	scaly crust	1	all sea.	Y	trees & pales	Eng. bot. 1794
β polycárpa Ach.	*many-shielded*	toothed lobed	½	all sea.	Gr.Y	old posts	Eng. bot. t. 1795
15545 hypnórum *Ach.*	Hypnum	scaly crust	1	wint.	Gr.Br	woods	Eng. bot. t. 740
15546 brun'nea *Ach.*	brown	lobed crust	1	spring	Cl.Br	on the grou.	Eng. bot. t. 1946
15547 Hookéri	Hooker's	imbricated	1	spring	Grsh	wet rocks	Eng. bot. 2283

2341. PARME'LIA. *Ach.* Parmelia. *Sp.* 38—77.

15548 glomulífera *Ach.*	warted	round patch.	1½	spring	Gl	trun. of trees	Eng. bot. t. 293
15549 caperáta *Ach.*	wrinkled	round patch.	¾	spring	Y.G	trun. of trees	Eng. bot. t. 654
15550 scórtea *Ach.*	leathery	lobed patches	1½	all sea.	Br	trees & pales	Eng. bot. 2065
15551 perláta *Ach.*	grey	round patch.	2	all sea.	Grsh	trun. of trees	Eng. bot. 341
15552 perforáta *Ach.*	perforated	crisp patches	3	all sea.	Y.G	old trees	Eng. bot. 2423
15553 herbácea *Ach.*	herbaceous	round patch.	1½	all sea.	Bt.G	trun. of trees	Eng. bot. 294
15554 corrugáta *Ach.*	rugose	imbricated	3	all sea.	D.G	on trees	Eng. bot. 1652
15555 olivácea *Ach.*	olive	round patch.	2	all sea.	Ol.Br	rocks & trees	Eng. bot. 2180
15556 parietína *Ach.*	wall	round patch.	2	all sea.	Bt.Y	trees & walls	Eng. bot. 194
15557 elæína *Ach.*	orbicular olive	small patches	½	all sea.	Ol	bark of trees	Eng. bot. 2158
15558 pitýrea *Ach.*	scurfy	flat-warted	1½	july	Gl.	walls	Eng. bot. 2064
15559 clementiána *Ach.*	Clementi's	flat radiated	1½	all sea	Gr	trees	Eng. bot. 1779
15560 tiliácea *Ach.*	Linden	flat imbricat.	6	sum.	G	rocks	Eng. bot. 700
15561 Borréri *Ach.*	Borrer's	foliaceous	4	aut.	Ol.G	trun. of trees	Eng. bot. 1780
15562 lanuginósa *Ach.*	woolly	round patch.	3	all sea.	Y.W	rocks	
15563 plúmbea *Ach.*	leaden	round patch.	2	aut.	Bl.Gr	trun. of trees	Eng. bot. t. 353
15564 rubiginósa *Ach.*	rusty	round patch.	3	sum.	Br.Gr	trun. of trees	Eng. bot. t. 983
15565 omphalódes *Ach.*	navel	shining dott.	4	all sea.	Pu.Br	rocks	Eng. bot. t. 604
15566 saxátilis *Ach.*	rock	rough & pitt.	2½	all sea.	Grsh	stones	Eng. bot. t. 603
15567 fahlunénsis *Ach.*	Iron mine	smth. thallus	3	all sea.	Pitch.	rocks	Eng. bot. t. 653
15568 stýgia *Ach.*	pitchy	starry	2	sum.	Bl	mountains	Eng. bot. t. 2048
15569 áquila *Ach.*	lacerated	multifid lobes	4	sum.	Br	rocks	Eng. bot. t. 982
15570 encaústa *Ach.*	griesly	stellated dott.	3	sum.	Pa.Gr	rocks	Eng. bot. t. 2049
15571 recúrva *Ach.*	recurved	warted	2	sum.	Pa.G	rocks	Eng. bot. t. 1375



History, Use, Propagation, Culture,

neighbourhood of Fort Augustus, in 1807, a person could earn fourteen shillings per week at this work, selling the material at three shillings and fourpence the stone of twenty-two pounds. The fructified specimens are reckoned the best.

15543 Crust somewhat scaly greenish ash-colored becoming powdery, Lobes repand cut wavy with irregular margins, Disk of apothecia flat brownish black

15544 Crust scaly yellow, Lobes very much crowded cut and laciniated imbricated their margins minutely granular, Apothecia nearly of the same color as the crust margin elevated entire

β Crust formed of lobes with many crowded teeth and segments greyish yellow, Apothecia crowded waved: disk plane dilated of the same color as the crust at length fulvous and the margin crenulated

15545 Crust scaly greenish-brown, Lobes minute somew. rounded with margin granular and crenulat. Apothecia submembran.: the disk concave at length dilated plane reddish brown the marg. elevated inflex. crenate

15546 Crust imbricated greyish lobed and granulated ash-colored brown, Apothecia imbedded in the crust crowded irregular: disk rather convex red-brown the margin elevated crenulated persistent

15547 Crust imbricated greyish, Lobes minute appressed blunt, Disk of the apothecia plane black margin elevated and crenate

† *All the divisions of the thallus equal at end.*

15548 Thallus cartilaginous rigid obicular livid and glaucous smooth bearing dark green scattered tufted excrescences: tawny beneath and downy, the lobes waved and laciniated angular, Apothecia reddish brown rugose at the margin

15549 Thallus orbicular pale yellowish green rugose at length granulated black and hispid beneath the lobes waved laciniated round. nearly entire, Apoth. scatter. brown their margin incurv. entire at length pulverulent

15550 Thallus roundish subcoriaceous white smooth finely dotted with black: hispid beneath, Lobes longish sinuate-crenate cut, Apothecia rufous brown

15551 Thallus orbicular greyish white smooth blackish brown and hairy beneath, Lobes rounded cut plane their margin waved entire, Apothecia brown their margin thin entire

15552 Thallus orbicular glaucous green naked with black fibres on the under side, Lobes rounded cut flat somewhat plaited at the edge, Apothecia rufous

15553 Thallus orbicular membranaceous bright green above, beneath pale brown almost white and downy, Lobes waved and cut, the segments rounded subcrenate, Apothecia red, the margin inflex. rugose and crenate

15554 Thallus orbicular membranaceous finely rugose glaucous green, beneath blackish brown fibrous, Lobes cut rounded lax plaited entire

15555 Thallus orbicular olive brown rugged with elevated points paler beneath and fibrous, Lobes radiating appressed plane dilated rounded and crenate, Apothecia dark-brown: the margin crenulated

15556 Thallus orbicular bright yellow: beneath paler and fibrillose, the lobes radiating appressed plane dilated round. crenate and crisped at the extremity, Apoth. of the same colour as the crust their margin entire

15557 Thallus orbicular somewhat membranous contiguous plaited umber-olive colored cut crenate in the circumference with flat somewhat truncate lobules

15558 Thallus orbicular cinereous powdery: beneath white with black fibres, Central segments plaited eroded crisp powdery at edge, Apothecia concave blackish brown

15559 Thallus orbicular white hoary granular powdery: beneath of the same color with obsolete blackish fibres, Segments of the circumference flat cut crenate, Apothecia appressed flat brownish black

15560 Thallus orbicular membranous glaucous ash-colored: blackish brown beneath, Lobes sinuate-cut; the end ones rounded crenated, Apothecia brownish with an entire edge

15561 Thallus orbicul. cinereous, Soredia grey margined, beneath brownish spongy and fibrous, Lobes concrete plaited: those of the circumference rounded cut crenate, Apothecia red with a tumid edge

15562 Thallus orbicular yellowish white pulverulent greyish black and downy beneath, Lobes imbricated plane rounded slightly crenated, Apothecia reddish (" *of the same color as crust*") their margin pulverulent

15563 Thallus orbicul. blueish-grey, beneath having a very thick spongy down, Lobes of circumference rounded and crenate, Apothec. scattered at length convex rusty-brown, their margin of same color and entire

15564 Thall. orbic. brownish-grey, ben. having a blueish-grey spongy down, Lobes of circumf. obtusely notched elevated pale, Apothecia plane crowded central reddish-brown with tumid incurv. crenul. whit. margins

15565 Thallus orbicular dark purplish-brown shining dotted with black, beneath black and fibrillose: the segments sinuato-multifid linear plane truncated crenate in the circumference, Apothecia dark-brown, the margin slightly crenulate

15566 Thallus orbicul. greyish rough and pitted beneath black and fibrillose: the segments imbricated sinuated plane subretuse, Apothecia bright chesnut-brown, their margin subcrenulated

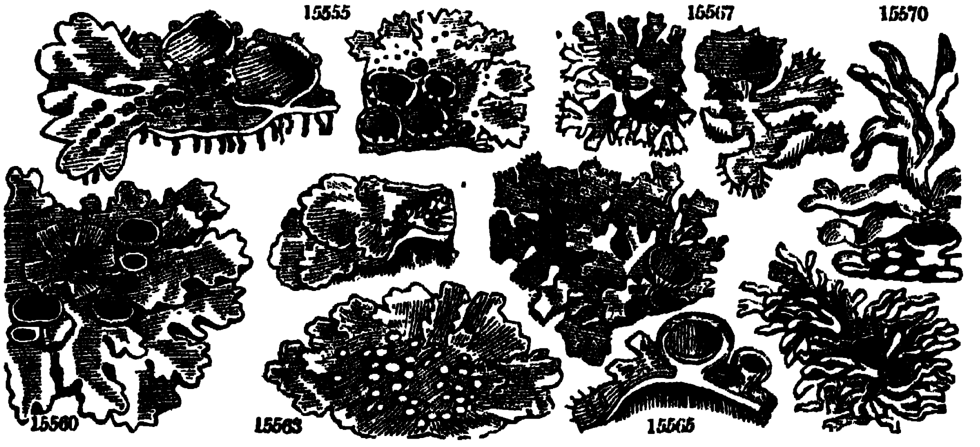
15567 Thallus orbicular pitchy-brown smooth beneath black and scarcely fibrillose: the segm. sinuated multifid divergent plane or slightly grooved, margins elevat. lacerat. Apothec. dark-brown, margin granulated

15568 Thallus stellated shining pitchy-black, beneath black and almost naked: the segments nearly linear multifid and somewhat palmate convex, the margins and extremity recurved, Apothec. of the same color at length black with the margin crenated

15569 Thallus orbic. tawny-brown paler beneath with blackish fibres: the segment multipartite nearly lin. convex, those of the circumfer. dilated nearly plane and crenate, Apothecia dark-brown, their margin crenated

15570 Thallus stellat. pale-grey, beneath black uneq. naked: the segments often uniting convex and almost round. lin. multifid roughish dotted with black, Apothecia reddish-brown, their margin somewhat crenulated

15571 Thallus stellat. pale-greenish bear. powdery warts, beneath black with spongy fibres: segments of circumference multifid very narrow convex and almost rounded, Apothecia reddish-brown, marg. nearly ent.



and Miscellaneous Particulars.

2341. *Parmelia.* Named from *παρμη*, a sort of small shield, and *ειλω*, to enclose. On the thallus of these plants scattered powdery warts are commonly found. These Hedwig has determined to be anthers, apparently for no other reason than that they are powdery, and that he could fix the title to nothing better.

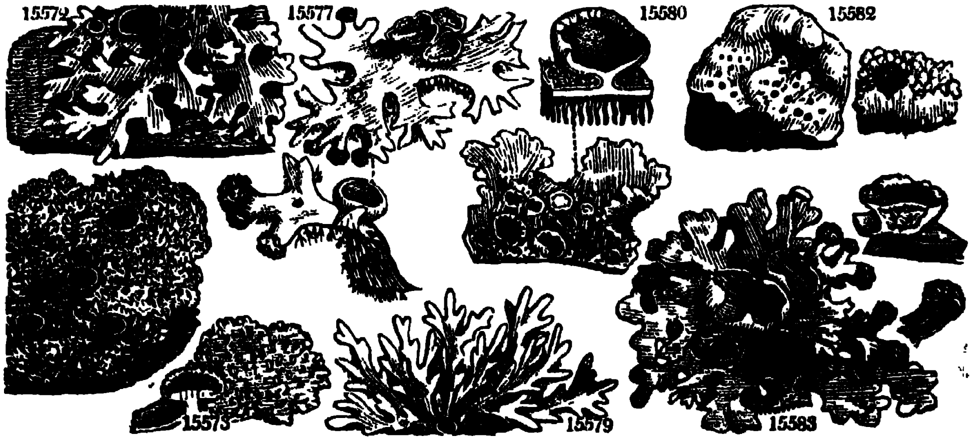
15572 sinuósa *Ach.*	sinuous	starry	2	all sea.	Pa.Y	moorstones	Eng. bot. t. 2050
15573 aleurites *Ach.*	rugose	round patch.	3	aut.wi.	Pa.Gr	trun. of trees	Eng. bot. t. 858
15574 ambígua *Ach.*	ambiguous	starry warted	2	aut.wi.	Pa.G	trun. of trees	
15575 conspérsa *Ach.*	sprinkled	smth. dotted	1½	all sea.	Y	rocks	Eng. bot. t. 2097
15576 speciósa *Ach.*	shewy	starry glabr.	2	spring	G.W	woods	Eng. bot. t 1979
15577 lævigáta *Ach.*	polished	starry	3	spring	Grsh	on trees	Eng. bot. t. 1852
15578 pulverulénta *Ach.*	powdery	pruinose mul.	2	spring	Dp.G	trun. of trees	Eng. bot. t. 2063
15579 stelláris *Ach.*	stellate	rugged frond	2	spring	Grsh	trun. of trees	Eng. bot. t. 1697
15580 cæ'sia *Ach.*	cæsious	sorediferous	¼	all sea.	Grsh	roc. & stones	Eng. bot. t. 1052
β dúbia Ach.	*dubious*	granular	½	spring	Pa.Br	boards	Eng. bot. 2547
15581 cycloselis *Ach.*	circular	round patch.	1	all sea.	Li.Gr	trees & pales	Eng. bot. 1942
15582 diacápsis *E. B.*	twofold-shield.	tumid crust	1½	all sea.	Wsh	stones	Eng. bot. 1954
15583 physódes *Ach.*	bladdery	multif. smth.	2	all sea.	Wsh	rocks	Eng. bot. t. 126
15584 diátrypa *Ach.*	warted	multif. smth.	2	all sea.	Gr.G	wet rocks	Eng. bot. t. 1248

2342. BORRE'RA. *Ach.* BORRERA. *Sp.* 7—23.

15585 tenélla *Ach.*	slender	branch. segm.	1½	all sea.	Gl.	bran. of trees	Eng. bot. 1351
15586 leucoméla *Ach.*	black & white	dense tufts	1½	feb.	W	on the earth	Eng. bot. 2548
15587 furfurácea *Ach.*	mealy	farinaceous	1½	all sea.	G.G	trun. of trees	Eng. bot. 984
15588 chrysophthálma *Ach.*	yellow-eyed	bushy	1	all sea.	Or	apple trees	Eng. bot. 1088
15589 flávicans *Ach.*	yellowish	branched	1	all sea.	Y	trun. of trees	Eng. bot. 2113
15590 ciliáris *Ach.*	ciliated	bushy	1½	all sea.	Gl.	trun. of trees	Eng bot. 1352
15591 atlántica *Ach.*	Barbary	bushy tufts	1½	april	G.Ol	elms	Eng. bot. 1715

2343. CETRA'RIA. *Ach.* CETRARIA. *Sp.* 5—14.

15592 juniperina *Ach.*	juniper	bushy	1½	all sea.	Pa.Y	trun. of trees	
β pinástri Ach.	*Pinaster*	bushy	1½	all sea.	Pa Y	trun. of trees	Eng. bot. t. 2111
15593 sepincola *Ach.*	hedge	bushy waved	1½	all sea.	Ol.Br	ston. & trees	Eng. bot. t. 2386
15594 glaúca *Ach.*	glaucous	bushy shining	2	all sea.	Gl.	on the grou.	Eng. bot. t. 1606
β fállax Ach	*fallacious*	bushy shining	1½	all sea.	W	on the grou.	Eng. bot. t. 2373



History, Use, Propagation, Culture,

2342. *Borrera.* Dedicated by Acharius, to Mr. William Borrer, F. L. S., one of our most eminent British cryptogamic botanists. This genus is very natural in habit, including the Linnean genus Lichen and its allies.

2343. *Cetraria.* An unexplained name. C. islandica is common in Iceland and in the north of Germany, and is also found in the mountains of Asturias. It grows to the height of two or three inches only, and has a rugged bushy aspect. In Iceland and Lapland it is used as an article of diet; being boiled in broth or milk, after being freed from its bitter by repeated maceration in water, or dried and made into bread. It has of late years been brought in considerable quantities to this country for medicinal purposes. The dried plant differs very little from its appearance in a recent state. Medicinally it is tonic and demulcent; it has also been found useful in debilities after acute diseases, and in emaciations, particularly those arising from the great discharge

15572 Thallus stellat. pale-yellowish grey smooth, black and fibrous beneath: segments broadly lin. sinuato-pinnatifid, their sinuses broad and circular, Apothecia nearly plane dark-brown, their margin thin entire

15573 Thallus orbicular continuous rugose pale-grey pulverulent, beneath of the same color with blackish fibres: segments in the circumference distinct plane rounded waved inciso-crenate, Apothecia plane reddish-brown, their margin at length crenulate and pulverulent

15574 Thallus stellated pale-yellow green smooth bearing powdery warts, beneath brownish-black and fibrillose: the segments linear appressed plane dichotomous somewhat truncated, Apothecia subcentral small nearly plane brown, their margin entire

15575 Thallus orbicul. greenish-yell. smooth with blackish dots, brown and fibrillose beneath: segments sinuato-lobate rounded crenate nearly plane, Apothecia central chesnut-brown with the margin nearly entire

15576 Thallus stellated glabrous greenish-white, beneath snowy-white with greyish fibres: the segments imbricated linear plane cut and branched crenate, their extremities ascending and powdery, Apothecia central brown with a tumid singularly rough and crenate border

15577 Thallus stell. smooth greyish-white, beneath black and fibrillose: segm. multif. lin. broader upwards cut divaricated acute in the circumference frequently bearing powdery warts, Apothecia concave chesnut color with the margin entire

15578 Thallus stellated deep glaucous green cæsious and pruinose when dry, beneath black and downy and hispid: the segment linear multifid in the circumference plane appress. waved retuse at the extremities, Apothecia glaucous black, the margin entire and waved at length leafy

15579 Thallus stellat. at length rugged and granulat. greyish-green, beneath with grey fibres: the segm. sublin. rather convex cut multifid, Apothecia glauc. black, their margin entire, at length waved and crenate

15580 Stellate greyish-white and glaucous sorediferous, ash-colored beneath with black fibres: segments linear cut multif. convex but plane at extremities: fructification subconcave black with a subinflexed border

α Thallus stellate cinereous: segments branched separate recurved at edge roundish, some broader than the rest and powdery at the edge

15581 Orbicular greenish-grey, fibrous and black beneath, Laciniæ imbricated nearly plane multif. erosa-crenate somewhat ciliate: the margin sometimes raised; fructification very dark, the border raised entire

15582 Crust blueish-white tartareous minutely undulated, Apothecia clustered somewhat sunk: disk flat black or brown; margin thick externally black

15583 Thallus substellated glaucous white: beneath brownish black; the segm sinuato-multifid convex glabrous inflated and ascending at the extremity, Apothecia red brown, their margin entire

15584 Thallus substellate greyish-green: beneath rugose blackish and white; segments sinuato-multifid nearly plane smooth bearing powdery warts and perforated; the extrem. inflated, Apoth. redd.: marg. entire

15585 Thallus greyish-white naked on both sides and of the same col. substellat.: segm. pinnatif. ascend. dilat. arched and ciliated at the extremity, Apothecia scattered: disk plane cæsious black; its marg. entire

15586 Thallus palish: segments erect linear multifid attenuated ciliated: beneath very white powdery and channelled, Apothieca with a flat black cæsious disk

15587 Thallus greenish-grey farinaceous: the segments linear attenuated branched grooved naked rugose and blackish beneath, Apothecia somewhat marginal cup-shaped with their margin thin inflexed

15588 Thallus yellow naked and of the same color on both sides: segments linear flattish pinnatifid branched fibrous at end, Apothecia somewhat terminal with an orange-colored disk

15589 Thallus yellow naked: segments dichotomously branched slightly compressed atten. divaricated complicated, Apothecia scattered: their disk plane orange-red; their margin entire naked

15590 Thallus greenish: segments linear branched attenuated ciliated at end whitish and channelled beneath, Apothecia somewhat terminal: disk concave becoming flat with a fringid border

15591 Thallus pale rufous downy: segm. divaricating tortuous linear tapering channelled on the under surface, Apothecia scattered: disk flattish brownish-black with a thin entire border

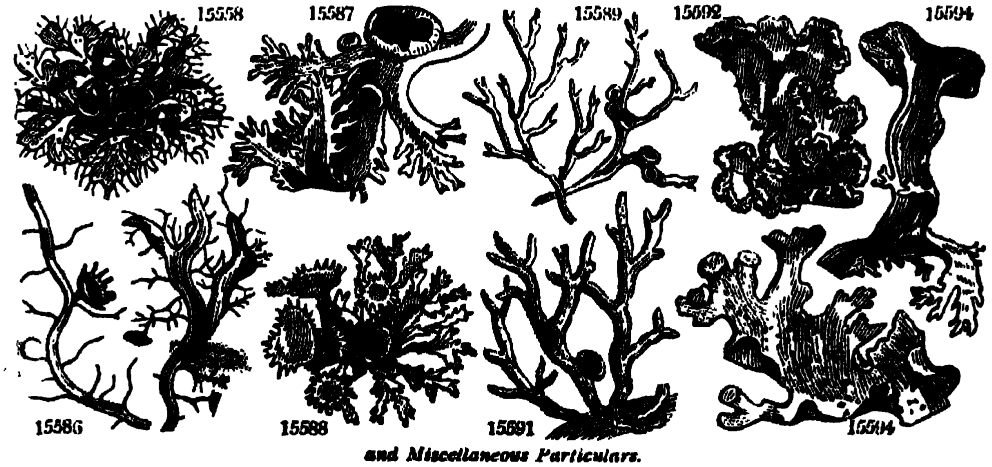
15592 Thallus pale-yellow very yellow beneath: the segments plane ascending erose crenate and crisped, Apothecia elevated: their disk brown; the margin crenulated

β Thallus with segm. depressed: the lobes rounded crenate; margins crisped pulverulent and very yellow

15593 Thallus olive-brown paler beneath; the segments plane ascending lobed waved subcrenate, Apothecia elevated of the same color: their margin rugose and crenulate

15594 Thallus glaucous somewhat shining sinuated and lobed brown beneath: the segments cut and jagged curled ascending, Apothecia elevated chesnut-brown: their margin wrinkled

β Thallus white on each side or with occasional black spots beneath

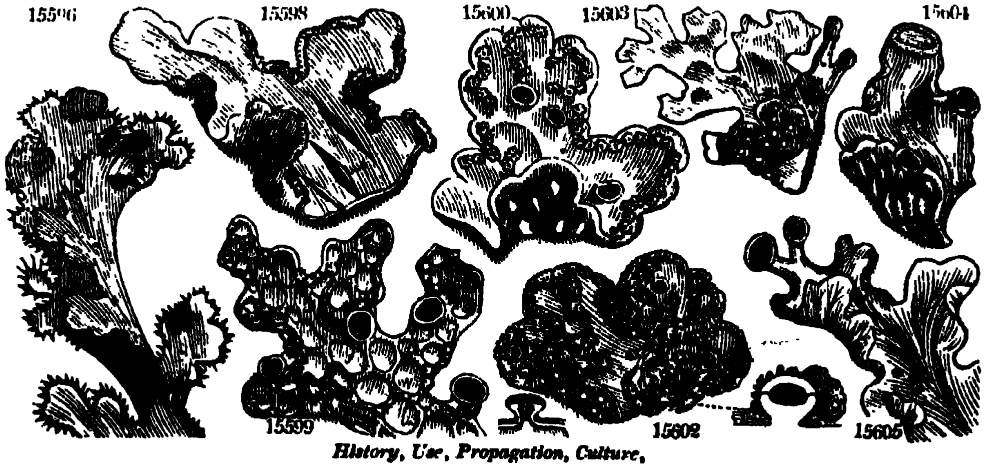


and Miscellaneous Particulars.

of ulcers; and diarrhœas, dysentery, and hooping cough. Its virtues, however, have been greatly overrated. (*Thom. Lond. Disp.* 365.)

Though plentiful with us, it is scarcely sufficiently so to form an article of commerce. A great proportion of what comes to our shops, where it is in great request as a medicine in coughs, consumptions, &c. is procured from Norway or from Iceland. Immense quantities are gathered in the latter country, not only for sale, but for home consumption, as an article of common food. The bitter and purgative quality being extracted by steeping in water, the lichen is dried, reduced to powder, and made into a cake, or boiled and eaten with milk; and eaten with thankfulness, too, by the poor natives, who confess "that a bountiful Providence sends them bread out of the very stones." An ample account of the nutritive qualities of this plant may be found in the Memoir of Professor Proust, inserted in the Journal de Physique, for August, 1806.

15595 nivális *Ach.*	snow	bushy tufts	2	all sea.	Sul.	rocks	Eng. bot. t. 1994
15596 islándica *Ach.*	Iceland Moss	bushy	2	all sea.	Ol.Br	rocky places	Eng. bot. t. 1330
2344. STIC'TA. *Ach*	STICTA.			*Sp.* 7—18.			
15597 crocáta *Ach.*	orange	yellow warts	3	all sea.	Gl.Br	rocks	Eng. bot. 2110
15598 auráta *Ach.*	golden	foliaceous	6	all sea.	Br	trun. of trees	Eng. bot. 2359
15599 pulmonácea *Ach*	liverwort	reticulated	2	all sea.	Oliva.	trun. of trees	Eng. bot. 572
15600 scrobiculáta *Ach.*	pitted	roundish pat.	3	all sea.	Grsh	trun. of trees	Eng. bot. 497
15601 limbáta *Ach.*	bordered	smooth lobed	4	all sea.	Gl.Br	rocks	Eng. bot. 1104
15602 fuliginósa *Ach.*	smutty	round patch.	3	all sea.	Lu.gr	moist rocks	Eng. bot. 1103
15603 sylvática *Ach.*	wood	pitted fronds	3	all sea.	Ru.Br	shady woods	Eng. bot. 2298
2345. PELTIDE'A. *Ach.*	PELTIDEA.			*Sp.* 9—21.			
15604 venósa *Ach.*	veiny	much veined	2	sum.	Gsh	on the earth	Eng. bot. 887
15605 scutáta *Ach.*	shielded	crisp	1½	all sea.	Cin.	bark of trees	Eng. bot. 1834
15606 horizontális *Ach.*	horizontal	shining, cren.	2	all sea.	Br.G	shady rocks	Eng. bot. 888
15607 aphthósa *Ach.*	Thrush	warted	2	aut.	G	among moss	Eng. bot. 1119
15608 rufẽscens *E. B.*	brownish	incurved	2	all sea.	R.Br	on the earth	Eng. bot. 2300
15609 canina *Ach.*	dog	broad-lobed	2	all sea.	Grsh	on the earth	Eng. bot. 2299
15610 membranácea *Ach.*	membranous	broad-lobed	1½	all sea.	G	thatch	
15611 spúria *E. B.*	imperfectly veined	lobed frond	1½	July	G.Br	thatch	Eng. bot. 1542
15612 polydáctyla *Ach.*	multifid	smooth-hood.	1½	July	Gl.	on the earth	Jacq. coll. t. 14. f. 2
2346. NEPHRO'MA. *Ach.*	NEPHROMA.			*Sp.* 2—8.			
15613 resupináta *Ach.*	resupinate	short-lobed	3	all sea.	Gr.Br	among moss	Eng. bot. t. 305
15614 párilis *Ach.*	chocolate	foliaceous	3	all sea.	Br	stone quarr.	Eng. bot. 2360
2347. ROCCEL'LA. *Ach.*	ORCHALL.			*Sp.* 2—7.			
15615 tinctória *Ach.*	true dyer's	bushy tufts	1½	all sea.	Y.Br	marit. rocks	Eng. bot. 211
15616 fucifórmis *Ach.*	flat-leaved	bushy tufts	4	all sea.	Gl.	granite rocks	Eng bot. 728
2348. EVER'NIA. *Ach.*	EVERNIA.			*Sp.* 1—6.			
15617 prunástri *Ach.* *L. stictoceros* E. B. t. 1353	Stag's Horn	multif. segm.	2	all sea.	G.W	heaths	Eng. bot. t. 859
2349. CENOMY'CE. *Ach.*	CENOMYCE.			*Sp.* 20—43.			
15618 papillária *Ach.*	pimpled	granul. crust	½	wint.	Grsh	damp earth	Eng. bot. 907



History, Use, Propagation, Culture,

2344. *Sticta.* From στικτος, dotted, on account of the numerous little pits on the under surface of the fronds. One of the most handsome genera of Lichens, growing almost wholly upon trees. Sticta pulmonacea is supposed to possess the same qualities as the famous Iceland moss, Cetraria islandica.

2345. *Peltidea.* So called in allusion to the form of the shields, from πελτη, a target. Peltidea aphthosa, a large handsome species, has its name from the circumstance related by Linnæus, that the Swedish peasants boil it in milk as a cure for the aphtha, or thrush, in children.

2346. *Nephroma.* From νεφρος, a kidney; the apothecia are of a reniform figure. N. polaris is remarkable for being common to both the arctic and antarctic circles.

2347. *Roccella.* This is a slight alteration of the Portuguese *Roccha*, signifying a rock, in allusion to the

15595 Thallus sulphur-colored orange at the base pitted and reticulated erect nearly plane laciniated : its segm. multifid crisped crenato-dentate and often warted at points, Apothecia plane flesh-col. : marg. crenulat.
15596 Thallus olive-brown paler beneath : the segments erect sublinear multifid channelled smooth dentato-ciliate ; fert. branches spreading, Apothecia appressed plane of the same color : margins elevated entire

15597 Thallus dark glaucous brown pitted with broad rounded spreading entire lobes, having bright lemon-colored powdery spots upon the margin and on the elevated parts between the pits : downy and tawny beneath with min. lemon-colored little hollows, Apothecia scattered black.-brown : their margin entire
15598 Thallus glaucous shining very broad woolly beneath, Soredia minute yellow : segments rounded sinuated cut ; margin wavy crisp inflexed yellow-powdery
15599 Thallus olivaceous pitted and reticulated downy beneath with smooth prominences : the segm. sinuato-lobate truncated, Apothecia submarginal plane reddish : their margin rugose
15600 Thallus suborbicular glaucous greyish-green very broad somew. pitted and having mealy warts : beneath downy tawny with white naked spots ; the segments rounded and lobed irregular, Apothecia scattered nearly plane reddish-brown ; their margin somewhat crenate
15601 Thallus orbicular glaucous brown roundly lobed smooth grey and powdery at the margin : downy beneath with white hollow spots, Apothecia brown
15602 Thallus orbicular dark lurid-grey rough with brown granules : beneath grey.-brown with white concave spots ; the segments roundly lobed nearly entire, Apothecia scattered dark-brown : their marg. entire
15603 Thallus wide rusty brown naked and pitted : brown and downy beneath with small pale excavations ; segments lobed and obtusely cut unequal, Apothecia marginal dark-brown

15604 Thallus greenish ash-color white beneath having dark brown prominent branched veins, Lobes rounded cut somewhat entire, Apothecia marginal plane rounded swelling brown scarcely crenulate at the margin
15605 Thallus ash-colored whitish and veiny beneath : the lobes rounded sinuated and cut crenate and crisped ; fertile lobules very short, Apothecia orbicular ascending nearly plane brown somewhat entire
15606 Thallus glaucous and brownish green lobed cren. and shining pale ben. with numerous brown branching reticulated veins : fertile lobules abbreviated, Apothecia terminal plane horizontal transversely oblong reddish brown with a nearly entire margin
15607 Thallus green smooth roundly lobed sprinkled with brown warts whitish beneath with brown branching veins : fertile lobules very long contracted in the middle their sides reflexed, Apothecia terminal large ascending red brown with a lacerated margin
15608 Thallus coriaceous concave even dark reddish-brown pale downy with obsolete veins beneath, Lobes rounded with numerous fruit-bearing processes
15609 Thallus greyish green with broad rounded lobes white beneath with brownish branching veins : fertile lobules rather long with their sides reflexed, Apothecia terminal nearly erect revolute reddish-brown with a subcrenulated border
15610 Thallus thin membranous somewhat downy with rounded lobes beneath whitish and netted with veins of the same color, Fertile lobes short, Apothecia minute
15611 Leathery ash-colored and even above : whitish smooth with indistinct pale veins beneath, Apothecia ascending roundish dark reddish brown
15612 Thallus glaucous green naked glabrous with brown reticulated veins beneath : fertile lobules very numerous elongate and as well as the brown terminal, Apothecia cucullato-revolute

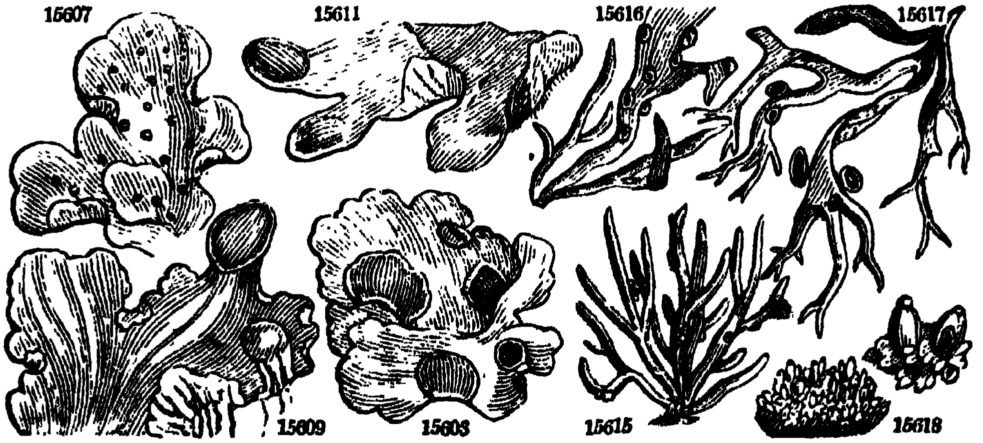
15613 Thallus greyish brown pale pubescent and granulated beneath : fertile lobules very short, Apothecia large numerous reddish
15914 Thallus livid brown beneath naked wrinkled blackish, Fertile lobes short, Face of the apothecia brownish

15615 Thallus rounded glaucous green somew. branched nearly erect, Apothecia scattered elevated : disk flat cæsious pruinose as broad as the border
15616 Thallus flat cinereous greenish with dichotomous divisions, Segments attenuated, Apothecia marginal

15617 Thallus greenish white segments dichotomous multifid ascending linear-attenuate plane pitted grooved and white beneath, Apothecia bright brown concave

† *Thallus subcrustaceous uniform. Podetia hollow.* Pycnothelia.

15618 Subcrustaceous uniform granulated greyish, Podetia ventricose glabrous white simple or branched, the branches very short confluent and subfastigiate, Fructification minute reddish-brown



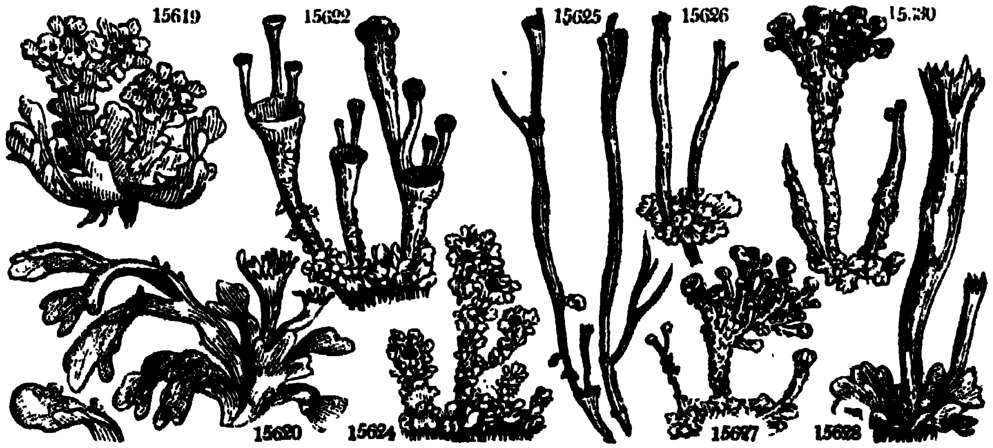
and Miscellaneous Particulars.

places where this plant is commonly found. This plant is the Orchall or Argol of the dyers, so celebrated for yielding a fine purple color, for which Cudbear is but a poor substitute.

2348. *Evernia.* Ευερνης signifies tall, or well branched. The name has been well contrived to express the habit of the species, which all form bushy, erect, or pendulous tufts.

2349. *Cenomyce.* From κενος, empty, and μυκης, a minute fungus, alluding to the hollowness of the little fungus-like receptacles. Cenomyce rangeferina : this is the Lichen which, for the greater part of the year, and especially in winter, is the support of the vast herds of rein-deer, in which consists all the wealth of the Laplanders. No vegetable, Linnæus tells us, grows throughout Lapland in such abundance as this, especially in woods of scattered pines, where, for very many miles together, the surface of the sterile soil is covered with it as with

15619 alcicórnis *Ach.*	buckshorn	tufts	½	wint.	Gl.	heaths	Eng. bot. t. 1392
15620 endiviæfólia *Ach.*	endive-leaved	multifid tufts	¾	wint.	Y.G	dry places	Eng. bot. t. 2361
15621 cervicórnis *Ach.*	Stag's Horn	multifid tufts	1½	wint.	Gl.	Pentlan. hills	Eng. bot. t. 2574
15622 pyxidáta *Ach.*	cupped	tufts	¾	spring	Gl.	banks	Eng. bot. t. 1393
15623 fimbriáta *Ach.*	fringed	coralloid tufts	1½	spring	Gl.	moors & hea.	Eng. bot. t. 2138
β *radiáta* Ach.	*radiated*	coralloid tufts	2	spring	Gl.	on the grou.	Eng. bot. 1835
γ *cornúta* Ach.	*cornute*	coralloid tufts	1½	spring	Gl.	moors & hea.	Eng. bot. 1836
15624 gonoréga *Ach.*	degenerating	tufts	1	sum.	Cin.	mountains	
β *anomæ'a* Ach.	variable	brittle tufts	1	spring	Cin.	hills	Eng. bot. 1867
15625 ecmocýna *Ach.*	leafy	fine tufts	¾	spring	Gr	hea. & moun.	
β *grácilis* Ach.	*slender*	fine tufts	¾	spring	Gr	hea. & moun.	Eng. bot. 1284
15626 bacilláris *Ach.*	rod-like	branched	2	all sea.	Wsh	woods	E. b. t. 2028. *L. filiformis*
15627 digitáta *Ach.*	fingered	powdery	1½	all sea.	Y.G	woods	Eng. bot. 2439
15628 defórmis *Ach.*	deformed	branch. tufts	3	all sea.	Sul.	roots of trees	Eng. bot. 1394
15629 coccífera *Ach.*	coccus-bearing	long tufts	3	wint.	Gr.G	moors & hea.	Eng. bot. 2051
β *cornucopioides* Ach.	*cornucopia-like*	short tufts	1½	wint.	Gr.G	moors & hea.	
15630 bellidiflóra *Ach.*	daisy-flowered	stiff scaly	2	wint.	Pale	lofty mount.	Eng. bot. 1894
15631 sparássa *Ach.*	ventricose	branch. tufts	2	all sea	Gl.	in woods	Eng. bot. 2362
15632 delicáta *Ach.*	delicate	mealy patch	½	wint.	G	rotten rails	Eng. bot. 2052
15633 racemósa *Ach.*	racemose	loosely branc.	1½	all sea.	Gsh	heaths	Dill. musc. t. 16. f. 25
15634 furcáta *Ach.*	forked	smooth tufts	2½	all sea.	Liv.br	woods	Dil. musc t. 16. f. 27. A-D
β *subuláta* Ach.	*subulate*	slightly bran.	2	all sea.	Liv.br	woods	Dil. musc. t. 16. f. 21. A.B
15635 unciális *Ach.*	stiff	rigid smooth	1½	wint.	Pa.G	moors	Eng. bot. t. 174
15636 rangiferína *Ach.*	rein-deer	much branch.	2	all sea.	Hoa.	woods	Eng. bot. t. 173
β *pun'gens* Ach.	*pungent*	branched tuft	2	all sea.	Gr	commons	Eng. bot. 2444
15637 vermiculáris *Ach.*	vermicular	little tufts	1	sum.	W	high mount.	Eng. bot. t. 2029



History, Use, Propagation, Culture,

snow. On the destruction of forests by fire, when no other plant will find nutriment, this Lichen springs up and flourishes, and, after a few years, acquires its greatest size. Here the rein-deer are pastured, and whatever may be the depth of snow during the long winters of that climate, they have the power of penetrating it, and

†† *Thallus foliaceous. Podetia fistular dilated upwards and fertile, or sterile and subulate. Apothecia closed with a membrane.* Scyphophora.

* *Apothecia fuscous or pallid.*

15619 Thallus foliaceous very pale glaucous green the segments subpalmated ascending obtuse and incurved, Podetia elongated turbinate all cup-bearing smooth the cups regular crenate with the margin at length leafy and proliferous, Apothecia brown

15620 Thallus foliaceous large glaucous yellow green white beneath the segments multifid waved crenate crisped, Podetia turbinate elongate mostly simple, Apothecia marginal reddish-brown

15621 Thallus foliaceous glaucous green : segments erect multifid narrow repando-subdentate, Podetia cylindrical short glabrous dingy at length black all of them cup-bearing ; cups small regular dilated entire nearly plane proliferous from the centre, Apothecia marginal sessile brownish-black

15622 Thallus foliaceous : segments crenulated ascending, Podetia all turbinate elongate cup-shaped glabrous at length granulat. warty rough grey. green : cups regular ; the margin at length prolifer. Apoth. brown

15623 Thallus foliaceous : the segments small crenate, Podetia elongate cylindrical cup-bearing sometimes subulate slightly pulverul. white : cups regular their margins ent. and crenat. at length prolifer. Apoth. brown

β Podetia elongated powdery white, Scyphæ radiant at edge

γ Podetia elongate subulate simple or branched pulverulent white sterile or with reddish apothecia

15624 Thallus foliaceous, Segments broadish crenulate cut, Podetia longish smooth somewhat warted glaucous or whitish green, Apothecia irregular torn into rays proliferous at edge

β Thallus foliaceous ash-colored brittle : segments imbricated minute crenate, Podetia cylindrical rough and foliaceous : cups turbinate closed at length dilated and radiated, Apothecia marginal sessile or stalked brownish-black

15625 Thallus foliaceous, Segments small crenate, Podetia long subulate sterile and fertile smooth livid-brown, Apothecia cup-shaped toothed at edge occasionally proliferous

β Thallus foliaceous very minute, Podetia elongate subulate sterile and cup-bearing smth. greenish brown : cups toothed at the margin at length proliferous, Apothecia brown

** *Apothecia scarlet or deep red.*

15626 Thallus foliaceous small : segm. inciso-lobate crenate, Podetia cylindr. simple and somew. branch. at the extremity greenish white granulated rarely cup-bear ; cups narr at length radiat. Apoth. minute scarlet

15627 Thallus foliaceous small : segments expanded rounded crenate beneath as well as on the cylindrical yellow green cup-bearing, Podetia pulverulent : cups narrow small at length large with the often branched numerous digitate or rayed prolifications tipped with the bright scarlet apothecia

15628 Thallus foliaceous minute : segments broadish cut crenate naked beneath, Podetia long thick subventricose sulphur-colored slightly pulverulent cup-bearing : cups narrow crenato-dentate at length dilated and jagged, Apothecia sessile and pedunculate scarlet

15629 Thallus foliaceous minute : segm. rounded crenate nak. beneath, Podetia elongated turbinate naked nearly pale yellow or greyish green all cup-bearing, cups with their margins spreading fertile, Apothecia large at length stalked scarlet

β Pode. rather short cup-bearing : cups dilat. crisp. and foliac. term. by the scarlet stalk. Apoth. at leng. prolif.

15630 Thallus foliaceous minute : the segm. inciso-crenate naked beneath, Podetia elongate cylindr. rigid glabr. foliaceo-squamose pale all cup-bear. : cups narr. their margins fertile and prolifer. Apoth. crowd. scarlet

††† *Thallus foliaceous. Podetia fistular dilated upwards and fertile. Apothecia pervious* Scharmaria.

15631 Thallus foliac. minute lobed and crenated, Podetia elongated branch. subventr. granulat. rough with leafy scales cup-bearing : cups irregular pervious dentato-radiate proliferous, Apothecia stalked pale brown

†††† *Thallus foliaceous. Podetia somewhat fistular, cylindrical, simple, split at end or digitate. Rays all fertile.* Helopodia.

15632 Thallus foliaceous with minute granular lobes, Podetia smooth granular pallid divided at end : divisions very short, Apothecia clustered brownish black

††††† *Thallus foliaceous, scarcely any. Podetia cartilaginous, rigid, fistular, all tapering subulate branched. Axillæ generally bored through.* Cladonia.

15633 Podetia elongated smooth at length scaly greenish white inflated curved branched, Branches lax subsecund their extremities divergent spinulose, Apothecia pale brown

15634 Podetia elongated smooth livid brown dichotomous, Axils not perforated, Branches narr. subulate curved the extremities forked divergent : fertile ones with brown apothecia

β Podetia elong. slender sparingly branch. Branches nearly erect : fertile bran. with brown capitate apoth.

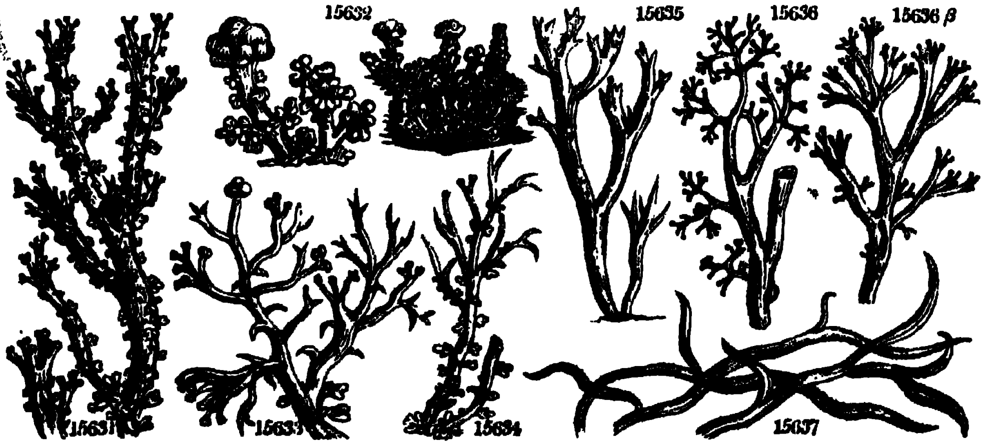
15635 Podetia elongate glabr. pale dichotomous : the axils perforated open ; extremities of the branches patent short acute and rigid, Apothecia small terminal brown

15636 Podetia elongate cylindr. erect roughish hoary branched : axils often perforated, Branches scattered very much divided spreading the ultimate ones subradiate or drooping, Apothecia subglobose clustered brown

β Podetia cinereous dichotomously branched rigid forming a cushion-like tuft, Axillæ not bored through, End of branches mucronate diverging brownish

†††††† *Thallus none. Podetia soft, subsolid, subulate, somewhat branched. Axillæ not bored through.* Cerania.

15637 Podetia subulate nearly simple smooth very white subfistulose flexuose prostrate



and Miscellaneous Particulars.

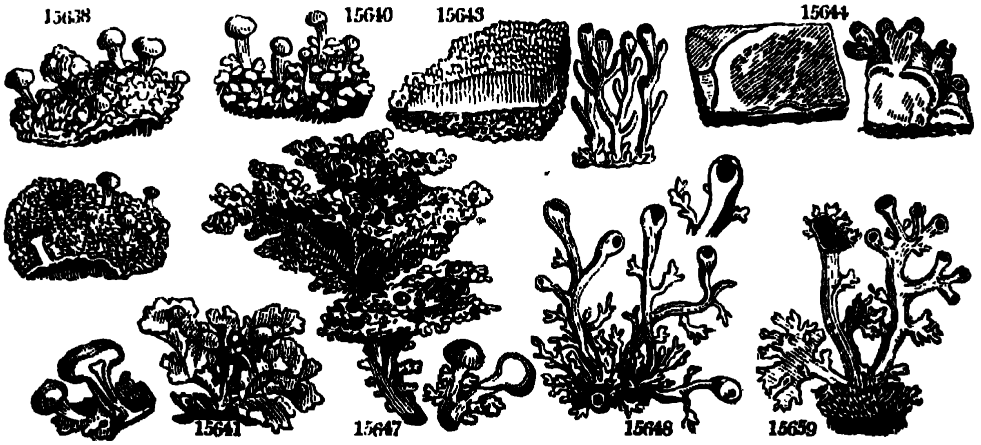
obtaining their necessary food. Linnæus has given a beautiful description of this Lichen, and of the animals whose support it is, in the Flora Lapponica, p. 332.

C. pyxidata is sometimes employed by the poor in the cure of the hooping-cough.

2350.	BÆO'MYCES. *Ach.*	BÆOMYCES.		*Sp.* 4—10.				
15638	róseus *Ach.*	rosy	granulated	½	sum.	Gsh		Eng. bot. t. 374
15639	rúfus *Ach.*	rufous	powdery	½	sum.	Gsh		E. bot. t. 373. *L. byssoides*
15640	microphýllus *E. B.*	small-leaved	imbric. patch	3	wint.	D.G	wet heaths	Eng. bot. 1782
15641	cæspititius *E. B.*	turfy	leafy tuft	3	aut.	Pa.G	oaks	Eng. bot. 1796
2351.	ISI'DIUM. *Ach.*	ISIDIUM.		*Sp.* 5—11.				
15642	microsticticum *Hoo.*	small	tartareous	½	aut.	Brsh	rocks	Eng. bot. 2243
15643	coràllinum *Ach.*	coralloid	crowded patc.	½	aut.	Grsh	rocks	Eng. bot. 1541
15644	Westrin'gii *Ach.*	Westring's	cracked crust	½	aut.	Grsh	rocks	Eng. bot. 2204
15645	phymatódes *Ach.*	bladdery	powderycrust	3	wint.	Pa.Su.	stems, old tr.	
	β *phragmæ'um* Ach.	*buff*	powderycrust	3	wint.	Y.Ol	stems, old tr.	E.b. 1529. *Lepr. lutescens*
15646	coccódes *Ach.*	cracked	powderycrust	2	aut.	Pa.Ol	park pales	Eng. bot. 1511
2352.	STEREOCAU'LON. *Ach.*	STEREOCAULON.		*Sp.* 1—6.				
15647	paschále *Ach.*	Easter	branch. tufts	2	all sea.	Grsh	mountains	Eng. bot. 282
2353.	SPHÆRO'PHORON. *Ach.*	SPHÆROPHERON.		*Sp.* 3—14.				
15648	coralloídes *Ach.*	coralloid	bushy	1½	all sea.	Pa.Br	rocks	Eng. bot. t. 115
15649	frágile *Ach.*	brittle	bushy	1	all sea.	Grsh	rocks	Eng. bot. t. 2474
15650	compréssum *Ach.*	compressed	bushy	1	all sea.	Wsh	rocks	E. bot. t. 114. *L. fragilis*

HOMOTHALAMI.

2354.	ALECTO'RIA. *Ach.*	ALECTORIA.		*Sp.* 2—7.				
15651	jubáta *Ach.*	mane-like	long tufts	3	wint.	Br	on fir trees	Eng. bot. t. 1880
	β *chalybiifórmis* Ach.		long tufts	3	wint.	Gr.Bl	on fir trees	
15652	sarmentósa *Ach.*	sarmentose	much branch.	2½	wint.	Pa.Y	mountains	Eng. bot. t. 2040
2355.	RAMALI'NA. *Ach.*	RAMALINA.		*Sp.* 5—19.				
15653	fraxínea *Ach.*	ashen	loose tufts	2	all sea.	G h	bran. of trees	Eng. bot. t. 1781
15654	fastigiáta *Ach.*	clustered	loose tufts	2	all sea.	G	rocks & trees	Eng. bot. t. 890
	β *calicáris* Ach.	*calyx-like*	loose tufts	1½	all sea.	Gl.	rocks & trees	
15655	scopulórum *Ach.*	ivory	loose tufts	1½	all sea.	Y.Gr	marinerocks	Eng. bot. t. 688
15656	farinácea *Ach.*	mealy	bushy tufts	2	all sea.	Grsh	trun. of trees	Eng. bot. t. 889
15657	pollinária *Ach.*	powdery	bushy patch	3	all sea.	Bt.G	old oaks	Eng. bot. 1607
2356.	CORNICULA'RIA. *Ach.*	CORNICULARIA.		*Sp.* 7—16.				
15658	trisétis *Ach.*	dingy	shrubby	1½	all sea.	Dp.Br	alpine rocks	Eng. bot. t. 720
15659	aculeáta *Ach.*	prickly	shrubby	1	all sea.	Ches.	Highl. mou.	
	β *spadicea* Ach.	*brown*	shrubby	1	all sea.	Ches.	Highl. mou.	E. bot. t. 452. *L. hispidus*
15660	bicolor *Ach.*	two-colored	shrubby	1	all sea.	Bl	Highl. mou.	Eng. bot. t. 1853
15661	ochroleúca *Ach.*	pale-yellow	shrubby	1½	all sea.	Pa.Y	Highl. mou.	Eng. bot. t. 2374



History, Use, Propagation, Culture,

2350. *Bæomyces.* From βαιος, small, and μυκης, a fungus, a name well applied to this genus, which much resembles some minute kinds of Agaricus or Helvella.

2351. *Isidium.* From ισος, equal, in allusion, we presume, to the small difference which exists in size between the podetia and the substance of the frond.

2352. *Stereocaulon.* From στερεος, hard, and καυλος, a stem, a name well adapted to express the peculiarities of this genus. Its firm branching frond is fitted to occupying the interstices of crumbling granite, and the cells of volcanic scoriæ. It is the first of its tribe which clothes the lava of volcanoes in a state of decay.

2353. *Sphærophoron.* From σφαιρα, a globe, and φερω, to bear, in reference to the globular fructification. The most elegant genus of Lichens, at once known by its branched bushy smooth habit, like that of a coralline.

15638 Crust unif. granulat. greenish white, Podetia very short cylindr. Apoth. subglob. wrinkl. pale flesh-color
15639 Crust uniform rugose granulat. and pulverulent greenish white, Podetia very short somewhat compressed, Apothecia flattish at the top sometimes conglomerate reddish brown
15640 Leaves minute somewhat imbricated rounded nearly entire, Podetia simple tubular smooth
15641 Thallus clustered ascending leafy pinnatif. cut and crisped : bright green above ; white beneath, Tubercles from the disk of leaves convex reddish brown

15642 Crust tartareous cracked smoothish nearly even of a brownish cream-color thinner towards the edges, Podetia scattered short hemispherical simple of the same color as the crust, Apothecia brownish
15643 Crust tartareous greyish white, Podetia at length elongat. round. simple or branch. Apoth. brownish-grey
15644 Crust tartareous thin unequal cracked and greyish, Podetia subglobose at length cylindrical simple and branched, Apothecia dark-brown
15645 Crust cracked areolate warty a little powdery unequal pale sulphur-color, Podetia becoming cylindrical simple and branched, Apothecia yellowish brown
β Crust powdery sulphureous-green, Podetia roundish of the same color, Apothecia pale yellow
15646 Crust somewhat cracked powdery and hoary, Podetia subglobose papillæform very close together, Apothecia brown hoary

15647 Thallus greyish branch. and rough with granulat. excrescences, Branches crowded and very much divided, Apothecia scattered and terminal at length convex conglomerate blackish brown

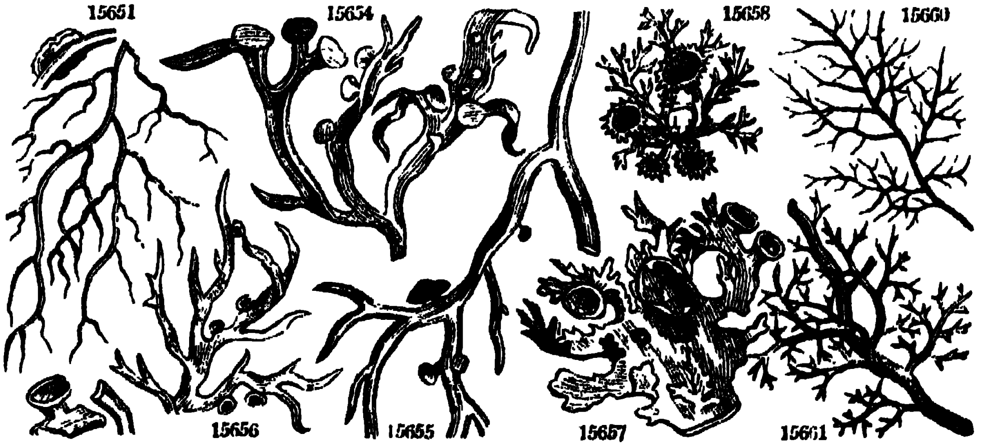
15648 Thallus palish-brown, Branches lateral elongate lax divaricat. and forked acumi. Apoth. subglobose smth.
15649 Thallus greyish branched, Branches dichotomous short crowded fastigiate naked rounded rather obtuse, Apothecia globoso-turbinate somewhat warted
15650 Thallus whit branch. Branc. compress. ramulose subfibrill. naked, Apoth. subglob. depress. and smth. above

HOMOTHALAMI.

15651 Thallus rounded somewhat shining livid-brown very much branched, Branches filiform compressed at the axils, Apothecia of the same color, at length convex entire at the margin
β Thallus and subsimple branches flexuose or tortuose complicated rather rigid greyish-black decumbent
15652 Thallus roundish angular somewhat pitted dichotomous pale-yellowish ; the extremities much branched lax and slender, Apothecia rather concave livid pruinose, at length flattened

15653 Thallus plane linear laciniated greyish-white glabrous but rugose and pitted subreticulated : the ultimate branches attenuated, Apothecia mostly marginal plane pale flesh-colored
15654 Thallus compressed glabrous pitted branched glauc. white, Branches thickened and fastigiated upwards, Apothecia numerous terminal peltate subsessile white
β Thallus and branches elongated, Branchlets cylindrical attenuated pitted and channelled, Apothecia subterminal appendiculated beneath
15655 Thallus compressed glabrous somewhat pitted branched yellowish-grey, Branches linear attenuated, Apothecia scattered on short stalks of the same color as the thallus
15656 Thallus compressed glabrous somewhat pitted bearing powdery warts rigid branched greyish or greenish-white, Branches linear attenuated, Apothecia scattered on short stalks plane somew. margin. whitish
15657 Thallus flat somewhat membranous smooth a little pitted white torn, occasionally powdery with dilated flat soredia, Apothecia nearly terminal very large

15658 Thallus deep pitchy-brown rounded or subcompressed smoothish distichously dichotomous, Branches fastigiate black above, Apothecia plano-convex blackish-brown somew. marginated entire and toothed
15659 Thallus glabrous chesnut-brown round. angular pitted and subcompressed naked, Branches and branchl. divaricated flexuose aculeated, Apothecia reddish-brown : the circumference somewhat toothed
β Thallus glabrous chesnut-colored plano-compressed somewhat pitted with the margins denticulate, Branches and branchlets short patent attenuated, Apothecia spinose-radiate reddish-brown
15660 Thallus black rounded capill. suberect branched, Branches fine short. scatter pat : extrem. curved grey.
15661 Thallus glabrous pale yellowish-white roundish suberect branched, Branches short attenuated blackish at the points, Apothecia brownish pale in the circumference



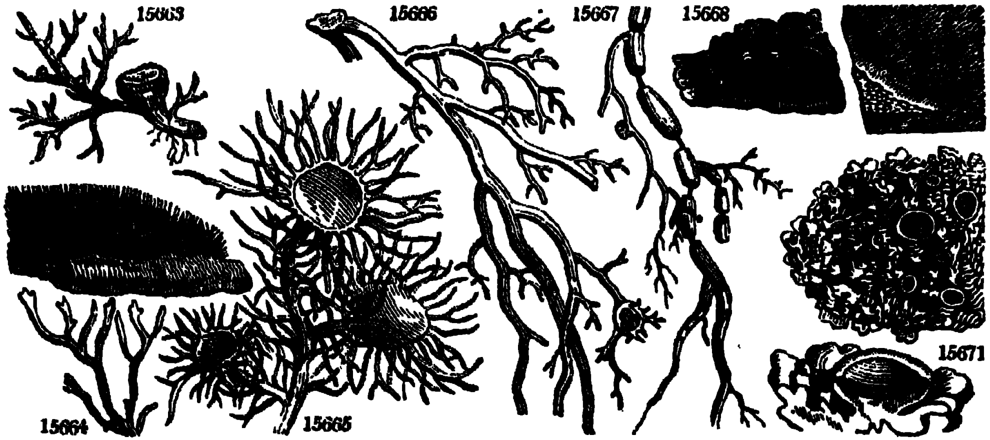
and Miscellaneous Particulars.

2354. ***Alectoria***, seems to derive its name from αλεκτος, unmarried, because nothing has been made out respecting the male flowers. A. usneoides is a species which grow on trees in warm countries, such as Asia, Africa, and America, hanging down in branches from six to eighteen inches long : it was used by the Arabian physicians as a cordial, and also for the purpose of procuring sleep. A. jubata occasionally supplies the rein-deer with food ; for which purpose the Laplanders cut down the trees, that the Lichen may be devoured from the topmost branches.

2355. *Ramalina*. This name does not appear to have any obvious meaning. The species are little bushy tufts generally covered with soredia. They are found in all parts of the world upon trees and rocks ; but chiefly upon the former.

2356. *Cornicularia*. So called in allusion to the multitude of little horn-like divisions into which the thallus is divided. Crustaceous branched tufts, with a solid axis.

15662 lanáta *Ach.*	woolly	shrubby	¼	all sea.	Gr.Bl	rocks	Eng. bot. t. 846
15663 pubéscens *Ach.*	pubescent	entangl. tufts	3	aut.	Bl	rocks	Eng. bot. t. 2318
15664 heteromálla *E. B.*	variable	rough patch	3	aut.	Bl	bark of trees	Eng. bot. 2246
2357. US'NEA. *Ach.*	Usnea.		*Sp.* 3—10.				
15665 flórida *Ach.*	flowering	erect	2½	wint.	Gsh	old trees	Eng. bot. t. 872
15666 plicáta *Ach.*	plaited	pendulous	4	wint.	Gsh	old trees	Eng. bot. t. 257
β hírta Ach.	*hairy*	nearly erect	2	wint.	Gsh	old trees	Eng. bot. t. 1354
15667 barbáta *Ach.*	bearded	pendulous	4	wint.	Gsh	old trees	Eng. bot. t. 258. f. 2
β articuláta Ach.	*jointed*	pendulous	4	wint.	Gsh	old trees	Eng. bot. t. 258. f. 1
2358. COLLE'MA. *Ach.*	Collema.		*Sp.* 27—41.				
15668 nigrum *Ach.*	black	regular patch	3	wet w.	Bl.G	calcar. rocks	Eng. bot. 1161
15669 cheileum *Ach.*	lipped	round. patch	1½	wet w.	Bl.G	roots of trees	
15670 frágrans *Ach.*	fragrant	small patches	¼	wet w	D.Ol	trun of elms	Eng. bot. 1912
15671 crispum *Ach.*	crisp	round. patch.	¼	wet w.	Gl.	on the grou.	Eng. bot. 834
15672 ténax *Ach.*	tough	lobed tuft	1	wet w.	G	moist places	Eng. bot. 2349
15673 plicátile *Ach.*	plaited	lobed tuft	1	wet w.	Ol.G	wet rocks	Eng. bot. 2348
15674 fluviále *Ach.*	floating	many-parted	¼	wet w.	Br	calcar. rocks	Eng. bot. 2039
15675 melæ'num *Ach.*	blackish	starry	¼	wet w.	Br		
β marginále Ach.	*marginal*	imbric. lobes	1	sum.	G	Highlands	Eng. bot. 1924
15676 fasciculáre *Ach.*	fascicled	roundish	2	aut.wi.	[illegible]	trun. of trees	Eng. bot. 1162
15677 cretáceum *Ach.*	cretaceous	minute dots	1/12	wint.	Br	chalk stones	Eng. bot. 738
15678 corrugátum *Ach.*	wrinkled	small patches	¼	wint.	D.G	rocks, sea co.	Dillenius, t. 19. f. 19
15679 palmátum *Ach.*	palmated	lobed patch	1	spr. su.	Br	sand. ground	Eng. bot. 1635
15680 granulátum *E. B.*	granular	imbric. patch	1½	wet w.	Br	gravel walks	
15681 multipartitum *E.B.*	many-parted	lobed patch	3	sum.	Ol.G	rocks & walls	Eng. bot. 2582
15682 saturninum *Ach.*	dingy	leafy	2	all sea.	Bl.G	trun. of trees	Eng. bot. 1980
15683 Burgéssii *Ach.*	Burgess's	leafy	2	all sea.	Gl.	trun of trees	Eng. bot. 300
15684 nigrescens *Ach.*	blackish	leafy	2	all sea.	D.G	trun of trees	Eng. bot. t. 345
15685 fláccidum *Ach.*	flaccid	leafy smooth	2	all sea	D G	Scotland	Eng. bot. t. 1655
15686 fúrvum *Ach.*	rough	rugose memb.	2	all sea.	D.G	trun of trees	Eng. bot. t. 1757
15687 scotinum *Ach.*	naked	flat patches	1½	sum.	Ol	old walls	
β sinuátum Ach.	*sinuous*	flat patches	1½	sum.	Ol	old walls	Eng. bot. 772



History, Use, Propagation, Culture.

2357. *Usnea.* This word is said to have originated in the Arabic *áchnah* or *áchnân*, which is, according to Golius, the name by which the Arabian physicians designate Lichens in general. Crustaceous branched tufts, usually hanging down from the substances on which they grow.

15662 Thallus decumbent rounded smoothish dichotomous greyish-black, Branches and branchl. flexuose intricate forked at the extremity, Apothecia somew. margined plane: circumference naked and granulated

15663 Thallus decumbent rounded roughish black, Branches intricate capillaceous: the ultimate ones simple, Apothecia of the same color entire in the circumference

15664 Minutely shrubby densely tufted erect entangled cylindrical corymbose black with palish notched tips

15665 Thallus nearly erect roughish greenish-grey with very numerous fine horizontal fibres, Branches patent subsimple, Apothecia plane very broad whitish ciliated: the ciliæ radiating long

15666 Thallus pendulous smooth pale, Branches lax much divided subfibrillose: the ultimate ones capillaceous, Apothecia plane broad ciliated, Ciliæ slender very long

β Thallus nearly erect somewhat shrubby pale greenish-white very much branched subpulverulent and roughish, Branches very much divided flexuose intricate attenuated subfibrillose

15667 Thallus pendulous smoothish rounded thickish pale greenish-grey, Branches divergent here and there fibrillose capillary at their extremity articulated below

β Thallus glabrous greenish-grey glabrous, Branches elongate dichotomously divided articulated, Articulations swelling distinct: ultimate branches capillary fibrillose

† *Thallus crust-like, irregular, or uniform.* PLACYNTHIUM.

15668 Thallus crustaceous roundish brown-black: lobes of the circumference cut crenate; central granular a little branched, Apothecia becoming convex black-edged

†† *Thallus imbricated, plaited, roundish, composed of minute lobes, becoming very turgid when wet.* ENCHYLIUM.

15669 Thallus suborbicular imbricated: lobes thick; all minute rounded crenulated ascending, Apothecia nearly plane aggregated of the same color as the thallus: the margin crenulated subevanescent

15670 Thallus roundish: lobes rounded expanded naked thickened at edge crenate ascending, Apothecia scattered minute concave dull yellow-brown: exterior margin tumid and unequal

15671 Suborbicular: the central lobes somewhat erect granulated; those of circumference depressed larger obt crenulate, Fructification scattered rather concave reddish with a granulated margin

15672 Suborbicular imbricated: lobes thickish flat incumbent roundish cut lobed and crenulate, Apothecia scattered immersed in the lobes and concave rufous with an entire edge

15673 Suborbicular imbricated: lobes all thick rounded lobed plaited in circles wavy suberect entire, Apothecia scattered concave whole-colored

15674 Thallus cushion-like formed of thick close blunt complicated lobes, Apothecia somew. marginal roundish whole-colored: disk urceolate with a double edge

15675 Thallus orbicular somewhat stellated imbricated: lobes cut and laciniated; margins elevat waved crisp. and crenulated, Apothecia marginal nearly plane of same color as thallus: their margin granulated

β Lobes of the thallus deeply laciniated narrow multifid spreading flexuose nearly plane crenate and lobed, Apothecia marginal and scattered dark-brown their margin entire

15676 Thallus suborbicular imbricato-plicate: plaits central erect flexuose, Lobes of the circumference rounded inciso-crenate, Apothecia marginal turbinate fasciculate: disk rather convex reddish

15677 Thallus lobed starry dark green, Apothecium central elevated brownish pink with a paler entire margin

15678 Thallus thick dark-green with elevated intestine-like convolutions

††† *Thallus somewhat foliaceous irregular, formed of naked, expanded, thick, turgid, naked lobes.* SCYTINIUM.

15679 Thallus subfoliaceous green-brown-glaucous: lobes thick close palmate cut; segments somewhat linear round, Apothecia rufous brown

15680 Leafy gelatinous fleshy granulated on both sides of a blackish-olive color, its lobes crowded rounded plaited crisp and cut, Apothecia scattered dark brown

15681 Frond radiating fleshy: segments repeatedly forked fan-shaped crenate convex above concave beneath, Shields prominent at length blackish and flat

†††† *Thallus foliaceous: lobes rounded, downy or fibrous beneath.* MALLOTIUM

15682 Thallus foliaceous blackish-green glaucous and downy beneath, Lobes rounded waved entire, Apothecia scattered elevated plane reddish: their margin entire

15683 Thallus foliaceous somew imbricated glauc greenish-brown pubescent and somew. spongy beneath, Lobes rounded sinuated crenulat. and crisped, Apoth. depressed planish brown: their margin foliaceous crisped

††††† *Thallus foliaceous: lobes somewhat membranous, lax, naked, dark-green.* LATHAGRIUM.

15684 Thallus foliaceous membranous submono-phyllous orbicular depressed plaited rounded and lobed black-green, Apothecia central crowded at length convex reddish brown their margin entire

15685 Thallus foliaceous membranaceous smooth blackish-green: lobes distinct rounded entire lax waved, Apothecia scattered nearly plane reddish: their margin thin entire

15686 Thallus foliaceous membranaceous somew wrinkled complicate blackish-green granulated on both sides: lobes round. unequal waved and crisp. ent Apoth. scattered plane dark-brown: their margin entire

15687 Thallus foliaceous membr imbr. naked black: lobes small roundish cut nearly entire suberect plaited, Apoth. scattered sessile whole-colored with an entire edge

β Lobes sinuate cut crisp toothletted

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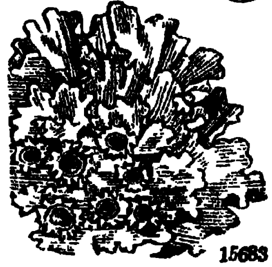
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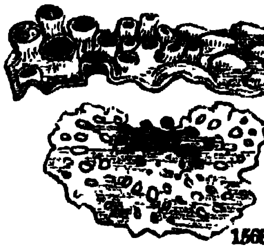
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and Miscellaneous Particulars.

2358. *Collema.* A Greek word signifying a glutinous substance. All the species are gelatinous, and are supposed by Fries to be Algæ in a Licheniform state. Nostoc cæruleum has been positively stated to be convertible into Collema limosum.

15688 tremelloídes *Ach.*	tremella-like	half transpar.	1	spring	Lead	rocks	Eng. bot. t. 1981
15689 lácerum *Ach.*	lacerated	half transpar.	1½	spring	Gl.	earth	Eng. bot. t. 1982
15690 súbtile *Ach.*	subtle	starry	1½	sum.	D.G	earth	Eng. bot. t. 1008
15691 tenuíssimum *Ach.*	very fine	flat patch	2	jul. au.	D.Ol	dry banks	Eng. bot. 1427
15692 Schradéri *Ach.*	Schrader's	small tufts	½	june	Y.G	old walls	Eng. bot. 2284
15693 muscícola *Ach.*	moss-covering	cushion-like	¼	spring	Br	among moss	Eng. bot. 2264
15694 spongiósum *Ach.*	spongy	large fruit	3	all sea.	Ol.Br	rocks	Eng. bot. 1374

ATHALAMI.

2359. LEPRA'RIA. *Ach.* Lepraria. *Sp* 4—13.

15695 chlorína *Ach.*	brimstone	cushion-like	2	wint.	Sul.	rocks	Eng. bot. 2038
15696 fláva *Ach.*	yellow	thin coat	2	wint.	Bt.Y	old pales	Eng. bot. 1350
15697 ochrácea *E. B.*	ochre-colored	scatter. warts	½	wint.	G.Y	old trees	Eng. bot. 2408
15698 viréscens *E. B.*	greenish	granular	¼	wint.	Y.G	elm trees	Eng. bot. 2149

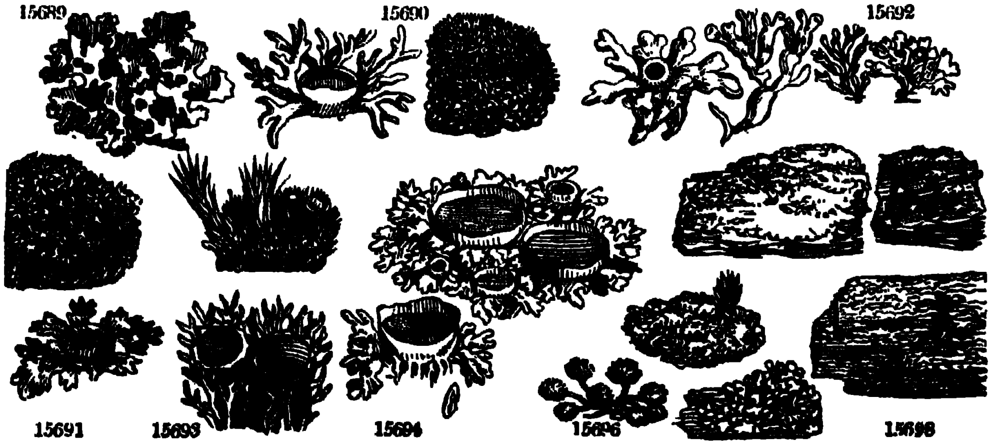
PSEUDO-LICHENES.

2360. OPE'GRAPHA. *Ach.* Opegrapha. *Sp.* 10—35.

15699 nimbósa *Ach.*	cloudy	variegated	1½	all sea.	Pa.Y	old trees	Eng. bot. 2346
15700 venósa *E. B.*	veiny	flat patch	1½	all sea.	pa.Oc.	beeches	Eng. bot. 2454
15701 Persoónii *Ach.*	Persoon's	tartareous	2	all sea.	Wsh	stones	
β apórea Ach.	*rough*	leprous	2	all sea.	Wsh	slate & stones	
15702 calcárea *Ach.*	limestone	angular dots	½	all sea.	Bl	mort., old w.	Eng. bot. 1790
15703 maculáris *Ach.*	spotted	largish spots	½	all sea.	Brsh	bark of trees	E. bot. 2282. *O. epiphega*
15704 herpética *Ach.*	eruptive	dotted crust	1	all sea.	Pa.Ol	bark of trees	Eng. bot. 1789
β disparáta Ach.	*reddish*	mealy crust	1	all sea.	Pa.Ol	bark of trees	E. bot. 2347. *O. rubella*
15705 vulgáta *Ach*	common	scaly	1½	all sea.	G.W	bark of trees	Eng. bot. 1811
15706 epipásta *Ach.*	dotted	smooth skin	3	all sea.	Gr	smooth bark	Eng. bot. 1828
β microscópica Ach.	*microscopical*	smooth skin	3	all sea.	Ol	smooth bark	Eng. bot. 1911
15707 stenocárpa *Ach.*	narrow-fruited	smooth patch.	1½	all sea.	Ol	smooth bark	
β denigráta Ach.	*black*	smooth patch.	1½	all sea.	Pa.G	smooth bark	Eng. bot. 1753
15708 nótha *Ach.*	spurious	dotted crust	3	all sea.	Wsh	old trees	Eng. bot. 1896
β diáphora Ach.	*various-fruited*	dotted crust	3	all sea.	Gr	trun. of trees	Eng. bot. 2280

2361. VERRUCA'RIA. *Ach.* Verrucaria. *Sp.* 11—56.

15709 maúra *Ach.*	blackamoor	cracked crust	2	aut.	Bl	rocks	Eng. bot. t. 2456



History, Use, Propagation, Culture,

2359. *Lepraria.* Because the plants upon which these substances grow have the appearance of being diseased with leprosy.

2360. *Opegrapha.* From οπη, a chink, and γραφω, to write. The shields or apothecia are cracks upon the surface of the thallus resembling Hebrew or oriental characters upon a pale ground.

††††† *Thallus foliaceous: lobes rounded, membranous, thin, naked, cinereous, glaucous, somewhat transparent. Apothecia slightly stalked.* LEPTOGIUM.

15688 Thallus foliaceous membranaceous thin subdiaphanous lead-color obsoletely rugose and dotted: lobes rounded somewhat cut, Apothecia scattered subpedicellate plane reddish-brown: their margin pale
15689 Thallus nearly erect foliac. membr. subdiaphan. subrugose with obscure reticulations glauc.: lobes small subimbr. cut and laciniat. and somew. fringed, Apoth. scattered rather concave red: their margins pale

††††††† *Thallus very finely laciniated and branchletted.*

15690 Thallus substellate: the segments very narrow linear appressed very much branched obtuse, Apothecia central nearly plane of the same color as the crust: their margin thin entire
15691 Thallus subimbricated: segm. minute linear multifid unequal granular acute much clustered, Apothecia scattered fleshy rufous margined
15692 Thallus subcæspitose: segm. linear flat irregularly subdivided rugose obtuse; margins repand obsoletely crenated, Apothecia scattered of the same color
15693 Thallus pulvinate brown, Branches rounded nearly erect flexuose uneven subfastigiate rather obtuse, Apothecia nearly terminal plane brown margined
15694 Thallus dull-green: segm. aggregate branched granular cylindrical obtuse, Apothecia scattered concave brown: externally spongy and pale with an erect thin margin

ATHALAMI.

15695 Crust thick pulvin. bright sulphur-color composed of a dust-like substance collect. into somew. hairy glob.
15696 Crust spreading equal thin somewhat cracked bright-yellow composed of subglobose granules
15697 Crust not discernible, Fructification of an ochrey-yellow collected into thin scattered patches
15698 Crustac. granulated continuous somewhat gelatin.: greyish dull-green when dry; bright-green when wet

PSEUDO-LICHENES.

† *Disk of apothecia very narrow, crack-like, somewhat covered in by the conniving tumid margins.* HYSTERINA.

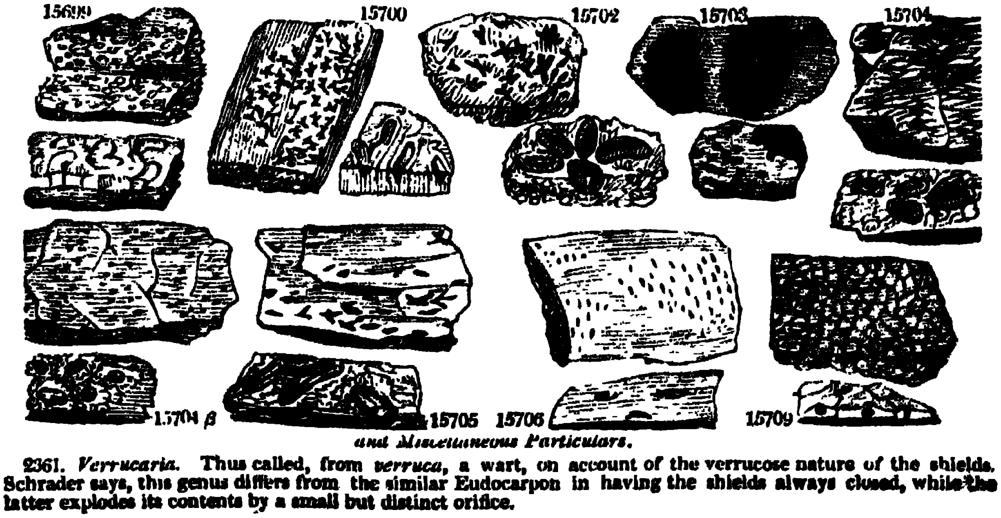
15699 Crust somew. cracked unequal very white, Apothecia clustered minute oval-oblong turgid: disk closed
15700 Crust tartareous determined reddish-white, Clefts immersed convex without any elevated border repeatedly branched curved parallel and equidistant
15701 Crust tartareous smoothish cohering uneven whitish, Apothecia innate oblong: disk resembling a cleft, at length rugose waved plaited dissimilar rather confluent with the disk irregular somewhat dehiscent
β Crust tartareous or leprose uneven pulverulent, Apothecia roundish dissimilar waved plaited tortuose and variously expanded in the disk
15702 Crust tartareous powdery very white, Apothecia longish straight swelling opaque collected in a stellate manner: disk like a crack
15703 Crust very thin brownish-black, Apothecia minute much crowded roundish elliptical, at length rugose irregular: disk very narrow
15704 Crust somewhat membranous very finely cracked rugose roughish cinereous-brown, Apothecia minute innate clustered convex elliptical oblong straight with a crack-like disk
β Crust membranous smoothish pale-olive or green and rufous-brown, Apothecia variable roundish oblong straight and curved
15705 Crust between cartilaginous and membranaceous somewhat scaly smoothish greyish-white, Apothecia sessile long or roundish waved somewhat shining with the disk very narrow
15706 Crust very thin of a regular figure polished cinereous, Apothecia innate minute convex rugulose opaque various: smaller dot-like; longer very slender flexuose somewhat branched
β Crust very thin shin. pale-olive, Apothecia subellipt. simp. somew. parallel becoming stellate and angular
15707 Crust membranous polished somewhat bordered whitish, Apothecia sessile various: the smaller globose or oblong; larger very long narrow roundish flexuose
β Crust regular membranous whitish, Apothecia sessile close together somewhat shining longish flexuose simple and branched: disk somewhat channelled

†† *Disk of apothecia concave, channelled, or flat, appearing between the separated margins.* ALYXORIA.

15708 Crust cartilagin. lep. white, Apothecia scatter. sess. round. and oval deform.: disk flat becoming convex
β Crust cartilaginous membranous dirty-white ash-color, Apothecia variable sessile oblong and tapering at each end opaque: disk flat

††† *Thallus cartilaginous, membranous, contiguous, polished.* LICOPHLEA.

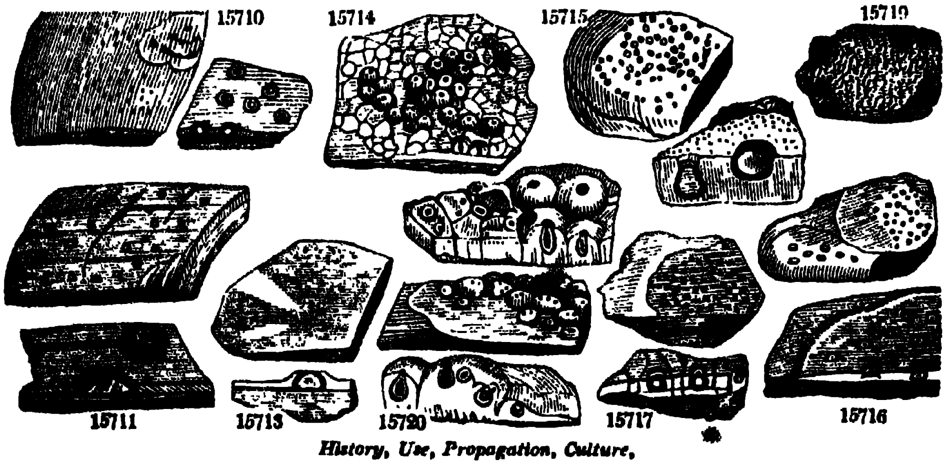
15709 Crust very thin smooth much cracked very black, Apothecia very minute subglobose immersed: the extremity prominent umbilicated; nucleus blackish



and Miscellaneous Particulars.

2361. *Verrucaria.* Thus called, from *verruca*, a wart, on account of the verrucose nature of the shields. Schrader says, this genus differs from the similar Eudocarpon in having the shields always closed, while the latter explodes its contents by a small but distinct orifice.

15710 punctifórmis *Ach.*	dot-like	thin coat	2	all sea.	Br	sm. ash bark	Eng. bot. 2412
15711 analépta *Ach.*	little-dotted	thin coat	3	all sea.	Br	sm. oak bark	Eng. bot. 1848
15712 epidérmidis *Ach.*	Epidermis	thin coat	1	all sea.	W	birch bark	
15713 stigmatélla *Ach.*	cinoreous	thin coat	3	all sea.	Pa.Br	smooth bark	Eng. bot. 1891
15714 ceuthocárpa *Ach.*	cracked	tessellated	4	all sea.	Pa.Ol	slate rocks	Eng. bot. 2372
15715 Schradéri *Ach.*	Schrader's	dotted crust	4	all sea.	Wsh	calca. stones	Eng. bot. 1711
15716 Harrimánni *Ach.*	Harrimann's	small patches	1	all sea.	Br.Ol	hard rocks	Eng. bot. 2539
15717 plúmbea *Ach.*	lead-colored	lobed patches	1½	all sea.	Ol	limest. rocks	Eng. bot. 2540
15718 striátula *Ach.*	striated	cloudy spots	½	all sea.	Pa.G	flints	
β acrotélla Ach.	*dingy*	cloudy spots	½	all sea.	Pa.G	flints	Eng. bot. 1712
15719 epigéa *Ach.*	ground	mealy tessell.	1½	all sea.	G	dry banks	E. b. 1681. *L. terrestris*
2362. PORI'NA. *Ach.*	PORINA.		*Sp.* 1—19.				
15720 pertusa *Ach.*	bored	crust	½	aut.	Cin.	bark of trees	Eng. bot. 677
2363. ARTHO'NIA. *Ach.*	ARTHONIA.		*Sp.* 4—14.				
15721 impolita *E. B.*	dull	spotted patch.	½	all sea.	Rsh	trun. of trees	Eng. bot. 981
15722 Swartziána *Ach.*	Swartz's	cracked crust	1½	all sea.	Wsh	smooth bark	Eng. bot. 2079
15723 astroídea *Ach.*	astroid	membranous	½	all sea.	Cin.	smooth bark	Eng. bot. 1847
15724 obscúra *Ach.*	obscure	warty	3	all sea.	D.Ol	bar. of old tr.	Eng. bot. 1752
15725 lýncea *Ach.*	speckled	broad masses	3	all sea.	Wsh	bar. of old tr.	Eng. bot. 809
2364. GRA'PHIS. *Ach.*	GRAPHIS.		*Sp.* 5—16.				
15726 scripta *Ach.*	written	shining crust	1½	all sea.	Grsh	smooth bark	Eng. bot. 1813
β pulverulénta Ach.	*powdery*	thin crust	2	all sea.	P.	trees	Eng. bot. 1754
γ Cérasi Ach.	*Cherry-tree*	thin crust	3	all sea.	Y	old cher. tre.	Eng. bot. 2301
15727 dendritica *Ach.*	Tree-like	smooth patch.	1½	all sea.	Y	smooth bark	Eng. bot. 1756
15728 serpentina *Ach.*	serpentine	even crust	3	all sea.	Pa.Ol	smooth bark	Eng. bot. 1755
15729 Lyéllii *Ach.*	Lyell's	cracked crust	4	all sea.	Pa.Ol	rugged bark	Eng. bot. 1876
15730 élegans *Ach.*	elegant	uneven crust	3	all sea.	Pa.Y	smooth bark	Eng. bot. 1812



History, Use, Propagation, Culture,

2362. *Porina.* From πωρινος, any thing that crumbles away, a name applied in consequence of the nature of the crust of these plants, which, indeed, is common to them with other Lichens.

2363. *Arthonia.* A name, the meaning of which is unexplained. The species are similar in habit to Spiloma and Opegrapha.

15710 Crust very thin determined polished brown. Apothecia min. hemisph. glob. without orifices: kernel white
15711 Crust membranous determined shining somewhat olive-colored, Apothecia subsessile scattered hemispherical conoid papillose: kernel compressed somewhat membranous white
15712 Crust exceedingly thin spreading quite white, Fructification minute roundish subelliptical, Tubercles semi-immersed: the interor white
15713 Crust thin cartilaginous membranous polished becoming cracked whitish, Apothecia minute hemispherical clustered subconfluent with scarcely any orifice

†† *Thallus nearly solid, somewhat gelatinous.* **Blennorina.**

15714 Crust somewhat gelatinous roundish broken dark creuate cut radiated in the circumference, Apothecia subglobose immersed papillose at end

††† *Thallus subtartareous, crustaceous, contiguous, cracked into areolæ, or powdery.* **Lithocia.**

15715 Crust tartar. contig. whitish, Apothecia minute clustered immersed subglobose dirty transparent inside
15716 Crust tartareous contiguous bordered finely dotted mouse-color, Apothecia minute subglobose immersed with a prominent papilla: dirty-white inside
15717 Crust tartareous contiguous finely cracked subrugose lead-color, Apothecia subglobose innate finely becoming depressed and scutelliform
15718 Crust with the figure of a tree greenish-black bordered, Areolæ nearly separate somewhat branched radiating, Apothecia conoid becoming concave above
β Areolæ of the crust dispersed deformed brownish-black

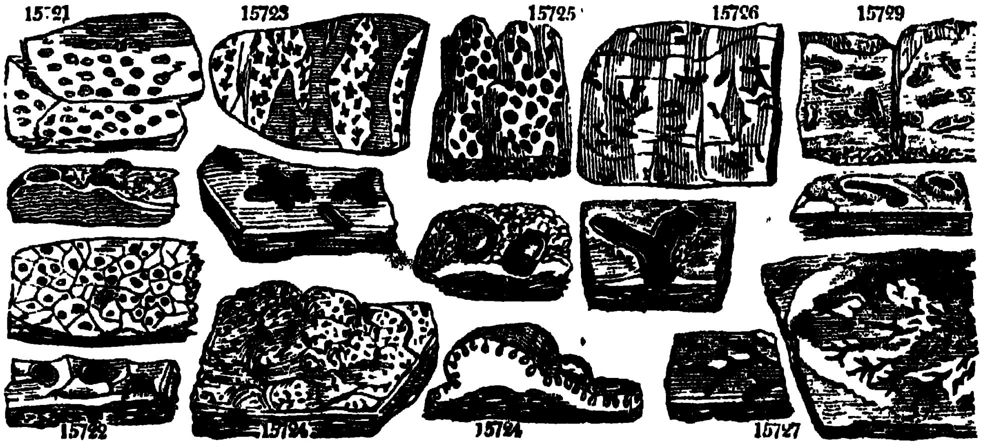
†††† *Thallus soft, cottony, somewhat spongy, or thin and arachnoid.* **Inoderma.**

15719 Thallus thin somew. fibrous uneq. pale-yell. Apothecia minute globose immersed with a prominent orifice

15720 Crust equal polished whitish ash-colored, Warts of apothecia subglobose, Orifices several depressed black

15721 Crust white powdery and cracked, Tubercles numerous depressed oblong irregular obtuse yellowish-brown clothed with deciduous mealiness
15722 Crust cartilagin. membr. white, Apoth. sess. broad. tum. round. rep. irreg. and confl. dark with elevat dots
15723 Crust membr. pale cinereous and glaucescent, Apoth. flatten. upon the crust plane angular substell. black
15724 Crust membr. somew. olive-col. Apoth. min. flat concav. somew. membr. oval-ellipt. and renif. wrink dark
15725 Crust thin subtartareous equal somewhat cracked white, Apoth. clustered flat somewhat immersed round oblong and curved black cæsious

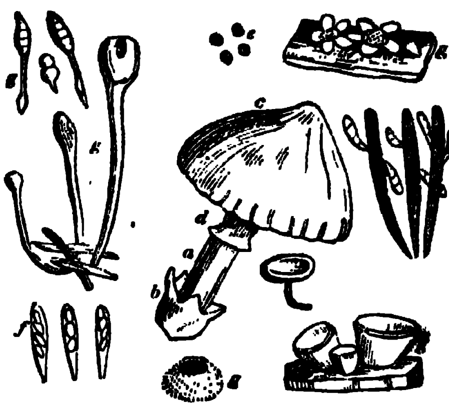
15726 Crust membranac. smooth somew. shining white or greyish-brown bordered with black, Apothecia half immersed naked flexu. simple or branch.: disk very narr. marg. formed of the thallus raised membranac.
β Crust effuse membr. whitish, Apoth. emerging flexuose with a channelled dehiscent cæsious disk with an elevated tumid margin
γ Crust very thin hoary glaucous shining, Apothecia emerging straight long nearly simple acuminate somewhat parallel: disk channelled
15727 Crust somewhat cartilaginous unequal very white, Apothecia immersed flexuose branched black: branches divergent forked acute, Disk broad flat naked
15728 Crust cartilaginous membranous unequal rugulose of a regular figure white and cinereous, Apothecia immersed long clustered flexuose nearly simple and branched
15729 Crust membranous polished pale-olive, Apothecia clustered nearly simple curved turgid obtuse: disk broad convex cinereous pruinose with a thick powdery white margin
15730 Crust orbicular granular smooth white, Apothecia immersed scattered short straight nearly simple: margin of the perithecium with a longitudinal furrow



and Miscellaneous Particulars.

2364 *Graphis.* From γραφω, to write. The apothecia are extremely similar in form to the characters of some strange language. It is very near Opegrapha from which it does not at all differ in habit.

Order 9 FUNGI.



Reproductive organs uniform. Sporules (e) arranged in tubular cells (f) placed in some parts of the external surface. Substance various (g), mostly thick and fleshy, sometimes vesicular. Frond none

In speaking of the eighth order, Lichens, it has been observed, that they, Algæ and Fungi, might be considered collateral. But perhaps Fungi should be estimated as still lower in the scale of creation than Lichens. From some passages in the writings of a celebrated Swedish author upon Fungi, Mr Fries, whose mode of arrangement is almost entirely adopted here, it would seem as if he considered the three orders to consist of the same beings altered by the material on which they grow, and organized according to the different elements upon which they depend for support. Algæ, he observes, which are much extended in their native element, water, when exposed to the air, contract and become Lichens. Thus Nostoc muscorum becomes Collema limosum, &c.; and Sir James Smith has even decided, that Lichina pygmæa when growing under water is an Alga, and when above water a Lichen. But the differences between Fungi and Algæ, or Lichens, are greater, and arise out of their essence; that of Fungi being always reproductive, of Algæ primitive. In Algæ, the thallus is the most essential part, and the reproductive organs of secondary importance; in Fungi, the whole plant is generally a mass of reproductive matter, and the thallus always accidental. Fungi always grow upon dead vegetable matter; Lichens always upon living vegetation. The bark which, when living, bears Lichens, produces Fungi as soon as it begins to decay: and even on the same half-dead branch, the living side will be found occupied by Lichens, and the dead by minute Fungi. The lowest Fungi are considered by Fries, to bear the same relation to plants as Entozoa to animals; for which reason, he is of opinion, that all infusorial plants are Fungi, and not Algæ. But this may be doubted. The number of Fungi which may be conceived to exist is incalculable. Multitudes have been discovered by the researches of modern observers, and multitudes still remain to be detected, especially in extra-European countries. In Sweden, in the small space of a square furlong, where the number of Phænogamous plants was 420, and of Lichens and Algæ 430, Fries discovered more than 2000 species of Fungi.

The most celebrated writers on Fungi are Micheli, Schæffer, Bulliard, Bolton, Sowerby, and Greville, for figures; and Persoon, Link, Nees von Esenbeck, Fries, and Greville, as systematists.

Link defines the essence of a Fungus to be sporules disposed in a series, in elongated tubular cells; the cells situated in some part of the external surface. The part in which the reproductive organs are placed is called the *hymenium* (a), the hollow base from which the stem or *stipes* (a) arises is named the *volva* (b) or *wrapper*; the upper part is the cap or *pileus* (c), which is provided on the inferior surface with thin radiating expansions, which are termed gills or *lamellæ*, among which the sporules are situated. Many Agarics have a delicate fringe connecting the margin of the pileus at a certain age with the stem; this is called the veil (d), and is either general (*universale*), when adnate with the surface of the pileus, but becoming obsolete with age; or it is partial when it extends only from the margin of the pileus to the stipes. The *annulus* (d) is a kind of veil, which is sometimes fixed to the stem, at others free and capable of being moved upwards and downwards. The Peridium, Perithecium, or Perisporium, are different names for the envelope immediately enwrapping the sporules.

Tribe I. HYMENOMYCETES

Hymenium naked.

Class I. Hymenini v. Agaricinæ.

Hymenium distinct. Receptacle long or expanded, superior.

Division I. *Pileati.*

Receptacle dilated, occasionally branched, having a tendency to an orbicular form. Hymenium inferior. Asci fixed.

2365. *Agaricus* Hymenium in lamellæ. Lamellæ simple, parallel.

* *Stem central, with a veil. Gills unchangeable. Sporidia white.*

1. *Amanita.* Veil double, universal separate, partial annular somewhat persistent.
2. *Lepiota.* Veil simple, universal, concrete, annular, somewhat persistent.

Observations

Tribe I. *Hymenomycetes.* This tribe is readily distinguished from the others by its hymenium containing sporules within the surface, and not naked; from the *Pyrenomycetes* by the want of a perithecium and a reproductive nucleus; from *Gastromycetes* by the want of a peridium inclosing the sporules, which constitute the mass of the fungus, and from the *Hyphomycetes* and *Coniomycetes* by the sporidia not being exposed.

Division I. *Pileati.* This constitutes the most extensive division in Fungi, and includes almost every thing which was known to the ancients. Dioscorides mentions one or two species distinctly, comprehending the remainder among his eatable and unwholesome kinds. Pliny talks of the very numerous kinds of fungi, but describes very few. C. Bauhin knew about sixty, which he chiefly obtained from Clusius; Tournefort had two genera and eighty-seven species; Micheli six genera and about 800 species; Linnæus three genera and fifty species; Persoon, in his Synopsis, mentions nine genera and 683 species; finally, Fries describes more than a 1000 species arranged under many genera and subgenera.

The species are widely scattered over all Europe, but the extra European fungi, with the exception of those

§ 3. *Armillaria.* Veil simple, partial, separate, annular, somewhat persistent.
§ 4. *Limacium.* Veil very fugacious, viscid. Lamellæ adnate, decurrent.
§ 5. *Tricholoma.* Veil very fugacious, flocculose, marginal. Lamellæ emarginate or rounded.

** *Stem central, naked. Gills unchangeable. Sporidia white.*

§ 6. *Russula.* Pileus fleshy, becoming depressed. Lamellæ equal, juiceless.
§ 7. *Galorrheus.* Pileus fleshy, becoming depressed. Lamellæ unequal, milky.
§ 8. *Clitocybe.* Pileus fleshy, when young convex. Lamellæ unequal, juiceless.
§ 9. *Collybia.* Pileus fleshy-membranous, flattish. *Small, dry.*
§ 10. *Mycena.* Pileus membranous, campanulate. *Slender. Stipes hollow.*
§ 11. *Omphalia.* Pileus membranous or fleshy-membranous, when young umbilicated.

*** *Stem out of the centre, none. Gills unchangeable. Sporidia white.*

§ 12. *Pleurotus.* Pileus out of the centre or lateral.

**** *Stem always central. Veil O. Gills changing color. Sporidia rose-colored.*

§ 13. *Mouceron.* Pileus fleshy, becoming depressed. Lamellæ long, decurrent. *Odor of new flour.*
§ 14. *Clitopilus.* Pileus fleshy, convex.
§ 15. *Leptonia.* Pileus fleshy, membranous, from convex becoming plane. *Small.*
§ 16. *Nolanea.* Pileus membranous, campanulate. *Slender. Stipes hollow.*
§ 17. *Eccilia.* Pileus umbilicate. *Lamellæ adnate.*

***** *Stem always central. Veil like cobweb. Gills changing color, becoming dry. Sporidia ochre-colored.*

§ 18. *Telamonia.* Veil annular, woven, somewhat persistent. Lamellæ distant.
§ 19. *Inoloma.* Veil fugacious. Lamellæ emarginate. Stipes bulbous. *Color something of violet.*
§ 20. *Dermocybe.* Veil fugacious. Lamellæ closely packed. Stipes equal.

****** *Veil distinct, not like a cobweb. Gills discolored, somewhat persistent. Sporidia ferruginous.*

§ 21. *Pholiota.* Veil dry, annular.
§ 22. *Myxacium.* Veil viscid, fugacious. Lamellæ affixed.
§ 23. *Hebeloma.* Veil marginal, fugacious. Lamellæ emarginate.

******* *Veil very fugacious or spurious, not like a cobweb. Gills discolored, somewhat persistent. Sporidia ferruginous.*

§ 24. *Flammula.* Pileus fleshy, convex, smooth, somewhat viscid. *Lamellæ not emarginate.*
§ 25. *Inocybe.* Veil formed of the longitudinal fibres of the fleshy convex pileus. *Lamellæ whitish.*
§ 26. *Naucoria.* Pileus fleshy, membranous, flattish, squamulose. *Small. Lamellæ cinnamon-colored.*
§ 27. *Galera.* Pileus membranous, campanulate. *Slender. Stipes hollow.*
§ 28. *Tapinea.* Pileus umbilicate, villous at edge.
§ 29. *Crepidotus.* Pileus out of the centre or sessile.

******** *Veil present, not unlike a cobweb. Gills becoming discolored, cloudy, dissolving. Sporidia brownish-purple.*

§ 30. *Volvaria.* Veil universal, separate. *A volva.*
§ 31. *Psalliota.* Veil annular.
§ 32. *Hypholoma.* Veil marginal, fugacious. Lamellæ emarginate. *Stipes bulbous.*
§ 33. *Psilocybe.* Veil very fugacious. Pileus somewhat fleshy, and stipes equal, tenacious.
§ 34. *Psatyra.* Pileus somewhat membranous, and stipes brittle.
§ 35. *Coprinarius.* Lamellæ with a tendency to deliquesce. Veil partial. *Sporidia black.*

2366. *Coprinus.* Hymenium in lamellæ, which finally become deliquescent. Asci separate with sporidia in four rows.

2367. *Gomphus.* Hymenium in lamellæ, which are long branched and decurrent. Pileus turbinate, umbonate.

2368. *Cantharellus.* Hymenium veined. Veins dichotomous, subparallel, sometimes anastomosing.

2369. *Merulius.* Hymenium veined. Veins flexuose, or forming very irregular pores. Plants sessile, resupinate or effused.

2370. *Schizophyllum.* Hymenium in lamellæ. Lamellæ bifid, lengthwise revolute.

2371. *Dædalea.* Hymenium sinuous, composed of anastomosing lamellæ or flexuose elongated pores.

2372. *Polyporus.* Hymenium porous, not separable from the substance of the pileus nor the pores from each other. Pores sometimes lacerating in age. Pileus very rarely with a central stipes.

§ 1. *Favolus.* Pores ample, with four or six angles resembling an honeycomb.
§ 2. *Microporus.* Pores minute, roundish.
§ 3. *Polysticta.* Dots superficial only.

2373. *Boletus.* Hymenium tubular. Tubes separable from the pileus and from each other. Pileus always with a central stipes.

2374. *Fistulina.* Hymenium tubular. Tubes loose, the young ones closed.

2375. *Hydnum.* Hymenium subulate. Subulæ loose.

2376. *Sistotrema.* Pileus carnose, irregularly stipitate. Hymenium composed of dentate, interrupted lamellæ.

2377. *Phlebia.* Hymenium rugose, formed of long or confluent papillæ.

2378. *Thelephora.* Plant with very few exceptions more or less adnate, thin, coriaceous, very rarely infundibuliform. Hymenium covering the outer surface.

2. *Phylacteria.* Sporidia four in a row. *Resupinate and growing on the earth.*

3. *Himantia.* Effuse resupinate, when young byssoid. Sporidia few, innate in the hymenium, which is smooth and naked in the middle.

4. *Leiostroma.* Resupinate, somewhat contiguous, smooth, or with spurious papillæ. Asci none.

Observations.

on the coasts of Barbary, and a few from North America, are almost universally distinct from the European kinds. They are found growing on the earth, or in decayed wood, or similar substances; never upon rocks. Those which have been described as natives of vaults and places underground, are believed to be mere monstrous formations. They are in greatest perfection in warm rainy weather, being chiefly the creations of summer and autumn; a few only appear in the spring, and scarcely any in the winter. The duration of the pileate fungi is often only ephemeral; some last from a week to a fortnight; and a few for a longer time. The Dædaleæ and Polypori are often called perennial, but it is the opinion of Fries, that their substance decays, and is only covered yearly by a fresh layer of pores. The roots of many of those which grow upon trees is perennial; of others merely annual.

When crude they are mostly poisonous, with a mucilaginous taste, which is often acrid, but they become less dangerous by cooking. The dangerous qualities of some of the kinds is attributable to the larvæ with which they are infested.

Division II. *Clavati.*

Receptacle long, simple, or branched, with a tendency to a cylindrical form, not margined. Hymenium superior. Asci fixed.

* *Hymenium occupying the whole surface. Asci distinct. No distinct stem.*

2379. *Clavaria.* Plant carnose, cylindrical, simple or branched. Hymenium smooth, occupying almost the whole surface, confluent with the stipes.

2380. *Calocera.* Plant branched or simple, cylindrical, homogeneous, corneous, gelatinous, viscid. *Growing on wood.*

** *Hymenium only occupying the end. Asci long. Head separate from stem, simple.*

2381. *Geoglossum.* Hymenium short, club-shaped, mostly compressed, stipitate. Stipes elongated, smooth or hairy. Plants black or dull green.

2382. *Spatularia.* Hymenium club-shaped, separate, compressed, running down the stipes on each side, bearing the asci at the upper end.

2383. *Mitrula.* Hymenium clavate, ovate, closely surrounding at the base the stipes, which is distinct.

*** *Hymenium only occupying the end. Asci obsolete. Head separate from stem.*

2384. *Typhula.* Hymenium thin, subcylindrical, persistent, terminating the capillary stipes.

**** *Hymenium covering the whole surface, but bearing sporules at the end only, without asci.*

2385. *Pistillaria.* Simple, contiguous, linear or clavate. Sporidia emerging at end.

Class II. Uterini v. Elvellaceæ.

Hymenium distinct, superior, margined. Receptacle urceolate or reflexed, always inferior.

Division I. *Mitrati.*

Receptacle pileiform, bullate, never closed. Hymenium neither margined nor discoid.

2386. *Morchella.* Pileus lacunose, confluent with the stipes either at the margin or a little above it. Hymenium occupying the whole outer surface.

2387. *Helvella.* Pileus submembranaceous, irregular, smooth on each surface, deflexed at the sides. Hymenium occupying the whole outer surface.

2388. *Verpa.* Pileus conical-deflexed, equal. Hymenium smooth or rugose.

2389. *Leotia.* Pileus ovate-conical or orbicular, wholly occupied by the hymenium, the margin free, but closely embracing the stipes.

Division II. *Cupulati.*

Receptacle cupulate, equal. Hymenium discoid, when young somewhat closed, surrounded by the margin of the receptacle.

2390. *Peziza* Pileus mostly carnose, sessile or stipitate, more or less cup-shaped at length sometimes plane. Hymenium occupying the disk.

§ 1. *Aleuria.* Fleshy, or fleshy-membranous, pruinose or scurfy with flocculent matter, *Usually on earth.*
§ 2. *Lachnea.* Waxy, hairy or villous externally. *Usually on wood.*
§ 3. *Phialea.* Waxy or membranous, rarely gelatinous, smooth, naked. *On wood.*
§ 4. *Helotium.* Plano-convex. *On wood.*

2391. *Ascobolus.* Pileus carnose, cup-shaped or hemispherical. Sporuliferous cells in the disk, forming prominent points filled with a fluid intermixed with the eight sporules.

Observations.

Division II. *Clavati.* Scarcely any traces of these fungi can be discovered in the writings of the ancients. Clusius described a few. Tournefort confounded them with corals and Lycoperdons. Holmskiold and Persoon are the principal modern writers upon this tribe.

Almost all the species of which there is any certain knowledge are European. The genuine kinds are terrestrial; those which are found upon wood, being transitious to other orders. In vaults or caverns they become unusually developed, and the asci, on account of the excessive supply of moisture, expand and become flocculent. Most are found in the autumn; the branched kinds are often what are termed meteoric, that is to say, spring up suddenly after heavy falls of rain. They seldom last more than fourteen days.

In qualities they are mild, some having a bitter taste, but the greatest number are almost entirely destitute of smell, color, or taste. Many of the large kinds are used in cookery, and are eaten by various herbivorous animals.

Class II. *Uterini.* The natural form of the receptacle is cupulate, but in the most perfect kinds, the cupula is reflexed, and is called a *mitra;* in the least perfect, which are innate in the matrix, the receptacle is almost wholly obliterated. The resupinate Pileati are distinguished from these by their immarginate form, and by their asci.

Division I. *Mitrati.* A small division, apparently wholly unknown to the ancients. The species are almost entirely European; a few are found in North America and Siberia. It is probable, however, from the evidence of Loureiro and others, that some peculiar genera and species exist within the tropics. They are generally fond of a humid shady station. None are found in subterraneous places. If an individual is occasionally produced upon wood, it is upon such as is wholly decayed. Many spring up in the autumn and spring; they are rarely meteoric, but some appear in greater abundance in one kind of season than in another. Most of them last for a fortnight, and retain their form when dry.

Their qualities are generally mild, nutritive, and juiceless; one is said to be bitter. They are little infested by larvæ. Several are used as food.

Division II. *Cupulati.* These are included in the Fungoides of the old botanists. The species which are separate from their thallus and much developed, are little changed by the places in which they grow, and are therefore the same in the most remote countries; but the eruptive or innate species, which are more affected by the nature of the substance by which they are fed, are liable to greater changes when their matrix is altered. For it is a general rule, that the more a fungus is innate in the substance which produces it, the more it is not only imperfect, but affected by its situation, and *vice-versâ.* Hence Cæoma, which is of a very low order, consists of as many species as the plants upon which it grows, just as a vowel forms as many distinct words as it is combined with distinct consonants.

The Clavati and Pileati, which chiefly depend upon the access of light, are in perfection from spring to autumn; the Elvellaceæ from autumn to spring. The Cupulati also depend much upon the operation of light, for in caverns or cellars they remain closed and sphæria-like. Such is the case with Peziza cerina, which in dark places, undergoes many metamorphoses; and Cenangium under similar circumstances, when some obstacle is offered to the developement of its hymenium, becomes deliquescent. Generally the terrestrial sorts agree in habitude with the preceding divisions; but those which are eruptive are often in perfection for half a year together.

Class III. *Tremellini.* These are nearly akin to the Pileati and Clavati, especially to Thelephora and Calocera; and also to Elvellaceæ, more particularly to Hygromitra, Peziza, Mollisia, Bulgaria, and Ditiola, but they are distinguished without difficulty by the characters assigned to them.

Formerly all the genera were confounded under one, along with various species of Lichens and Algæ. These

2392. *Bulgaria.* Cupula closed at first. Asci immersed, with paraphyses, becoming separate and bursting out. *Gelatinous.*

2393. *Ditiola.* Hymenium becoming plaited and deliquescent. Cupula open. Veil universal. *Corky.*

2394. *Cenangium.* Hymenium smooth, persistent, rarely deliquescent. Cupula closed, but opening finally. *Somewhat coriaceous.*

2395. *Stictis.* Hymenium smooth, immersed. Cupula obliterated. *Hymenium persistent.*

2396. *Cryptomyces.* Spreading, quite adnate, emerging, nearly plane, carnose. Hymenium covering the whole surface. Thecæ erect. Sporidia large, oval.

[illegible] III. Tremellini.

Hymenium confounded with a gelatinous receptacle. Sporidia separate. Asci none.

2397. *Tremella.* Receptacle gelatinous homogeneous, fructifying in all directions, without papillæ. Sporidia nearly emerging.

- 1. *Coryne.* Fleshy gelatinous, somewhat clavate.
- 2. *Phyllopta.* Somewhat cartilaginous, expanded, leafy.

2398. *Exidia.* Receptacle gelatinous, homogeneous, covered on the upper surface only by a papillose hymenium. Sporidia emitted with elasticity.

2399. *Dacrymyces.* Receptacle gelatinous, homogeneous, filled with assurgent flocci, and sporidia placed in layers inside. *When young compact, but finally deliquescent.*

2400. *Agyrium.* Receptacle spherical, smooth, compact, waxy, when humid gelatinous, finally crumbling away in sporidia.

2401. *Hymenella.* Recep acle flattened, adnate, smooth, like soft leather, very thin, persistent.

2402. *Næmatelia.* Receptacle gelatinous, surrounding a compact heterogeneous nucleus. Sporidia emerging.

Class IV. Sclerotiaceæ.

Hymenium confounded both with the fleshy receptacle and the sporidia. Asci none.

2403. *Acrospermum.* Elongated, somewhat clavate, with a coat of a similar substance, distinctly fructifying at the end.

2404. *Sclerotium.* Subglobose, or without regular form within, homogeneous, vesiculose, carnose, or corneous. Sporules unknown.

2405. *Rhizoctonia.* Deformed, united with a similar persistent coat by means of root-like fibres proceeding from all points of its surface.

2406. *Periola.* Rootless, fleshy, covered entirely by a villous persistent coat.

2407. *Acinula.* Rootless, smooth, with a distinct farinaceous granular coat.

2408. *Erysiphe.* Sporangium epiphyllous, very minute, globose, furnished with white radiating subjacent filaments, and containing sporuliferous bodies.

Tribe II. GASTEROMYCETES,

Fungus entirely closed, and bearing sporidia in the centre; and so forming an uterus.

Class I. Angiogastres.

Uterus finally bursting forth, separate from the receptacle. Sporidia lodged in the receptacle.

Division I. *Phalloideæ.*

Receptacle separate, open on account of the bursting of the uterus. Sporidia placed in a mucous layer.

2409. *Phallus.* Stipes issuing from a volva. Pileus furnished with large cells filled with a sporuliferous slimy substance.

Observations.

are by modern writers now referred to their proper stations. The genus *Mycoderma* of Persoon, to which are referred those tough skin-like coatings which are found upon vegetable extracts enclosed in bottles, and which is generally placed among Tremellini, is thought by Fries to be not of a vegetable nature.

The species at present known are found in Europe, Asia, and North America, but no material difference seems to be caused in them by their native country. All the species, with one exception, are epiphytes; the most perfect bursting forth from the bark of trees; the least perfect occurring on decorticated wood, the stems of herbs, &c. &c. The more the wood is dried, the nearer the species approach to Lichens; the more it is humid to Algæ. They are in perfection in the latter part of autumn, winter, and early spring, but scarcely any are found in the summer. Some live for a month or more; others appear to be perennial. When dry they are not to be recognized; they may nevertheless be preserved, and if moistened, they recover their original appearance. It must be observed, that they are in all cases to be examined in a wet and tumid state.

Their qualities are refrigerant, and but little known. They are destitute of smell and taste, for which reason, and on account of their mucilaginous texture, scarcely any species is eatable. Many of the large kinds were formerly used in medicine in cases of ophthalmia, under the name of the "Jew's ear." Vinegar in which they had been steeped was also used as a gargle in tumors of the throat, according to Clusius. Tremella fimbriata is said to furnish a dye, and the sporidia of T. mesenterica to dye yellow. Dacrymyces destroys timber.

Class IV. *Sclerotiaceæ.* The affinity of this class is complex; for the lower we descend, the less differences are to be found between natural bodies. Thus Sclerotiacei are not only closely connected with the preceding divisions, but have a more or less obvious relation to all the hymenine and epiphytous classes of other tribes.

Before the time of Tode, a most sagacious observer, who was the first to distinguish the Sclerotia from other fungi, a very few species only were known, which were confounded with Lycoperdon, Sphæria, Tuber, and other genera. He was followed by various other mycologists, and especially by Decandolle, who described thirty-nine species. Tode, Persoon, and Link, have been unable to detect any fructification; Decandolle, Ehrenberg, and Fries, declare that the sporidia are scattered through the whole mass of the fungus, and emerge from it like hoar-frost.

Most of the known species are epiphytes, either upon living or recently dead plants. When growing in cellars and subterraneous places they undergo no alteration, but they do not fructify. They flourish most in the winter, late in the autumn, and early in the spring; and are exceedingly common just at the retreat of winter. A very few Spermodia only are found in the summer. Their odor and smell are either inconspicuous or nauseous. None of the species at least are eatable. Those which grow on rotten seeds are exceedingly poisonous. Some feed on the roots of living plants, which they destroy; others infest sickly herbs, whence they are a pest to the farmers.

Tribe II. *Gasteromycetes.* These fungi consist of concrete cells; they have a determinate figure and a tendency to a spherical form; at first they are closed, but finally are furnished with an orifice; or burst in an irregular manner, and emit an internal mass of reproductive matter, which either crumbles to pieces or deliquesces. The integument is of various natures, either a volva, a peridium, or perithecium, of a somewhat bladdery texture; and is simple or double, but rarely multiple. They almost all, when young, are fluxile or soft, or have some part or another of a fluid nature; afterwards they become indurated and rigid, and assume their true forms.

Class I. *Angiogastres.* These are fungi of remarkable forms, and most unusual mode of fructifying; they were well known to Clusius, not to mention the celebrated Truffle of which Theophrastus had knowledge. They are found in different climates; but the most perfect only in temperate regions. The latter are also

2410. ***Batarrea.*** **Head hemispherical, crumbling to pieces under the vertex into a little tuft of hairs bearing sporules. Stipes smooth. Involucrum triple, flowing with mucilage.**

Division II. *Tuberaceæ.*

Sporangia membranous, scattered in an hymenium which is often grated with veins, and inclosed in the uterus. Sporidia pulpy at first.

2411. *Tuber.* Uterus closed, marbled with veins inside. Sporangia stalked, scattered among the veins. *Subterraneous.*

2412. *Rhizopogon.* Uterus sessile, bursting with irregularity, with anastomozing veins inside. Sporangia sessile. *Above ground.*

Division III. *Nidulariaceæ.*

Uterus filled with separate sporangia.

2413. *Nidularia.* Common peridium simple. Sporangia lenticular, fleshy, with sporidia in heaps in the middle.

2414. *Myriococcum.* Peridium simple, flocculent-furfuraceous, disappearing. Sporangia globose, with sporidia in round heaps.

2415. *Polyangium.* Peridium simple, membranous. Sporangia oblong, filled with a grumous mass.

Division IV. *Carpoboli.*

Uterus protruding a solitary separate sporangium.

2416. *Atractobolus.* Peridium cupulæform, with a lid. Sporangium fusiform, with mucous sporidia.

2417. *Thelebolus.* Peridium sessile, urceolate-ventricose with an entire orifice. Sporangium papillæform, with mucous sporidia.

2418. *Pilobolus.* Stipes or receptacle pellucid, watery. Peridium a roundish vesicle, bursting elastically, placed on the apex of the receptacle.

2419. *Sphærobolus.* Peridium double, both stellate; the inner membranous by inversion throwing out with elasticity a globose sporangium, bearing in the middle heaped sporidia.

Class II. PYRENOMYCETES.

Uterus genuine, forming the receptacle. Sporidia disposed in asci in regular rows.

Division I. *Sphæriacei.*

Perithecium closed, perforated by an orifice, filled by an ascigerous somewhat deliquescent nucleus.

2420. *Xylaria.* Receptacles stipitate, carnose or suberose. Spherules immersed in the receptacle, and containing a gelatinous sporuliferous mass.

2421 *Stromatosphæria.* Receptacle sessile, free, or bursting from beneath the bark of dead wood. Spherules immersed.

2422. *Cucurbitaria.* Spherules tufted, free, fixed on a receptacle, rarely at first included. Receptacle bursting through the bark.

2423. *Cryptosphæria.* Receptacle O. Spherules scattered or aggregate, lying beneath the epidermis or bark, orifice various more or less exserted.

2424. *Heterosphæria.* (See Notes.)

2425. *Sphæria.* Receptacle O. Spherules sessile on the surface or slightly immersed.

2426. *Lophium.* Perithecium vertical, compressed, dehiscing by a longitudinal somewhat closed cleft. Asci crumbling away.

Division II. *Cytisporei.*

Closed, perforated by an orifice. Asci none; sporidia surrounded by a little bag or thin cellule, deliquescent.

2427. *Sphæronema.* Perithecium opening by a pore, enclosing in a very thin bag some mucous sporidia, which burst forth and become indurated in a globose form. *Naked.*

2428. *Septaria.* (See Notes.)

2429. *Cytispora.* Cellular-many-celled; cells deformed, membranous, united at ends Nucleus gelatinous, filled with sporules, propelled through the common elongated orifice.

2430. *Phoma.* Nucleus grumous, enclosed in a tubercle. Sporidia emitted by a simple orifice without regularity

Division III. *Phacidiacei.*

Perithecium finally bursting, with an open disk. Asci erect, fixed.

2431. *Dothidea.* Nucleus inclosing immersed cellules. True perithecium obliterated. Asci erect, remaining for a long time.

2432. *Rhytisma* Perithecium deformed, bursting into transverse fragments by means of a flexuose crack.

2433. *Phacidium.* Receptacle O. Perithecia sessile, depressed, bursting from the centre towards the circumference in several acute segments Sporuliferous cells elongated, fixed.

2434. *Hysterium.* Perithecia mostly oblong, black, corneous, bursting by a longitudinal slit. Sporuliferous tubes erect. (Crust none)

Division IV. *Xylomacei.*

Asci obsolete. Sporidia innate.

2435. *Actinothyrium.* Perithecium buckler-like, with radiating fibres covering the fusiform sporidia.

2436. *Leptostroma.* Perithecium uniform, without an orifice, but entirely separating and exposing a very thin disk.

2437. *Xyloma.* Black, corneous. Perithecia single, solitary and minute, or united and confluent, irregularly dehiscent.

Observations.

terrestrial; the imperfect kinds being inhabitants either of plants or of the dung of animals. Many are meteoric, flourishing mo[illegible]ove tonante, densisque cadentibus imbris;" others are ephemeral; some exist for a month and more.

The Phalloideæ are generally very fœtid, cold, and venomous; one species is accounted in China a vulnerary, and also a food, but of doubtful quality. The old physicians had some peculiar notions about their use in arthritis, &c. but they are not worth repeating. The Tuberaceæ have a peculiar smell, which is often grateful; their taste is irritating; their qualities esculent, nutritive, and aphrodisiacal.

Class II. *Pyrenomycetes.* The affinity of this class is very complex, for which reason there is much difference of opinion among authors as to its limits. In fructification it approaches fungi of a higher degree of developement; on one hand resembling the Angiogastres, from which it is readily distinguished by its separate receptacle; on the other hand, the Cupulati, whose differences depend upon the definition of their perithecium. In point of vegetation it descends, first, to Sclerotiaceæ, which are entirely different, in the absence of an uterus and nucleus; secondly, to Perisporia, which have no distinct perithecium, and no asci; and thirdly, to several genera of Coniomycetes.

2438. *Lasiobotrys.* (See Notes.)
2439. *Asteroma.* Black, minute, epiphyllous. Receptacle radiate, filamentous, very adnate, at length tubercled here and there.

Class III. TRICHOSPERMI.

Uterus genuine, forming a receptacle. Sporidia intermixed with flocci.

Division I. *Lycoperdinei.*

Uterus of a determinate figure, fleshy when young. Flocci copious.

2440. *Onygena.* Subglobose with a fibrous stipes. Peridium crustaceous, fragile, with interwoven fibres. Sporules naked, compactly clustered.
2441. *Tulostoma.* Globose stipitate. Involucrum none. Peridium opening by a bordered pore in the summit. Sporules scattered in it.
2442. *Scleroderma.* Sporangium globose or prolonged into a stipes. Peridium single, coriaceous, mostly warty, bursting at the apex or subdehiscent. Sporules collected into little contiguous distinct globules mixed with filaments.
2443. *Lycoperdon.* Sporangium globose. Peridium single, membranaceous, scaly, with warts or soft spines bursting irregularly at the apex, and containing a mass of sporules and filaments.
2444. *Bovista.* Sporangium globose. Peridium double; the outer one adnate, cracking, somewhat fugacious; inner one bursting at the apex, and containing a mass of filaments and pedicellated sporules.
2445. *Geastrum.* Globose sessile. Involucrum coriaceous, stellate. Peridium membranous. Sporules on stalks from the first.

Division II. *Trichocisti.*

Uterus regular, when young pulpy. Sporidia having numerous flocci scattered among them.

2446. *Craterium.* Peridium oblong, stipitate, operculate, containing a cellulose, filamentous, sporuliferous mass.
2447. *Stemonitis.* Cylindrical or subglobose. Peridium fugacious. Filaments forming a reticulated mass, perforated by the stipes to which they are attached. Sporules intermixed.
2448. *Cribraria.* Globose stipitate. Peridium crumbling to pieces at the summit in cracks.
2449. *Dictydium.* Globose stipitate. Peridium crumbling to pieces entirely or for the most part.
2450. *Arcyria.* Mostly cylindrical. Peridium fugacious, except a small portion at the base. Filaments abundant, reticulated, fixed at the base. Sporules intermixed.
2451. *Leangium.* Minute subglobose. Peridium single, membranaceous, bursting into subregular, persistent, expanding segments. Filaments attached at the base and surrounding a columella
2452. *Trichia.* Minute subglobose or irregular. Peridium single, membranaceous, bursting. Filaments involute attached at the base, and expanding elastically
2453. *Diderma.* Minute subglobose Peridium double; the outer one fragile and fugitive. Sporules mixed with a few filaments and surrounding a roundish columella.
2454. *Physarum.* Sporangium minute, mostly stipitate, subglobose. Peridium single, membranaceous, bursting and deciduous in distinct portions. Sporules mixed with a mass of filaments.
2455. *Leocarpus* Minute. Peridium single, fragile, bursting, sessile or substipitate, containing a black mass of sporules mixed with a few filaments. Columella O.

Division III. *Fuliginoidei.*

Uterus somewhat deformed, sessile, when young pulpy. Sporidia separated by flocci.

2456. *Lycogala.* Sessile globose or subirregular, pulpy when young. Peridium single, fragile, variously dehiscent Sporules mixed with a few filaments.
2457. *Spumaria.* Form irregular, roundish, effused. Peridium soft, at length membranaceous, fragile. Sporules contained in the folds of branched, elongated, membranaceous, persistent processes.

Division IV. *Liceoidei.*

Flocci obsolete.

2458. *Dichosporium.* Flattened hemispherical. Peridium membranous, coated with a layer of granules. Sporules in globose masses.
2459. *Licea.* Peridium membranaceous, sessile, fragile, inclosing a pulverulent mass of sporules unmixed with filaments. (No subjacent membrane)

Class IV MUCORODEI.

Peridium formed of flocci loosely woven together, vanishing in the middle. Sporidia in heaps.

2460. *Mucor* Peridium membranaceous, globose, stipitate, pellucid, at length opake. Pedicel simple or branched, tubular, articulated.
2461. *Thamnidium.* Stipes branched at base; branches bearing solitary globules at their end. Peridium globose.
2462. *Ascophora.* Peridium membranaceous, stipitate, bursting at length, turned inside out, convex and subpersistent. Pedicel simple or branched, tubular, pellucid, articulated.

Class V. PERISPORIA.

Perisporium thin, somewhat membranous, bursting. Sporidia immersed, scarcely distinct.

2463. *Eurotium.* Peridia membranous, subglobose, with an articulated floccose innate receptacle. Sporules naked in masses
2464. *Amphisporium.* Subglobose. Peridium membranous, thin. Sporules naked of two forms.

Observations.

Its extent is very great, ascending from the most simple forms to those which are very compound, but at the same time connected with the former by the most strict natural ties. The true place of the genera in the system has been a subject of doubt. Many authors have taken them for fung[illegible] most perfect state. Decandolle excludes them from fungi, and, with some analogous Lichens, refers them to a peculiar intermediate family.

They are found in every part of the world in which vegetation exists; for every perfect plant and all its decaying parts nourish Pyrenomycetes. The chief families of trees in the European Flora upon which they flourish are Coniferæ, Amentaceæ, Rosaceæ, Ericeæ, Rhamnoideæ, Acerineæ, and Tiliaceæ, and of herbs, Gramineæ, Umbelliferæ, and Liliaceæ. Many are peculiar to certain species of trees, and others are common to many species. For example, on the Betula alba may be found about ten peculiar species, and from forty to fifty which are common to it and other trees. Their qualities are unknown. Many species which are included by Fries under the name of Ectostroma, are probably not vegetables, and are here omitted.

TRIBE III. HYPHOMYCETES.

Thallus flocculent.

Class I. CEPHALOTRICHI.

Receptacle distinct, covered over with flocci, with sporidia scattered among them.

2465. *Ceratium.* Filaments very short, pellucid, simple, minute, attached to a membranaceous, plicate, simple or branched, filiform receptacle.

2466. *Isaria.* Filaments minute and pellucid, attached to an elongated, simple or branched, clavate, carnose receptacle.

Class II. STILBOIDEI.

Fibres grown together upon the receptacle. Sporidia inclosed in a separate naked head.

2467. *Stilbum.* Minute. Stipes slender, bearing a little round solid head, which is pellucid and semifluid at first, at length more dense and opake.

Class III. INOMYCETES.

Fibres genuine, somewhat separated by divisions. Receptacle none. Upon putrescent organic matter.

Division I. *Byssacei.*

Opake fibres, bearing sporæ inside, when fertile jointed, when sterile contiguous. Repel moisture.

2468. *Torula.* Thallus composed of branched, rigid, fragile, moniliform, subopake filaments, the articulations minute, globose.

2469. *Monilia.* Fibres numerous, erect, opaque, distinctly articulated, permanent. Articulations ovate.

2470. *Racodium.* Thallus composed of branched, decumbent, interwoven, jointless, persistent, subopake filaments, among which are sometimes granules of moniliform filaments.

2471. *Dematium.* Fibres decumbent or ascending, rigid, opake, branched, continuous in all directions, permanent.

2472. *Cladosporium.* Thallus composed of erect, rigid, subopake, jointed, simple or branched, aggregate filaments. Sporules ovate, attached in a series to the filaments, deciduous.

2473. *Helicosporium.* Fibres erect, rigid, nearly simple, opake. Sporules spiral, remotely jointed, some that are fugacious scattered among them.

2474 *Ozonium.* Thallus composed of decumbent, branched, entangled filaments: primary ones thick, irregular; ultimate ones fine-jointed.

2475. *Rhizomorpha.* Receptacle much branched, elongated, coriaceous or ligneous. Perithecia arising from the branches, mostly clavate, dehiscent at the apex.

Division II. *Mucedines.*

Flocci pellucid, with dissepiments, bearing sporæ on the outside.

2476. *Sepedonium.* Thallus formed of entangled filaments, spreading within putrefying fungi. Sporidia scattered, globose. (Bright yellow.)

2477. *Acremonium.* Thallus composed of decumbent, entangled, branched, pellucid filaments. Sporidia globose, solitary, pedicellate.

2478. *Sporotrichum.* Thallus minute, tufted or expanded. Sporidia scattered among the branched, tubular jointed filaments.

2479. *Trichothecium.* Filaments minute, branched, forming a tufted thallus. Sporidia scattered, subglobose, didymous.

2480. *Acrosporium.* Thallus composed of minute, tufted, pellucid, moniliform, simple filaments, the uppermost joints (sporidia) separating spontaneously.

2481. *Botrytis.* Thallus composed of decumbent, entangled, branched, pellucid filaments. Sporidia globose, solitary, pedicellate.

2482. *Aspergillus.* Thallus composed of minute, pellucid, scattered or tufted filaments, apex of the main filament mostly clavate, on which is a head of (often beaded) sporidia.

2483. *Stachylidium.* Thallus composed of tufted, pellucid filaments: sterile ones procumbent; fertile ones erect, whorled, with ramuli near the top, among which the sporidia are collected.

2484. *Penicillium.* Thallus composed of tufted, pellucid filaments: sterile ones procumbent; fertile ones erect, bearing a terminal pencil-like tuft of erect ramuli, to which the sporidia are attached.

2485. *Trichoderma.* Sporidia collected in the centre, free, the filaments woven into a web-like covering, at length opening at the apex and discharging the globose sporidia.

Class IV. PHYLLERIACEÆ.

Fibres spurious, contiguous, bearing sporæ inside. Receptacle none. On living leaves.

2486. *Rubigo.* Fibres infundibuliform or clavate, twisted, situated in patches upon sickly leaves.

2487. *Erineum.* Peridia flocciform, subdiaphanous, various, subsimple, aggregato-cæspitose, parasitic on living leaves. Sporules sometimes, but rarely evident.

TRIBE IV. CONIOMYCETES.

Sporidia naked, without any heterogeneous receptacle.

Class I. TUBERCULARIÆ.

Sporidia naked, simple, scattered over the receptacle.

2488. *Tubercularia.* Sporangium subglobose, sessile, or somewhat stipitate, carnoso-vesiculose (not gelatinous). Sporidia towards the circumference (color mostly red).

2489. *Fusarium.* Minute, subglobose, naked, almost wholly formed of fusiform, free, jointless sporidia.

2490. *Exosporium.* (See Notes.)

Observations.

Tribe III. *Hyphomycetes.* Distinguished from other tribes by their flocculent thallus. In no other tribe do flocci occur in so perfect a state of developement, although they undoubtedly exist as subordinate organs in the Uterini and Hymenomycetes.

Class IV. *Phylleriaceæ.* These are perhaps morbid states of the outer integuments of plants. This at least seems obvious in Phyllerium Rubi, Gei, &c. which are nothing but the hairs of the leaves in a clustered and somewhat altered form. This also may be the reason why there are no sporidia.

Tribe IV. *Coniomycetes.* To this are referred those fungi in which the sporidia are of a more obvious nature than the other parts of the plant, and so constitute the essence of the fungus. Hence they are more evolved than in any other class. The receptacle, if present, arises either out of united pedicels, or of united sporidia,

Class II. ENTOPHYTÆ.

Sporidia naked, separate, without a receptacle.

Division I. *Stilbosporei.*

Entophytes growing upon dead plants.

2491. *Fusidium.* Thallus plane, effused. Filaments short, branched. Sporidia fusiform, scattered.
2492. *Polythrincium.* (See Notes.)
2493. *Stilbospora.* Black. Receptacle O? or a pulverulent mass intermixed with naked sporidia, the whole bursting through the bark in the manner of a Stromatosphæria.
2494. *Sporidermium.* (See Notes.)
2495. *Næmospora.* Receptacle O. Spherules obvious, or somewhat obsolete, discharging sporuliferous pulp through the bark in the form of tendrils.

Division II. *Hypodermia.*

Parasites upon living plants.

2496. *Cylindrosporium.* Very minute, parasitic on the surface of living leaves. Sporidia pellucid, cylindrical, truncate, free, not divided.
2497. *Uredo.* Epidermis of the leaf forming a pseudo-peridium. Sporidia 1-celled, free, mostly globose.
2498. *Æcidium.* Peridium membranaceous, bursting through the epidermis, and dehiscent at the apex, with a dentate or lacerate orifice.
2599. *Puccinia.* Epidermis of the leaf forming a pseudo-peridium. Sporidia fixed by a pedicel, one or many-celled.

Observations.

and is homogeneous with the immature sporidia. The thallus is never flocculent. The organs of nutrition and reproduction are the same.

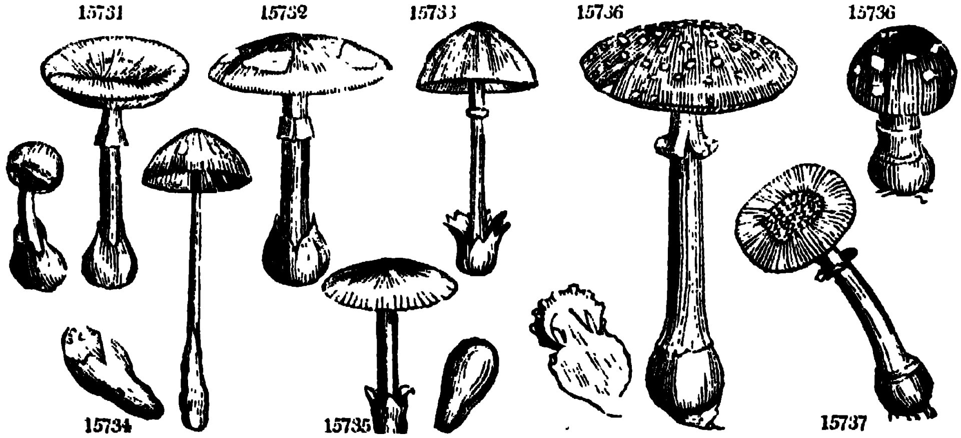
Division II. *Hypodermia.* The genera of this division are furnished with a calculus, which must not be confounded with the receptacle or thallus, &c. of other tribes, because it does not constitute part of the fungus, but is formed out of the epidermis of the plant on which the fungus grows.

HYMENOMYCETES.

Class I. Hymenini. — Div. I. *Pileati.*

2365. AGA'RICUS. *L.* Agaric. *Sp.* 308—715.

	§ 1. Amani'ta. *Pers.*							
15731	vérnus *Bull.*	vernal	stinking	3-6	spr. su.	W	woo.,dam.pl.	Bulliard, t. 108
15732	phalloides *Fries.*	Phallus-like	scentless	4	jul.oct.	W	woody places	Bull. t. 2. 577 *bulbosus*
	β *verrucósus* Fl. Lond.	*warted*	scentless	4	jul.oct.	Y	woody places	Fl.lo.t.312.f.dex.*verruc.*
	γ *viréscens* Fl. Dan.	*greenish*	scentless	4	jul.oct.	Pa.Gr	woody places	Flora danica, t. 1246
15733	porphýrius *Fries.*	porphyry	scentless	4	jul.oct.	Livid	among moss	Michel. gen. t. 76 f. 3
15734	vaginátus *Bull.*	sheathed	eatable	6	aut.	W	waste places	Bulliard, t. 512
	α *plúmbeus* Schæff.	*lead-colored*	eatable	6	aut.	Lead	waste places	Schæffer, tt. 85, 86
	γ *hyalinus* Schæff.	*transparent*	eatable	6	sum.	Cæs.	waste places	Schæffer, t. 244
	δ *pulvinátus* Bolton	*cushioned*	eatable	6	sum.	Br	waste places	Bolton, t. 49
	ε *fúlvus* Schæff.	*tawny*	eatable	6	sum.	Tawn.	waste places	Bolt. t. 38. f.2. *trilobatus*
15735	nivális *Grev.*	alpine	delicate	5	aug.	W	Scotch mou.	Greville crypt. 1. 18
15736	muscárius *L.*	fly-blown	poisonous	4	au. oc.	Or. R	woods	Greville crypt. 1. 54
15737	pantherínus *Dec.*	mottled	warted	3	au. oc.	Ol	moun. woods	Schæff. t. 90. *maculatus*
15738	rubéscens *Pers.*	flesh-colored	nauseous	3	jul.sep.	F Col	heaths	Schæff t. 91. *pustulatus*
15739	ásper *Alb. & Schwe.*	rough	stinking	3	jul.oct.	Rsh	open woods	Bull. t. 316. *verrucosus*
	§ 2. Lepio'ta. *Pers.*							
15740	prócerus *Scop.*	gigantic	esculent	10	au no.	W.Br	gardens	Sowerby, t. 190
15741	excoriátus *Schæff.*	flayed	esculent	7	jul. au.	Wsh	fields	Schæff. t. 13, 19
15742	clypeolárius *Bull.*	buckler	insipid	2	au. oc.	Wsh	beech woods	Sowerby, t. 14
	β *felinus* Pers.	*spotted*	insipid	2	au. oc.	W	hot-houses	
	γ *meleagris* Sowerb.	*variegated*	insipid	2	au. oc.	Wsn	pine woods	Sowerby, t. 171
15743	cristátus *Bolton*	crested	fœtid	1½	au.no.	Wsn	grassy places	Greville crypt. 3. 176
15744	illinitus *Fries*	besmeared	mucilaginous	3	jul.oct.	Wsh	meadows	Fl. dan. t. 600



History, Use, Propagation, Culture,

2365. *Agaricus.* This, the most extensive genus in the vegetable kingdom, derives its name from *Agaria*, a kingdom of Sarmatia The species are determined upon various principles. Some writers have mixed together species of the most different kinds, as Gleditsch; and a few writers only have really taken pains to ascertain the species. If it is divided into many genera it would be necessary to break up Boletus also, which would scarcely be judicious. An accurate and simple mode of division is, however, of the utmost moment, and several methods have been proposed, the greater part of which are artificial, and therefore objectionable; such, for example, as that of Villars, from the magnitude of the species; of Linnæus, from the color of the pileus; of Haller, from the color of the lamellæ or gills; of Withering, from the nature of the stipes and the color of the lamellæ taken together; or of Otto, from the position of the lamellæ. The divisions of Fries, which are all named as subgenera, depend upon the characters of the veil, the lamellæ, the sporidia, and the pileus. Our notes will follow these in their order of succession.

§ 1. *Amanita.* This name was applied by Galen to some eatable fungus, and has been restored in modern days by Persoon. Most of the species are poisonous. They do not perish quickly, and are found for the most part on damp earth in shady woods, never upon wood or the dung of animals. They are in perfection about the end of summer.

A. vaginatus is eaten by the Muscovites; but in the Jena Literary Gazette of 1819, it is declared to be poisonous. A. ovoideus is said to be delicious.

A muscarius, or reddish mushroon, has a large pileus, varying much in color, white, red, or crimson, convex, sprinkled with downy warts, which are raised, compact, and angular, or thin, flat, and ragged, turning up with age, from two to seven inches over; flesh white, reddish in decay: gills fixed, white, yellowish with age, mostly uniform, but a shorter one sometimes intervening; the shorter gills varying much in length, but rarely less than one-third the length of the long ones: the stem solid and cylindrical, but the internal substance shrivelling with age leaves irregular hollows; scaly, bulbous at the base, from three to five inches high, and from three quarters to one and a half inch in diameter; ring broad, permanent, and turned down upon the stem. This plant rises out of the ground inclosed within its brown studded wrapper. It is found in pastures. The ice rubbed on the walls and bed-posts destroys bugs; and in the North of Europe, the inhabitan[illegible]use it in

HYMENOMYCETES.

Class I. Hymenini. — Div. I. *Pileati.*

* *Volva loose : edge of the cap smooth.* Unwholesome.

15731 Cap somewhat scaly : edge smooth, Stipes solid nearly equal, Volva loosely sheathed
15732 Cap somewhat scaly : edge smooth, Stipes hollow at top, Volva connate bulbous

15733 Cap naked : edge smooth, Stipes somewhat fistular equal, Volva booted

** *Volva loose : edge of the cap striated.* Eatable.

15734 Cap furrowed at edge, Gills white, Stipes fistular tapering nearly naked, Volva sheathing

15735 Whole plant white, Cap plane or slightly umbonate · the centre often pale ochraceous ; margin striato-pectinate, Lamella somewhat distant, Stipes solid naked bulbous

*** *Volva obliterated : edge of the cap striated.* Poisonous.

15736 Margin of the cap striated orange-red shining warty rarely naked, Volva vanishing scaly, Stipes bulbous
15737 Cap equally warted : edge striated, Stipes nearly solid equal, Volva booted adnate

**** *Volva obliterated : edge of the cap smooth* Unwholesome.

15738 Warts of cap mealy unequal : edge smooth, Flesh pink, Stipes solid somewhat scaly and bulbous
15739 Cap somewhat umbonate rough with acute warts : edge smooth, Stipes solid somew. taper. squarrulose

* *Veil finally separate, Gills distant.* Eatable.

15740 Large, Cap scaly, Lamella distant white, Stipes very long bulbous, Collar free
15741 Skin of cap contiguous, Lamella remote, Stipes equal, Collar free

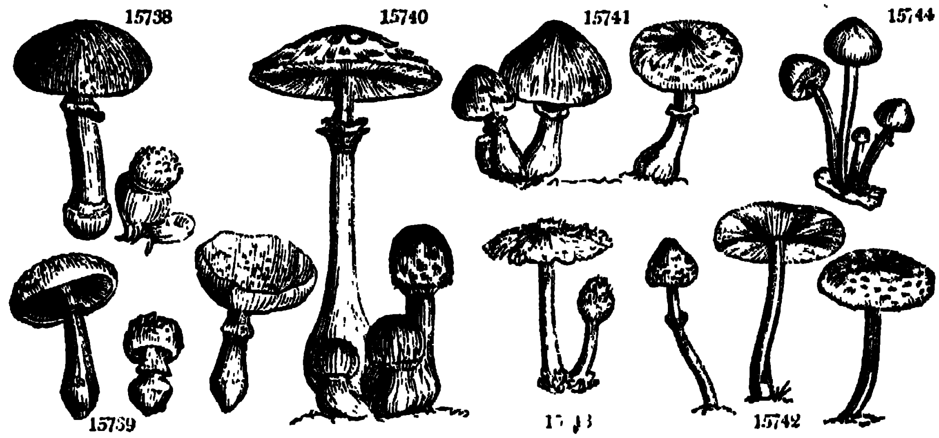
** *Veil fixed, Skin of the cap peeling off, Gills separate.*

15742 Inodorous, Cap with the epidermis broken into ferruginous scales, Lamella white numerous, Stipes subsquamose, Collar mostly fugacious

15743 Highly odor. Surface of cap white with reddish scales, Lamella distinct, Stipes smooth, Collar fugacious

*** *Veil fixed, Gills separate, Skin of the cap adhering.*

15744 Cap glutinous striated at edge, Lamella loose, Stipes viscid on account of the veil



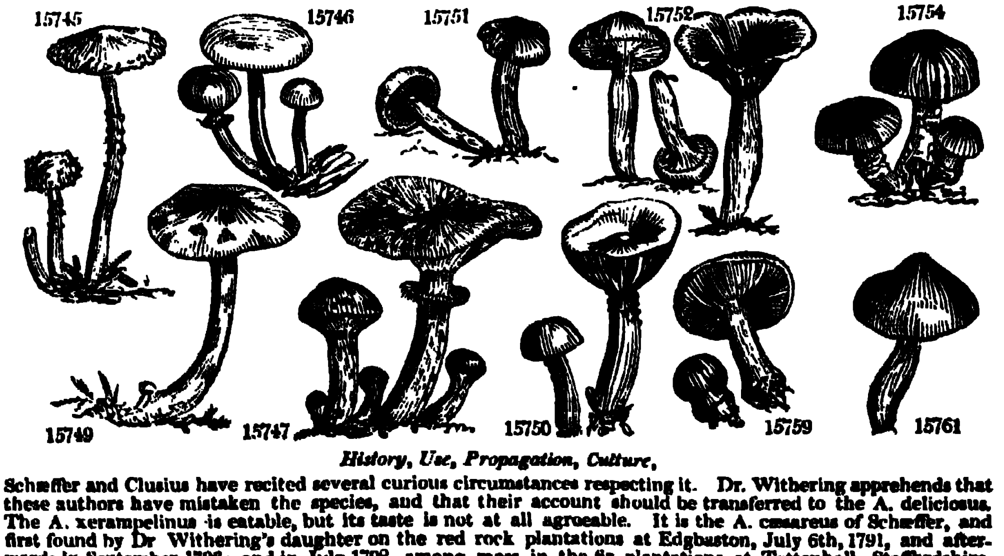
and Miscellaneous Particulars.

milk, and set it in their windows in order to poison the flies who taste it. This is *moucho-more* of the Russians, Kamtchadales, and Koriars, who use it for intoxication. They sometimes eat it dry, and sometimes immerse it in a liquor made with the epilobium; and when they drink this liquor, they are seized with convulsions in all their limbs, followed with that kind of raving which attends a burning fever. They personify this mushroom; and if they are urged by its effects to suicide, or any dreadful crime, they pretend to obey its commands. To fit themselves for premeditated assassination, they recur to the use of the moucho-more. A powder of the root, or of that part of the stem which is covered by the earth, is recommended in epileptic cases, and externally applied for dissipating hard globular swellings, and for healing ulcers. The dose is from half a scruple to one, taken thrice a day in water; but a dram administered once a day in vinegar has been thought more efficacious. *Murray, App. Med.* vol. v. p. 500. Dr. Withering enumerates ten varieties of this species.

§ 2. *Lepiota.* Terrestrial, solitary, persistent, autumnal fungi, none of which are noxious. Named from λεπις, a thin membranous layer or cuticle. The A. procerus, or tall mushroom, is not uncommon on hedge banks and dry pastures, and is sometimes exposed to sale in Covent Garden market. It may be distinguished from the genuine sort by the sponginess of its flesh; and from others by its fine and large horizontal ring. The gills are white, uniform, and fixed to a collar; the pileus is a broad cone, bossed white-brown, and scaly; the stem is scaly, and the ring loose. This plant, when preserved in pickle, is very apt to run into the vinous fermentation.

A. xerampelinus is the most splendid of all the agarics. Its gills are fixed, bright golden-yellow, and nearly orange under the edge of the pileus, regularly disposed four in a set; fleshy, brittle, and serrated at the edge with a paler cottony matter: the pileus is a fine lake-red, changing with age to a rich orange and buff, and every intermediate shade of these colors, which render it very beautiful; convex, center bossed, edge turned down, three to four inches in diameter, clothy to the touch; flesh pale-buff: stem solid, nearly cylindrical, but gradually tapering upwards, rich buff, shaded with fine rose-red, three to five inches high, half inch in diameter; flesh pale, buffy, spongy, and elastic. This is common in Italy, and brought to the markets for sale. The ancient Romans esteemed it one of the greatest luxuries for the table. It was made the vehicle for poison to Claudius Cæsar by his wife Agrippina, and has therefore been celebrated by Juvenal and Martial.

15745 granulósus *Pers.*	granular	muricated	2	jl. dec.	Y	heaths	Greville crypt. fl. 2. 104
A. croceus Sowerb.							
§ 3. Armilla'ria. *Fries.*							
15746 múcidus *Schrad.*	mucid	glutinous	2	jl. dec.	W	old trees	Fl. dan. t. 773. *nitidus*
15747 mélleus *Bolton*	honey-like	esculent	4	au. oc.	Dl. Y	trun. of trees	Sowerby, t. 101. *stipitis*
β *laricinus* Bolton	*Larch*	esculent	4	au. oc.	Dl. Y	trun. of trees	Bolton, t. 19
γ *elásticus* Bolton	*elastic*	esculent	4	au. oc.	Dl. Y	trun. of trees	Bolton, t. 15
§ 4. Lima'cium. *Fries.*							
15748 chrýsodon *Batsch*	yellow-toothed	noxious	½	sep.oc.	Pa. Y	beech woods	Batsch cent. 2. f. 212
15749 carnósus *Sowerb.*	fleshy	noxious	3	sep.oc.	Pa. Pk	among grass	Sowerby, t. 246
15750 ebúrneus *Bull.*	ivory	shining	4	au.no.	W	woods	Sowerby, t. 71. *nitens*
β *nitens* With.	*shining*	shining	4	au.no.	W	woods	Sowerby, t. 121. *cossus*
15751 oliváceo-álbus *Fries*	olive-white	viscid	4	jul.oct.	Ol	pine woods	Schæff. t. 312. *limacinus*
15752 hypothéjus *Fries*	slug	clustered	4	oc.dec.	Ysh	heaths	Sowerby, t. 8. *limacinus*
15753 aromáticus *Sowerb.*	aromatic	glutinous	3	oc.dec.	Pa. Br	woods	Sowerby, t. 144
§ 5. Tricholo'ma. *Fries.*							
15754 albo-brúnneus *Pers.*	whitish-brown	glutinous	3	au. oc.	Br	fir leaves	Schæff. t. 38. *striatus*
15755 fúlvus *Dec.*	tawny	smells of flour	4	au.sep.	Tawn.	thickets	Schæff. t. 62. *incertus*
15756 ustális *Fries*	scorched	scentless	3	au. oc.	R. Br	beech wo.&c.	
15757 Rússula *Schæff.*	rosy	delicious	2	aut.	Pk	woods	Schæff. t. 58
15758 aurántius *Schæff.*	orange	bitter	3	aut.	Or	pine woods	Schæff. t. 37
15759 prasinus *Schæff.*	pea-green	tuberous	3	aut.	Y. G	mossy places	Schæff. t. 218
15760 fucátus *Fries*	painted	mild	2	sep oc.	Lurid	way sides	
15761 lúridus *Schæff.*	lurid	gregarious	2	sep.oc.	Dl. R	pine woods	Schæff. t. 69
15762 equéstris *L.*	noble	mild	2	sep. d.	Y. Br	way sides	Schæff. t. 41. *aureus*
15763 rútilans *Schæff.*	glittering	splendid	3	au. oc.	Y	roots of trees	Sow. t. 31. *xerampelinus*
15764 vaccinus *Schæff.*	cow	scaly	3	oc.dec.	[illegible]	damp places	Schæff. t. 25
15765 myomýces *Pers.*	Mouse-mushr	smells of mice	3	oc. no.	Livid	plantations	Sowerby, t. 76. *terreus*
15766 Columbétta *Bauh.*	white-headed	eatable	1½	au. oc.	W	sandy places	Bulliard, t. 428. f. 1
15767 æ'stuans *Fries*	burning	very acrid	3	au.sep.	Y	among moss	
15768 sejúnctus *Sowerb.*	white and yell.	bitter	3	sep. oc.	Pa. Y	dry pine wo.	Sowerby, t. 126
15769 virgátus *Fries*	streaked	bitter	3	sept.	Gr	plantations	
15770 decástes *Fries*	sinuous	stipes naked	3	au sep.	Cin.	beech woods	
15771 gambósus *Clus.*	cracked	smells of flour	2½	my.jn.	Pale	chalk. mead.	
15772 personátus *Fries*	violet	variable	3	sep no.	Pu	woods	Sowerb. t. 209. *violaceus*
15773 núdus *Bull.*	naked	wavy	2	sep.no.	Vi	gardens	Bulliard, t. 439
15774 álbus *Schæff.*	white	not spotted	3	sep.no.	W	woods	Schæff. t. 256
15775 spléndens *With.*	metallic	juicy	3	July	Cop.	alder stump	
§ 6. Rus'sula. *Pers.*							
15776 alutáceus *Pers.*	tanned	eatable	2	au.sep.	R	shady woods	Bull. t. 509
β *xanthópus* Fries	*yellow-stalked*	eatable	2	au.sep.	R	shady woods	
A. aurátus Wither.							
15777 lúteus *Huds.*	yellow	brittle	1½	au.sep.	Y	beech woods	
15778 nitidus *Pers.*	shining	nauseous	1	au. oc.	Rsh	woods	Schæff. t. 254



History, Use, Propagation, Culture,

Schæffer and Clusius have recited several curious circumstances respecting it. Dr. Withering apprehends that these authors have mistaken the species, and that their account should be transferred to the A. deliciosus. The A. xerampelinus is eatable, but its taste is not at all agreeable. It is the A. cæsareus of Schæffer, and first found by Dr Withering's daughter on the red rock plantations at Edgbaston, July 6th, 1791, and afterwards in September 1793; and in July 1792, among moss in the fir plantations at Tettenhall, Staffordshire. Dr. W. enumerates five varieties.

§ 3. *Armillaria.* From *armilla*, a necklace. Autumnal species, of permanent duration, firm, and esculent.

***** Veil fixed, Cap covered, Gills somewhat united.*

15745 Cap with furfuraceous scales reddish-yellow, Lamella fixed white, Stipes subsolid covered below the veil with squarrose scales

** Cæspitose, Cap smooth.*

15746 Somew. cæspit. Cap thin glutin. Lamellæ annex. dist. Stipes bulb. Collar reflex. and then erect furrowed

*** Cæspitose, Cap not smooth.*

15747 Cap dull-yell. rough with black. hairy scales, Lamellæ adnate-decurr. dist. Stipes fibrous, Coll. tum. spread.

** Cap smooth, floccose at edge.* Unwholesome.

15748 Cap smooth whitish, Margin and top of stipes yellow-flocculent with crisp lamellæ
15749 Cap smooth whitish-pink : edge involute downy, Lamellæ straight, Stipes thickened upwards scaly

*** Cap smooth, Stalk scaly.* Eatable.

15750 White, Cap smooth umbon. Lamellæ broad dist. very decur. Stipes white scurfy solid becom. holl. in age

**** Cap finally depressed, Stalk spotted.*

15751 Cap umbonate smooth olive-brown, Lamellæ connected white, Stipes solid mottled with brown [yellow
15752 Cap obt. smooth yellow. covered by an olive-colored gluten, Lamellæ distinct and stipes (which is spotted)
15753 Cap smooth cinnamon-col. Lamellæ somewhat decurrent and hollow, Stipes spotted rufous

** Cap truly fleshy, somewhat blunt, humid, viscid ; with an involute downy edge, Gills white or yellow, emarginate, Stalk clothed, separate from the cap.*

15754 Cap smooth viscid umber-col. Lamellæ annexed white, Stipes solid smooth scaly at end
15755 Cap viscid virgate rufous brown discoidal, Lamellæ annexed yellow, Stipes hollow equal fibrous
15756 Cap smooth viscid red-brown, Lamellæ emarginate white, Stipes equal solid fibrous
15757 Cap somew. depress. visc. granul. and solid stipes eq. scaly at end rose-color. Lam. somew. separate white
15758 Cap somewhat scaly viscid yellow-orange, Lamellæ adnate white, Stipes solid covered with orange scales
15759 Cap scaly viscid yellow-green, Lamellæ separate yellow, Stipes solid thick tuberous
15760 Cap flexuose virgate viscid lurid, Lamellæ emargin. broad and solid, Stipes somew. scaly yellowish-white
15761 Cap flexuose smooth greenish ash-colored, Lamellæ emarginate narrow yellowish, Stipes solid scaly pallid

*** Cap always dry, scaly, with the young edge involute, downy, or villous, Gills separate or emarginate, Stalk scaly, separate from cap.*

15762 Cap comp. flexuose somew. scaly yellow -brown, Lamellæ emarg. comp. and solid, Stipes scaly sulphure.
15763 Cap obt. convex deep-yellow more or less covered with crimson red squamulose fibres, Lamellæ rounded numerous yellow, Stipes solid or partly hollow streaked with red
15764 Cap umbon. rufous, Skin torn with hairy scales downy at edge, Lamellæ affixed whit. Stipes holl. fibrous
15765 Firm, Cap dry smooth a little scaly brownish-livid, Lamellæ emarg. somew, dist. whit. Stipes solid uneq.
15766 White, Cap irregular becoming scaly and cracked, Lamellæ emargin. compact, Stipes solid short smooth

**** Cap always dry, smooth, but often fibrillose, with a naked edge, Gills separate or emarginate, Stalk solid, smooth, striated, separate from the cap.*

15767 Cap umbonate dry yellow-brown fibrous towards edge, Lamellæ emarg. broad and solid striat. Stipes yell.
15768 Cap somew umbon. dry yellow streaked with black hairs, Lamellæ emargin. broad and solid, Stipes white
15769 Cap umbonate dry grey streaked with black, Lamellæ emargin. broad hoary, Stipes solid striated whitish

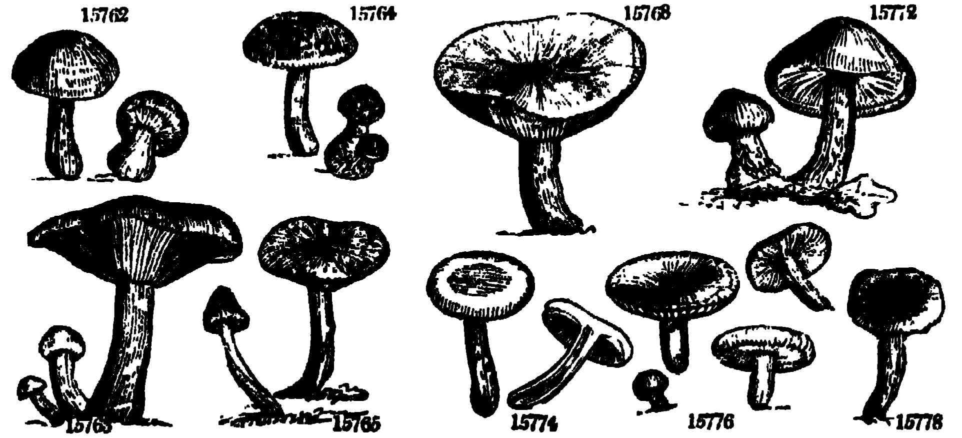
***** Cap always dry, smooth, with a thin, floccose, frosted, involute edge, Flesh soft, Gills rounded, clustered, obliterated in front, Stalk united with cap.*

15770 Somew. cæspitose, Pileus smooth unequal cinereous, Lamellæ round. white, Stipes solid powdery at end
15771 Somew. cæspitose, Pileus compact smooth mouse-colored, Lamellæ emarg. and solid downy, Stipes white
15772 Cap somewhat compact smooth with a villous frosted margin, Lamellæ rounded loose and solid somew. bulbous villous, Stem rather violet
15773 Gregarious, Cap thin smooth lilac-brown, Lamellæ rounded pale violet, Stipes solid equal naked
15774 White not spotted, Cap equal smooth, Lamellæ rounded dense, Stipes solid elastic
15775 Cap conical shining, Lamellæ loose white, Stipes solid white

** Gills all equal, Sporidia yellow.*

15776 Cap somewhat compact : the margin finally furrowed, Lamellæ broad equal tanned
β Stipes yellow

15777 Middle-sized, Margin of cap smooth, Lamellæ narrow compact equal : the color of yolk of egg
15778 Cap thin with a sulcate margin, Lamellæ broad subdistant equal yellow



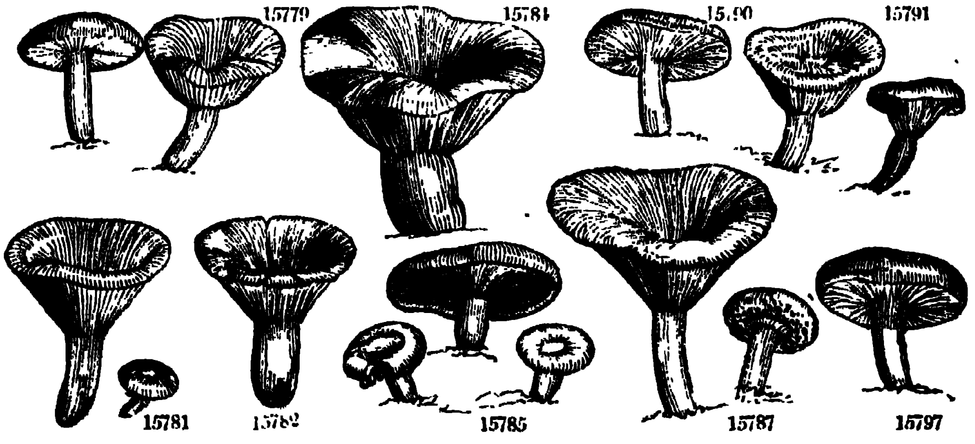
and Miscellaneous Particulars.

They differ much in habit among each other. The annulus is either *superior*, that is reflexed from the top of the stipes ; or *inferior*, that is contiguous to the middle ; or even *proper*, being inserted above the middle.

§ 4. *Limacium.* So called from *A. limacinus*, a name which has been indiscriminately applied to almost all the species of this subgenus. They are fungi of a middle size, solitary, terrestrial, autumnal, and permanent.

§ 5. *Tricholoma.* From θριξ, hair, and λωμα, a margin. The species are large, robust, and permanent, solitary or gregarious, and terrestrial. Many are eatable ; some have an acrid bitter flavor. A. Russula is said to be of excellent quality.

15779 eméticus *Schæff.*	emetic	acrid	3	sum.	Rsh	woods	Sowerby, t. 201. *integer.*
β *Geórgii* L.	*St. George's*	acrid	3	sum.	Y	woods	Bulliard, t. 509. f. R.
15780 depállens *Pers.*	pallid	nauseous	1½	jul.sep.	R.Br	heaths	
15781 rúber *Lam.*	red	very bitter	2	jul.sep.	R	woods	Bulli. t. 42. *san uineus*
15782 fœ'tens *Fries*	stinking	rigid	2	au.sep	Y	woods	Bulliard,t.292.*piperatus*
15783 furcátus *Fries*	forked	bitterish	2	au.sep.	G	woods	Bulliard, t. 26 *bifidus*
15784 adústus *Pers*	scorched	very compact	2	jul.oct.	Ol	woods	Bulliard,t 212.*nigricans*
β *elephántinus* Bolt.	*elephantine* .	very compact	3	jul.oct.	Y.Br	woods	Sowerby, t. 36
§ 7. Galarhæ'us *Fries*							
15785 controvérsus *Pers.*	controverted	meteoric	2	sep oc.	Var.	beech woods	Bulliard, t. 538. *acris*
15786 scrobiculátus *Scop.*	pitted	gigantic	4	au. oc.	Y	damp woods	Schæff. t. 227
15787 torminósus *Schæff.*	bearded	dangerous	2	jn. oc.	Pk	way sides	Sowerby, t. 103
15788 necátor *Bull.*	destructive	poisonous	1	au. oc.	Ol Br	woods	Bulliard, t. 14
15789 cilicioides *Fries*	downy	very downy	3	sept.	Dl.Pk	pine woods	
15790 lúridus *Pers.*	lurid	flattened	1½	sep. oc.	Lurid	heaths	Sowerb. t. 203. *zonarius*
15791 ácris *Bolton*	hot	very acrid	2	au. no.	Ciner.	groves	Bolton, t. 60
15792 úvidus *Fries*	moist	brittle	1½	au oc.	Li.Pk	damp groves	
15793 vietus *Gleditsch*	variable	very acrid	2	au. no.	Livid	woods	
15794 hýsgynus *Fries*	firm	variable	2½	au oc.	Pk	grassy places	
15795 blennius *Fries*	verdigrease	very acrid	1½	jul. oc.	Gsh	beech woods	
15796 pállidus *Pers.*	pallid	gregarious	1½	au oc.	Pa.Y	beech woods	
15797 deliciósus *L.*	delicious	eatable	1½	jul. no.	Or	pine woods	Sowerby, t. 202
15798 aurantiacus *Pers.*	orange	acrid	3	au. oc.	Or	woods	Batarra, t. 16. f.
15799 mitíssimus *Fries*	mild	sweet	3	au no	Or	woods	
15800 quiétus *Fries*	serous	sweet	3	aut	Pk	oak woods	Fl.dan. t.1069 *rubescens*
A. serosus Wither.							
15801 subdulcis *Pers*	sweetish	nauseous	3	sum.	Brsh	woods	Sower t. 204 *lactiflorus*
15802 theiogálus *Bull.*	yellow-milked	poisonous	2½	sep oc	Fulv	shady woods	Bulliard, t. 567. f. A.
15803 Tithymalinus *Scop.*	testaceous	very milky	3	sep. oc.	[illegible] Y	shady woods	Bats.cont.f 60 *schoratus*
15804 rúfus *Scopoli*	rufous	scentless	2	jul. oc.		pine woods	
A. rubescens With.							
15805 hélvus *Fries*	intermediate	acrid	2½	jul. no	R.Oc.	damp places	
15806 glycyósmus *Fries*	sweet-tasted	esculent	3	jul oc.	Lurid	thickets	
15807 plúmbeus *Bull.*	lead-colored	insipid	4	au.sep.	Lead	damp places	Sowerby, t. 245. *Listeri*
15808 pyrogálus *Bull.*	red-milked	very acrid	1½	au. oc.	Livid	groves	Bulliard, t. 529. f. 1
15809 flexuosus *Pers.*	flexuose	compact	1	jul. oc.	Br	grassy places	Bul.t 559.f.1. A. *azonites*
15810 piperátus *Scop.*	peppery	eatable	2	sep. oc.	W	woods	Bolton, t. 21
15811 velléreus *Fries*	Lister's	gregarious	2	au. no.	W	thickets	Sowerby, t. 104. *Listeri*
15812 dúlcis *Hudson*	sweet	gregarious	2	au no.	W	thickets	
15813 depréssus *Wither.*	depressed	variable	2½	au. oc.	Pk	grassy places	
§ 8. Clito'cybe. *Fries*							
15814 gigantéus *Leysser.*	gigantic	very broad	6	sept.	Wsh	thickets	Sowerby, t 244



History, Use, Propagation, Culture,

§ 6. ***Russula.*** So named from the *russet* color of the original species. The species are all large, or of middle size, rigid, persistent, solitary, terrestrial, chiefly appearing in the autumn.

§ 7. *Galarhæus.* From γαλα, milk, and ῥεω, to flow ; many of the species being lactescent ; some are juiceless. These are fungi of the summer and autumn, possessing an aromatic smell and acrid flavor. They all grow upon the ground. A. torminosus, in times of scarcity, is eaten by the Russians, mixed with salt, oil, and vinegar. *Burb.* A. controversus is stated by Persoon to be eatable ; but Fries thinks it must be a mistake. A. deliciosus has gills decurrent, flame-colored, narrow, regularly branched ; pileus rich, red, brown ; flesh nearly flat, but somewhat hollowed at the centre, and the edge turned in from one and a half to three inches over ; orange-color ; stem orange, solid, tapering downwards, from one to two inches high, and a quarter to three-eighths high ; hollow with age. The juice is rich yellow, which soon turns green. It is found in the fir plantations of Scotland, and in those of the barren hills at Barr, in Staffordshire. Dr. Smith also found it at Hillingdon, Middlesex, under some fir trees ; it also grows near Guildford. It is much esteemed in Italy, and exposed in the markets, and supposed to have been the A. cæsareus mentioned by some authors.

15779 Cap compact somew. depressed in centre with marg. at length sulcate, Lamellæ broad subeq. very white

*** Gills nearly equal, Sporidia white.*

15780 Cap deformed opaque pallid: margin finally striated, Lamellæ distinct whitish, Stipes finally cinereous

**** Gills forked, and many of them halved.*

15781 Very hot, Cap very red: margin smooth, Lamellæ forked white
15782 Acrid stinking, Cap yellow: margin warted furrowed, Lamellæ connected and hollow, Stipes white
15783 Scentless, Cap greenish: margin smooth, Lamellæ forked white [thick. Stipes short solid very robust
15784 Large, Pileus depres. ash color olive at length dark and as if burnt: marg. smth. Lam. uneq. dist. white
β Cap brownish-yellow, Lamellæ yellowish-white, Stipes solid white

** Edge of the cap rolled inwards, downy.* HOT. POISONOUS.

15785 White, Pileus villous blood-red variegated downy at edge, Stipes solid
15786 Cap yellow without zones: margin bearded, Milk yellowish, Stipes hollow spotted
15787 Cap glabr. pale with a yellowish brownish or greyish tinge: marg. toment. Stipes most. holl in part smth.
15788 Cap smooth zoned olive-brown: margin villous, Stipes solid
15789 Cap downy dull flesh-colored, Lamellæ yellowish, Stipes rather hollow

*** Cap smooth, viscid, with a naked edge.* HOT. EATABLE.

15790 Cap viscid zoned lurid, Lamellæ white, Milk reddish, Stipes hollow
15791 Cap viscid not zoned cinereous-sooty, Lamellæ yellow, Milk turning red, Stipes solid
15792 Cap viscid not zoned fleshy livid or brownish, Lamellæ white, Milk whitish-lilac, Stipes hollow
15793 Cap thin smooth somew. viscid not zoned livid pale, Lamellæ and milk whit Stipes somew hollow fragile
15794 Cap viscid not zoned smooth flesh-colored, Lamellæ and milk white, Stipes hollow spotted
15795 Cap viscid somewhat dripping not zoned greenish, Lamellæ and milk white
15796 Cap viscid smooth not zoned and stipes (which is short) hollow and firm pallid, Lamellæ and milk white
15797 Cap glutinous obscurely zoned dingy-orange or reddish very pale when dried, Lamellæ and juice orange, Stipes becoming hollow glabrous
15798 Cap somew. viscid not zoned orange-colored, Lamellæ compact yellowish, Milk white, Stipes long smooth

**** Cap dry, naked at edge, Gills close, when young white, afterwards yellow.* EATABLE *but* ACRID.

15799 Sweet, Cap papillose smooth dry orange-colored, Lamellæ paler, Milk white, Stipes long hollow
15800 Sweet, Cap obtuse smooth dry opaque, Lamellæ testaceous rufous, Stipes solid firm brownish

15801 Cap glabrous polished reddish, Lamellæ flesh-colored at length ferruginous, Juice white not changing color, Stipes firm smooth becoming hollow
15802 Somewhat acid, Cap dry smooth somewhat zoned rufous brown, Milk yellow, Stipes solid
15803 Acrid, Cap dry smooth obsoletely zoned pale-yellow, Lamellæ pale flesh-color, Stipes solid
15804 Very acrid, Cap dry umbonate polished reddish-brown, Lamellæ rufous, Milk white, Stipes solid

15805 Acrid, Cap bluntish scaly dry red-ochre-colored, Lamellæ ochraceous, Stipes nearly solid
15806 Cap thin scaly dry opaque somewhat lurid
15807 Cap large dry zoneless dark fuscous or deep dingy-grey, Lamellæ yellowish rather numerous, Juice white

***** Cap dry, naked at edge, Gills not altering, Substance compact, tough.* VERY ACRID.

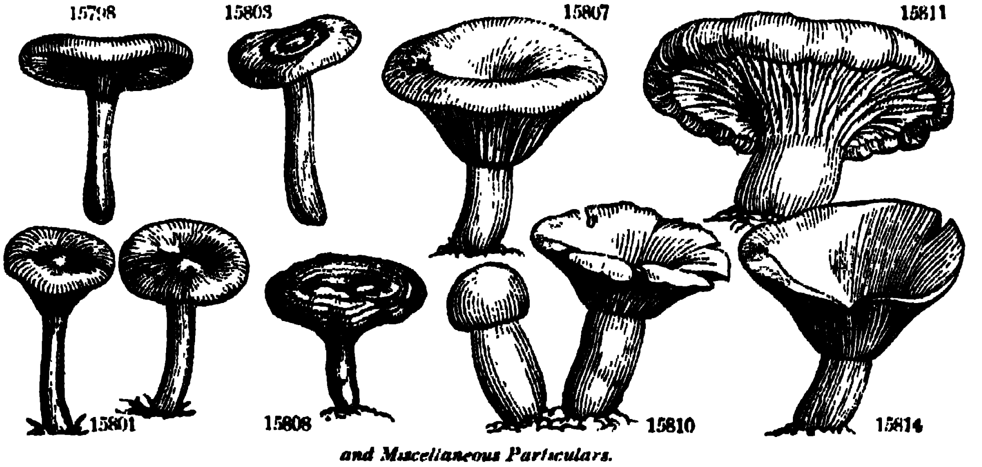
15808 Cap dry smooth somewhat zoned livid, Lamellæ distant yellow, Stipes hollow cinereous
15809 Cap repand dry smooth, Lamellæ distant pallid, Stipes short pallid [white very acrid
15810 Cap depress. becom infundibulif. glab whit Lamel very narrow crowded, Stipes solid white thick, Juice
15811 White, Cap umbilicate downy rigid, Lamellæ narrow distant, Milk white, Stipes solid thick
15812 All white sweet, Cap convex, Stipes long
15813 Seems to be a green variety of A. hysgynus, with a solid stipes

A Gills equally narrowed backward, acute.

1 Cap dry, smooth, Gills close, decurrent or acutely adnate.

** Cap more or less fleshy; when young convex-deflexed, when older depressed, Gills truly decurrent.*

15814 Very large whitish or very pale brown, Cap becoming infundibuliform, Lamellæ numerous decurrent becoming reddish, Stipes solid very thick



and Miscellaneous Particulars.

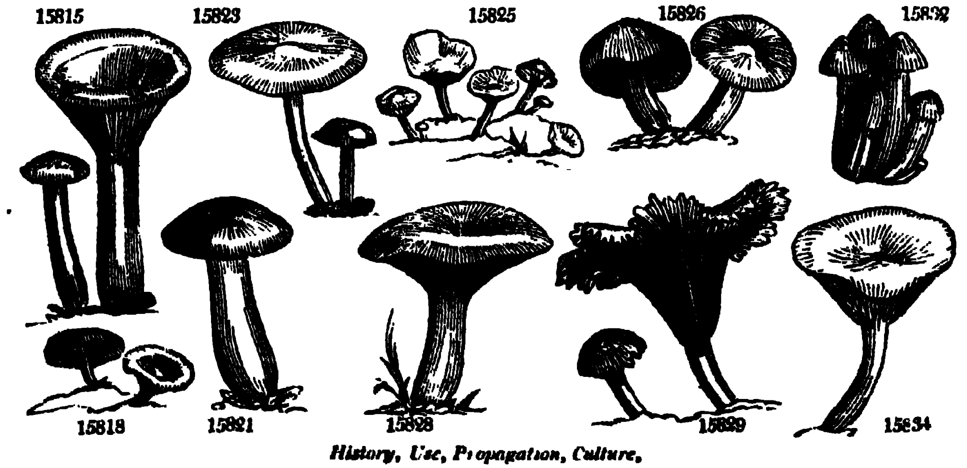
Dr. Withering enumerates three varieties, one of which affords, from every part of it when wounded, a copious discharge of yellow acrid juice. They are gathered in woods and dry pastures in September and October.

Lösel asserts in his Flora Prussica, p. 82., that " the juice of A. piperatus, mixed with the syrup of mallows, is a certain cure for calculus, and a powerful diuretic." Almost all the venemous fungi, and especially those of the present group, are said to be the favorite food of the goat, during the rutting season. It is sometimes monstrous and irregular. Withering mentions their attaining the diameter of ten inches. The stipes is not unfrequently thicker than it is long. It has been used in medicine, and thought useful in dissolving calculi; a property we may safely venture to deny it.

§ 8. *Clitocybe.* From κλιτος, inclined, and κυβη, a head. Most of the species are harmless, and of the larger size. A. nebularis is eatable, so also is A. fusipes. A. giganteus is one of the species which form those circles known by the name of *Fairy-rings*, the origin of which is still as obscure as ever.

A. orcades has loose gills, with the part attached to the pileus jutting up very close to the stem, so as to give

15815 gil'vus *Pers.*	cinnamon-col.	gigantic	3	au. no.	Dl.Y	among moss.	Grev. crypt. 1. 41
A. pileolarius Sowerb.							
15816 fláccidus *Sowerb.*	flaccid	pretty	3	sep. oc.	W	woods	Bolton, t. 185
15817 gibbus *Pers.*	gibbous	fragrant	2	oct.	Br	plains	Bulliard, t. 573. 1. 2
15818 turfósus *Sowerb.*	turfy	scentless	1	nov.	Br	turf	Sowerby, t. 210
15819 diatrétus *Fries*	perforated	tough	2	sep.no.	Pk	woods	
15820 nebuláris *Batsch*	clouded	gregarious	3	sep. oc.	Ciner.	heaths	Bolton, t. 40. *mollis*
A. cáseus With.							
15821 túrgidus *Grev.*	turgid	solitary	2	aut.	Sooty	dry woods	Grev. crypt. t. 9
15822 viridis *Wither.*	green	slender	2½	aug.	G	woods	Bolton, t. 12. *cæruleus*
15823 odórus *Bull.*	anise-scented	eatable	3	au. no.	Ciner.	woods	Grev. crypt. 1. 28
15824 cándicans *Pers.*	hoary	shaggy	1½	au. no.	W	dead leaves	Bolton, t. 17
15825 dealbátus *Fries*	whitened	gregarious	¾	au no.	Wsh	meadows	Sowerby, t. 123. γ
A. agréstis Wither. *A variety.*							
15826 grammopódius *Dec.*	stinking	shaggy	3	oct.	W	grassy grov.	Sower t. 281. *graveolens*
15827 míllus *Sowerb.*	Dog's-collar	depressed	3	jan.	Brsh	woods	Sowerby, t. 184
15828 inornátus *Sowerb.*	neat	pretty	2	aut.	Liv G	upon earth	Sowerby, t. 342
15829 fimbriátus *Bolton*	fringed	gregarious	1	au.sep.	Wsh	rotten wood	Bolton, t 61
15830 lignátilis *Fries*	wood	irregular	2	au.dec.	Wsh	rotten wood	
15831 adhæsivus *Wither.*	sticking	irregular	3	sept.	W.Br	plantations	
15832 œdemátopus *Schæff.*	fusiform	tufted	2	sp. aut.	Ruf.	woods	Schæff. t. 259
β *coralloides* Dicks.	*coralloid*	tufted	2	sp. aut.	Ruf.	hollow trees	Battarra, t. IX. f. B
15833 obésus *Wither.*	squat	tufted	1½	aug.	W.Br	pastures	
15834 opácus *Wither.*	opaque	cracking	2	ap.sep.	W	among grass	Sowerby, t. 142
15835 pistilláris *Wither.*	pistillary	crooked	¾	aug.	Wsh	among grass	
15836 camarophýllus *Fries*	arched	brittle	4	au. oc.	Sooty	damp woods	Sowerby, t. 172. *clitus*
15837 praténsis *Pers.*	meadow	eatable	1½	au no.	Ysh	way sides	Grev. crypt. 2. 91
A. fúlvus Wither.							
β *clavæfórmis* With.	*clavate*	eatable	1½	au. no	W	way sides	Schæff. t. 307
γ *ericeus* With.	*heathy*	eatable	1½	sep.nc	W	heaths	Bull. t. 467. *ericetosus*
15838 virgíneus *Wulfen*	virgin-white	eatable	2	sep.n	W	heaths	Grev. crypt. 3. 166
15839 psittácinus *Schæff.*	parrot-colored	pretty	2	oc. no.	Gsh.Y	meadows	Grev. crypt. 2. 74
15840 ceráceus *Sowerb.*	waxen	gregarious	2½	au. no.	Y	pastures	Sowerby, t. 20
15841 cónicus *Schæff.*	conical	watery	4	my. oc.	Ysh	meadows	Sow. t.381 *aurantiacus*
15842 puníceus *Fries*	crimson	beautiful	3	au. oc.	Or.R	among grass	Bull. t. 202 *coccineus*
15843 coccíneus *Pers.*	scarlet	beautiful	2	au. oc.	Sc	meadows	Sowerby, t 381
15844 baccátus *Scop.*	varnished	handsome	2	jn.nov.	Ros.R	on earth	Sower. t 208. *farinaceus*
β *amethýstinus* Huds.	*amethystine*	handsome	2	jn.nov.	Viol.	shady places	Sowerby, t. 187
15845 ovínus *Bull.*	sheep	mild	2	au oc.	Brsh	meadows	Bulliard, t. 580
15846 sulphúreus *Bull.*	sulphureous	fœtid	4	sep. oc.	Test.	trees&woods	Sowerby, t. 44
15847 tórtilis *Bolton*	twisted	distorted	½	aut.	Br	gard. mould	Bolton, t. 41
15848 ovális *With.*	oval	satiny	2½	sep. oc.	R Br	fir woods	



History, Use, Propagation, Culture,

them almost the appearance of being fixed, watery, brownish-white, two or four in a set, the small ones very minute, and the large ones sometimes splitting at the outer end; not numerous, rather broad for the size of the plant, frequently connected to the pileus by ligaments; pileus pale, buffy-brown, convex, irregular, with a sudden depression of the border at some distance from the centre, often giving the appearance of a large rounded boss in the middle; central color generally deeper; from one to one and three-quarters inch over; and the edge turning up with age: stem solid, white, changing to watery-brown, cylindrical, but thicker and flattened just under the pileus, very tough, mostly crooked, twisted when dry, rarely central, one and half inch high, and thick as a crow-quill. This is the twenty-seventh fungus of Ray's Synopsis, ed. 3. p. 6.; A. pratensis of Hudson, and coriaceus of Lightfoot. There are two varieties; one with cream-colored gills, buff pileus, and mealy stem; and another with yellow-brown, more fleshy, and more regularly convex pileus, found in groves. Mr. Woodward says, that this species has a much higher flavor than the common mushroom, but he suggests,

15815 Large, Cap convex umbonate at length infundibuliform smooth firm yellowish-white, Lamellæ numerous decurrent whitish, Stipes straight solid subradicating
15816 Cap thin funnel-shaped obt. smooth flaccid, Lamellæ decurr. whit Stipes solid thickened at base villous
15817 Cap umbonate smooth becoming funnel-shaped, Lamel. decurr. white, Stipes solid elastic taper. upwards
15818 Cap depressed broad zoned brown irregular, Gills decurrent pallid, Stipes solid
15819 Cap flatt. somew. umbilic. smth. a lit. flesh-color. : when dry whit. Lam. decurr. and solid eq. Stipes white

*** Cap closely fleshy, convex, opening out flat, Gills truly decurrent, Stalk strong.* Eatable.

15820 Cap compact smooth cinereous, Lamellæ slightly decurrent compact whitish, Stipes solid tapering upw

15821 Cap plano-convex very smooth greyish-brown, Lamellæ narrow numerous pale, Stipes hollow stout

**** Cap truly but not firmly fleshy, flattish or slightly depressed, Gills adnate, not properly decurrent, Stalk slender.*

15822 Cap smooth green, Lamellæ adnate narrow, and stipes (which is solid and smooth) white
15823 Fragrant smooth dull bluish-green umbonate convex becoming plane, Lamellæ numer. adnato-decurrent
15824 Shining-white, Cap smooth convex then umbonate, Lamel. adnate then decurr. Stipes fistulous smooth
15825 Scentless white, Pileus unequal thin smooth, Lamellæ adnate numerous, Stipes solid equal glabrous

15826 Cap obsoletely umbonate smooth, Lamellæ adnate close white, Stipes solid furrowed smooth
15827 Cap somew. umbon. smooth brown Lamel. affixed with hind end recurv Stipes solid equal strigose
15828 Cap obtuse smooth somewhat repand greenish-livid, Lamellæ adnate, Stipes solid smooth [short
15829 Dirty-white, Cap becom. funnel-form. smth. : marg. sinuat. and lob. Lam. adnate very tender, Stipes solid

***** Tufted, variable, some growing on wood, some on earth.*

15830 Cap irregular rather out of centre vill. whit. Lamel. adn compact white, Stipes solid flexu vill at base
15831 Cap flat discoid viscid, Lamellæ decurrent and solid tapering, Stipes white
15832 Cap conical powdery rufous, Lamellæ decurrent and solid ventricose powdery, Stipes rufous

15833 Cap whit.-brown, Stipes solid obconic. scarcely broader at top than bottom, Lamel decurr. branch. white
15834 Cap dead white nearly flat, Lamellæ white numerous, Stipes white with brown pith
15835 Whitish, Cap convex, Lamellæ decurrent, Stipes solid subconical

2. Cap somewhat compact dry, Gills very distant, arcuate, decurrent.

15836 Cap somewhat compact streaked sooty, Lamellæ decurrent white-glaucous, Stipes long stout fibrous
15837 Firm, Cap compact convex becoming partially expanded smooth brownish-buff with a pink tinge, Lamellæ decurrent thick, Stipes short solid attenuated below
β All white
γ Cap thinner with a striated margin
15838 Viscid, Cap campanul expand. when humid striated, Lamel. adnate somew distant, Stipes equal smooth

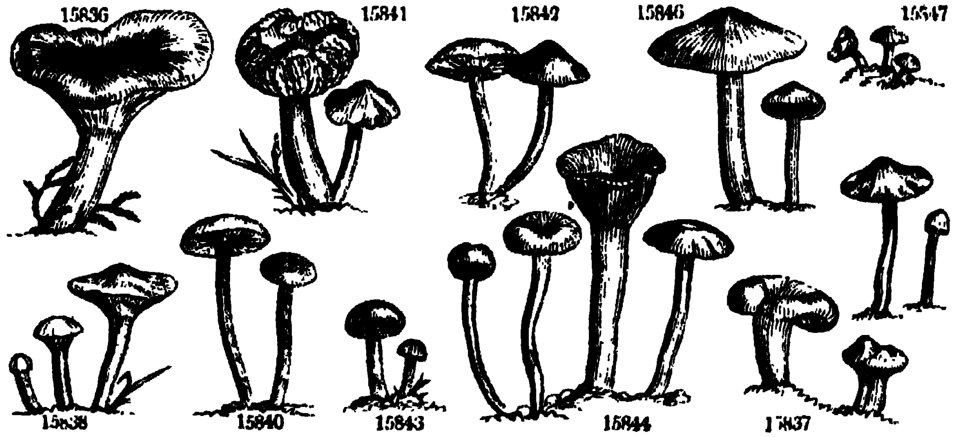
3. Cap thin, viscid, wet, Gills variable, Stalk hollow. Terrestrial.

15839 Green chang. to yell. Pileus campanulate spreading, Lamellæ adnate rather distant, Stipes equal smooth
15840 Cap nearly plane slimy substriate yellow, Lamellæ adnate decurrent distant, Stipes rather unequal gradually attenuated towards the base
15841 Cap conical glutin. mostly yell. or crim. Lamel. crowd. ventric attenuat. and free, Stipes substriate splitt.
15842 Cap campanul. obt lob. orange-red, Lamel. affixed ascend. yellow, Stipes thick ventricose white at base
15843 Cap conv. expand. visc. becom. depres. Lam. adn. versicolor connect by decurr. tooth, Stipes compr. scarlet

B. *Gills unequal at the back ; that is, toothed ; or arcuate, decurrent, sinuate, emarginate, &c*

4. Cap dry, minutely scaly, Gills generally arcuate, decurrent, rarely adnate. Firm.

15844 Gregarious, Cap scarcely fleshy tough farinaceous with minute scales pale or deep flesh-color : disk depressed in age, Lamellæ distant, Stipes long elastic
β Cap convex becoming depressed somewhat squamulose purple, Lamellæ distant thick violet-purple, Stipes purple, hollow when old
15845 Cap fleshy plano-convex somew. scaly brown. Lamel arcuate affix connect. whit. Stipes solid short firm
15846 Cap fleshy somewhat umbonate slightly silky testaceous, Lamellæ arcuate adnate somewhat distant and solid equal, Stem sulphur-colored
15847 Lamellæ brown changing to purplish, Cap red-brown convex turning up with age, Stipes brownish
15848 Lamellæ brownish-white, Cap cinnamon bossed, Stipes brownish-white cylindrical



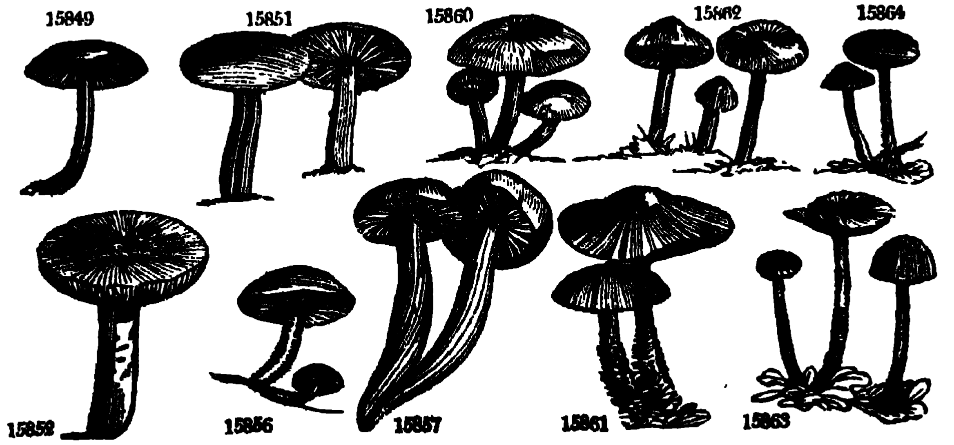
and Miscellaneous Particulars.

that from its leathery nature it is indigestible, except in the form of powder, in which it is admirable. Dr. Withering, however, observes, that he has seen the pileus and gills of this agaric very brittle and tender when fully saturated with moisture in rainy seasons, and in that state it is sufficiently digestive. Professor Martyn informs us that he has eaten these mushrooms for forty years without injury, and without perceiving that toughness, like leather, of which others have complained, except in very dry weather, or when they are in too advanced a state. They should be gathered young, and early in a morning, and properly dressed. They are found in hedge banks, upland pastures, and sheep commons, particularly in those patches called Fairy rings. Those that are found in woods and hedges are of inferior flavor to such as are gathered in dry pastures, which have a very pleasant smell and luscious flavor, either when stewed alone or in ragouts, &c. This sort makes excellent ketchup, and is much valued in the form of powder. It is in season during September and October, but may be dried so as to be in use for the table all the winter. Mr. Lightfoot supposes that this species is the

15849	pelioánthinus *Fries*	toothitted	beautiful	3	au.sep.	Pu	roots of trees	Bolt. t. 4. f. 1. *denticulatus*
15850	melaleúcus *Pers.*	black & white	elegant	3	au. no.	Sooty	damp places	
15851	compréssus *With.*	compressed	pellucid	3	june	Br	among grass	Sowerby, t. 66
15852	murinúceus *Bull.*	nitric-acid-scent.	fragile	2	au. oc.	Ciner.	pastures	Sowerby, t. 106
15853	platyphýllus *Pers.*	broad-headed	large	4	jul. oc.	Wsh	trun. of trees	Bul. t. 594. *grammoceph.*
15854	radicátus *Relh.*	rooting	gigantic	½	jn.sep.	W	trun. of trees	Grev. crypt. 4. 217
15855	grácilis *With.*	slender	more slender	1½	jn.sep.	W	trun. of trees	
15856	velútipes *Fl. Lond.*	velvet-footed	cæspitose	2	oc. mr.	Fulv.	trees	Sowerby, t. 384. f. 3
15857	fúsipes *Bull.*	thick-footed	eatable	2	jul. no.	W	woods	Sowerb. t. 129. *crassipes*
15858	cónfluens *Pers.*	confluent	cæspitose	4	au. oc.	Wsh	shady woods	
15859	collinus *Scop.*	hill	cæspitose	4	sep. oc.	Pallid	among grass	Bul. t. 403. *arundinaceus*
15860	dryóphilus *Sowerb.*	oak-loving	cæspitose	2	oc. no.	Wsh	heaps of lvs.	Sowerby, t. 127
15861	peronátus *Bolton*	woolly	changeable	2½	jul. no.	Test.	dead leaves	Sowerby, t. 37
15862	oréades *Bolton*	twisted	eatable	3	my.no.	Pa. Rf.	grassy places	Sowerb. t. 247. *pratensis*
15863	pórreus *Fries*	Garlic-scented	stinking	3	oc. no.	W	plantations	Sowerb. t. 81. *alliaceus*
15864	fúsco-purpúreus *Pers.*	brown-purple	cæspitose	2½	jul.sep	Pu	beech leaves	Pers. ic. t. 4. f. 1

§ 9. Collybia. *Fries*

15865	scorodónius *Fries*	Onion-scented	strong smell.	1½	au. oc.	Wsh	heaths	Schæff. t. 99. *alliatus*
15866	cárneus *Bull.* *puniceus* With.	flesh-colored	dwarf	1	au.sep.	R	grassy places	Bull. t. 533. f. 1
15867	esculéntus *Wulfen*	eatable	esculent	1½	ap. my.	Clay	way sides	Schæff. t. 59. *clavus*
15868	tuberósus *Bull.* *A. alumnus* Bolton	tuberous	gregarious	½	au. no.	W	on fungi	Grev. crypt. 1. 23
15869	racemósus *Sowerb.*	racemose	compound	¼	aut.	Gr	on fungi	Sowerby, t. 287
15870	clávus *Bull*	club	gregarious	1	au. oc.	Or. R	dead branch	Bolton, t. 39. B.
15871	rameális *Bull.*	branch-living	gregarious	¼	all sea.	Wsh	dry branches	Bolt. t. 39. f. D. *candidus*
15872	parasíticus *Bull.*	parasitical	meteoric	½	au. oc.	Gr	on fungi	Sowerby, t. 343
15873	Vaillántii *Fries* *Merúlius androsáceus* With.	Vaillant's	tough	1	au.sep.	W	dead branch.	Vail. bot. par. t. 11. f. 21-24
15874	Rótula *Scop.*	black-footed	gregarious	1	all sea.	W	woods	Sowerby, t. 95
15875	androsáceus *L.*	Androsace-like	tough	1½	all sea.	W. Br	dead leaves	Bolton, t. 32
15876	fœ'tidus *Fries*	stinking	gregarious	1	au.sep.	Br	fallen branc.	Sow. t 21. *Merulius fæt.*
15877	pérforans *Fries*	boring	stinking	1	all sea.	Pallid	dead fir lvs.	Sower. t. 94. *androsaceus*
15878	epiphýllus *Pers.*	shrivelled	gregarious	¾	sep. d.	W	dead leaves	Sowerb. t. 93. *squamula*
15879	Hudsóni *Pers.*	Hudson's	hairy	¾	aut.	Wsh	holly leaves	Sowerb. t. 164. *pilosus*



History, Use, Propagation, Culture,

mouceron of the French, who use it in ragouts instead of that, and acknowledge it to be equal in flavor, but more tough. The mouceron, however, has a very thick and fleshy pileus; its gills are very narrow and numerous, and fixed to the stem, and the stem is thick and short. Dr. Withering has carefully distinguished several other species from this fairy-ring agaric, or Scotch bonnets, as it is called by Mr. Ray.

5. *Cap smooth, somewhat humid, Gills arcuate at their connection with the edge, reticulated at their union with each other, with appendages at edge.*

15849 Cap convex livid-purple striat. at edge, Lamel. arcu.-annex. purple with black teeth, Stipes fistular equal

6. *Cap thin, dry, Gills emarginate.* Brittle.
* *Cap fleshy, smooth, and stem regular.* Terrestrial.

15850 Cap fleshy soft flatt. smooth, Lamel. clustered somew. ventricose white, Stipes somew. holl. long and thin

** *Cap somewhat fleshy, and stem, which has no roots, irregular.* Terrestrial.

15851 Cap subcarnose irregular smooth thin fuscous, Lamellæ distant white, Stipes hollow-whitish compressed
15852 Cap fleshy deform. crack. scaly cinereous, Lamel. glued together dist. and deform. holl. Stipes cinereous

*** *Cap somewhat fleshy, and stem, which has roots, regular.* Growing on Wood.

15853 Cap fleshy flat somew. streaked cinere.-whit. Lamel. very broad dist. and solid equal striat. Stipes white

C. *Gills equal, behind blunt.*
7. *Cap fleshy, glutinous, Gills somewhat united, Stem rooted.*
15854 Cap rugose glutinous tough, Lamellæ white, Stipes tall rigid with a long fusiform root
15855 More slender, Lamellæ sinuated with a decurrent tooth, Stipes very long [blackish towards base
15856 Cap nearly plane brown orange glutin. Lamel. ventric. yellow. Stipes incurv. velvety and redd.-brown or

8. *Cap tough, dry, Gills separate, close, white.*
15857 Gregarious, Cap fleshy loose, Lamel. somew. separate serrat. Stipes hollow ventricose furrow. whit. root.
15858 Confluent cæspitose, Cap somewhat fleshy whitish, Lamellæ loose compact, Stipes fistulous somewhat compressed red villous powdery
15859 Cap somew. fleshy campanul. expanded umbonate pallid, Lamel. loose, Stipes fistulous smooth glabrous
15860 Variable, Cap thin watery smooth plane sometimes depressed, Lamellæ free soft, Stipes hollow splitting becoming thicker towards the base pinkish or yellowish-white more colored at the summit

9. *Cap somewhat leathery, dry, Gills separate, distant, pallid.*
* *Cap fleshy, Stem solid.*

15861 Cap dry leathery convex at length plane, Lamellæ distant pale-reddish or buffish, Stipes solid clothed towards the base with a woolly or strigose mass
15862 Cap tough subumbonate reddish becoming buffish or very pale opake, Lamellæ distant whitish, Stipes solid firm cylindrical thickest under the pileus pale

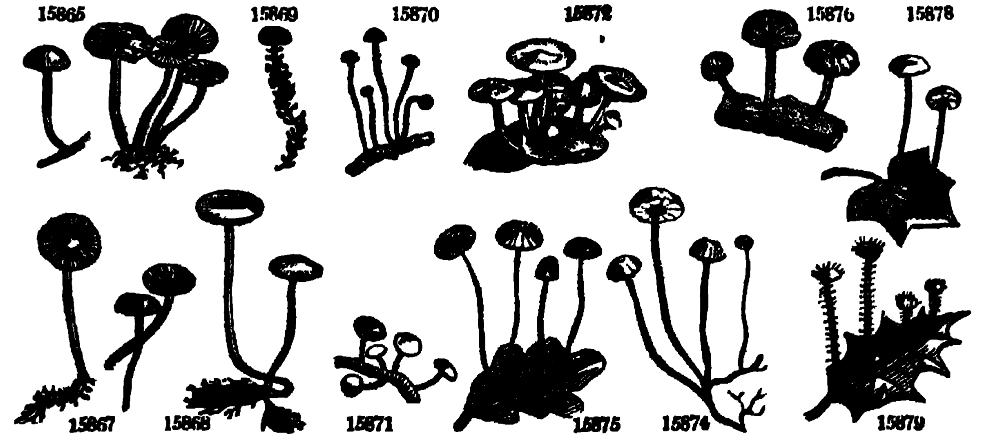
** *Cap fleshy, Stem fistulous.*
15863 Strong smell. Cap somew. fleshy smth. and lamellæ somew. loose white, Stipes fistular long downy rufous
15864 Cap somewhat fleshy wrinkled dark-purple becom. pale, Lamellæ loose rufous, Stipes fistular rubiginous

1. *Cap slightly fleshy, smooth, scarcely umbilicate, Gills true, Stem hollow, or somewhat fistulous.*

15865 Strong smell. Cap somew. fleshy, and lamellæ adnate crisp whitish, Stipes fistular short glabrous rufous
15866 Cap somewhat fleshy smooth pinkish-red, Lamellæ attached white, Stipes nearly solid short scaly

15867 Cap somew. fleshy obt. clay-colored, Lamellæ attached lax white, Stipes fistular rooting smooth yellow.
15868 Cap plane or somewhat umbonate, Lamellæ adnate numerous, Stipes subfistulose slightly tomentose at the base and springing from a reddish tuberous root
15869 Cap membranous papillose grey, Lamellæ white, Stipes racemose
15870 Cap plano-convex reddish-orange, Lamellæ white rather broad fixed, Stipes very slender subsolid whitish
15871 Gregarious, Cap nearly plane white sometimes changing to reddish, Lamellæ adnate white, Stipes short minutely furfuraceous marked within with a white line
15872 Cap somewhat fleshy convex becoming flat pruinose pale-grey, Lamellæ attached thick distant more obscure, Stipes fistular villous

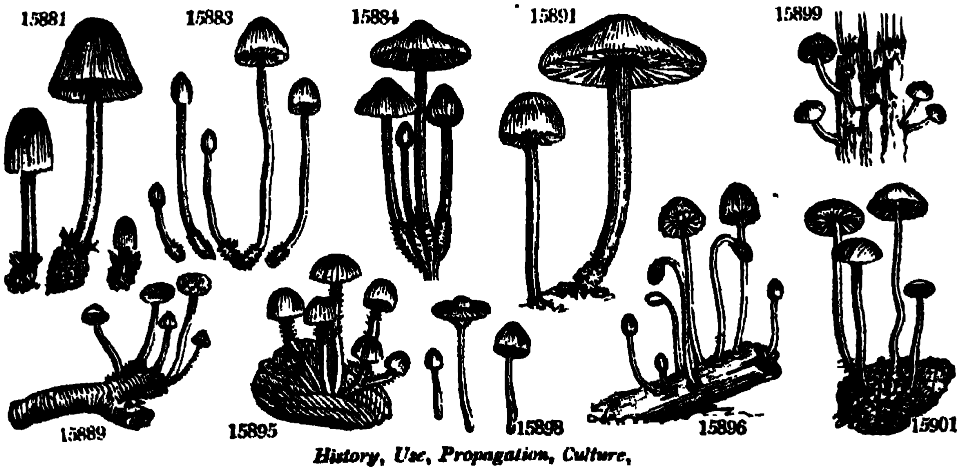
2. *Cap thin, membranous, flat, becoming depressed, plaited, rugose, Gills veiny, of the same substance as the cap, Stem horny, black.*
15873 Cap flat plaited, and lamellæ (which are very broad adnate and distant) white, Stipes solid smooth brownish thicker and paler towards the extremity
15874 Cap conv. umbilic. plicate, Lam. attach. to a collar surround. stipes white, Stipes holl. striate black below
15875 Cap convex plicate white sometimes tinged with brown, Lamellæ simple adnate white, Stipes hollow furrowed very glabrous purplish-brown or black except at the summit
15876 Cap convex umbilicated plicate redd.-brown, Lamel. adnate pale-yellow. Stipes holl. redd.-brown velvety
15877 Cap flatt. rugul. pall. Lam. adnate simp. many being halved, Stipes smth. fistular velvety blackish-brown
15878 Cap nearly plane rugose, Lamellæ few adnate resembling white prominent veins, Stipes hollow very minutely velvety reddish-brown below
15879 Cap convex-expanded whitish and rufous, Stipes covered with straight red hairs, Lamellæ whitish



and Miscellaneous Particulars.

§ 9. *Collybia.* So called from κολλυβος, a kind of small money. Small and persistent, gregarious species, growing either on earth or wood. Some of the species may be used as food.

§ 10. MYCE'NA. *Pers.*							
15880 alliáceus *Jacq.*	onion-scented	fœtid	6	jl. nov.	W.Br	dead leaves	Jacq. austr. t. 82
15881 atro-álbus *Bolton*	black-white	scentless	3	au. no.	Blsh	damp places	Bolton, t. 157
15882 alcalinus *Fries*	alkaline	fœtid	2	my. oc.	Cin.	on earth	Vaill. par. t. 12. f. 1, 2
15883 galericulátus *Scop.* *várius* With. *proliferus* Sower. t. 169	various	scentless	3	my. oc.	Brsh	trun. of trees	Sowerby, t. 165
15884 polygram'mus *Dec.*	marked	cæspitose	6	sep. d.	Cin.	dead leaves	Bull. t. 518. *H. fistulosus*
15885 gálopus *Pers.*	white-footed	scentless	4	au. no.	D.Gl.	woods	Fl. danica, t. 1550. f. 2
15886 hæmátopus *Pers.*	red-footed	cæspitose	2	au. oc.	Pk	beech trunks	
15887 cruéntus *Fries*	bloody	solitary	3	au. no.	R	fir leaves	
15888 élegans *Pers.*	elegant	fennel-scent.	2	au. no.	Liv.Y	pine woods	
15889 strobilinus *Pers.*	Pine-cone	gregarious	2	au. no.	Crim.	pine woods	Sower. t. 197. *coccineus*
15890 róseus *Pers.*	rosy	gregarious	2	au. no.	Rosy	pine woods	Pers. syn. t. 3. f. 5
15891 púrus *Pers.*	pure	gregarious	3	jn. nov.	Rosy	woods	Sowerby, t. 72. *roseus*
15892 Adónis *Bull.*	Adonis	various-color.	2½	sep. n.	Rosy	woods	Bulliard, t. 560. f. 2
15893 luteo-álbus *Bolton*	yellow-white	pretty	2	au. sep.	Y	among moss	Bolton, t. 38. f. 1
15894 láctous *Pers.*	milky	gregarious	1½	jl. nov.	W.Y	heaths	Sower. t. 385. f. 5. *tenuis*
15895 pilipes *Sowerb.*	hairy-footed	cæspitose	2	aut.	Pa.Br	dead Agarics	Sowerby, t. 249
15896 epip'terýgius *Scop.*	nodding	variable	1½	au. no.	Cin.	among moss.	Sowerby, t. 92 *nutans*
15897 vulgáris *Pers.*	common	gregarious	1½	au. no.	Cin.	fir leaves	Fl. danica, t. 1678. f. 2
15898 pellúcidus *Bull.*	transparent	thick	1½	aut.	Ruf.	the ground	Bulliard, t. 550. f. 2
15899 corticális *Bull.*	bark	delicate	½	oc. feb.	Ruf.	bark of trees	Sowerby, t. 243
15900 pterigenus *Fries* *rosellus* With.	rosy	beautiful	1¾	au. oc.	Rosy	among moss.	
15901 spinipes *Sowerb.*	spiny-footed	gregarious	4	au. oc.	Br	pine cones	Sowerby, t. 206
§ 11. OMPHA'LIA. *Pers.*							
15902 stellátus *Fries*	stellate	gregarious	1	jl. aug.	W	hollow trees	Sower. t. 107. *buccinalis*
15903 fíbula *Bull.*	button	slender	1½	my. oc.	Or.Y	among moss	Sowerby, t. 45
15904 pyxidátus *Bull.*	box-like	variable	2	my no.	Test.	on earth	Bulliard, t. 568 f. 2
15905 murális *Sow.*	wall	subgregar.	½	aut.	Br	among grass	Sowerby, t. 322
15906 ericetórum *Pers*	heath	variable	1	my no.	W	damp heaths	Bull. t 276. *androsaceus*
15907 caulicinális *Sower.*	thick-stalked	solitary	2	jl. oct.	Ferr.	pine woods	Sowerby, t. 163
15908 epichýsium *Pers.*	dirty	tender	1	jl. oct.	Cin.	will. trunks	Pers. ic. pict. t. 13. f. 1
15909 obliquus *Pers.*	oblique	solitary	1	aut.	Pa.Ci.	on earth	Pers. ic. pict. t. 13. f. 3
15910 frágrans *Sowerby*	fragrant	anise-scented	1½	aug. d.	Livid	among grass	Sowerby, t. 10
15911 cæspitósus *Bolt.*	cæspitose	pellucid	1	aug d.	Y	peat	Bolton, t. 41. f. C.
15912 cyathifórmis *Bull.* *A. clavatus* Wither.	cyathiform	club-shaped	3	oc. no.	D.Br	earth	Sowerby, t. 363. *sordidus*
15913 murinus *Sowerby*	mouse-scented	solitary	2	sept	O	earth	Sowerby, t. 162
15914 tigrinus *Bull.*	mottled	gregarious	1½	my. jn.	Wsh	trun. of trees	Sowerby, t. 68



History, Use, Propagation, Culture,

§ 10. *Mycena.* From μυκης, a kind of small fungus. The species are of the smaller kind, at least they are thin and slender, and tolerably permanent. None of them are fit for food; many are distinguishable by their smell, which is always powerful.

1. *Dry, Cap generally umbonate, not depressed, Gills separate or adnate, not decurrent.*
* *Stem rooting, smooth, juiceless, Gills separate, whole-colored.*
15880 Cap becoming nearly plane subcoriaceous, Lamellæ free whitish, Stipes tall covered with a sort of bloom dark purplish-brown below velvety at the base
15881 Cap smooth blackish Margin and lamellæ loose whitish, Stipes tumid at base, strigose

** *Stem smooth, juiceless, somewhat rooting, Gills adnate, whole-colored.*
15882 Cap obtuse striated cinereous, Lamellæ adnate glaucous white, Stipes smooth firm villous at base
15883 Cap brown. Lamel. whit. adnate with a decurrent process, Stipes smth. tenacious strig. at base and radicat.

*** *Stem juiceless, striated, Gills whole-colored.*
15884 Cap obscurely striate blue.-grey, Lamel. attenuated and subadnate whit. Stipes long rigid striate glisten.

**** *Stem smooth, milky, somewhat rooting, Gills attenuated, united at the edge.*
15885 Cap striated blackish glaucous, Lamellæ affixed white, Stipes filled with white juice
15886 Cap fleshy-membranous whitish-red, Lamellæ affixed, and stipes filled with dark-red juice
15887 Cap striated reddish-brown, Lamellæ adnate whole-colored at the edge, Stipes filled with red juice

***** *Stem smooth, juiceless, somewhat rooting, Gills adnate, discolored at edge.*
15888 Cap striated livid-yellow, Lamellæ adnate linear livid : margin yellow, Stipes rigid smooth fibrous at base
15889 Bright-red, Cap acutely umbonate with a striate margin, Lamellæ fixed dilute reddish, Stipes firm strigose and pale at the base
15890 Cap between fleshy and membranaceous convex pale rose-purple, Lamellæ ventricose rather paler than pileus, Stipes smooth villous at the base

****** *Stem smooth, juiceless, scarcely rooting, Gills affixed, whole-colored.* Color Pure.
15891 Cap between fleshy and membranous obtuse somewhat rose-colored, Lamellæ round ventricose pallid, Stipes smooth villous at base
15892 Cap obtuse smooth, Lamellæ adnate white, Stipes smooth rootless
15893 Cap umbonate striated and slender, Stipes yellow, Lamellæ adnate white
15894 Cap somew. umbonate striated yellowish-white, Lamel. affixed distinct, and stipes rigid smoothish white

******* *Stem juiceless, rootless, but swollen at base into a globe, Cap blunt.*
15895 Pale-brown, Cap conical smooth, Lamellæ loose compact, Stipes thickish hairy

2. *Cap or stem viscid, Gills adnate or decurrent.*
15896 Cap obtuse striated and elongated, Stipes yellow viscid, Lamellæ uncinate
15897 Cap umbonate becoming depressed striated cinereous, Lamellæ decurrent white, Stipes short firm viscid

3. *Dry, Cap finally depressed, Gills decurrent.*
* *Firm, persistent, with a firm stem.*
15898 Cap somewhat membranous campanulate striated at edge, Lamellæ decurr. very broad, Stipes solid thin

** *Delicate, withering, with a capillary stem.*
15899 Cap thin hemispher. becom umbilicat. and striat Lamel. uncin. decurr dist. Stipes short incurv. smooth
15900 Thin rosy, Cap campanulate smooth, Lamellæ broad distant, Stipes capillary with a strigose bulb

15901 Slender, Stipes slender with stiff wool at base, Cap depressed hemispherical

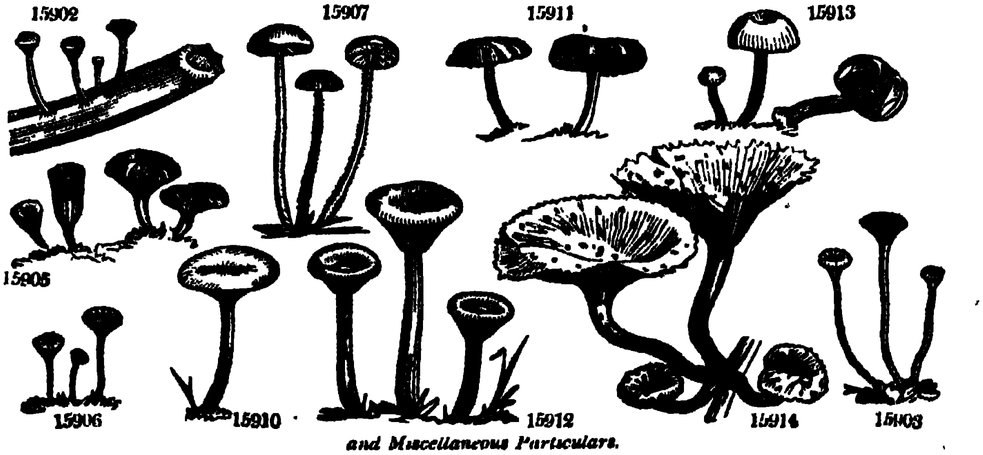
1. *Cap somewhat membranous, Gills decurrent.*
* *Small, Cap membranous.*
15902 White, Cap convex smooth, Lamellæ distant, Stipes attached to the base of a convex radiat. membrane
15903 Cap convex glabrous orange-yellow, Lamellæ whitish distant, Stipes yellowish
15904 Testaceous rufous pallid, Cap funnel-shaped : disk smooth, Lamellæ narrow, Stipes firm
15905 Cap convex umbilicated striate, Lamellæ broad pale, Stipes solid short thickish [at the base
15906 Cap depress. in centre : marg. turned down striate, Lamel. dist. rather broad white, Stipes short pubesc.
15907 Stipes solid thickened at base ferruginous downy

** *Large, Cap somewhat membranous.*
15908 Tender cinereous blackish, Cap funnel-shaped striated, Lamel. lin. Stipes somew. solid tough vill. at base
15909 Thin pale cinereous, Cap somewhat funnel-shaped smooth oblique, Stipes thick

2. *Cap fleshy, membranous, Gills adnate.*
15910 Odor. Cap nearly plane pale yellow. or brown -white when dry, Lamel. numer. whit. Stipes holl. white
15911 Livid, Cap somewhat membranous plane striated, Lamellæ distant, Stipes fistular [attenuat. above
15912 Cap somew. fleshy funn.-shap. smooth dark-brown grey : marg. reflexed, Lamel. dist. grey. Stipes elastic

15913 Cap thin campanulate green at centre brown and plaited at margin, Stipes smooth hollow

3. *Cap fleshy, coriaceous, somewhat corky, soft, Gills decurrent.*
15914 Cap regular umbilicat. whitish with black. hairy scales, Lamel. denticul. white, Stipes thin minutely scaly



and Miscellaneous Particulars.

§ 11. *Omphalia.* From ομφαλος, the navel, in reference to the young form of the pileus. Many of the species are of the smallest size. None are eatable.

15915 lepideus *Fries*	scaly	variable	1	my. jn.	pa.Oc.	pine trunks	Schæff. t. 29. *squamosus*
β *monstrósus* Fries	*monstrous*	deformed	3	my. jn.	pa.Oc.	pine trunks	Sower. t.382. *tubæformis*
15916 cochleátus *Pers.*	cochleate	cæspitose	3	sp. aut.	Wsh	old trunks	Sower. t. 168. *confluens*
§ 12. Pleuro'tus. *Fries.*							
15917 dryinus *Pers.*	oak	solitary	1	au. no.	Wsh	oak trees	Schæff. t.233. *dimidiatus*
15918 torulósus *Pers.*	knotted	very tough	1½	jl. oct.	Rsh	birch trees	Nees pilze, f. 176
15919 conchátus *Bull.*	shell-shaped	gregarious	1	jl. sep.	Cinn.	birch trees	Bull. t. 298
15920 ostreátus *Jacq.*	oyster	eatable	½	sp. aut.	Cin.	trun. of trees	Sowerby, t. 241
15921 petaloides *Bull.*	petaloid	gregarious	½	sep. oc.	Brsh	beech trees	Bulliard, t. 226. 557. f. 2
15922 pórrigens *Pers.*	pine	imbricated	1	jl. nov.	W	pine trees	
15923 flabellifórmis *Bolt.*	flabelliform	thin	½	jl. nov.	Pa.Br	sides of trees	Bolton, t. 157
15924 ulmárius *Bull.*	Elm	cæspitose	3	oc.dec.	Pale	trun. of trees	Sowerby, t. 67
15925 palmátus *Bull.*	palmate	cæspitose	2	oc.dec.	Br	oak trees	Sowerby, t. 62
15926 serotinus *Pers.*	late	dwarf	1	oc. jan.	Ol	trun. of trees	Bux. cent. 5. t. 2. f. 2
15927 stip'ticus *Bull.* *ficoides* With.	stiptic	gregarious	¼	oct. ap.	Tann.	trun. of trees	Sow. t.109 *flabelliformis*
15928 nidulans *Pers.*	nestling	imbricated	1	oc. dec.	Ysh	fallen trees	
15929 mastrucátus *Fries*	prickly	imbricated	1	sep. n.	Gr	beech trunks	Sower. t. 99. *echinatus*
15930 móllis *Pers.*	soft	gregarious	½	sep. n.	Y.Br	beech trunks	Sowerby, t. 98
15931 variábilis *Pers.*	variable	gregarious	½	sep. n.	W	beech trunks	Sowerby, t. 97. *niveus*
15932 laterális *Fl. Dan.*	lateral	imbricated	1½	sum.	Umb.	birch trunks	Fl. danica, t. 1556. f. 2
15933 trémulus *Schæff.*	tremulous	almost sessile	½	au.dec.	Gr	earth	Sowerby, t. 242
15934 sep'ticus *Fries*	pubescent	delicate	½	au. oc.	W	decay. trun.	Sower. t.321. *pubescens*
15935 applicátus *Batsch*	cup-shaped	delicate	½	aut. sp.	Cin.	decay. trun.	Sowerby, t. 301
§ 13. Mou'ceron. *Bauh.*							
15936 Prúnulus *Cæsalp.*	French Mushr.	esculent	1½	jn. oct.	W	woods	Sower. t. 143. *pallidus*
§ 15. Clitopi'lus. *Fries.*							
15937 horténsis *Fries*	garden	elastic	2½	aut.	Sooty	gard. on ear.	
15938 rhodopólius *Fries*	repand	beautiful	3	jl. nov.	Livid	damp places	Bolton, t. 6. *repandus*
15939 fértilis *Pers.*	prolific	gregarious	3	aut	P. Lv.	hedge rows	Bulliard, t. 534
15940 sinuátus *Bull.*	burnt sugar-sce.	fragrant	5	oct.	W.Y	damp woods	Bulliard, t. 579. f. 1
15941 maritimus *With.*	seashore	small	1	oct.	W	damp woods	
15942 leoninus *Schæff.*	tawny	fragile	3	au. oc.	Y	beech woods	Schæffer, t. 48
15943 Plúteus *Batsch.*	sooty	variable	3	my.no.	Sooty	trun. of trees	Sowerby, t. 108. *latus*
15944 phlebóphorus *Ditt.* *reticulátus* With.	wrinkled	gregarious	4	jul.oct.	Ol	decay. wood	Grev. crypt. 3. 173
§ 15. Lepto'nia. *Fries.*							
15945 griseocyáneus *Fries*	blue-gray	solitary	1½	au.sep.	Lilac	grassy hills	Bolt. t. 41. *purpureus*
15946 chalýbeus *Pers.*	dove-colored	pretty	2	jl. sep.	B	among grass	Sow. t.161. *columbarius*
§ 16. Nolane'a. *Fries.*							
15947 majális *Fries*	early	cæspitose	4	spring	Cinn.	fir woods	Sow. t. 174. *molliusculus*
15948 pas'cuus *Pers.*	meadow	variable	3	jan. d.	Sooty	everywhere	Bolton, t. 35. *fissus*
§ 17. Ecci'lia. *Fries.*							
15949 asprélius *Fries*	roughish	gregarious	1½	sum.	Gr	grassy places	
15950 áquilus *Fries*	exposed	subsolitary	1	au.sep.	Umb.	river sides	
15951 politus *Fries*	polished	gregarious	3	au. oc.	Livid	among grass	
15952 cárneo-álbus *With.*	salmon-color'd	gregarious	1	au. oc.	W	among grass	

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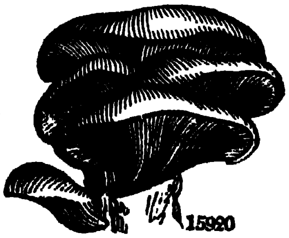
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History, Use, Propagation, Culture,

§ 12. *Pleurotus.* From πλευρον, the side; the pileus is always inserted out of the centre. A tribe of perennial, innocuous, often eatable fungi; always found upon trees.

§ 13. *Mouceron.* An old French name of certain eatable fungi. This, no doubt, is the origin of our word Mushroom. A. prunulus is said to be one of the very best of mushrooms; it is common in woods, among grass.

§ 14. *Clitopilus.* A name analogous to Clitocybe, § 8, as the group is also. Species of the middle size, nearly destitute of smell, mild, but not used as food.

15915 Cap compact unequal pale ochraceous, Scales spot-like more opaque, Lamellæ torn, Stipes stout scaly
β Stipes long curved, Cap small
15916 Cap tough somewhat lobed twisted smooth rufous, Lamellæ toothed pallid, Stipes firm furrowed rufous

1. *Veil universal, Cap compact, horizontal.*

15917 Hard, Cap oblique smoothish whitish, Scales brownish, Veil fugacious

2. *Veil none, Cap fleshy, Gills decurrent.*

* *Cap always entire.*

15918 Cap tough depressed reddish tan-color, Lamellæ rather crisp paler, Stipes short grey downy

** *Cap entire or halved.*

15919 Cap tough deformed pink cinnamon-color, Lamel. entire and short irregul. Stipes downy at base and pallid
15920 Tufted, Stipes sublateral or none, Cap smooth fleshy pale bluish-grey or brown, Lamellæ whitish often anastomosing at the base

*** *Cap always halved, somewhat ascending.*

15921 Ascending, Cap spatulate whitish-brown, Disk and stipes somewhat villous, Lamel. compact lin. white
15922 White, Cap ascending sessile ear-like glabrous, Lamellæ narrow linear quite entire
15923 Cap flattish smooth pale-brown, Margin and lamellæ crenate, Stipes short or none

3. *Veil none, Cap fleshy, when young horizontal, Gills terminating in a determinate manner.*

15924 Cap compact smooth pale whitish, Lamellæ adnate or subdecurrent whitish, Stipes strong ascending incrassated at the base excentrical
15925 Cap smooth rufous, Lamellæ adnate of the same color, Stipes out of the centre smooth whiter
15926 Cap comp. somew. visc. olive-green, Lamel. adnate comp. pallid, Stipes short rather on one side sooty scaly
15927 Cap coriaceous reniform rather tan-colored, Epidermis separating into scurfy scales, Lamellæ veiny connected, Stipes lateral frosted

4. *Cap fleshy, when young resupinate, Gills running together in a point out of the centre.*

15928 Cap fleshy reniform downy yellowish, Lamellæ orange-yellow
15929 Cap fleshy scaly mouse-color, Upper stratum gelatinous, Lamellæ greyish-white
15930 Cap soft smooth gibbous pale-yellow brown, Lamellæ pale reddish-brown somew. ventricose, Stipes none
15931 Cap membranaceous white cottony at first subresupin. at length reflexed, Lamel. whit. afterw. pink.-buff
15932 Cap fleshy smooth umber-colored : the upper layer gelatinous, Lamellæ pale becoming yellow

5. *Cap membranous, Gills adnate, or running together in one point.*

15933 Cap reniform diaphanous, Lamellæ linear, Stipes marginal ascending villous [like Byssus
15934 Cap at first resupinate : afterw. reflex. smooth downy, Lamel. radiat. Stipes thin incurved downy, Roots
15935 Cap subsessile : at first resupinate ; afterwards reflexed frosted villous at base, Lamellæ lax

15936 Cap compact flattish white, Lamellæ white becoming pink

1. *Gills affixed.* Terrestrial.

15937 Cap somewhat umbonate sooty black. Lamel. flat decurr twist. whit. Stipes hollow thickened downwards
15938 Cap somewhat umbonate silky livid, Lamellæ adnate whitish rose-colored, Stipes hollow smooth white
15939 Cap somew. umbon. smooth livid pale, Lamel. annexed flesh-colored, Stipes solid smooth somew. bulbous
15940 Broad, Cap smooth yellowish-white, Lamellæ loosely attached very broad rufous, Stipes solid equal white
15941 Small, Cap convex and stipes white, Lamellæ adnate

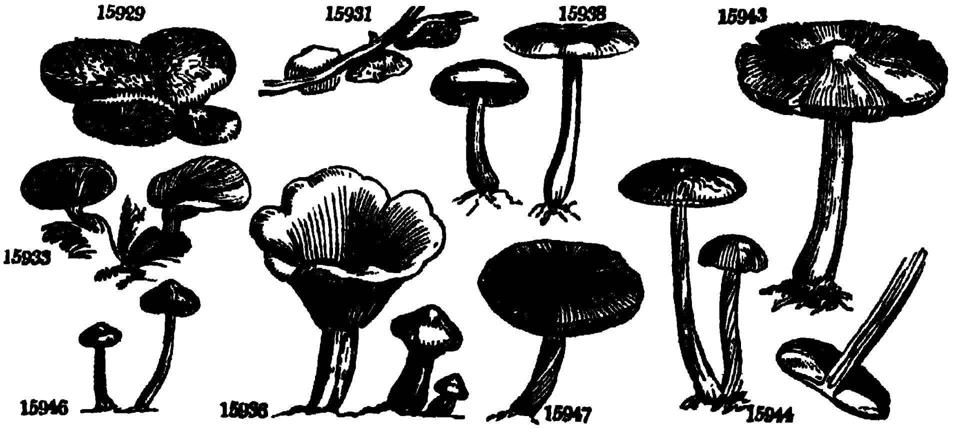
2. *Gills altogether distinct.* Upon Wood.

15942 Cap somewhat membranaceous smooth yellow, Stipes solid striated
15243 Cap fleshy smooth blackish soot-color, Stipes firm with black fibres
15944 Cap convex at length plane clear olive or yellowish-brown smooth but minutely rug. as if veined towards the centre, Stipes hollow rather twisted, Lamellæ ventricose

15945 Cap scaly grey-lilac colored, Lamellæ loose, Stipes hollow fibrous cæsious
15946 Cap somewhat squamose blue, Lamellæ bluish-white adnate at length purple, Stipes solid smooth bluish

15947 Cap irregular smooth somew. cinnamon-colored, Lamel. loose toothed rosy, Stipes hollow twisted striated
15948 Cap campanul. expanded black. soot-color when dry paler and silky, Lamel. almost loose dirty flesh-col.

15949 Cap fibrous scaly livid-grey, Lamel. adnate and fistular, Stipes (which is white with wool at the base) paler
15950 Cap squamulose umber-colored, Lamellæ sinuate affixed purplish, Stipes solid short
15951 Cap smooth with a striated edge and the fistular equal, Stipes livid, Lamellæ decurrent
15952 Lamellæ salmon-colored not numerous, Cap and stem white



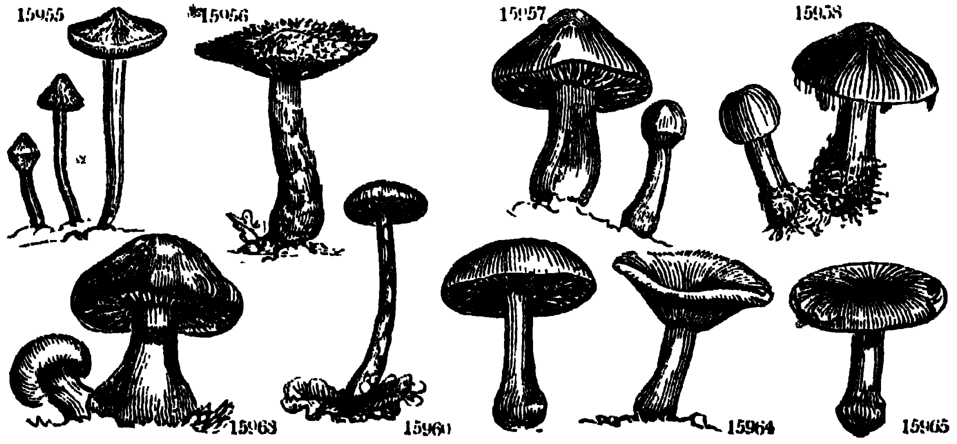
and Miscellaneous Particulars.

§ 15. *Leptonia.* From λεπτος, slender. Small permanent, elegant, scentless, insipid, not used for food. They are in perfection at the end of summer.

§ 16. *Nolanea.* From *nola*, a bell. Terrestrial, various, of a thin watery substance, insipid, not eatable. Easily distinguished by their habit.

§ 17. *Eccilia.* From εκκοιλαω, to excavate. Small, terrestrial, inodorous, insipid.

	§ 18 Telamo'nia *Fries.*							
15953	tórvus *Fries*	tawny	strong scent.	4	jul oc.	Br	damp woods	Bull. t. 600. *araneosus*
15954	brun'neus *Pers.*	brown	weak scented	4	jl. nov.	Pa. U.	pine woods	
	spongiósus With.							
15955	overīnus *Fries*	dismal	solitary	5	jl. nov.	Pu. Br	pine woods	Sower. t. 125. *impuber*
15956	sublanátus *Sowerb.*	half-woolly	radish scent	3	au. oc.	Ol Br	woods	Sowerby, t. 224
15957	bulbósus *Sowerb.*	bulbous	radish scent.	4	au. oc.	Br	among grass	Sowerby, t. 130
	§ 19. Inolo'ma. *Fries.*							
15958	violáceus *L.*	violet	shewy	4	au. oc.	Vi	groves	Bolton, t. 52
15959	pholidius *Fries*	cobwebbed	solitary	4	au. oc.	Cin.	woods	Bul. t. 586. f. 1. *psammocephalus*
15960	spiloméus *Fr.*	spotted	solitary	3	au. sep.	Pa. Br	woods	Sow. t. 384. f. 1. *araneosus*
15961	scaūrus *Fries*	curved	soft	3	jan. oc.	Ol	woods	Batsch cent. 2. f 184
15962	callochróus *Pers.*	fine-skinned	insipid	4	au oc.	Psh	woods	Bat. cent. 1. f. 74. *subpurp.*
15963	glaúcopus *Schæff*	blue-footed	gregarious	3	au oc.	Ol	woods & hea.	Sowerby, t. 223
15964	várius *Schæff.*	thick-footed	variable	4	au. oc.	Y	everywhere	Sower. t. 102. *turbinatus*
15965	turbinátus *Bull*	turbinate	soft	4	sep. no.	Y	damp woods	Bulliard, t. 110
	§ 20 Dermo'cybe *Fries*							
15966	sanguineus *Wulf.*	bloody	handsome	1½	jn. nov.	Crim.	woods	Sowerby, t. 43
15967	cinnamómeus *L.*	cinnamon	variable	3	jn dec	Cinn.	everywhere	Sowerby, t. 205
15968	hel'volus *Pers.*	brownish	dirty	2	jn. dec.	Cinn.	woods	Sow. t. 173. *hinnulcus*
15969	Cúcumis *Pers.*	Cucumber-scented	strong smell.	3	au. oc.	Pu Br	woods	Sower. t. 344. *fuscipes*
15970	Armeniacus *Schæff.*	Apricot-color.	softish	3	jl. nov.	Pa. Br	woods	Schæff. t. 81
15971	castáneus *Bull.*	Chesnut-color.	gregarious	2	jl. nov.	Ches.	woods	Bulliard, t. 268
15972	hýbridus *Sowerby*	hybrid	variable	2	my. no.	Or	fir leaves	Sowerby, t. 221
15973	testáceus *With.*	testaceous	crooked	4	sept.	Y	plantations	
15974	flávidus *Sowerby*	yellowish	soft	2	sept.	Ysl	among grass	Sowerby, t. 366
	§ 21. Pholio'ta. *Fries.*							
15975	aúreus *Sowerby*	golden	subcæspitose	6	sep oc.	Fulv.	damp earth	Sowerby, t. 77
15976	caperátus *Pers*	pale	solitary	5	jul. oct	Lem.	mount. woo.	Fl. dan. t. 1675
15977	aurivéllus *Batsch*	filamentous	solitary	3	oc no.	Y	old trees	Schæ. t 209. *filamentosus*
15978	squarrósus *Pers.*	squarrose	cæspitose	2	au. dec.	Ferr.	roots of trees	Gre cryp fl t. 2. *floccosus*
15979	flam'mans *Batsch*	flame colored	elegant	3	jul. oct.	Y	pine trees	Batsch el. f. 30
	rheodes With.							
15980	muricátus *Fries*	muricated	variable	2	jul oct.	Dl. Y	commons	
	scariosus With.							
	β *inæqualis* Batt	*unequal*	variable	2	jul. oct.	Dl. Y	commons	Bolt. t. 50. *luteus*
15981	mutábilis *Schæff*	changeable	eatable	3	my. no.	Pa. Cl.	on trees	Schæff. t. 9
15982	constric'tus *With.*	contracted	watery	¼	sept.	Y. Br	rotten wood	



History, Use, Propagation, Culture,

§ 16. *Telamonia.* So named on account of their gigantic stature. The species are among Agarics what Ajax Telamonius was among men. Large, terrestrial, firm species, none of which are eaten. The species of this and the next subgenus are extremely difficult to determine; not only on account of their size, but of their colors, which vary exceedingly at different periods of their growth, as well as according to their situation. Their colors are also intermediate between fulvous, testaceous, cinnamon, &c., which are very difficult to describe The most constant marks are, first, smell; second, surface of pileus being fibrous or viscid; third, the situation of the lamellæ, whether they are compact or distant; and fourth, their color in the young state, in which it must be observed, that they are always described.

The A. bulbosus of Hudson and Ray is referred by Withering to A. violaceus of Linnæus; which has fixed purple gills, numerous, eight in a set; long gills, sometimes cloven, and a few of them decurrent: purple pileus, soft, smooth, firm, convex, but centrally depressed with age, and cracking at the edge, which is somewhat turned down, from half an inch to five inches over: stem solid, cylindrical, purple, bulbous at the base, from one to four inches high, and from a quarter to one inch in diameter; and curtain like a cobweb. In maturity it plentifully emits a powder of the color of Spanish snuff. It is not uncommon from October to December, in Edgbaston and Barr plantations, in the woods near Bath, and at Powick, near Worcester. With much broiling and duly seasoned, it is esteemed as delicious as an oyster. Another variety, which is the A. varius of Bolton, is found on grass-plats and new-mown fields in July. It has chocolate gills, from brown to black

15953 Cap obt. fibrous hoary testac. Lamellæ adn. purple, An annulus sheath. stipes which is violet at upp. end
15954 Cap bluntly umbon. somew. fibr pale umb.-color, Lamel. adnate umb.-col. Stipes somew. bulb. striat. paler

15955 Cap somew. fleshy purp.-brown becom. fibrous testac. and hoary, Lamel. violet-pur. Stipes long eq. violet
15956 Cap scaly testaceous olive-color, Lamellæ yellowish cinnamon, Stipes bulbous scaly, Veil fuscous
15957 Cap obtusely umbon. smth. bright-brown when dry testac. Lamel. cinnam. Long bulb. stipes and veil white

1. *Cap always dry, scaly, or fibrous, obtuse or umbonate, never depressed.*

15958 Cap very convex dull or brownish-violet, Lamellæ distant violet, Stipes spongy greyish violet within
15959 Cap umbonate squarrose with hairy sooty scales, Lamellæ compact violet becoming clay-colored, Stipes scaly transversely banded with black
15960 Cap umbon. smooth. pale-brown, Lamel. compact violet discolor. Stipes taper. varieg. with brown scales

2. *Cap smooth, humid, viscid, always obtuse, finally depressed, Stem blue, becoming white.*

15961 Cap equal viscid, Lamellæ compact olive-purple, Stipes attenuated bulbous
15962 Cap equal viscid smooth, Lamellæ compact violet-purple, Stipes bulbous becoming white from violet
15963 Compact rounded, Cap olivaceous or brownish-grey glutinous while young, Lamellæ reddish-brown tinged with violet, Stipes thick tinged with violet
15964 Firm, Cap yellow somew. scaly humid viscid, Lamel. compact serrat. whit.-cæsious, Stipes tapering white
15965 Cap smooth viscid yellow or tawny, Lamellæ compact quite entire yellowish-cinnamon, Stipes bulb. white

1. *Cap scaly or fibrous, Stem same color as the cap or paler.* GROWING ON THE EARTH.

* *Cap fleshy, at first convex.*

15966 Cap slightly fleshy somew. scaly, and stipes (which is thin and eq.) dull sang. Lamel. affix. more dull-color.
15967 Cap glabrous subcarnose obtusely umbonate cinnamon-color, Lamellæ numerous adnate yellow-cinnamon, Stipes yellowish rarely straight
15968 Cap pale reddish-buff umbonate subfarinaceous, Lamellæ cinnamon-color broad numerous, Stipes whitish often with a few remains of the veil attached

** *Cap somewhat fleshy, at first campanulate.*

15969 Cap somew. fleshy becom. umbon. smoothish brown-purple, Lamel. affix ventric. ferrugin. Stipes fuscous

2. *Cap smooth, but with a few surface-fibres, Stem white.* GROWING ON THE EARTH.

15970 Cap bluntly umbonate pallid, Lamellæ compact cinnamon-colored, Stipes solid tapering upwards white
15971 Cap somewhat fleshy convex becoming bluntly umbonate chesnut-colored, Lamellæ affixed compact violet-testaceous, Stipes short firm

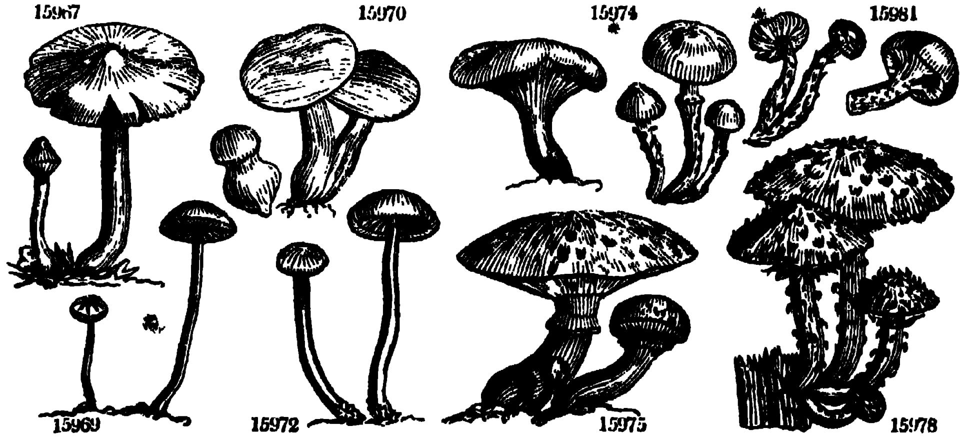
3. *Cap smooth, dry, Gills affixed.*

15972 Cap convex humid orange-colored or fulvous, Lamellæ yellow, Stipes hollowish
15973 Lamellæ brown-yellow, Cap deep-yellow bossed in the centre, Stipes scored yellow thickset downwards
15974 Lamellæ reddish-buff, Cap pale-yellow bossed, Stipes pale-yellow

15975 Fulvous, Cap fleshy: scales few hairy, Lamellæ annexed, Stipes solid smooth, Annulus small
15976 Cap pitted lemon-colored: hairs white; disk uniform with scatter scales towards disk, Stipes solid white
15977 Compact, Cap yellow: scales scattered appressed, Stipes solid fibrous long-rooted
15978 Cap fleshy brownish or reddish-yellow scaly with fasciculat. blam.: scales revol. Stipes squarr. with scales
15979 Cap fleshy dry yellow: scales hairy scattered, Lamellæ at first yellow, Stipes equal squarrose

15980 Cap slightly fleshy obt. fulvous-yellow vill. with stalked scales, Lamel. adnate: at first yell. Stipes fistul.

15981 Cap scarcely fleshed glabrous striate: when moist dull cinnamon-color becoming pale, Lamellæ subdecurrent numerous reddish-brown, Stipes hollow subincurved
15982 Cap yellow-brown bluntly conical, Lamellæ brown, Stipes brown scurfy, Veil permanent



and Miscellaneous Particulars.

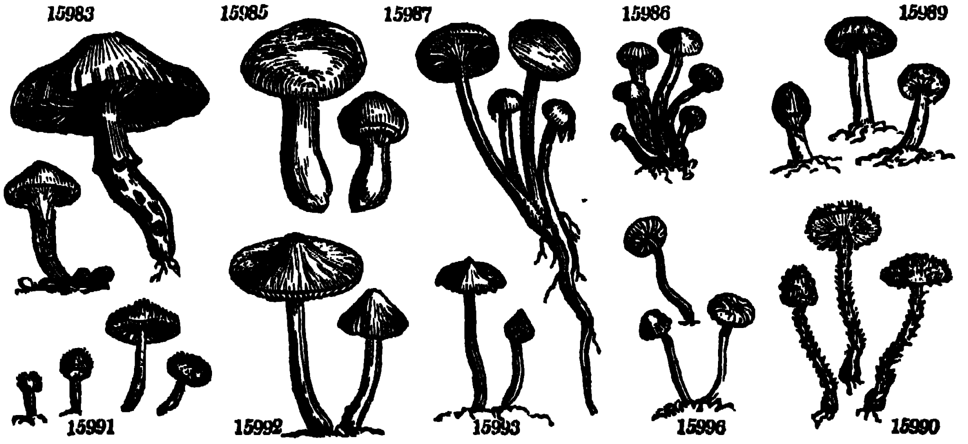
mottled, and in pairs; pileus mouse-color, conical, and pointed; stem of the same color, cylindrical, and firm. This, though a common, is a very beautiful species. In a summer morning it is covered with a bloom like that of a plumb, having often a glittering spangled appearance; its form is regular, and the fringe of the curtain peculiarly delicate. Another variety, with the stem of a dark mulberry color, is found in wet gravel where no grass grows, and sometimes on cow-dung, in which case the stem, under the shelter of long grass, is covered with a white hoariness which is easily rubbed off.

§ 19. *Inoloma.* A name with the same meaning as Tricholoma, § 5., to which the species are analogous. They are large, firm, somewhat succulent, autumnal, and terrestrial, but not as far as is known, eatable.

§ 20. *Dermocybe.* From δερμη, a skin or membrane, and κυβη, a head, in allusion to the nature of the pileus. Analogous to Clitocybe, § 8. Of middle size, or small; scarcely eatable. A. cinnamomeus has gills, four in a set, broad about the middle, deep tawny red, and fixed by claws; pileus convex, but bossed, of a rich cinnamon color, from one and a half to three and a half inches diameter; the stem hollow, cylindrical, silky, shining, two inches high, thick as a goose-quill, of a fine full yellow color. This is a species that is readily distinguished by its cinnamon color. It is found in woods in September and October, and has a good flavor.

§ 21. *Pholiota.* From φολις, a scale. Species of various habits. Some are terrestrial, others grow upon wood; some large, others of a smaller size.

	§ 22. Myxa'cium. *Fries.*							
15983	collinitus *Sowerby*	besmeared	solitary	5	jl.nov.	Or	woods	Sowerby, t. 9
15984	longicaúdus *Fries* *flexuósus* With.	long-tailed	membranous	4	oct.	Tann.	pine woods	
	§ 23. Hebelo'ma. *Fries.*							
15985	fastíbilis *Pers.*	multiform	stinking	2½	jl.nov.	Wsh	everywhere	Schæff. t. 221. *gilvus*
	§ 24. Flam'mula. *Fries.*							
15986	flávidus *Schæff.*	yellowish	cæspitose	2	au.no.	Ysh	trun. of trees	Schæff. t. 35
15987	inopus *Fries* *connátus* With.	connate	subcæspitose	2	sep.oc.	Ysh	trun. of trees	Bol. t. 148. *radicato-ram.*
15988	spumósus *Batt.*	frothy	gregarious	3	au.no.	Ysh	on earth, &c.	Battarra, t. 22. C.
	§ 25. Ino'cybe. *Fries.*							
15989	scáber *Sowerby*	rough	solitary	1½	aug.	Sooty	pine woods	Sowerby, t. 207
15990	plumósus *Bolton*	feathery	solitary	4	aut.	Gr	woods	Bolton, t. 33
15991	lanuginósus *Bull.*	woolly	solitary	3	jul.sep.	Brsh	way sides	Bulliard, t. 370
15992	rimósus *Bull.*	cracked	variable	2	jn.sep.	Y.Br	woods	Grev. crypt. 3. 128
15993	geophýllus *Sowerby*	earth-leaf	variable	2	jul.oct.	Wsh	woods	Sowerby, t. 124
15994	furfurósus *With.*	scurfy	watery	1	june	Y.Br	hedges	
	§ 26. Nauco'ria. *Fries.*							
15995	conspérsus *Pers.*	sprinkled	gregarious	1½	jn.oct.	Cinn	damp woods	Pers. Ic. t. 12. f. 3
15996	furfuráceus *Pers.* *viridárius* With.	mealy	gregarious	2	au.oc.	Cinn	dead lvs. &c.	Sch. t. 226. *pulverulentus*
15997	hippopínus *With.*	rounded	crooked	¼	aut.	Pa.Br	Sco. fir cones	
	§ 27. Gale'ra. *Fries.*							
15998	cólus *With.*	campanulate	brittle	6	jl.oct.	Pa.Br	hea. of rubb.	
15999	téner *Schæff.*	tender	brittle	4	my.no.	Y.Br	grassy places	Sowerby, t. 33.
16000	hypnórum *Schrank*	Moss	small	1	jl.nov.	Ferr.	among moss	Sch. t. 63. *campanulatus*
16001	atrorúfus *Bolton*	dark-brown	slender	3	aut.	Br	pastures	Bolton, t. 51. f. 1
16002	núceus *Bolton*	hazel-nut	slender	4	oct.	Pa.Br	fir woods	Bolton, t. 70
	§ 28. Tapine'a. *Fries.*							
16003	involútus *Batsch* *adústus* With.	involute	compact	3	au.no.	Ferr	woods	Sower. t. 98. *contiguus*
	§ 29. Crepido'tus. *Fries.*							
16004	aurant.-ferrugi. *Wi.*	orange-brown	solitary	2½	aut.	Or.Br	roots of oaks	
16005	fœ'tidus *With.*	fetid	solitary	2	aut.	Dl.Br	old willows	
16006	vulpinus *Sow.*	foxy	gregarious	2	aut.	Tawn.	hollow trees	Sowerby, t. 361
16007	móllis *Schæff*	soft	solitary	¼	au.oc.	pa.Cin	trun. of trees	Sowerby, t. 98
16008	haustelláris *Fries* *resupinátus* With.	resupinate	small	½	au.oc.	Pa.tar	rotten branc.	
16009	variábilis *Pers.*	variable	solitary	¼	aut.	W	rotten trees	Sowerby, t. 97. *niveus*
	§ 30. Volva'ria. *Fries.*							
16010	bombycínus *Schæff.*	silky	eatable	6	jl.aug.	W	trun. of trees	Schæff. t. 98
16011	cepæ'stipes *Sow.*	patchy	tufted	4	sum.	W	bark of trees	Sowerby, t. 2
	§ 31. Psallio'ta. *Fries.*							
16012	cretáceus *Bull.*	chalky Mushr.	eatable	3	au.no.	W	meadows	Bull. t. 374
16013	campéstris *L.*	comm. Mushr.	eatable	2	my.oc.	Wsh	meadows	Grev. crypt. t. 161



History, Use, Propagation, Culture.

§ 22. *Myxacium.* So called from *μυξα*, mucus, on account of the nature of its surface. The species are large, solitary, terrestrial, mucous, inodorous, and not eatable.

§ 23. *Hebeloma.* From ἡβη, down, and λωμα, a margin. The only species has a nauseous taste. Its lamellæ are serrated, and distil drops of a peculiar fluid. Its varieties are infinite. Common in woods.

§ 24. *Flammula.* So named in allusion to their color, which is a pale yellow, the color of a weak flame. The species are gregarious, subcæspitose, firm, persistent, rather bitter, and all eatable. A. socialis and ilicinus are both eaten at Montpellier, where they are known by the names of *Pivoulade d'couse* and *Frigoulc.*

§ 25. *Inocybe.* From *ινα*, fibres, and *κυβη*, a head. A tribe which can scarcely be compared to any other. It consists of fungi of middle-size, or smaller, solitary, growing on the ground during the summer, and not known to be poisonous; although, on account of their nauseous odor, they are suspicious.

§ 26. *Naucoria.* Small gregarious epiphytous fungi, growing upon stipules, leaves, wood, and even muddy earth, fragile, and without any smell. Their stature is that of Collybia, but their veil is of the same nature as that of Lepiota, resembling the kernel of a nut (*naucum*), whence they are named.

15983 Cap fleshy smth. orange-brown, Lamel. pur. : then ferrugin. Stipes part. across into bluish gelatin. scales
15984 Cap somewhat fleshy smooth, Lamellæ cinnamon-colored, Stipes long smoothish

15985 Cap somewhat repand opaque, Stipes scaly white, Sporidia clay-color

1. *Cap dry, Gills adnate, Tufted.* GROWING ON WOOD.

15986 Cap smooth yellowish, Lamellæ adnate yellow-ferruginous, Stipes fibrous
15987 Cap smooth yellowish, Lamellæ affixed yellow, Stipes fibrous pallid solid

2. *Cap viscid, Gills adnate, Not tufted.* GROWING UPON BOTH WOOD AND EARTH.

15988 Yellowish, Cap smooth viscid, Lamellæ adnate, Stipes hollow tapering at base

1. *Stem fibrous or scaly with fibres.*

15989 Cap fleshy obtuse scaly brownish-grey, Lamellæ free or nearly so, Stipes solid fibrillose
15990 Cap somew. fleshy hemispherical mouse-color, Stipes solid thin long scaly squarr. Lamel. somewhat loose
15991 Cap somewhat fleshy convex scaly-villous, Lamellæ loose and solid : then fibrous, Stipes solid

2. *Stem nearly at the top with white scales.*

15992 Cap dry campanulate at length nearly plane: surface splitting longitudinally pale shining-brown, Stipes solid somewhat tuberous at the base
15993 Cap conical at length expanded umbonate silky, Lamellæ subadnate, Stipes solid slender sprinkled with white pulverulent particles
15994 Cap yellow-brown scaly, Gills watery white irregular, Stem yellow-brown crooked scored

15995 Cap somew. fleshy scurfy scaly rufous cinnam.-color. Lamel. emarg. lin. cinnam.-color. Stipes scaly at end
15996 Cap somew. fleshy : then umbilicat. scaly or silky, Lamel. somew.decurr. cinnam.-color. Stipes fistul. scurfy

15997 Cap dark-brown convex, Lamellæ light-brown, Stipes light-brown

15998 Cap somewhat membranous smooth pallid, Lamel. somewhat loose saffron-color. Stipes long villous white
15999 Cap obtusely conical stri. when moist : when dry smth. ochrac. Lamel. adnate lin. Stipes long glab. fragile
16000 Minute, Cap campanulate striate : when moist reddish-buff becoming pale, Lamellæ adnate rather broad distant, Stipes somewhat crooked filiform
16001 Cap somewhat conical : when dry elastic, Lamellæ few trifid, Stipes very long and slender
16002 Cap globose chesnut-color lobed and incurved at edge, Lamel. trifid wavy, Stipes slender white fistulous

16003 Compact, Cap depressed ochrey-brown with a tomentose involute margin, Lamellæ mostly dichotomous, Stipes thick often excentrical

16004 Cap convex scaly cracked and irregular, Lamellæ orange-brown, Stipes stout somewhat lateral
16005 Cap conv. viscid becom. wrinkled dull-brown : marg. invol. Lamel. adnate yellow. Stipes hard thick black
16006 Imbricated sessile fulvous, Cap fleshy obovate scaly towards the margin
16007 Cap subsessile smooth flaccid pale, Lamellæ watery cinnamon-colored
16008 Cap reniform villous pale tan-color, Lamellæ rounded ferruginous, Stipes lateral tapering upwards white

16009 Cap membranous reflexed silky downy white, Lamellæ whitish

16010 Cap silky white, Lamellæ flesh-colored, Stipes solid tapering incurved, Volva lax
16011 Cap campanulate with scattered scales, Stipes hollow ventricose smooth below

16012 White, Cap dry smoothish, Lamellæ loose broadest in front, Stipes hollow smooth, Annulus ascending
16013 Cap white fleshy dry subsquamose or sericeous, Lamellæ free ventricose pink changing to dark-fuscous Stipes solid white with an annular veil

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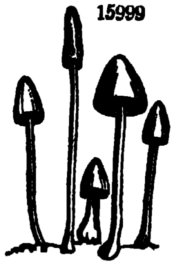

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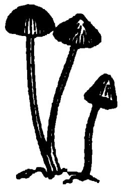

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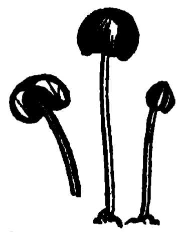

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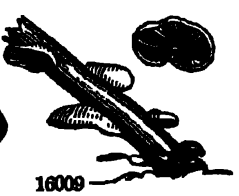
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and Miscellaneous Particulars.

§ 27. *Galera.* From *galea*, a helmet, in reference to the figure of their pileus. The species are slender, fragile, tolerably permanent, mostly growing on the ground, and for the most part choosing humid stations. They have neither smell nor use.

§ 28. *Tapinea.* Fungi of various natures, deriving their name from ταπεινόω, to depress. Mostly terrestrial and permanent, but scarcely fit for food.

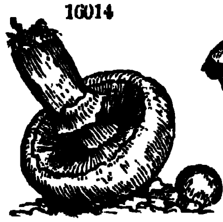
§ 29. *Crepidotus.* These plants form a transition to Pratella. They grow on wood or trees, and are hardly eatable. A. olearius, a species which grows upon olives in the south of Europe, a poisonous species, exhibits a phosphoric appearance in the night. A. translucens, a French species, is eaten by the poor of Montpellier.

§ 30. *Volvaria.* So called from the magnitude of their *volva*. The species grow in fertile manured spots, or on wood, are soft and soon perishable. The larger are fit for food.

§ 31. *Psalliota.* Mostly eatable. Named from ψαλλιον, a chain-bit, in the same sense as Armillaria. To this place belongs the common Mushroom, A. campestris, so called from *Mouceron*, the French name of another eatable kind. It is found all over Europe, the north of Asia, and of Africa, and in North America.

16014 Geórgii *Sowerby*	St. George's	eatable	4	aut.	Wsh	mead.& woo.	Sowerby, t. 304
16015 præ'cox *Pers.*	early	tufted	2½	spr. su.	Ysh	among grass	
β appendiculátus Sow.	*appendaged*	tufted	2½	spr. su.	Ysh	among grass	Sowerby, t. 324
γ delicátus With.	*delicate*	solitary	2	spr. su.	Ysh	among grass	Bolt. t. 67. f. 1. *durus*
16016 semiglobátus *Batsch*	half-rounded	gregarious	3	my.no.	Y	meadows	Sowerby, t. 248
16017 squamósus *Pers.*	scaly	solitary	4	sep.no.	Y	woods	
16018 versicolor *With.*	changeable-col.	spongy	2	july	G.Br	groves	
16019 æruginósus *Fl.lond.*	verdigrease	pretty	1½	au. no.	Y.G	woods	Sowerby, t. 264
16020 littóreus *With.*	sea-shore	solitary	1	oct.	Y.Br	woo. & fields	
§ 32 HYPHOLO'MA. *Fries.*							
16021 lachrymabúndus *Sow.*	weeping	fragile	2	au. no.	W.Br	on ground	Sowerby, t. 41
16022 lateritius *Schæff*	one-sided	cæspitose	2	my. oc	Fulv.	trun. of trees	Bolt. t. 5. *pomposus*
16023 fasciculáris *Huds.*	bundled	cæspitose	1½	my.no.	Ysh	decay. trees	Sowerby, t. 285
§ 33. PSILO'CYBE. *Fries.*							
16024 myosótis *Fries*	olive	gregarious	3	sep.no.	G.Ol	damp places	
16025 stercorárius *Schum.* *adnátus* Hudson	adnate	brittle	4	jul.oct.	Liv.Y	cow dung	
16026 ericæ'us *Pers.*	heath	variable	4	jul.oct.	Br	damp places	Schæff. t. 210. *helvolus*
16027 fusco-purpúreus *Wi.*	brown-purple	twisting	2	aut.	Pu.Br	among grass	
16028 callósus *Fries*	callous	gregarious	3	au. no.	Y	way sides	Sow. t.248.f.1. *semiglob.*
β várius Bolton	*various*	gregarious	3	au. no.	Livid	way sides	Bolton, t. 66. f. 1
§ 34. PSATHY'RA. *Fries.*							
16029 stipátus *Pers.*	stalked	tufted	3	jl. nov.	Br	trun. of trees	Bolt. t. 15. *concinnus*
16030 tentáculum *Sower.*	slender	fragile	3½	au. no.	Brsh	gardens	Sowerby, t. 385. f. 1
16031 cuspidátus *Bolton*	cuspidate	thin	4	aut.	R. Br	pastures	Bolton, t. 55
§ 35 COPRINA'RIUS. *Fries.*							
16032 semiovátus *Sowerby* *coronátus* With.	half-ovate	upright	6	sum.	Wsh	cowdung	Sowerby, t. 131
16033 fimipútris *Bull.*	shield-headed	fragile	4	au. oct.	Ciner.	horse dung	Bolt. t. 57. *clypeatus*
16034 papilionáceus *Bull.*	butterfly	unpleasant	3	my.no.	Sooty	dunghills	Bulliard, t. 58
16035 Boltóni *Pers.*	Bolton's	fragile	3	spring	Y	dunghills	Sower. t. 96. *flavidus*
16036 titubans *Bull.*		delicate	3	au.sep.	Y	dunghills	Sowerby, t. 128
16037 papyráceus *Pers.*	papery	semitranspar.	3	aut.	Wsh	oak trees	Bolt t.11. *membranace.*
16038 disseminátus *Pers.*	scattered	gregarious	1	spr. au.	Ysh	trun. of trees	Sowerby, t.166. *striatus*
2366. COPRI'NUS. *Link.* COPRINUS.				*Sp.* 10—24.			
16039 comátus *Link.* *A. cylindricus* Sowerby, t. 189	maned	gregarious	2	au. oct.	W	gardens	Grev. crypt. fl. t. 119
16040 picáceus *Fries*	ventricose	subsolitary	5	sep. oc.	Wsh	shady woods	Sowerby, t. 170
16041 atramentárius *Link*	inky	tufted	6	jn. dec.	Br	trun. of trees	Sow. t 188. *A. fimetarius*

16014



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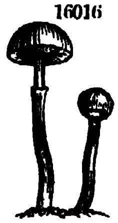

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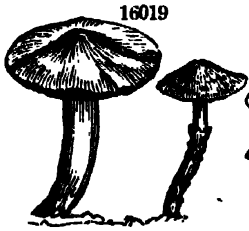

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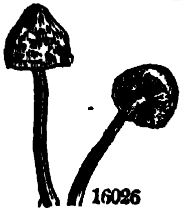

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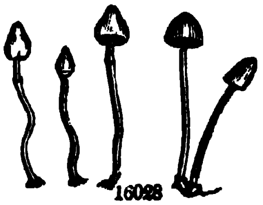


16028

History, Use, Propagation, Culture.

Of all the species of agaric, one only has been selected for cultivation in our gardens, viz. the A. campestris, or common mushroon, or champignon. The gills of this species are loose, pinky red, changing to a liver-color, in contact with the stem, but not united to it; very thick set, irregularly disposed, some forked next the stem, some next the edge of the pileus, some at both ends, and in that case generally excluding the intermediate smaller gills. The pileus is white, changing to brown when old, and becoming scurfy; regularly convex, fleshy, flatter with age, from two to four inches, and sometimes nine inches in diameter, and liquefying in decay; the flesh white. The stem is solid, white, cylindrical, from two to three inches high, half an inch in diameter; the curtain white and delicate. When this mushroom first makes its appearance, it is smooth and almost globular; and in this state it is called a button. This species is esteemed the best and most savoury of the genus, and is much in request for the table in England. It is eaten fresh, either stewed or boiled, and preserved either as a pickle, or in powder; and it furnishes the sauce called ketchup. The field plants are better for eating than those raised on artificial beds, their flesh being more tender; and those who are accustomed to them can distinguish them by their smell. But the cultivated ones are more sightly, may be more easily collected in the proper state for eating, and are firmer and better for pickling. The wild mushrooms are found in parks and other pastures, where the turf has not been ploughed up for many years; and the best time for gathering them is August and September. Dr. Withering mentions four varieties.

The A. Georgii of Linnæus resembles the former, but is much inferior to it in flavor. Its gills are yellowish white; the pileus yellow, convex, hollow in the centre; the stem yellow, thickish, and smooth; the juice yellow, which flows plentifully from it when wounded. It is gathered in September in woods and pastures. A variety of this is found on the sea-coast of Cornwall, of a large size, with the button as big as a potatoe;

16014 Cap very fleshy convex white or pale-yellowish mostly smooth, Lamellæ broad whitish at length deep purple-brown, Stipes thick with a persistent collar
16015 Cap fleshy smooth yellowish tan-color, Lamellæ annexed with a decurrent tooth pale-brown, Stipes nearly solid smooth white

16016 Cap hemispher. smooth glutin.redd.-yell. Lamel. adnate mostly horizont. darkly mott. Stipes holl. squam.
16017 Cap somewhat viscid yellow: scales scattered concentrical, Lamellæ adnate blackish, Stipes solid
16018 Cap scaly greenish-brown, Lamellæ decurrent becoming rufous-brown, Stipes solid bulbous [squamose
16019 Cap fleshy yell. but being cover. with a blue slime appear. green. Lamel. adnate purple-brown, Stipes holl.
16020 Stipes solid white, Annulus persistent, Cap yellow-brown, Lamellæ adnate reddish-grey

16021 Cap fleshy very fibrous pale yellow-brown, Lamellæ dull reddish-brown exuding a thin grey fluid, Stipes hollow fibrillose thickest at the base
16022 Cap fleshy obt. brown-orange, Lamel. slightly green. Stipes filled with a spongy mass stained by the veil
16023 Cap somew. fleshy umbon. ochrace. or redd.-orange, Lamel. green. numer. Stipes holl. rather long slender

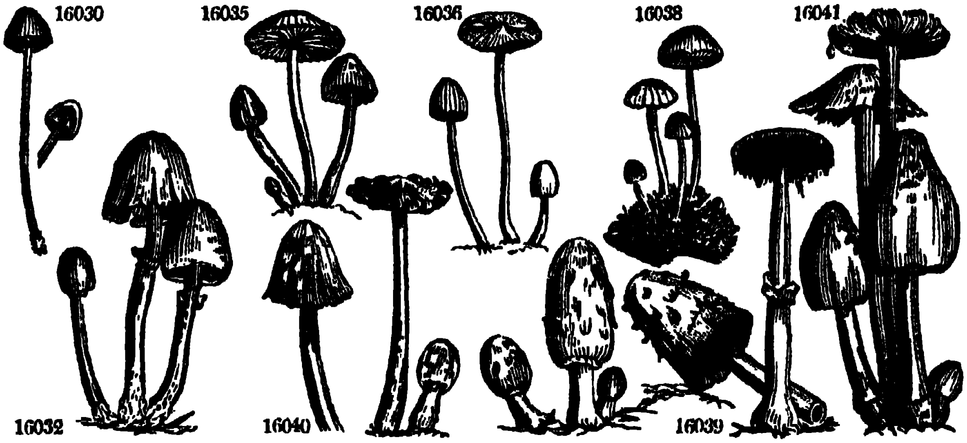
16024 Cap convex viscid, Lamellæ adnate whitish-brown, Stipes long fibrous
16025 Cap obtuse smooth viscid livid-yellow, Lamellæ broad decurrent brown, Stipes long naked

16026 Cap convex smooth shining, Lamellæ broad adnate blackish, Stipes long naked
16027 Cap light-brown semiglobular, Lamellæ purplish-brown broad thin, Stipes reddish-brown
16028 Cap conical dry, Lamellæ adnate ascending dark-purple, Stipes tough smooth pale

16029 Cap somew. fleshy smooth fuscous-brown pallid, Lamel. adnate numor. brown. flesh-color. Stipes smooth
16030 Cap somewhat membranous campanulate obtuse, Lamellæ very broad at back adnate cinereous-blackish: margin pink, Stipes thin smooth
16031 Cap cinnamon-color conical, Lamellæ dusky-brown, Stipes brownish cylindrical smooth

16032 Cap somewhat fleshy obtusely campanulate glutinous yellowish or brownish-white, Lamellæ adnate greyish-black, Stipes long white, Veil annular entire
16033 Cap somewhat fleshy campanulate humid cinereous pallid, Lamellæ adnate cinereous-black whole-colored at edge, Stipes long rufous, Annulus ragged
16034 Cap somewhat fleshy campanulate dry blackish soot-colored pallid, Lamellæ adnate cinereous-dark white at edge, Stipes long rufous striated at end
16035 Cap convex somewhat umbonate viscid yellow, Lamellæ annexed pallid, Stipes attenuated smooth yellow
16036 Cap membranaceous plicate viscous yellow, Lamellæ scarcely attached to the stipes pale purplish at length brown flesh-color, Stipes equal shining
16037 Cap hemispherical smoothish whitish, Lamellæ loose blackish-purple, Stipes naked white
16038 Gregarious small, Cap ovato-campan. plicate, Lamel. subadnate whit. at length grey, Stipes incurv. glab.

16039 Cap somewhat fleshy white scaly, Lamellæ white changing to red-purple and to black, Stipes subbulbous, Veil annular moveable
16040 Cap membranous white separating into broad scales, Lamellæ blackish, Stipes bulbous naked
16041 Tufted, Cap somewhat fleshy grey becoming reddish-brown smooth scaly at the apex, Lamel. ventricose white changing to purplish-brown, Stipes equal naked



and Miscellaneous Particulars.

the expanded pileus eighteen inches over, the stem as thick as a man's wrist, the gills very pale, the curtain tough, and thick as leather, and the juice yellowish. A plant of this kind, as Dr. Withering informs us, was gathered on an old hot-bed in a garden in Birmingham, which weighed fourteen pounds.

Greville says, "A. Georgii derives its name, according to Parkinson, from springing up about the time of St. George's day. It is unquestionably the largest of the British agarics. It has been known to weigh fourteen pounds. Mr. Hopkirk mentions one that weighed five pounds six ounces, and measured forty-three inches in circumference; but Mr. Stackhouse found it to attain the enormous size of eighteen inches in diameter, which is fifty-four in circumference, having a stem as thick as a man's wrist. The best distinguishing marks are, the extreme paleness of the lamellæ at the *period of the bursting of the veil*, compared with the true mushroom; the greater convexity and thickness of flesh at the same period; and shortly afterwards, the more yellowish and tough pileus."

§ 32. *Hypholoma.* So called, from ὑφος, a cup, and λωμα, an edge. Wood species growing in patches.

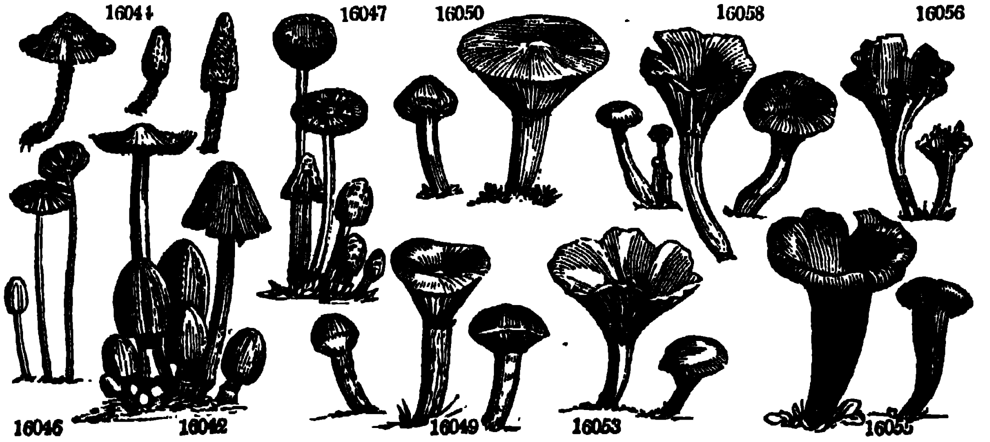
§ 33. *Psilocybe.* From ψιλος, thin, and κυβη, a head. A very natural assemblage. The species are for the most part terrestrial, inhabiting fertile and somewhat fenny places, growing either solitary or in groups, not eatable, and subject to much variety of appearance.

§ 34. *Psathyra.* So called, from ψαθυρος, fragile, on account of their remarkable brittleness. Many species are found upon moist wood, and in grassy places on a fertile soil.

§ 35. *Coprinarius.* All the species are found on dung, whence their name, from κοπρια, dung.

§ 36. *Coprinus.* Named for the same reason as the last. The species are gregarious and fugacious. They are found on dunghills, rich grassy places, and in the hollow trunks of decayed trees. The taste of the

16042 congregátus *Fries*	clustered	tufted	3	my. no.	Ferr.	trun. of trees	Sowerby, t. 261
16043 niveus *Pers.*	snowy	variable	3	au. no.	W	horse dung	
16044 cinéreus *Fries*	cinereous	solitary	4	jul. oct.	Cin.	dunghills	Bolt. t. 156. *tomentosus*
16045 doméaticus *Fries*	domestic	pretty	3	wet w.	Sooty	walls	Bolton, t. 26
16046 plicátilis *Fries*	plaited	tender	2	sum.	Cin.	damp places	Sowerby, t. 364
16047 ephémerus *Pers.*	ephemeral	fugacious	2	my. oc.	Br	dunghills	Sow. t. 262. *stercorarius*
16048 radiátus *Bolt.*	radiated	very delicate	2	my. oc.	Cin.	dung	Bolton, t. 39. f. C.
2367. GOM'PHUS. *Fries.* Gomphus.				*Sp.* 2—4.			
16049 glutinósus *Fr.*	glutinous	solitary	3	jl. nov.	Pu	pine woods	Sowerby, t. 7
16050 rútilus *Fr.*	sparkling	solitary	3	au. oct.	Brsh	pine woods	Sowerby, t. 105
2368. CANTHAREL'LUS. *Adans.* Chantarell.				*Sp.* 6—43.			
16051 umbonátus *Pers.*	umbonate	gregarious	3	au. no.	Cin.	among moss	Jacq. coll. 2. t. 16. f. 1
16052 aurantíacus *Fr.*	orange	poisonous	2	au. no.	Or. Y	fields	Jacq. coll. 2. t. 14. f. 5
16053 cibárius *Fries*	eatable	esculent	1½	jl. nov.	Y	fields	Sow. t. 46. *A. cantharellus*
16054 cinéreus *Fries*	cinereous	tufted	1¼	oct.	Blsh	among moss	Bolt. t. 34. *infundibularis*
16055 cornucopioídes *Fries* *Merúlius purpurátus* With.	purplish	elastic	2	au. no.	Br	woods	Sowerby, t. 74
16056 undulátus *Fries*	wavy	tough	½	all sea.	Pale	on ground	Sower. t. 75. *floriformis*
16057 lobátus *Fries*	lobed	tough	¼	spring	Brsh	humid places	Bo. t. 177. *membranaceus*
16058 lutéscens *Fries*	yellowish	spirit-scented	2	jul. no.	Ysh	humid places	Sow. t. 47. *A. cantharelloi.*
2369. MERU'LIUS *Haller.* Dry-Rot.				*Sp.* 1—10.			
16059 láchrymans *Schum.*	common	parasite	4	all sea.	Y. Br	decay. wood	Sowerby, t. 113
β *obliquus* Bolton	*oblique*	parasite	4	all sea.	Y. Br	decay. wood	Bolton, t. 74
2370. SCHIZOPHYL'LUM. *Fries.* Schizophyllum.				*Sp.* 1.			
16060 commúne *Fr.*	common	gregarious	2	wet w.	Grsh	trun. of trees	Grev. crypt. t. 61
2371. DÆDA'LEA. *Pers.* Dædalea.				*Sp.* 7—30.			
16061 quercina *Pers.*	oak	variable	0	all sea.	Pa. Y	oak trees	Sowerby, t. 181
16062 biénnis *Fries*	biennial	three inch. br.	1	all sea.	Ferr.	rotten wood	Sowerby, t. 190
16063 betulina *Pers.*	birch	smaller	0	all sea.	P. [illegible]	birch trees	Sowerby, t. 182
16064 confragósa *Pers.*	broken	woody	0	all sea.	Brsh	service trees	Bolton, t. 160
16065 unicolor *Fries*	whole-colored	imbricated	0	aut.	Sooty	trun. of trees	Sowerby, t. 325
16066 gibbósa *Pers.*	gibbous	six inches br.	0	aut.	Wsh	trun. of trees	Sower. t. 194. *sinuosus*
16067 angustáta *Fries*	tapering	two inches br.	0	aut.	Cin.	poplar trees	Sowerby, t. 193
2372. POLYPO'RUS. *Micheli.* Polyporus. § 1. Favo'lus. *Beauv.*				*Sp.* 35—143.			
16068 squamósus *Fr.*	scaly	3-18 inc. wide	2	jn. nov.	Ochr.	trun. of trees	Grev. crypt. 207
16069 heterόclitus *Fr.*	variable	2¼ inches wide	0	aut.	Or	on earth	Bolton, t. 164



History, Use, Propagation, Culture.

European species is watery and nauseous; they are therefore not eatable. But in the spice islands, two species, C. moschocaryanus, which is found on the nutmegs, and C. saguarius, which inhabits the pith of the Sago palm, are said to be most delicious. C. cinereus is extremely rapid in its growth, attaining perfection and dissolving in the course of a few hours. At its first appearance, it is covered with the delicate frosted remains of the veil.

2367. *Gomphus.* So named from their form, from γομφος, a club. Large Fungi, scarcely fit for food, with little taste or smell.

2368. *Cantharellus.* An alteration of the French *Chantarelle.* C. cibarius is one of the best of our eatable mushrooms. The best way of preserving the plants for use is to string them in rows, after they have become flaccid, and to hang them in a dry place where they can have plenty of air. They then form a delicious ingredient in rich gravies, &c.

2369. *Merulius.* A name applied by the ancients to the common morel, Morchella esculenta. Natives of rotten wood, which they soften and finally destroy. M. lacrymans, the dry rot, is a pest to the wood of dwelling houses, which it speedily destroys. It is said to be destroyed by a wash of diluted sulphuric acid. The whole plant is generally resupinate, soft, tender, at first very light, cottony and white. When the veins appear, they are of a fine yellow, orange, or reddish-brown, forming irregular plicæ, most frequently so arranged as to have the appearance of pores, but never any thing like tubes. Sometimes the pileus or substance of the plant, from its situation, produces pendent processes like inverted cones. "The whole fructification often forms a circle of 1—8 inches in diameter." Except in favorable situations, it does not produce fructification, and resembles a dry pithy cottony substance, whence it has been called the dry rot. When in a perfect state, its sinuses contain drops of clear water, which have given rise to the specific name.

2370. *Schizophyllum.* From σχιζω, to cut, and φυλλον, a leaf, in allusion to its lacerated appearance. Found

16042 Tuft. Cap membranac. furrow. furfurac. brown-orange, Lamel. pale chang. to black, Stipes equal fragile
16043 Cap campan. farin. with min. scales, Stipes snow-white tomentose, Lamel. narrow.at length brown.-black
16044 Cap furrowed subtomentose cinereous smooth on the summit, Lamel. lin. Stipes tall attenuated upwards
16045 Cap obtuse scaly scurfy wavy-furrowed sooty, Lamellæ numerous linear blackish, Stipes somewhat silky
16046 Very tender, Cap conical at length plane umbilicated plicate, Lamellæ not reaching to the stipes distant dark-grey, Stipes smooth weak
16047 Ovato-campanulate scaly while young afterwards glabrous becoming expanded and revolute grey or tinged with brown very thin splitting, Lamellæ distant
16048 Very delicate and fugacious, Cap grey furfuraceous at length splitting in a radiated manner glabrous brownish in the centre, Stipes filiform

16049 Cap obtuse glutinous purplish-brown, Lamellæ whitish cinereous
16050 Cap umbonate somewhat viscid rufous-brown, Lamellæ purple umber-colored

16051 Cap slightly fleshy umbonate cinereous-blackish, Stipes solid paler, Plaits straight white
16052 Cap fleshy rather depressed downy and solid, Stipes orange-yellow, Plaits straight orange-colored
16053 Rich buff yellow, Cap fleshy irregular smooth : veins tumid, Stipes solid attenuated at the base
16054 Cap funnel-shaped pervious scaly and hollow, Stipes blackish, Plaits distant cinereous
16055 Cap tubeform pervious scaly black umber-color : wrinkles obsolete

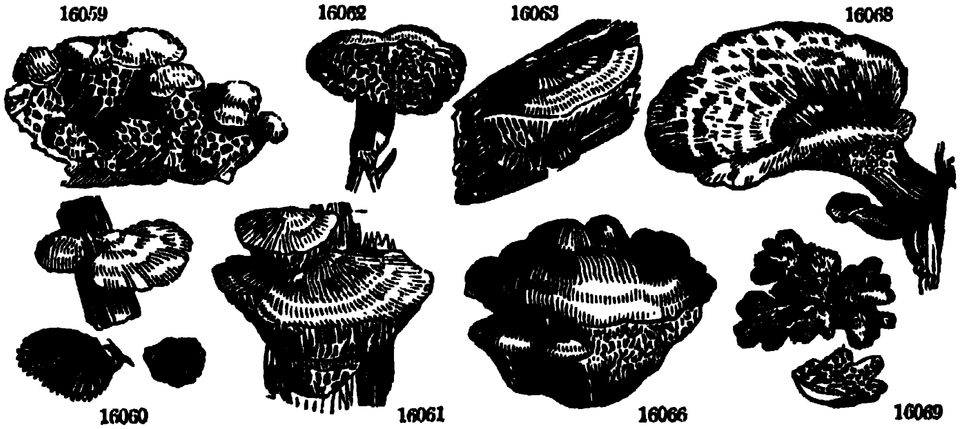
16056 Cap coriaceous membranous depressed wavy pallid rugose beneath, Stipes solid
16057 Horizontal sessile lobed membranaceous dilute brown, Veins branched
16058 Cap submembranac. funnel-shap. waved yellowish or olivac. brown, Veins anastomosing, Stipes holl. yell.

16059 Effused large yellow ferruginous or deep orange : margin white and cottony, Veins large forming irregular pores by their sinuosity

16060 The only species

16061 Sessile pale with a woody aspect, Cap suberose rugose glab. Hymenium contorted sinuose anastomosing
16062 Cap somewhat corky depressed rather velvety subferruginous, Hymenium composed of labyrinth-like pores grey flesh-color, Stipes irregular central or nearly lateral
16063 Sessile pallid, Cap coriaceous banded downy, Lamellæ straight somewhat branched
16064 Sessile, Cap corky-coriaceous banded rough brownish, Recesses labyrinth-like cinereous
16065 Sessile cinereous, Cap coriaceous villous banded, Recesses unequal somewhat flexuose becoming ragged
16066 Sessile whitish, Cap corky villous projecting and gibbous at base, Pores linear straightish
16067 Sessile, Cap corky downy banded brownish-cinereous, Pores long narrow olive-yellow

16068 Large, Cap fleshy pale dirty-yellowish with broad dark-colored scales, Pores large angular whitish becoming mere reticulations at the base, Stipes very short
16069 Sessile orange-colored, Cap imbricated lobed villous, Pores large deformed



and Miscellaneous Particulars.

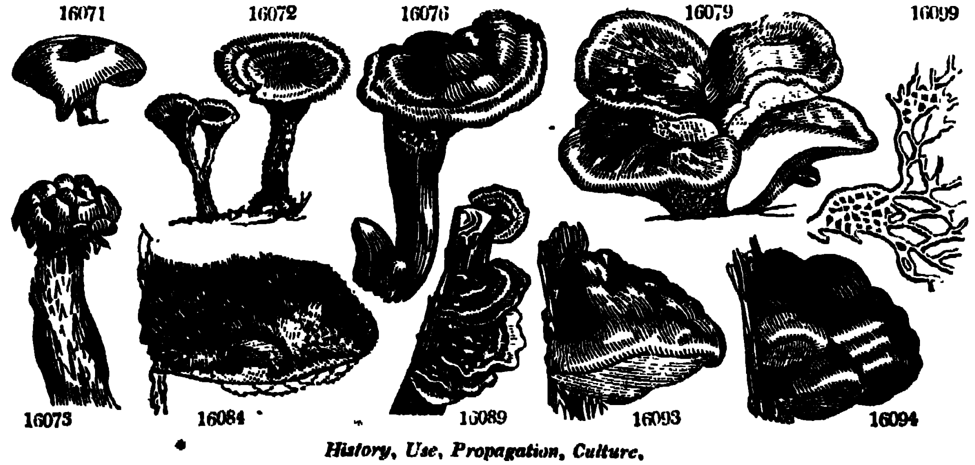
upon the trunks of leafy trees through all Europe and Asia, the Gold Coast, Cape of Good Hope, North America, the Antilles, and South America.

2371. *Dædalea.* So called from its sinuosities, which appear as if arranged with *Dædalean* art. Most of the species grow upon wood. The dried substance of D. quercina is a good styptic. D. suaveolens has, according to Bolton, a smell like aniseed; and Linnæus mentions, that the Laplanders carry it about them when they visit their mistresses, in order to render themselves more agreeable. From the powder of the plant is prepared an electuary which is said to have been used with success in cases of phthisis. The dose from a scruple to a drachm.

2372. *Polyporus.* From πολυς, many, and πορος, a pore, on account of the multitude of pores which constitute its hymenium. P. squamosus is a common species on trunks of willows, oaks, walnuts, &c. From this was extracted, by Braconnot, the Fungic acid. It is colorless, does not crystallize, has a very sour taste, and when evaporated to dryness, deliquesces upon exposure to the air. The fungates of potash and soda do not crystallise, are very soluble in water, but not in alcohol. The fungate of ammonia crystallises in regular six-sided prisms. The fungate of lime is not altered by exposure to the air, and is soluble in about eighteen times its weight of water at seventy-three degrees.

P. Tuberaster, a species common in Italy, in various parts of the kingdom of Naples, and the Pontifical states, is held in the highest esteem as an article of Neapolitan cookery. P. annosus, a Swedish species, is used by the peasantry as a cure for the bite of snakes. Fries says, that he saw the blood which was flowing from the mouth of a kid which had been hurt stopped in a short space of time by its application. From P. dryadeus, the *Boletus pseudo-igniarius* of Bulliard, Braconnot obtained his Boletic acid. The color of this principle is white; it is not altered by exposure to the air, and its crystals are regular four-sided prisms. Its

§ 2. MICROPO'RUS. *Beauv.*							
16070 leptocéphalus *Jacq.*	small-capped	one inch wide	1	aut.	Gr	on wood	Jacq. misc. 1. t. 12
16071 brumális *Pers.*	winter	1-4 inch. wide	2	all sea.	Sooty	trun. of trees	Schæff. t. 261. *pileus*
16072 perénnis *Fr.*	perennial	thin	3	aut.	Cinn.	trun. of trees	Sowerby, t. 192
16073 strobilifórmis *Dicks.*	cone-like	lumpish	2	aut.	Br	trun. of trees	Crypt. brit. t. 3. f. 2
16074 pellúcidus *With.*	pellucid	two inch. br.	½	aug.	Br	old wood	
16075 variegátus *Sower.*	variegated	patches	2	all sea.	Br	trun. of trees	Sowerby, t. 368
β *várius* Pers.	*variable*	patches	2	all sea.	Grsh	trun. of trees	Grev. crypt. 202
B. lateralis Bolt. 83							
γ *nummulárius* Bull.	*moneywort*	patches	2	all sea.	Wsh	trun. of trees	Sower. t. 368. fig. min.
16076 lúcidus *Fr.*	shining	variable	1½ or 0	sum.	Ysh	trun. of trees	Sowerby, t. 134
16077 frondósus *Fr.*	leafy	broad patches	2	sep. oc.	Sooty	roots of oaks	Schæffer, t. 127
16078 velutínus *Fr.*	velvety	thin	2	spr. au.	Wsh	trun. of trees	
16079 gigantéus *Fr.*	gigantic	tufts	24	sum.	Pa. Br	beech trees	Sow. t. 86. *imbricatus*
16080 sulphúreus *Fr.*	sulphur-color.	tufts	24	sum.	Rsh. Y	oak trees	Grev. crypt. 113
16081 betulínus *Fr.*	birch	acid	2	sum.	Brsh	birch trees	Sowerby, t. 212
16082 spúmeus *Fr.*	frothy	thick	3	aut.	Wsh	trun. of trees	Sower. t. 211. *stipitatus*
16083 cæ'sius *Fr.*	cæsious	very thin	2	aut.	Bsh	trun. of pines	Sower. t. 226. *albidus*
16084 híspidus *Fr.*	hispid	spongy	6	sum.	Ferr.	oak trees	Grev. crypt. 14
Bol. velutinus Sowerby, 345							
16085 cuticuláris *Fr.*	cuticular	imbricated	3	aut.	Ferr.	trun. of trees	Sower. t. 195. *impuber*
16086 adústus *Fr.*	scorched	imbricated	2	aut.	Pa. Br	trun. of trees	Sower. t. 231. *carpinus*
16087 ulmárius *Fr.*	elm	3-4 inch. wide	0	aut.	Pallid	elm trees	Sowerby, t. 88
16088 suavéolens *Fr.*	Anise-scented	fragrant	3	aut.	W	willow trun.	Sowerby, t. 228
β *salícinus* Fr.	*willow*	fragrant	3	aut.	W	willow trun.	Sowerby, t. 227
16089 versícolor *Fr.*	changeable	tufted	1	su. aut.	Bsh	trun. of trees	Sowerby, t. 229
16090 radiátus *Fr.*	radiated	imbricated	1	aut.	Y. Br	trun. of trees	Sowerby, t. 190
16091 palléscens *Fr.*	pallid	imbricated	2	aut.	pa. Oc.	trun. of trees	Sow. t. 250. *pelleporus*
16092 abietínus *Fr.*	pine-tree	imbricated	1½	aut.	Wsh	dead pines	Dicks. crypt. t. 9. f. 9
16093 fomentárius *Fr.*	soft tinder	spongy	6	all sea.	Sooty	beech trees	Sowerby, t. 133
16094 igniárius *Fr.*	hard tinder	hard	6	all sea.	Ferr.	trun. of trees	Sowerby, t. 132
16095 spongiósus *Fr.*	spongy	tufts	2	aut.	Ferr.	trun. of trees	Bolt. t. 165. *resupinatus*
16096 medúlla pánis *Fr.*	bread-crumb	thick	4	aut.	W	fallen timber	Bolton, t. 166. f. 1
16097 vulgáris *Fr.*	common	fragile	12	all sea.	W	fallen timber	Bolt. t. 166. *proteus*
16098 ferruginósus *Fr.*	rusty	unequal	1	sum.	Ferr	alder trees	Grev. crypt. 155
16099 mollúscus *Fr.*	slippery	variable	3	all sea.	[illegible]	dead trees	Sow. t. 326. *Medul. panis*
16100 incarnátus *Fr.*	pink	firm	3	sum.	[illegible]	pine wood	
§ 3. POLYSTIC'TA.							
16101 reticulátus *Nees*	netted	very delicate	2	sum.	W	pine wood	Nees crypt. f. 225
16102 carmichælianus *Gr.*	min. hon.-com.	crust-like	3	aut.	W	decay. trun.	Grev. crypt. 224
2373. BOLE'TUS *Dill.*	BOLETUS.			*Sp* 8—20.			
16103 lúteus *L.*	yellow	3 inch broad	2	aut	Y	old trees	Grev. crypt. 183
16104 lactífluus *With.*	milky	2-4 inches br.	2½	aut.	Buff	pastures	
16105 piperátus *Bull.*	peppery	2½ inch broad	1½	su aut.	Ysh	woods	Sowerby, t. 34
16106 subtomentósus *L.*	downy	cracked	2	jn oct.	Ol	woods	Bulliard, t. 393
β *sanguíneus* With	*bloody*	cracked	2	jn oct.	Crim.	woods	Sow. t 225. *commutatus*
16107 lúridus *Schæff.*	lurid	6 inches broad	2	su. aut.	Ol. G	groves	Grev. crypt. 121
B. rubeolus Sower. 150							
16108 esculéntus *Per.*	esculent	cracked	4	su. aut.	Sooty	woods	Sowerby, t. 111. *edulis*
16109 scáber *Fr.*	rough	3 inches broad	4	su. aut.	W	woods	Bolt. t. 86. *procerus*
β *aurantiacus* Sow.	*orange-colored*	3 inches broad	4	su. aut.	Ruf.	woods	Sowerby, t. 110
γ *bovinus* Schæff.	*glutinous*	3 inches broad	4	su. aut.	Sooty	woods	Sowerby, t. 175. *scaber*
16110 cyanéscens *Fries*	bluish	frosted	3	su. aut.	Straw	woods	Bulliard, t. 369
2374. FISTULI'NA. *Bull.*	FISTULINA.			*Sp.* 1.			
16111 hepática *Bull.*	liver-like	patches	6	aut	Crim	oak trees	Sowerby, t. 58



History, Use, Propagation, Culture.

taste is similar to that of tartar. It is soluble in 180 times its weight of water, at a temperature of sixty-eight degrees, and in forty-five times its weight of alcohol. The aqueous solution reddens vegetable blues. It combines with the different bases forming boletates, which have been but little examined. The boletate of ammonia crystallizes in flat four-sided prisms, and is soluble in twenty-six times its weight of water at sixty-eight degrees. The boletate of potash is very soluble in water, and crystallizes with difficulty. The boletate of lime crystallizes in flat four-sided prisms, and is soluble in about 110 times its weight of water at seventy-two and a half degrees. Polyporus fomentarius is much used on the continent for making Amadou; also very generally in the Highlands of Scotland for the same purpose by the shepherds, who manufacture it for themselves

16070 Cap fleshy coriaceous thin smooth brownish, Pores very small roundish white, Stipes short pallid
16071 Cap soft fleshy somewhat umbilicated villous sooty pallid, Pores somewhat angular white, Stipes pallid
16072 Cap coriaceous velvety zoned, Pores minute at length lacerated, Plant cinnam.-col. Stipes central
16073 An obscure species scarcely known
16074 Cap concave rich brown scaly, Pores white very short, Stipes whitish thick short
16075 Cap rigid glab. smooth, Pores minute round. pallid, Stipes short smooth pallid abruptly black downwards
β Cap rigid glab. smooth, Pores small round. pale, Stipes short smooth pale becom. suddenly black at base

γ Cap yellow ochre-color or whitish
16076 Cap corky and stipes smooth shining, Pores minute round pale
16077 Much branched, Caps halved rugose sooty-grey, Pores white [Pores excessively short min. round whit.
16078 Imbricated scarcely reflex. whit. or brown-grey, Cap betw. corky and coriac. thin velvety obscure. zoned,
16079 Imbricated multiplied, Caps very broad somewhat banded pale-brown, Pores unequal pale
16080 Multiplied subsessile, Caps broad imbricated smoothish reddish-yellow, Pores minute flat sulphur-colored
16081 Cap subsessile not dimidiate compact smooth pale whitish-brown, Pores white small unequal
16082 Whitish, Cap fleshy rugose hispid obtuse, Pores short roundish
16083 Cap fleshy subsericeous white changing to bluish, Pores minute white irregular lacerated
16084 Cap dimidiate large somew. fleshy thick villous ferrugin. Pores yellowish pale and fringed at the orifices

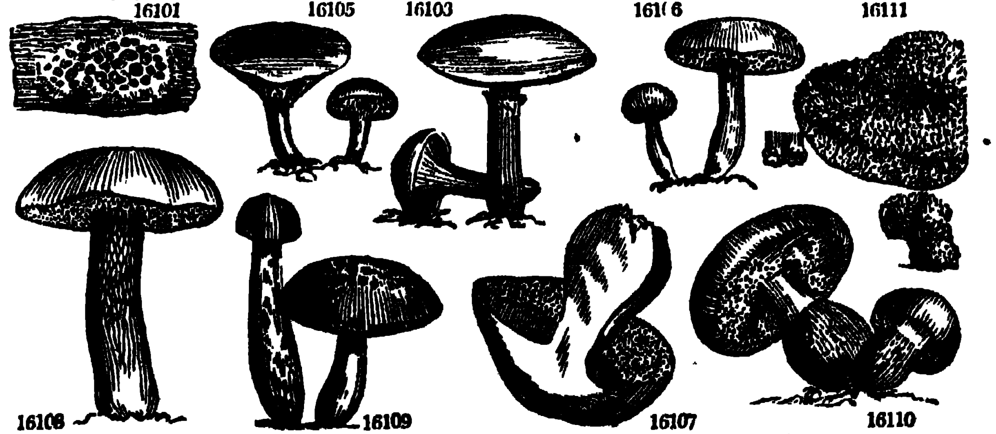
16085 Caps fleshy corky downy ferruginous, Pores shining greyish ferruginous
16086 Caps fleshy tough villous pale: margin straight blackish, Pores minute round cinereous
16087 Cap fleshy corky not banded glabrous pallid, Pores small equal
16088 Cap fleshy corky not banded villous white, Pores largish brownish [brown short irregular
β Sess. or dimid. bet. suber. and coriac. round. smooth white at length brown. Pores white becom. yellow.-
16089 Cap mostly reflexed coriaceous villose variegated by zones of different colors, Pores round white short
16090 Caps coriaceous streaked in rays somewhat velvety brownish-yellow, Pores minute
16091 Caps coriaceous smooth not banded pale ochre-color, Pores equal [lacerating
16092 Effused but at length mostly reflex. Cap thin coriac. vill. white, Pores violet at length brown. and toothed
16093 Cap subtriangular glabrous dark brownish-grey soft within: margin pale glaucous as well as the pores (which are very minute) but at length ferruginous
16094 Hard, Cap thick obtuse smoothish mostly ferruginous blackish at the base banded: margin convex, Pores minute greenish at length cinnamon-color
16095 Effused coriaceous-spongy ferruginous, Pores straight round minute
16096 Effused somewhat wavy hard smooth dry white, Pores middle-size
16097 Broadly effused thin dry smooth white, Pores minute subequal
16098 Effused thick portions sometimes growing out horizontally ferrugin. Pores round. very uneq. Flesh none
16099 Effused thin soft white with a fibrous circumference, Pores thin unequal
16100 Effused coriaceous very thin submarginate, Pores orange flesh-color minute round suboblique

16101 Very fine resembling byssus fugacious white, Pores distant cupulæform powdery
16102 Effus. entirely resupin. very thin white: marg. membran. laciniat. Pores min. subhexagonal very shallow

16103 Cap glutinous varying from bright-yellow to fulvous: tubes adnate yellow, Stipes firm with an annular veil
16104 Cap red-buff, Pores yellow, Stipes bright-yellow, Juice like milk
16105 Cap redd. or brownish-yell. smooth: tubes adnate somew. decurr. large ferrugin. Stipes smooth deep-yell.
16106 Cap round. dry subtoment. reddish or olivaceous: tubes adnate large angul. yell. Stipes very firm smooth

16107 Cap convex subtomentose mostly olivaceous: tubes nearly free round yellow; the orifices crimson-red, Stipes thick reticulated with crimson-red
16108 Cap convex smooth cinereous yellow or brown: tubes nearly free roundish minute whitish at length yellowish, Stipes thick reticulated: flesh white not changing color
16109 Cap convex glabrous: tubes free round whitish, Stipes firm attenuated upwards scabrous
β Cap somewhat rufous with black scales
γ Cap slightly glutinous reddish-brown thin: tubes adnate compound yellowish, Stipes smooth
16110 Cap compact somewhat downy: tubes loose round equal, Stipes solid smooth ventricose

16111 The only species

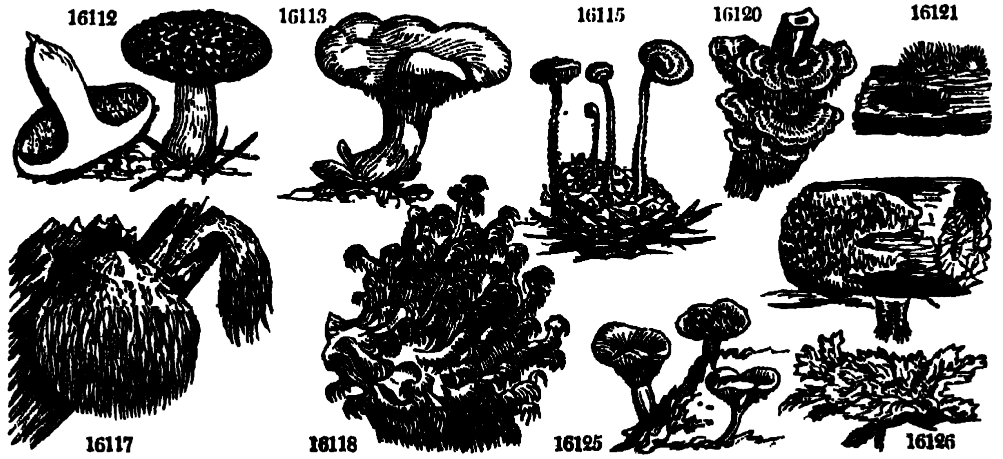


and Miscellaneous Particulars.

2373. *Boletus.* Pliny, Cæsalpinus, Porta, and others, call these plants Suilli. The Boleti (from *βωλος*, a field, in allusion to the places where they are found) of the Romans were terrestrial Fungi, and more particularly Agaricus cæsareus. By Tournefort these were called Phalloidei; by Micheli, Morchellæ. The species grow singly upon the ground, are succulent, and have their parts in the greatest perfection of any fungi. B. granulatus is eatable, according to Persoon; so is Boletus subtomentosus. Boletus edulis is excellent when cooked.

2374. *Fistulina.* So called from the *fistulous* nature of its tubes; the genus is just intermediate between Boletus and Hydnum, to the former of which it bears the same resemblance as Schizophyllum to Agaricus. There is only one species, and it is said, by Persoon, to be eatable.

2374. HYD'NUM. *L.*	HYDNUM.		*Sp.* 13—87.				
16112 imbricátum *L.*	imbricated	esculent	1	sep. oc.	Umb.	pine woods	Greville crypt. 71
16113 repándum *L.*	repand	esculent	1½	su. aut.	Ysh	woods	Greville crypt. 44
β *squamósum* Fr.	*scaly*	esculent	1½	su. aut.	Ysh	woods	Bolton, t. 88. *imbricatum*
16114 rufèscens *Pers.*	brownish	eatable	3	su. aut.	Pksh	beech woods	Bolton, t. 89. *repandum*
16115 auriscálpium *L.*	ear-pick	curious	2½	all sea.	Bl	pine cones	Greville crypt. 196
16116 gelatinósum *Scop.*	gelatinous	curious	½	aut.	Fusc.	pine woods	Jacq. aust. t. 239
16117 erináceum *Bull.*	Hedge Hog	variable	3	oct.	W	beech trees	Bulliard, t. 34
16118 coralloides *Scop.*	coralloid	tufts	1	aut.	W	trun. of trees	Sowerby, t. 252
16119 crispum *Schæff.*	crisp	4 inches wide	0	oct.	Brsh	dead wood	Schæff. t. 147. f. 1
16120 ochráceum *Pers.*	ochre-colored	variable	2	all sea.	Ysh	pine wood	Sowerby, t. 15. *Daviesii*
16121 minimum *Bolton*	least	curious	½	aut.	Taw.	rotten oak	Bolton, t. 171
16122 membranáceum *Bull.*	membranous	effused	0	sum.	Ferr.	pine wood	Sowerby, t. 327
16123 Bárba Jóvis *Bull.*	Jew's Beard	12 inches wide	0	sum.	Wsh	hollow trees	Sowerby, t. 328
16124 spatulátum *Fr.*	spatulate	very delicate	0	all sea.	W	pine trees	Nees syst. f. 231
2376. SISTOSTRE'MA. *Fries.*	SISTOSTREMA.		*Sp.* 1.				
16125 cónfluens *Pers.*	confluent	gregarious	1	au. no.	Wsh	way-sides	Sowerby, t. 112
2377. PHLE'BIA. *Fries.*	PHLEBIA.		*Sp.* 1—4.				
16126 vága *Fries*	wandering	membranous	2	sep. no.	Sul.	alder trees	
2378. THELE'PHORA. *Ehr.*	THELEPHORA.		*Sp.* 33—75.				
16127 pannósa *Fr.*	cloth-like	gregarious	2	aut.	Pallid	on ground	Sowerby, t. 155
16128 caryophyllǽa *Fr.*	clove	tough	1½	aut.	Psh	among grass	Schæffer, t. 325
16129 terréstris *Fr.*	terrestrial	gregarious	1½	aut.	Brsh	on ground	Bul. t. 268. *caryophyllæa*
16130 laciniáta *Fr.*	ragged	gregarious	1½	aut.	Ferr.	on ground	Bol. t. 173. *caryophyllæa*
§ 1. MERISMA. *Fr.*							
16131 palmáta *Fr.*	palmate	stinking	2	wet au.	P[illegible]	pine woods	Greville crypt. fl. t. 46
β *anthocéphala* Fr.	*flower-headed*	stinking	2	wet au.	P[illegible]	pine woods	Sowerby, t. 156
16132 cristáta *Fr.*	crested	crust-like	3	au. oct.	Pallid	damp places	Sow. t. 158. *laciniata*
16133 tuberósa	dwarf tuberous	solitary	1½	aut.	Rsh	bare ground	Greville crypt. 178
16134 rubiginósa *Schr.*	rusty	woody	2	all sea.	Bt. Br	old oaks	Sow. t. 26. *Au. ferrugin.*
16135 tabacína *Fr.*	Tobacco	elegant	6	su. aut.	Ferr.	bran. of trees	Sowerby, t. 25
Auric. nicotiána Bolton, t. 174							
16136 hepática *Fr.*	Liver	imbricated	4	aut.	Dl. Br	trun. of trees	Sow. t. 388. f. 2. *Aur. lævis*
16137 hirsúta *W.*	hairy	firm	3	all sea.	Ysh	trun. of trees	Sow. t. 27. *Au. reflexa*
16138 ochroleúca *Fr.*	pale-yellow	membranous	3	aut.	Wsh	trun. of trees	Sow. t. 349. *Au. papyrinus*
16139 purpúrea *Schum.*	purple	wavy	3	aut.	Pu	trun. of trees	So. t. 388. f. 1. *A. persistens*
16140 intybácea *Pers.*	endive-like	very irregular	6	au. spr.	Rsh	stumps of tr.	
16141 sinuans *Pers.*	sinuous	gregarious	1	au. wi.	Y. Br	oak branches	
16142 corýlea *Pers.*	Hazel-Tree	imbricated	6	all sea.	Ochr.	decay. hazel	
16143 córium *Pers.*	leathery	thin	6	aut.	Buff	dead trunks	Greville crypt. 147
16144 ochrácea *Fr.*	yellow-ochre	very broad	12	aut.	Ochr.	rotten trun.	
16145 radiáto-rimósa *Grev.*	cracked	confluent	4	aut.	R. Br	damp fir tim.	
16146 sanguinolénta *Fr.*	bloody	very gregar.	2	nov.	Psh	dead trees	Greville crypt. 225



History, Use, P[illegible]tion, Cult[illegible].

2375. *Hydnum.* The Greeks had their ὕδ[illegible]urs, which were analogous to the tubers of the Romans. H. coralloides is eatable; so is H. leo[illegible]h species. A very extensive genus of fungi, chiefly found in moist situations upon the trunks o[illegible]e pileus is furnished on its lower surface with numerous awl-shaped bodies, which Linnæus compares [illegible]e prickles of a hedgehog; they are soft, solid, conical or cylindrical substances, emitting sporules from every part of their surface.

2376. *Sistostrema.* So named from *σύστημα, part. συνίστημι*, compounded, and *τρῆμα*, an orifice, in allusion to the regular rows of pores. Intermediate between the Agarics and Hydna. Gregarious, becoming concrete, fragile, scentless, white, becoming yellow in age. The pilei are thin, somewhat fragile, from half to one inch

1. *Stem perpendicular, Cap distinct, round, nearly entire.* Growing on the ground.

16112 Cap fleshy flat tessellated scaly not banded umber-colored, Processes buffish-cinereous, Stipes short
16113 Cap fleshy smooth subrepand buffish, Subulate processes of hymenium unequal pale, Stipes unequal thick

16114 Cap fleshy orbicular somewhat tomentose brownish-flesh-color, Processes nearly equal, Stipes thin equal
16115 Cap coriaceous tomentose, Stipes lateral tomentose

2. *Stem simple, somewhat horizontal, Cap halved, or out of the centre.* Fleshy. Growing on wood.

16116 Cap gelatinous papillose, Processes soft pyramidal glaucous, Stipes short lateral
16117 Very large heart-shaped white becoming rather yellow, Cap subsessile fibrous torn, Processes very long

3. *Cap confounded with the stem, obliterated.* Fleshy. Growing on wood.

16118 Much branched white becoming yellow, Branches entangled tapering, Processes unilateral subulate

4. *Cap sessile, lateral.* Growing on wood.

16119 Cap coriaceous lobed scaly plaited rufous brown projecting behind, Processes imbricated pale rufous
16120 Effuse-reflexed, Cap coriaceous thin banded ochre-colored, Processes minute numer. ochre-flesh-colored
16121 Coriaceous woody spherical orange-color, Processes short erect

5. *Cap resupinate, effuse.* Growing on wood.

16122 Effused thin glabrous tawny-ferruginous, Processes in the middle straight
16123 Effused downy pale-white, Processes rounded pubescent at the end bearded with orange
16124 Effus. white at length yellow. with a byssoid marg. Process of hymen. oblique subent. compr. vill. at apex

16125 The only species

16126 Effused soft sulphur-colored : the circumference expanded and byssoid, Plaits distant irregular

1. *Cap entire, with a stem.* Terrestrial.

16127 Corky pale, Cap depressed scaly beneath smooth somewhat pilose
16128 Somew. tuft. stipit. or sess. Cap irregul. rarely quite ent. striato-fibr. purplish-brown : marg. often laciniate

2. *Cap lateral, somewhat stipitate.* Terrestrial.

16129 Irregularly tufted dark fuscous, Cap rather thick striato-fibrous sessile often imbricated sometimes with a very short lateral stipes
16130 Ferruginous brown, Caps fibrous scaly ragged and crisp at their edges

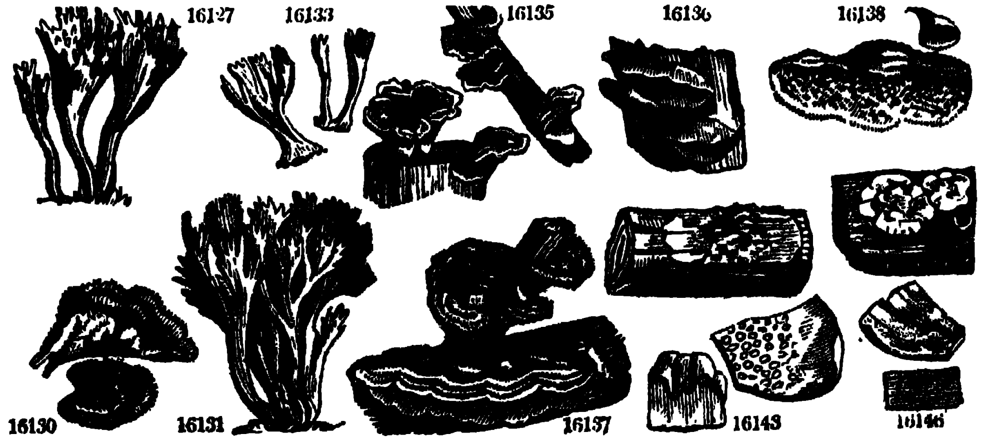
3. *Cap and stem confounded, running into compressed branches.* Terrestrial. *Merisma.* Pers.

16131 Erect purple-brown, Branches compressed palmate folded paler at the summit
β Somewhat ferruginous, Branches glabrous obtusely ragged fastigiate
16132 Subdecumbent pale greyish or yellowish, Branches effused plane expanding fimbriato-laciniate
16133 Erect distinct stipitate reddish-grey, Cap with branches of nearly equal length, Stipes bulbous at base

4. *Cap sessile, lateral.* Growing on wood.

16134 Imbricated rigid somewhat zoned purplish reddish-brown glabrous, Hymenium papillose minutely velvety rubiginous paler at the margin
16135 Effuse-reflexed thin silky ferruginous margined downy beneath

16136 Somewhat imbricated bandless smooth on each side very smooth dull-brown
16137 Effuse-reflexed coriaceous strigose, Hymenium smooth yellowish or orange-buff
16138 Effuse-reflexed somewhat membranous striated pubescent beneath smooth and ochraceous
16139 Imbricated subcoriaceous zoned hirsute, Hymenium smooth purple
16140 Imbricated velvety zoned pale reddish-buff, Hymenium smooth irregularly papillose buffish at length ferruginous sometimes shooting out into rude stems anastomosing and producing irregularly caps
16141 Round. thick often conflu. Marg. waved splitting, Hymenium tuberculose yellow. or reddish-brown crack.
16142 Broadly effused thickish, The margin slightly reflexed, Hymenium ochraceous uneven unequally papillose
16143 Coriaceous broad thin, Margin free with the surface tomentose, Hymenium smooth minutely reticulated buff becoming darker in age
16144 Effus. very broad thin, Hymen. somew. of an ochrey pale-yell. smth. or with scatter. uneq. false papillæ
16145 Resupinate, Margin free whitish hirsute, Hymenium fuscous smooth somewhat shining and faintly zoned towards the margin cracking in a radiated manner
16146 Circular effused, Margin sometimes free rarely reflexed, Hymenium pale whitish-brown pruinose silky and minutely byssoid at the margin turning red when wounded



[illegible] *and Miscellaneous Particulars.*

broad, somewhat depressed, flexuose, and apt [illegible] to one another. The only species is found in August and November by the side of sandy paths [illegible].

2377. *Phlebia.* So called, from φλεψ, a [illegible] last was intermediate between Agaricus and Hydnum, so is this between Cantharellus and Thelephora. As that differed from Dædalea, does this from Merulius. The species are all found upon bark, late in the year. No species was described before the writings of Fries. P. merismoides is an elegant little plant, distinguished by its reddish-flesh-colored hues. It is found occasionally spreading over wood and smooth bark ; and sometimes runs with its papillose veiny branches among mosses.

2378. *Thelephora.* So called, from θηλη, a nipple, and φερω, to bear, in allusion to the papillose surface o.

16147 quercina *Pers.*	oak	brittle	6	spr. au.	Blsh	fallen oaks	Greville crypt. 142
16148 fraxinea *Pers.*	ash	thin	1	aut.	Grsh	dead ashes	
16149 Tiliæ *Pers.*	lime	irregular	2	aut.	Cin.	woods	
16150 epidérmea *Pers.*	bark	irregular	3	nov.	Pa.Bu	dead trunks	
16151 incrústans *Pers.*	incrusting	spreading	3	aut.	Ysh	earth,tr., &c.	
16152 cálcea *Pers.*	chalky	cracked	6	aut.	W	decay. wood	
16153 Sambúci *Pers.*	Elder Tree	membranous	4	aut.	W	decay. elders	

§ 2. Phylacte'ria. *Pers.*

16154 biénnis *Fr.*	biennial	plaited	4	aut.	Wsh	on ground	Bulliard, t. 436

§ 3. Himan'tia. *Pers.*

16155 doméstica *Pers.*	household	smooth	6	wet w.	Br	da. pla. in ho.	
16156 fúsca *Fr.*	brown	rugose	2	aut.	Vi.Br	trun. of trees	
16157 láctea *Fr.*	milk-white	very thin	2	aut.	W	trun. of trees	Sow. t. 387. f. 1. *F. stellata*
H. cándida Pers.							

§ 4. Leptostro'ma. *Fr.*

16158 cinérea *Fr.*	cinereous	uneven	4	spr. au.	Cin.	elder tree	Sowerby, t. 388

Division II. *Clavati.*

2379. CLAVA'RIA. *Vaill.* Clavaria. *Sp.* 23—66.

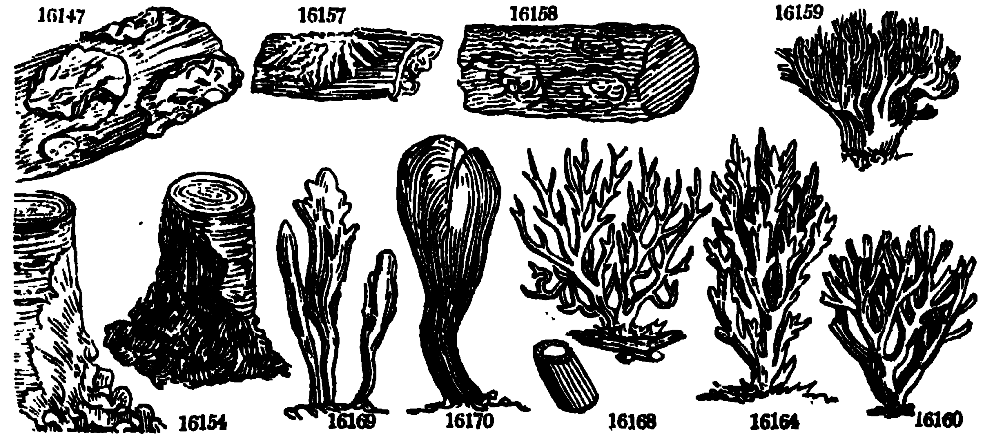
16159 Bótrytis *Pers.*	bunched	much branch.	3	sum.	Wsh	beech woods	Sch. t. 176 *acroporphyria*
16160 fláva *Pers.*	yellow	delicious	3	aug.	Y	woods	Schæffer, t. 175
16161 coralloides *L.*	coral-like	very smooth	3	aut.	W	on ground	Sowerby, t. 278. fig. sup.
16162 abietína *Pers.*	pine-wood	gregarious	3	aut.	Ochr.	fir woods	Greville crypt. 117
16163 cristáta *Pers.*	crested	polymorph	2½	aut.	W	woods	Greville crypt. 190
16164 cinérea *Pers.*	cinereous	tufted	3	sum.	Cin.	damp places	Greville crypt. fl. t. 64
16165 córnea *Pers.*	corneous	gregarious	½	aut.	Y	dead fir trees	
16166 stric'ta *Pers.*	erect	thin	1	au. oc.	Brsh	trunks	Schæffer, t. 286. *pallida*
16167 praten'sis *Pers.*	meadow	viscid	1	aut.	Y	meadows	Bolton, t 114. *muscoides*
16168 corniculáta *Schæff.*	horned	solitary	3	aut.	Y	meadows	Sow. t. 157. *muscoides*
16169 rugósa *Bull.*	rugose	toughish	2½	aut.	W	damp earth	So. t. 278. fig. inf. *coralloi.*
16170 pistilláris *L.*	pistillary	largest	12	au. no.	Ysh	beech woods	Sowerby, t. 277
16171 Ardénia *Sowerby*	flexuose	opaque	6	sep.	Brsh	bran. of lime	Sowerby, t. 215
16172 fusifórmis *Sowerby*	fusiform	regular tufts	3	sep.	Y	among grass	Sowerby, t. 234
16173 ceranoides *Pers.*	wrinkled	much tufted	3	aut.	Ysh	upon trees	Sowerby. t. 235. *rugosa*
16174 inæquális *Fries*	unequal	gregarious	2½	aut.	Y	meadows	Sow. t. 253. *vermicularis*
16175 frágilis *Pers.*	brittle	gregarious	1	aut.	Ysh	damp places	Greville crypt. 37
C. gracilis Sowerby, 232							
16176 acúta *Sowerby*	acute	gregarious	2	aut.	W	upon trees	Sowerby, t. 333
16177 fimbriáta *With.*	fringed	polymorph.	2	aut.	W	upon trees	
16178 hélvola *Pers.*	pale-red	flexuose	1½	aut.	Y	meadows	
16179 vermiculáris *Fries*	worm-like	crowded tufts	3	aut.	W	mea. & past.	
16180 unciális *Grev.*	dwarf	very gregar.	1	aut.	W	rotten twigs	Greville crypt. 98
16181 sétipes *Grev.*	bristle-footed	gregarious	½	aut.	W	dead leaves	Greville crypt. fl. t. 49

2380. CALO'CERA. *Fries.* Calocera. *Sp.* 2—6.

16182 tuberósa *Fries*	tuberous	root roundish	2	aut.	Y	und.ba. of tr.	Sowerby, t. 199
16183 córnea *Fries*	horny	tufted	½	jl. dec.	Y	various trees	Sowerby, t. 40

2381. GEOGLOS'SUM. *Pers.* Earth-tongue. *Sp.* 4—9. *Clavaria* Sow.

16184 hirsútum *Pers.*	hairy	solitary	2	aut.	Bl	bogs & mea.	Greville crypt. 185



History, Use, Propagation, Culture,

of the pileus of all the species. T. caryophyllæa is very common upon the exposed roots of old firs in the autumn. The substance is tough and somewhat woody; the color a chocolate brown. The plants often grow in masses, attached by their upper side to sticks, old bark, &c. and are from one to three inches in diameter.

2379. *Clavaria.* So called, from the simple clavate form of the species. Some are eatable; as for instance C. flava, which is said to be delicious; C. cinerea, which is frequently eaten in France; C. pyxidata is said by Persoon to be tolerably good. Loureiro has also an eatable species found in Cochin-China, growing upon elephant's dung.

5. *Cap obliterated, resupinate.* Growing on wood.
16147 Resupinate rigid nearly black beneath, Hymenium flesh-color rugose and papillose at length cracking
16148 Very thin effused cracking and becoming invol. very dark ben. Hymen. brown.-grey minutely farin. papill.
16149 Effus. extremely thin, Marg. appress. minutely vill. Hymen. purp.-grey cover. with small uneq. papillæ
16150 Effused thin smooth, Margin delicate and byssoid, Hymenium whitish at first at length very pale-buff, Papillæ scattered or none
16151 Effused spreading over moss, &c., Margin fibrous, Hymenium very unequal tuberculose yellowish
16152 Effused unequal in thickness hard, Hymenium white glabrous cracked in different directions so as to be often tessellated obtusely papillose
16153 Effused membranaceous thin, Margin entire, Hymenium very white glabrous subpapillose

16154 Membranous smooth plaited at base whitish becoming blackish

16155 Effused membranous smooth pale beneath white with cobweb-like down
16156 Effused somewhat rugose soft of a violet-brown : at the margin and beneath downy
16157 Mostly on dead leaves, Filaments very fine white radiating dilated at the extremities in a plumose manner

16158 Broadly effused thin dry smooth glabrous cinereous

Division II. *Clavati.*

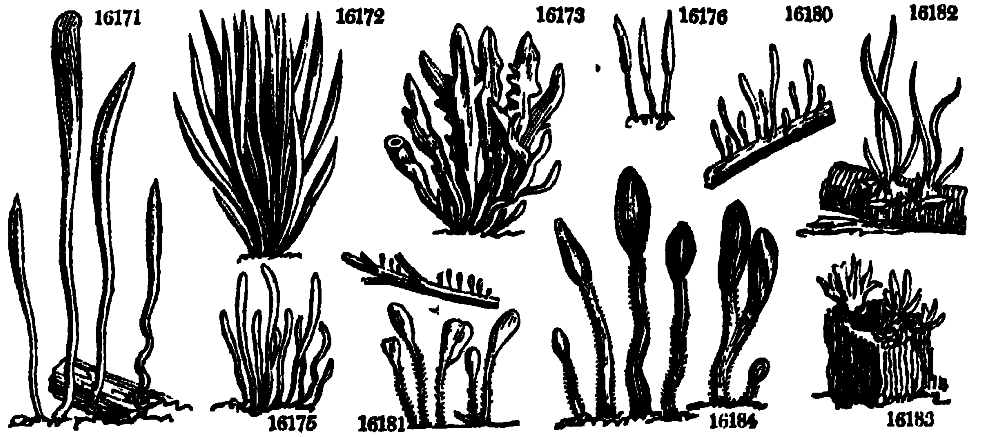
* *Much branched, Stem thick.*
16159 Deformed, Stipes decumbent very thick pale, Branches short somewhat wrinkled red at ends
16160 More erect, Stem thick white, Branches straight round fastigiate yellow
16161 White erect, Stipes thick, Branches elongated irregular unequal mostly acute
16162 Dull ochrey-yellow much branched white and tomentose at the base turning green when bruised, Branches erect crowded slightly rugose with acute often forked summits
16163 White or ciner. tuft. branch. smooth, Branch. dilat at summ. and jagged or shortly but acutely laciniate
16164 Grey often with a bluish or a purplish tinge much branched unequally incrassated rugose often subcompressed, Summits either very obtuse or somewhat acuminate
16165 Yellow half an inch high branched or nearly simple viscous, Stipes of several plants connected at the base

** *Branched, Stem thin.*
16166 Much branched pale brownish, Branches and branchlets straight appressed acute
16167 Yell. tuft. Stipes short producing numer. short geniculate divaricate branches : the ramuli subfastigi. obt.
16168 Yellow erect much branched in a dichotomous manner, Branches slender with acute summits
16169 White gregarious incrassated rugose simple or branched, Branches few short obtuse

*** *Simple, clavate.*
16170 Solitary large glabrous yellowish-brown thickened upwards and obtuse
16171 Very long hollow thickened upwards brownish downy at base
16172 Heaped fascicled yellow, Branches nearly equal incurved yellow
16173 Fascicled unequal subdivided hollow yellowish-brown at end [irregular at the apex
16174 Yell. or yell.-white tuft. or gregarious fragile uneq. ventric. deformed somew. acum. often bifurcate and
16175 Yellow or white gregarious sometimes subcæspitose solid or hollow very brittle rather firm attenuated at the base subrugose in age and often crooked
16176 Straight white, Head distinct round acuminate as long as stipes
16177 Stem slender villous, Branches long compressed, Branchlets numerous setaceous cut
16178 Yellow gregarious cylind. equal smooth obt. slender below and paler, apex frequently of a cinnamon-color
16179 Pure white tuft. crowd. subul. flexuose solid but with a small perforat. mostly somew. connected at base
16180 White gregarious round club-shaped obtuse much attenuated at the base smooth not brittle
16181 White minute, Hymenium oblong or ovato-clavate passing suddenly into a filiform pilose stipes

16182 Tough yellowish nearly simple, Stem tuberous long-rooted
16183 Tufted smaller simple and branched viscid yellow connate at base

16184 Stipes hirsute deep-black, Hymenium somewhat plicate



and Miscellaneous Particulars.

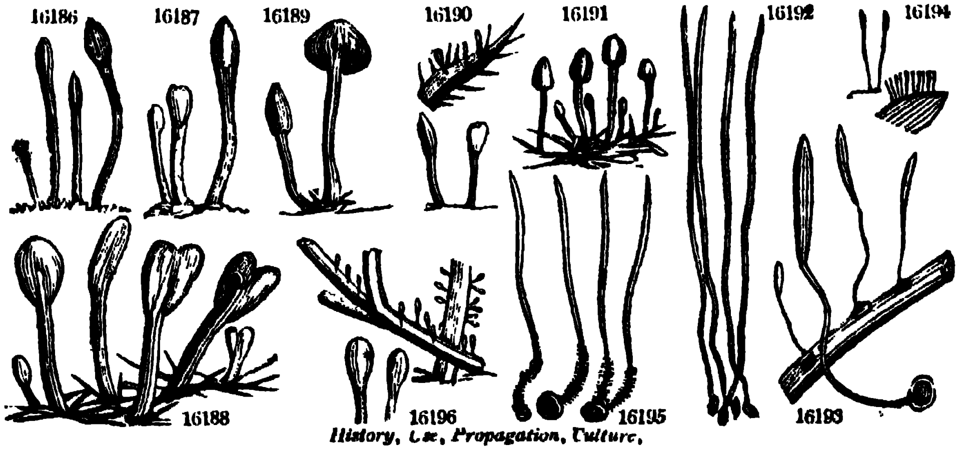
2380. *Calocera.* From καλος, beautiful, and κερας, a horn, in allusion to the divisions of the plants. They grow on wood, and are either brown or yellow; but their sporidia are generally white. C. viscosa is at once distinguishable by its beautiful gold color. Some of the species adhere to paper when dry.

2381. *Geoglossum.* From γη, the earth, and γλωσσα, a tongue; earth-tongue: in allusion to the simple form of the species, which all grow upon earth, and are of a blackish or dark-green color. Fries considers the genus to be scarcely distinct from Clavaria.

16185 glábrum *Pers.*	smooth	gregario.	1	sum.	Blsh	among grass	Bolton, t. 111. fi. f. 2
16186 viscósum *Pers.*	viscid	cylindric.	1½	aut.	Bl	moist meadows	Greville crypt. fl. t. 55
16187 víride *Pers.*	green	gregario.	2	aut.	G	moist meadows	Greville crypt. 211
2382. SPATULA'RIA. *Pers.* Spatularia.			*Sp.* 1.			*Clavaria* Sow.	
16188 flávida *Pers.*	yellowish	variable	1½	aut.	Ysh	dead leaves	Greville crypt. 165
2383. MI'TRULA. *Fries.* Mitrula.			*Sp.* 1—5.			*Clavaria* Sow. *Leotia* Pers.	
16189 paludósa *Fries.*	marshy	hollow	1	my.au.	Y	wet ditches	Sowerby, t. 293
16190 minúta *Fries*	minute	gregario.	½	sum.	Y	brac.of Dips. pilos.	Sowerby, t. 391
16191 abíetis *Fries*	fir-wood	dry	½	aut.	Cinn.	fir woods	Sow. t. 84. *ferruginea*
Leotia mitrula Grev. 81							
2384. TY'PHULA. *Fries.* Typhula.			*Sp.* 4—11.			*Clavaria* Sow.	
16192 phacorhíza *Fr.*	tuberous	flexuose	2	aut.	W	woods	Sowerby, t. 253
16193 erýthropus *Fr.*	red-footed	gregario.	½	aut.	W	sticks and leaves	Gre. cry. 43. *Phacorhiza*
16194 ténuis *Fr.*	thin	gregario.	½	sum.	Blsh	on wood	Sowerby, t. 386. f. 5
16195 filifor'mis *Fr.*	filiform	creeping	½	aut.	Cin.	dead leaves	Gre. cry. 93. *Phacorhiza*
2385. PISTILLA'RIA. *Fries.* Pistillaria.			*Sp.* 1—7.			*Clavaria* Sow.	
16196 quisquiliáris *Fr.*	obtuse	gregario.	½	aut.	W	dead fern leaves	Sow. t. 334. f. 1. *obtusa*

Class II. Uterini v. Elvellaceæ. — Division I. *Mitrati.*

2386. MORCHEL'LA. *Dill.* Morel.				*Sp* 3—14.			
16197 esculénta *Pers.*	esculent	eatable	3	spring	Wsh	on the earth	Greville crypt. 68
α *rotúnda* Pers.	*round*	eatable	3	spring	Wsh	on the earth	Sow. t. 51. fig. sinistr.
β *vulgáris* Pers.	*common*	eatable	3	spring	Wsh	on the earth	Sower. t. 51. fig dextr.
16198 pátula *Pers.*	spreading	eatable	3	spring	Ysh	on the earth	Sower t. 51. fig. med.
16199 semilíbera *Dec.*	half-separate	cap brown	4	spring	Wsh	woods	Grev. crypt. 89. *hybrida*
2387. HELVEL'LA. *L.* Helvella.				*Sp.* 5—15.			
16200 críspa *Fr.*	crisp	solitary	4	aut.	Ysh	borders of fields	Gre. cry. 143. *leucophæa*
16201 lacunósa *Afz.*	pitted	solitary	4	aut.	Livid	hedge banks	Grev crypt fl. t. 36. *Mitra*
16202 esculénta *Pers.*	esculent	eatable	3	mr. my	Brsh	pine woods	Schæffer, t. 160
16203 In'fula *Schæff.*	brown	eatable	4	aut.	Cinn.	damp orch. places	Flora danica, t. 835
16204 elástica *Fr.*	elastic	slender	4	su. aut.	Blsh	damp places	Sower t. 154. *fuliginosa*
2388. VER'PA. *Swz.*	Verpa.			*Sp* 1—6.			
16205 cónica *Swz*	conical	fistular	3	aut.	Br	on ground	Sowerby, t 11. *Relhani*



History, Use, Propagation, Culture,

2382. *Spatularia.* A very distinct genus, named from its *spatulate* form. The only species known is an autumnal epiphyte, common on fallen leaves, decaying mosses, &c. Its color is at first pallid; afterwards it becomes yellow and ferruginous: but the stipes retains its paler color. It is found in plantations in various parts of England. In a state of perfect maturity, the head, on being touched, throws up its sporules in the form of smoke, which rises with elastic force, and glitters in the sunshine like particles of silver.

2383. *Mitrula.* So called from its *mitrate* form. The species are small epiphytes with a simple stem.

2384. *Typhula.* A diminution of *Typha*, a well-known marsh plant, the heads of fructification of which this genus resembles in miniature. All the species are delicat[illegible] are found upon decayed leaves, or even occasionally upon Sclerotias.

2385. *Pistillaria.* So called from its *pistil*-like form. The species are all small, delicate epiphytes, appearing in the autumn.

2386. *Morchella.* A name altered by Dillenius from *Morchel*, the German name of the plant. Fungi of a large size, appearing in the spring upon the earth. The eatable morel is one of the most valuable of fungi for purposes of cookery; but is more frequently used in a dried state for sauces, than when fresh. It is found in greatest abundance in places where trees have been burned, which led in Germany to a practice of burning down masses of forests for the sake of the future morels. This practice proved so injurious, that it became necessary to suppress it by law. The morel is subject to many variations of figure and color, which are all referable to four principal forms. But there are also some legitimate species which have been distinguished by modern botanists. Of these it is not ascertained which are natives of England; but it is probable, that they are all to be found if sufficiently sought for. Without, therefore, absolutely inserting them in the list of British species, it cannot be otherwise than useful, considering the importance of an accurate knowledge of the eatable fungi, to enumerate the two principal in this place.

1. M. Deliciosa is found in the spring among grass and bushes by the sides of fields in France, and is said to be much superior in flavor to the M. esculenta. Its stipes is hollow, and shorter than the pileus, scarcely ever so much as an inch long, about three or four lines thick, nearly equal in the whole length, but sometimes thickened and compressed at the base; under a lens covered with a slight downiness. Pileus is conical-cylindrical, from one inch to two inches and an half long, with nearly parallel ribs, which can scarcely be said to

16185 Glabrous dry blackish, Stipes somewhat scaly [thin and attenuated dowdwards
16186 Smooth very slimy in moist weather black, Hymen. cylind. round. at apex confluent with stipes which is
16187 Green somewhat fasciculate, Hymenium distinct, Stipes minutely scaly

16188 The only species

16189 Yellow subgregarious, Cap orange-yellow obtuse hollow : margin connate with the stipes
16190 Very small, Head lanceolate yellow, Stipes equal paler
16191 Gregarious solid, Hymenium ovate yellow cinnamon, Stipes slender dark-brown flexuose at the base

16192 White filiform elongated somewhat villose at the base radicular tuber dark fuscous lenticular
16193 Gregarious min. Hymenium smooth white short terminat. in an elongated filiform dark pink-red stipes
16184 Simple smooth dark thickened at end
16195 Somewhat branched spadiceous, Heads thickened whitish

16196 Thickened towards the extremity white confluent with the stipes

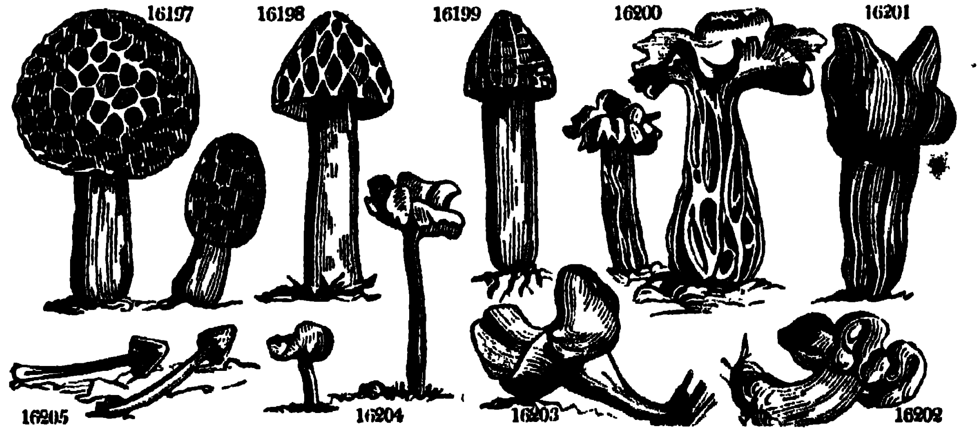
Class II. Utrini v. Elvellaceæ. — Division 1. *Mitrati.*

16197 Cap round. or oval : marg. contract. round the stipes, Areolæ much hollow. Stipes white dilat. tow. base
α Cap and areolæ round
β Cap oval, Areolæ quadrangular
16198 Cap obtuse separate as far as the middle, Areolæ rhomboid, Stipes smooth [thick white
16199 Cap short conic. spread. at base, Areolæ shall. partly formed by longitudin. parallel ribs, Stipes long equal

* *Cap waxy, membranous, at first united, afterwards wavy in plaits.*
16200 Cap irregularly deflexed free often variously lobed yellow.-white, Stipes deeply sulcate and lacunose white
16201 Cap dark-livid inflated deflex. and partially adnate with stipes, Stipes deeply furrow. and lacunose white
16202 Cap inflated deformed wavy wrinkled in circles brown, Margin villous adhering to the smooth stipes
16203 Cap deflexed lobed adnate about cinnamon-colored, Stipes smoothish villous pale

** *Cap somewhat membranous, smooth, always separate.*
16204 Cap loose smooth inflated becoming sharply lobed, Stipes long thin tapering pruinose

16205 Cap campanulate smoothish fuscous somewhat sinuated at the edge : beneath and the stipes yellow



and Miscellaneous Particulars.

anastomose, but which are united by transverse rugosities. The color is usually yellowish, rarely of a pale livid hue.

2. M. elata has a longer stipes than the last, an inch and more thick, very hollow and brittle, with irregular cavities. The pileus is ovate-conical, two or three inches long, but of a far more delicate texture than any of the others. The longitudinal ribs are much elevated, membranous, flaccid, with very few anastomoses, but united by transverse costæ, which give the spaces between a sort of misshapen rhomboidal figure. The color is a soft brown. The flavor is watery and vapid, and in decay becomes so fetid as to be unfit for food. This is found in pine-woods, especially in bu[illegible] places. It is a rarer kind than the last and like it, appears in the spring.

M. patula and semilibera are readily known from the true morels by their pileus not being attached to the stipes by the base, but altogether separate from it. They are distinguished from each other by the latter having a much longer stipes, and a shorter pileus, which is more conical and acute. M. patula is considered by Fries to have been confounded, in Mr. Sowerby's fine work on Fungi, with Helvella esculenta.

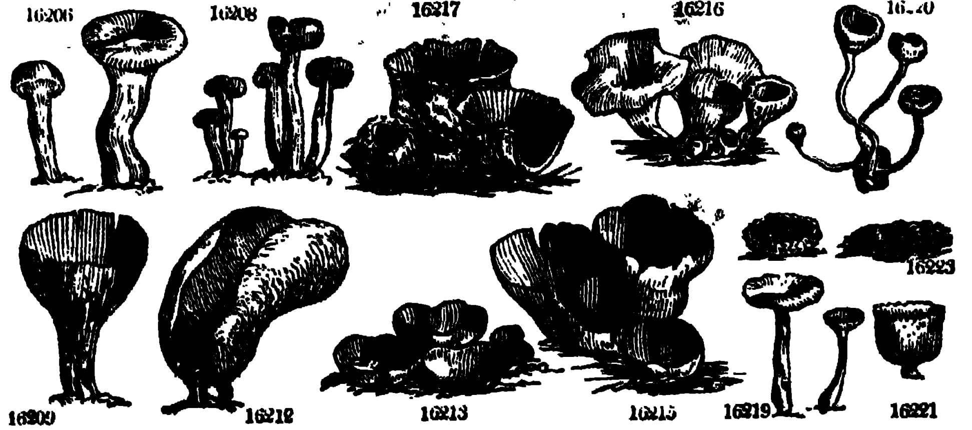
2387. *Helvella.* A name employed by Cicero, as the name of a fungus. The species of the modern genus are permanent, somewhat fragile fungi, with little odor or taste, but always innocuous. They grow on the earth or upon very wet wood, and are chiefly found in the autumn. H. crispa is excellent as an article of cookery. H. lacunosa, which is confounded with it, is by no means so good. H. esculenta has a good flavor, and is commonly eaten, but is far inferior to Morchella esculenta. Its qualities are nearly the same as those of the latter plant, and it is popularly confounded with it under the name, in Sweden, of *Stenmurkla*, and in Germany, of *Gemeine Morchel*, *Stumpf Morchel*, and *Stockmorchel*. H. infula, a large species, with an inflated smooth pileus of various hues of brown, is also esculent. This last plant is the true H. Mitra of Ruppius and old botanists; a name which, having been applied by one writer or other to every species of Helvella, is now abandoned altogether in order to avoid further confusion.

2388. *Verpa.* An old Roman name synonymous with Phallus, and restored to modern science by Swartz. The species are meteoric, terrestrial, and intermediate between the Morels and Leotia. The hymenium is covered, as is the case with many Mitrati, with a frost-like flocculence, which Swartz mistook for sporules, but which more recent observation has shewn to have been a mistake.

2389. LEO'TIA. *Hill.*	LEOTIA.				*Sp.* 3—11.		
16206 infundibulifórmis *Fr.*	funnel-form.	solitary	3	oct.	Cin.	on ground	Sowerby, t. 153
16207 nána *With.*	dwarf	subsessile	½	aut.	W	on trees	
16208 lúbrica *Pers.*	slippery	gregario.	2	aut.	Ol	moist woods	Greville crypt. 56

Division II. *Cupulati.*

2390. PEZI'ZA. *Dill.*	PEZIZA.				*Sp.* 45—300.		
§ 1. ALEU'RIA. *Fries.*							
16209 acetábulum *L.*	saucer	clustered	½	spring	Sooty	damp woods	Sowerby, t. 59
16210 bádia *Pers.*	brown	tufted	1	su. aut.	Br	grassy places	Bolton, t. 99. *cochleata*
16211 leporina *Batsch*	hare's-ear	gregario.	1	aug.oc.	Brsh	on ground	Schæffer, t. 156
16212 onótica *Pers.*	rosy	gregario.	1½	aug.oc.	Brsh	dead leaves	Sowerby, t. 79. *leporina*
16213 aurántia *Fl. dan.*	orange	beautiful	½	aut.	Or	sandy places	Sowerby, t. 78. *coccinea*
16214 concinna *Pers.*	neat	very broad	1	sum.	Lem.	dead leaves	Bolton, t. 175. *vesiculosa*
16215 cochleáta *Huds.*	cochleate	brittle	2½	su. aut.	Y.Br	fields	Sowerby, t. 5
16216 cérea *Sowerby*	waxen	gregario.	½	sum.	Sooty	dunghills	Sowerby, t. 3
16217 vesiculósa *Bull.*	bladdery	crowded	2½	aut.	Wsh	dunghills	Greville crypt. 107
16218 repánda *Fr.*	repand	fleshy	1½	aut.	Wsh	on ground	Greville crypt. fl. 59
16219 mácropus *Pers.*	large-footed	solitary	2	su.aut.	Cin.	shady woods	Bolton, t. 96. *hispida*
16220 tuberósa *Bull.*	tuberous	slender	2	mr. ap.	Br	shady woods	Sowerby, t. 63
16221 cupuláris *L.*	cupped	fringed	½	aut.	Pa.Br	scorched earth	Bull. t. 396. f. 3
16222 argillácea *Sowerby*	argillaceous	scattered	½	aut.	Ysh	clay	Sowerby, t. 148
16223 granuláta *Bull.*	granular	gregario.	1/12	sum.	Or.R	cow dung	Bull. t. 438. f. 3
16224 reticuláta *Grev.*	netted	very fine	4	spring	Br	on ground	Greville crypt. 156
16225 erécta *Sowerby*	erect	patches	½	aut.	Ysh	shady woods	Sowerby, t. 369. f. 10
16226 humósa *Fries*	earth	scattered	½	aut.	Crim.	damp earth	Sowerby, t. 369. f. 2
16227 fis'sa *Fries.*	split	solitary	½	wint.	Br	hazel bark	
§ 2. LACH'NEA. *Fries.*							
16228 coccínea *Scop.* *P. epidendra* Sow.	scarlet	subgrega.	½	spring	W	dead branches	Greville crypt. 171
16229 melas'toma *Sower.*	blk.-mouth.	solitary	½	feb.mr.	Pa.Br	heaths	Sowerby, t. 149
16230 radiculáta *Sower.*	rooting	clustered	½	su aut.	Sul.	earth in gardens	Sowerby, t. 114
16231 hemisphæ'rica *Wig.*	hemispheric.	scattered	0	jn. dec.	Bsh.	earth in woods	Sowerby, t. 147. *hispida*
16232 hírta *Schum.*	hairy	scattered	1/12	aug.oc.	Brsh	earth	Sow. t. 369. f. 1. *hybrida*
16233 cerina *Pers.*	smooth	much crowd.	0	spr.au.	Ysh	decayed dry wood	
16234 scutelláta *L.*	scutellate	beautiful	½	spr.au.	Or	old cow dung	Sowerby, t. 24
16235 Nídulus *Pers.*	bird's-nest	punctif.	0	aut.	Br	decayed stems	
16236 cærúlea *Bolton*	blue	punctif.	½	aut.	Bsh	pine trees	Bolton, t. 108. f.
16237 plano-umbilicáta *Gr.*	plano-convex	hairy	0	su. aut.	W	decayed nettles	
16238 stercórea *Pers.*	dung	gregario.	1/12	spr. su.	Taw.	cow dung	Sowerby, t. 352 *equina*
16239 albo-spadícea *Grev.*	pallid	handsome	1/12	aut.	R.Br	bare earth	
16240 sulphúrea *Pers.*	sulphur	pretty	0	aut.	Y	decay.herbac.stems	Greville crypt. fl. 83
16241 virgínea *Batsch*	virgin	solitary	1/12	aut.	W	rotten sticks	Sowerby, t. 65. *nivea*
16242 bícolor *Bull.*	two-colored	beautiful	1/12	aut.	W	larch twigs	Sowerby, t. 17
16243 varíécolor *Fries.*	variable	gregario.	0	all sea.	Ysh	rotten wood	Sower. t. 178. *hydnoidea*
16244 papilláris *Bull.*	pimpled	gregario.	0	all sea.	W	upon wood	Sowerby, t. 177
16245 villósa *Fries*	villous	crowded	0	aut.	W	dead herbac. stems	Sower. t. 389. f. 1. *sessilis*
16246 plúmbea *Grev.*	leaden	crowded	0	aut.	Fu. ol.	rotten wood	Greville crypt. fl. 11
16247 anómala *Pers.*	anomalous	crowded	½	all sea.	Dl.Y	fallen branches	Sower. t. 369. f. 3. *rugosa*
16248 doméstica *Sowerby*	domestic	minute	0	all sea.	Ruf.	damp walls	Sowerby, t. 151
16249 Walkéri *Grev.*	woolly	beautiful	1/12	aut.	Pa.Br	dead wood	Greville crypt. 159
16250 fúsca *Grev.*	brown	spots	0	ap.my.	Gr	dead branches	Greville crypt. 192



History, Use, Propagation, Culture,

2389. *Leotia.* Named by Sir John Hill, of famous memory, for no known reason. Gregarious terrestrial substances of the middle size, appearing in summer or autumn, without smell or taste. They are most nearly akin to Helvella and Verpa, from which they differ in form and substance. The species are not known to be eatable, with the exception of L. amara, a native of Cochin-China, which is capable of being deprived of its native bitterness by long stewing.

16206 Cap depressed cinereous livid smooth on each side, Stipes solid smooth
16207 Dwarfs, Cap rugose white beneath smooth brown, Stipes solid cylindrical white
16208 Tremellose, Cap tumid spread. olivac.: margin rounded, Stipes orange-cylindr. or unequally compressed

Division II. *Cupulati.*

1. *Cupule always open, or when young conniving, Veil superficial, Sporidia with two smaller sporidia.* HELVELLOIDEÆ.

16209 Cyathiform sooty veiny on the outside arising from a short fistulous pitted stipes
16210 Subsess. ent. flexuose brown, Margin at first involute externally pruinose paler and somew. olive-colored
16211 Substipitate lengthened on one side ear-shaped somew. ferrugin. mealy outside smooth inside at the base
16212 Substipitate lengthened on one side ear-shaped farinaceous outside pink inside becoming rugose at base
16213 Gregarious flexuose very brittle white externally, Hymenium fine orange
16214 Cæspitose large very brittle externally lemon-colored becoming wrinkled pale flesh-color inside
16215 Gregarious cæspitose variously contorted externally yellowish-brown, Hymenium dull reddish-brown
16216 Large funnel-shaped repand yellowish villous and whitish outside and upon the stipes-like base [base
16217 Gregar. cæspit. glob. at first with mouth conniv. at length campan. split externally whit. and toment. at
16218 Sessile solitary or somewhat tufted large at first hemispherical and concave at length nearly plane subrugose and brown within the outer surface farinose whitish, Margin crenate

2. *Cupule at first closed, Veil innate, Sporidia simple.* GEOPYXIS.

16219 Subgregarious large: the pileus hemispherical slightly hairy and verrucose ash-colored; the hymenium mouse-colored at length pale, Stipes very long incrassated below
16220 Thin, Cupule funnel-shaped brownish pallid, Stipes long seated on a black deformed root
16221 Subsessile thin globose campanulate brownish or pale mealy outside crenate at edge
16222 Sessile yellowish smooth at first urceolate afterwards cracked and torn with hairs about the root outside
16223 Sessile minute flattish orange-red externally granulated with pimples [Stipes usually short and thick
16224 Centre plicate and reticulat. without whit. and pruin. Cap invol. at margin variously split somew. spread.

3. *Cupule a little fleshy, small, Veil floccose only at the edge, or fugacious, Sporidia with a solitary little sporidium.* HUMARIA.

16225 Sessile clustered subcylindrical smooth somewhat yellow becoming dilated with an erect subciliated orifice
16226 Sessile fleshy plano-convex smooth crimson entire at margin

4. *Membranaceous, bursting forth with a separating veil, Sporidia simple.* ENCŒLIA.

16227 Subcæspitate sessile coriac. membran. Margin split ragged externally scurfy and brown, internally white

1. *Cupule fleshy, or fleshy-membranous. Crust none.* SARCOSCYPHE.

16228 Stipitate large subinfundibuliform externally white and tomentose, Hymenium crimson-red

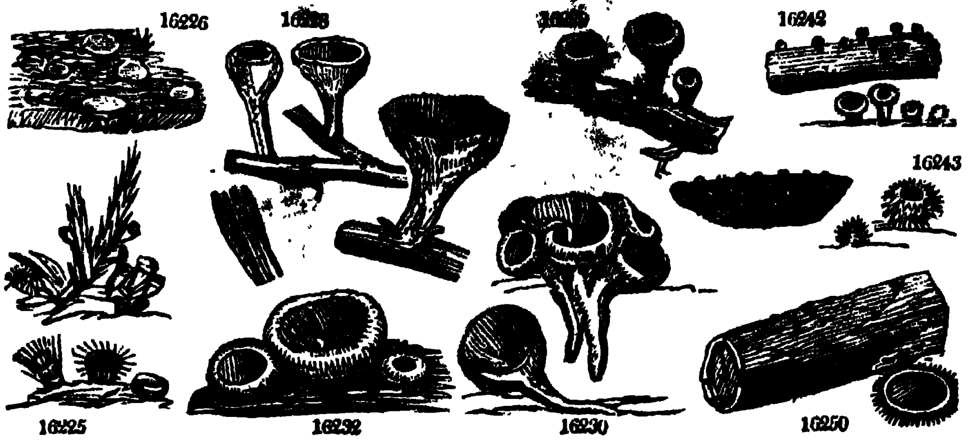
16229 Cupule fleshy, Disk urceolate black externally rubiginous-flocculent, Stipes short down dense dark strigose
16230 Subcæspit. fleshy sess. from hemispher. becom. flatten. Disk sulph. external. and thick root white and vill.
16231 Sessile hemispherical wavy brownish externally covered by dense fascicled hairs, Disk glaucous white
16232 Sessile subhemispher. externally fuscous hairy with a somewhat inflexed margin, Vermilion colored inside
16233 Min. sess. or subsessile hemispher. externally tomentose-pulverulent yellowish-olive, Hymen. dull ochrac.
16234 Sessile gregarious or scattered nearly plane: external surface of the margin hispid with black rigid hairs, Hymenium orange-red
16235 Sessile gregarious very minute orbicular somewhat depressed substrigose brown or nearly black
16236 Plane ciliated blackish externally, Hairs pale, Disk blue [at margin, Hymenium gently umbonate
16237 Small sess. gregar. whole plant white glob. concave at length quite plane ciliate with horizont. white hairs
16238 Gregarious concave tawny externally surrounded near the edge with straightish brown hairs [white
16239 Sess. gregar. glob. at length quite plane, exter. surface and marg. strig. with redd.-brown hairs, Hymen.
16240 Sessile gregarious small globose at length plane: the strigose external surface yellow, Hymenium white

2. *Cupule waxy, dry, villous, Crust none.* Epiphytes. DASYSCYPHE.

16241 Stipitate gregarious small, Stipes rather long, Pileus hemispherical subpatulose villous, whole plant white
16242 Subsess. small gregar. externally very white vill. Mouth contract. Hymen. varying from dil. yell. to orange
16243 Sessile hemispherical orbicular rather firm flocculent, Disk urceolate whitish
16244 Sessile distinct concave villous hairy milk-white on each side granulated at edge
16245 Sessile very minute gregarious white subglobose villous, Mouth more or less connivent
16246 Sessile minute gregarious depressed externally fusco-olivaceous villose, Hymenium smooth bluish-grey

3. *Cupule waxy or coriaceous, seated on a downy crust.* TAPESIA.

16247 Substipitate much crowded form. a crust, Cupules turbinate vill. light bistre-colored: disk urceol. whitish
16248 Sessile gregarious obovate strigose rufous
16249 Sessile gregarious ovate globose golden-yellow strigose with a subjacent woolly paler web
16250 Carn. sess Cup. concave brown at length plane grey: marg. disk. attach. by fibres to a wide toment. web



and Miscellaneous Particulars.

2390. *Peziza.* Pliny had a tribe of Fungi which he called Pezica, from which the modern name has been corrupted. The present genus is very extensive, but almost wholly of modern creation. The species are found in various situations, but chiefly on decayed wood. They are remarkable for their leathery texture, and for emitting their sporules in the form of smoke from the bottom of their cup.

§ 3. Phia'lea. *Pers.*

16251 fir'ma *Pers.*	firm	gregario.	1	aut.	Oc.Br	rotten sticks	Sower. t.115. *ochroleuca*
16252 Persoónii *Moug.*	Persoon's	aggreg.	⅛	aut.	R	bogs on Equisetum	Greville crypt. 162
16253 fructigéna *Bull.*	fruit	clustered	¼	aut.	Ysh	nuts, &c. in woods	Sowerby, t. 117
16254 serotina *Pers.*	late	clustered	¼	spring	Y	damp shady places	Bolton, t. 98
16255 infléxa *Bolton*	inflexed	gregario.	¼	aut.	Wsh	rotten sticks	Sowerby, t. 306
16256 pedicelláta *Sow.*	stalked	solitary	⅛		Wsh	rotten sticks	Sowerby, t. 369. f. 4
16257 túba *Bolt.*	tubular	gregario.	⅛	aut.	Y	fallen branches	Bolton, t. 106. f. 1
16258 calýculus *Sow.*	cupped	gregario.	⅛	aut.	Or.Br	rotten wood	Sowerby, t. 116
16259 æruginósa *Fl. dan.*	verdigrease	destruct.	0	su.aut.	Bt.G	damp wood	Sowerby, t. 347
Uggleved Swed.							
16260 Aspegrénii *Fr.*	Aspegren's	gregario.	¼	aut.	Ysh	damp wood	Sower. t. 369. f.7. *bicolor*
16261 citrina *Batsch*	lemon-color.	crowded	⅛	aut.	Y	fallen branches	Sowerby, t. 150. *aurea*
cyathoides Wither.							
16262 palléscens *Pers.*	pallid	numer.	⅛	aut.	Pa.Y	old trees	Sowerby, t. 151. *citrina*
16263 tricolor *Sow.*	three-color.	scattered	0	aut.	Sooty	trunks of trees	Sowerby, t. 369. f. 6
16264 campánula *Nees*	bell	delicate	1⁄16	aut.	W	dead twigs	Nees syst. t. 38. f. 295
16265 cribrósa *Grev.*	porous	curious	1	aut.	Bl	sandy places	
16266 claroflàva *Grev.*	bright-yell.	punctif.	0	aut.	Y	decayed wood	
16267 punctáta *Grev.*	dotted	punctif.	0	aut.	Y	dead leaves	Greville crypt. fl. 63
16268 herbárum *Pers.*	Herb	crowded	1⁄16	aut.	W	dead herbac. stems	
16269 conigéna *Pers.*	pine-cone	gregario.	0	au. sp.	W	pine cones	
16270 chrysócoma *Bull.*	yellow-hair.	crowded	0	aut.	Fu.Or	posts & rails	Sowerby, t. 152
16271 cinérea *Batsch*	cinereous						Sowerby, t. 64
16272 vulgáris *Fries*	common	patches	0	wint.	Wsh	dry bark	
albella With.							
β *diáphana* Sowerby	*transparent*	scattered	0	wint.	Tran.	rotten wood	Sowerby, t. 389. f. 7
16273 erúmpens *Grev.*	Sycam.-peti.	scattered	0	aut.	Cæs.	stalks of Sycamore	Greville crypt. 99
16274 ochrácea *Grev.*	ochrey	puckered	0	aut.	Oc.Br	fallen trunks	Greville crypt. 5
16275 atrovirens *Pers.*	dark-green	crowded	0	aut.	G	rotten wood	
16276 Abbottiána *Sow.*	Abbott's	scattered	0	aut.	Sea G	wood	Sowerby, t. 389. f. 8

§ 4. Helo'tium. *Pers.*

16277 fibulifórmis *Fries*	button-shap.		¼	aut.	Y	trunks of elms	Bolton, t. 176
16278 aciculáris *Pers.*	needle-like	gregario.	¼	au.dec.	W	hollow oaks	Sow. t.57. *agariciformis*

2391. AS'COBOLUS. *Pers.* Ascobolus. *Sp.* 1—11.

16279 furfuráceus *Pers.*	scurfy	gregario.	0	all sea.	Brsh	old cow dung

2392. BULGA'RIA. *Fries.* Bulgaria. *Sp.* 2—6.

16280 in'quinans *Fries*	dirty	gelatino.	0	au. wi.	Umb	dead oaks	Sowerby, t. 428
16281 sarcoides *Fries*	fleshy	polymor.	⅛	aut.	Pu.R	decaying trees	Bolton, t. 101. f. 2

2393. DITI'OLA. *Fries.* Ditiola. *Sp.* 1—5.

16282 radicáta *Fr.*	rooting	gregario.	¼	ap. jn.	Gold.	barked pines	Fl. dan. t. 1378. f. 2

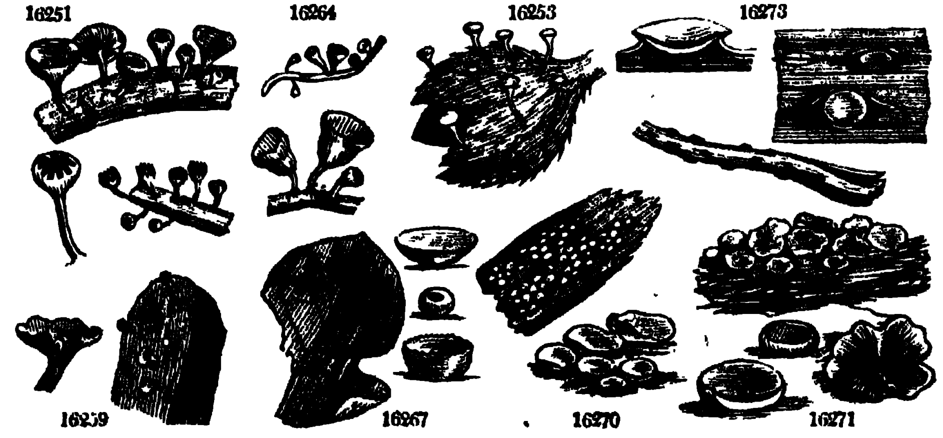
2394. CENAN'GIUM. *Fr.* Cenangium. *Sp.* 5—30.

16283 quercinum *Fr.*	oak	gregario.	¼	all sea.	Cin.	dead oak branches	Sowerby, t. 373. f. 3
Sphæ'ria collápsa Sow.							
16284 Prunástri *Fr.*	Plum	crowded	0	aut.	Bl	dead plum branches	
16285 Cérasi *Fr.*	Cherry	crowded	0	all sea.	R.Bl	dead cherry branches	
16286 Aucupáriæ *Fr.*	Mount. Ash	tufted	0	aut.	Bl	dead mountain-ash branches	
16287 ferruginósum *Fr.*	ferruginous	patches	0	aut.	R.Bl	Scotch fir branches	Greville crypt. 197

2395. STIC'TIS *Pers.* Stictis. *Sp.* 1—23.

16288 radiáta *Pers.*	radiating	spots	0	au. spr.	W	bark of trees	Sowerby t. 16

16251 16264 16253 16273



16259 16267 16270 16271

History, Use, Propagation, Culture,

2391. *Ascobolus.* From *ascus*, one of the forms of theca in which the sporules are retained among Fungi, and *βαλλω*, to emit, in allusion to the principal peculiarity of the genus. Small gregarious soft plants, without roots, but not very perishable, growing upon dung, and most obvious during rainy weather.

2392. *Bulgaria.* An intermediate genus between Peziza and Exidia, named from *bulga*, a leather bag, on account of the saccate form of the species. Scentless, insipid, mucilaginous, rootless, soft fungi, tolerably permanent, and generally breaking forth in clusters from the bark of trees during the winter and autumn. Miller is said to have succeeded in obtaining glue from B. inquinans, but subsequent attempts have failed of success.

2393. *Ditiola.* From *δις*, double, and *ιλιος*, down, in allusion to the nature of the pubescence of the velum. The species of this genus are gregarious, firm, permanent, without smell, flourishing upon dry wood from the

1. *Cupule somewhat membranous, distinctly stalked, Hymenium distinct.* HYMENOSCYPHÆ.
16251 Rather large ochrey-brown infundibulif. at length concavo-rep. or very plane, Stipes elongat. dark at base
16252 Cap smooth urceolate orange-color with a prominent membranous pale margin, Stipes cylindrical pink
16253 Gregar. yell. or redd.-white subinfundibulif. : surface of hymen. plane, Stipes long subflexu. and attenuat.
16254 Bright-yellow, Cupule plano-convex thinnish, Stipes short firm thickish
16255 Stipit. glab. white or yellow. subinfundibulif. Margin fringed with inflexed teeth, Stipes elongated curved
16256 Stipitate campanulate, Margin smooth, Stipes straight

2. *Cupule fleshy, waxy, firm, obconical, somewhat stalked, Hymenium distinct.* CALYCINÆ.
16257 Yellow, Cupule turbinate : disk flat ; margin tumid, Stipes long slender [orange-brown
16258 Gregarious globoso-infundibulif. slightly concave, Stipes rather short attenuat. whole plant ferrugin. or
16259 Æruginose, Cupule turbinate becoming expanded and flexuose : disk whitish, Stipes short

16260 Cupule subrepand smooth : disk yellow exteriorly white as well as the somewhat ascending stipes
16261 Yell. crowd. apparently sess. but having a short thick obconical stipes carnose, Hymenium plano-concave

16262 Crowded smooth pale-yellow or whitish, Cupule concave, Stipes short thickish pallid
16263 Hemispherical margined, Disk yellowish externally sooty, Stipes very short whitish
16264 Gregarious white rather small very membranaceous campanulate unequal, Stipes filiform short
16265 Black solitary rather large very concave, Hymen. cribriform or full of lacerat. irregular pores or sinuses
16266 Yellow gregarious minute obconical at length somew. plane, Margin raised obt. externally somew. paler
16267 Yellow very minute gregarious punctiform globular at length plane or subconvex, Margin minutely cren.
16268 White gregar. carnose at length convex but sometimes depress. in centre turning reddish in age and decay

3. *Cupule waxy, soft, watery, sessile or obconical, Hymenium confluent.* MOLLISIA.
16269 White gregarious excessively minute orbicular subimmarginate
16270 Fulvous orange gregarious crowded minute nearly plane subtremella-like
16271 Grey gregarious depressed waved subtremellose, Margin obsolete
16272 Sessile somewhat tufted membranous soft smooth whole-colored all over and whitish

β Scattered flattish-urceolate whitish transparent [In wet weather
16273 Minute ceraceous glab. sess. grey connate within the semiputrid petioles of the Sycamore and burst. forth

4. *Cupule waxy, dry, sessile, flat at base or innate edged.* PATELLEA.
16274 Ochrey-brown min. gregar. carnose thick obconic. Hymen. minutely granul. at length plane or subconvex
16275 Green gregarious minute subtremellose hemispherical at length plane becoming black in decay
16276 Sessile dry patellate cæsious on the outside, Disk yellow

16277 Firm, Head convex yellow black-brown beneath, as is the short thick villous stipes
16278 White smooth, Head convex, Stipes long equal

16279 Sessile gregarious somewhat concave olive-green or brownish externally furfuraceous

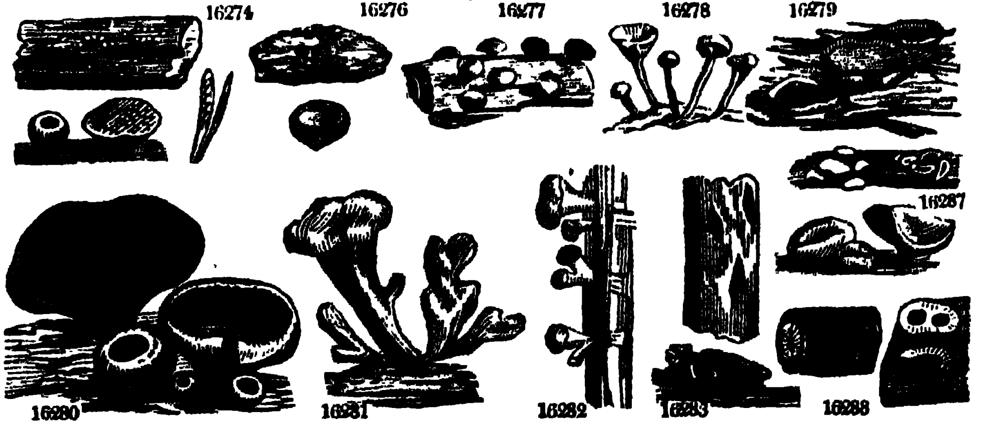
16280 Turbinate firm, externally rugulose scaly umber-colored, Disk flattish blackish
16281 Polymorphous cæspitose subgelatinous somew. firm purplish-red externally subvenose, Hymen. concave

16282 Disk flattish golden-yellow, Stipes thick villous white long-rooted

16283 Simp. gregar. long flexu. at first closed pruin. and blackish-cinereous, afterw. open with a broad pale disk

16284 Substipitate opake rigid black marginate, Hymenium concave
16285 Coriaceous reddish-black at first closed at length expanded and plane
16286 In round. tufts, Caps stipit. subturbin. concave with round. marg intermix. with digit. or subul. processes
16287 Gregarious between membrane and leathery subsessile rugose somewhat pruinose, The orifice compressed inflexed : when moist spreading

16288 Immersed orbicular, Limb snow-white ragged pulverulent



and Miscellaneous Particulars.

autumn until the spring. They are to be considered noxious fungi from the injury they bring to the timber upon which they vegetate. Their mucilaginous roots insinuate themselves between the fibres of the wood, and separate and soften them. Their tubercles burst forth, and filling the wood with clefts, and rendering its interior accessible to wet, soon destroy it. D. radicata is one of the species of dry rot.

2394. *Cenangium.* From *κενος*, hollow, and *αγγειον*, a capsule or vessel, in allusion to the hollow nature of the receptacle. Chiefly distinguished from Peziza by substance, and the coriaceous nature of the cupules. From Tympanis it is distinguished by its closed cupules and smooth permanent hymenium. The species are small and deformed, growing upon the bark of trees, either singly or in tufts, and mostly produced in winter.

2395. *Stictis.* So named from the punctiform appearance of many of the species, from *στικτος*, a dot. Very simple, minute, gregarious fungi.

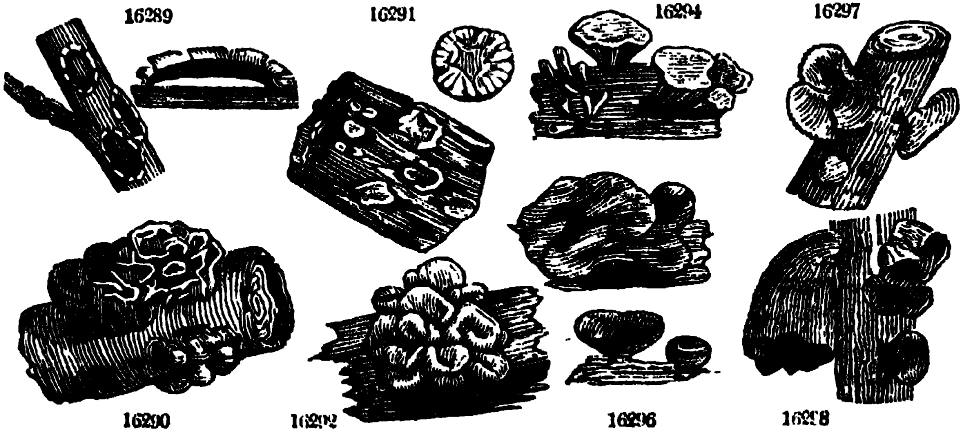
2396.	CRYPTOMY'CES. *Grev.*	CRYPTOMYCES.			*Sp.* 1.			
16289	Waúchii *Grev.*	Willow	firm	0	su. aut.	Br	willow branches	Greville crypt. 206

Class III. TREMELLINI.

2397.	TREMEL'LA. *L.*	TREMELLA.			*Sp.* 4—18.			
16290	mesentérica *Rtz.*	Mesent.-like	subsolit.	2	aut. sp.	Y	fallen branches	Eng. bot. t. 709
16291	al'bida *Huds.*	whitish	clustered	1	aut.	Wsh	fallen branches	Eng. bot. t. 2117
16292	intumescens *E. B.*	tumid	twisted lobes	2	wet w.	Br	trunks of trees	Eng. bot. t. 1870
16293	clavariæfórmis *Pers.*	Clavar.-like	gregarious	1	su. aut.	Dl.Or	juniper stems	Jacq. ic. t. 648
	§ 1. CO'RYNE. *Nees.*							
16294	sarcoides *Fries*	fleshy	clustered	¼	aut.	Pu	rotten wood	Eng. bot. t. 2450
	§ 2. PHYLLOP'TA. *Fries.*							
16295	biparasitica *Fries*	parasitical	deformed	¼	sept.	Bl	dead Agaric	
2398.	EXI'DIA. *Fries.*	EXIDIA.			*Sp.* 3—14.			
16296	auricula Júdæ *Fries*	Jew's-ear	tufted	3	aut. wi.	Blsh	elder trunks	Bolton, t. 107
	β *rubescénti-fúsca* Fr.	*redd.-brown*	tufted	3	aut. wi.	Rsh	elder trunks	Eng. bot. t. 2447
16297	recisa *Fr.*	cut-back	gregarious	¼	winter	Brsh	dead willows	E.b. t. 1819. *boletiformis*
16298	fláccida *E. B.*	flaccid	thin	¼	winter	Dark	oak bark	Eng. bot. t. 2452
16299	glandulósa *Fr.*	glandular	very gelat.	2	aut.	Br	dead trees	E. b. t. 2148. *T. arborea*
2399.	DACRYMY'CES. *Nees.*	DACRYMYCES.			*Sp.* 2—7.			
16300	morifórmis *Fr.*	mulberry-like	sessile	0	aut.	Bl	dead wood	Eng. bot. 2446
16301	stellátus *Nees* *T. deliquéscens* Grev	trickling	very soft	¼	all sea.	Or. Y	rotten wood	Grev. crypt. 159
2400.	AGY'RIUM. *Fr.*	AGYRIUM.			*Sp.* 1—6.			
16302	cæ'sium *Fr.*	cæsious	punctif.	0	all sea.	Cæs.	dead pine wood	
2401.	HYMENEL'LA. *Fr.*	HYMENELLA.			*Sp.* 1—4.			
16303	vulgáris *Fr.*	common	tumid	¼	aut.	Blsh	nettle stems	
2402.	NÆMATE'LIA. *Fr.*	NÆMATELIA.			*Sp.* 1—3.			
16304	encéphala *Fr.*	monstrous	deformed	¼	aut.	Flesh	dead pine wood	

Class IV. SCLEROTIACEI.

2403.	ACROSPER'MUM. *Tode.*	ACROSPERMUM.			*Sp* 2—5.			
16305	cornútum *Fr.*	cornute	gregarious	¼	aut.	Ruf.	putrid Agarics	Bulliard, t. 256
16306	compréssum *Tode*	dk. narr.-stem.	scattered	¼	aut.	Blsh	dead herbac. plants	Grev. crypt. 182
2404.	SCLERO'TIUM. *Tode.*	SCLEROTIUM.			*Sp.* 12—60.			
16307	sémen *Tode*	Mustard Seed	hard	¼	wi. spr.	W. Y	dead leaves	Grev. crypt. 144
	β *Bras'sicæ* Bolt.	*Turnip Seed*	hard	¼	wi. spr.	W. Y	dead leaves	Sowerby, t. 393
16308	fungorum	Fungus	roundish	0	aut.	Br	gills of dead Agarics	



History, Use, Propagation, Culture,

2396. *Cryptomyces.* Upon this curious addition to the British Flora, Dr. Greville has the following remarks. "This very curious plant, I have little hesitation in placing as a new genus among the true Fungi. It is difficult to say, with what it has nearest affinity. In general habit, it might be supposed to resemble some species of Thelephora, but there the comparison stops. Our plant, besides being produced under the epidermis, seems to belong to a more perfect group, when its structure is examined. The hymenium is a quite distinct substance from that of the receptacle. The fructification is fully and beautifully developed, a good deal similar to that of the Helvellæ. The receptacle is carnose and white; and the whole exhales a very strong odor, precisely like what is universally known under the name of a fungus-like smell. Till the plant is perfected, it remains concealed beneath the epidermis; and on this account, I have named the genus Cryptomyces. The epidermis, in fact, scarcely seems to crack by the swelling of the fungus more than by the natural consequence of being killed by its separation from the subjacent bark. A cluster of willows, which was attacked in the beginning of the season by this plant, has been nearly destroyed by it; and, from the rapidity of its progress, I have no doubt that a whole plantation might, in the course of a couple of seasons, be rendered good for nothing. At a little distance, the affected branches look as if they were dry, scorched, and rotten."

2397. *Tremella.* Large or middle-sized fungi, rooting at the base, which is considerably contracted between the bark and the wood of trees. Dillenius named the genus on account of its soft, tenacious, tremulous substance, but his name was applied in a far more extensive sense than at present. The section called Phyllopta is an aberrant form of the genus, and should perhaps be separated.

2398. *Exidia.* From ἐξίημι, to proceed from a thing; with reference to the manner in which the sporidia exude as it were from their receptacle. This genus differs from Tremella, to which it is nearest, in its horizontal Peziza-like receptacle; in its hymenium being superior, the lower surface being dissimilar and either

16289 Suborbicular olivaceous at length nearly black white within, Thecæ elongated obtuse

Class III. Tremellini.

16290 Sessile roundish orange-yellow variously lobed and plicate
16291 Sessile roundish or spreading and somewhat expanded obtusely lobed and plaited whitish
16292 Sessile clustered tumid plaited shining-brown
16293 Gregarious distinct tender gelatinous simple lingulate dull-orange pulverulent towards the apex

16294 Sessile gelatinous reddish-purple at first club-shaped then rounded lobed plaited or curled finally blackish

16295 Cartilaginous lobed somewhat wrinkled black

1. *Pezizoid, plicate, villous beneath, or dotted with roughness, Tubes half inferior, distinct.* Auriculæ.

16296 Sessile concave flexuose blackish plaited on each side with veins : beneath downy olive-grey

16297 Very soft truncate-flat subrepand fuscous beneath dotted scabrous, Stipes very short oblique out of centre
16298 Thin flaccid very dark, externally opaque, internally wrinkled

2. *Somewhat flattened, wavy, rugose beneath, Tubes half-inferior, obsolete.* Glandulosæ.

16299 Sess. round. rather spread. thick not goyrose plicate ben. : the surface bear. min. white-headed processes

16300 Conglobated sinuous dark opaque fleshy and purple inside
16301 Gregarious entire round depressed pulpy orange-yellow

16302 Gregarious nearly separate convex whitish cæsious

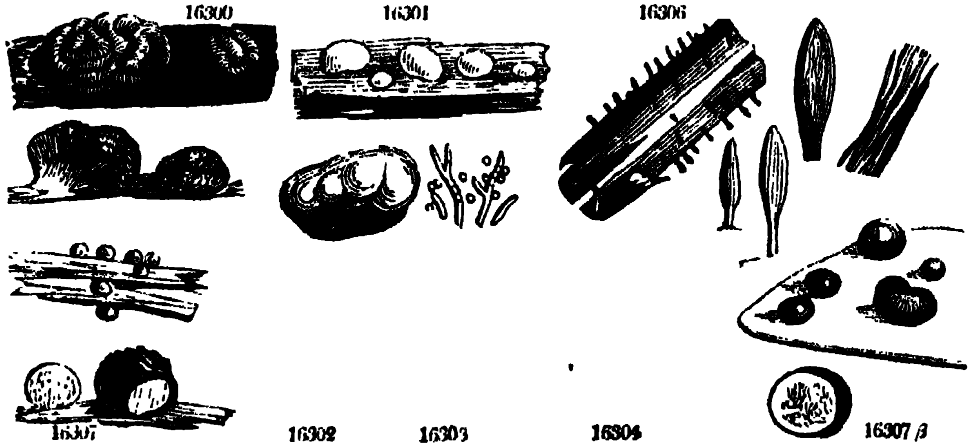
16303 Long various smooth whitish when dry becoming brown : the circumference adhering

16304 Subsessile pulvinate plaited-rugose pale flesh-color becoming dry

Class IV. Sclerotiacei.

16305 Horn-like smooth when dry furrowed rufous becoming paler at the end
16306 Stipitate mostly lanceolate somewhat obtuse subcompressed of a dark olivaceous color

16307 Separate spherical whitish-yellow becoming wrinkled and black, white inside
β Clustered somewhat immersed pale inside
16308 Deformed lobed smooth pale becoming tawny, whitish inside



and Miscellaneous Particulars.

villous or rugose, and ribbed in a peculiar manner; in the conoid papillæ of the disk; in the tubes, which must be esteemed rudimentary asci, containing the sporules; and in the elastic manner in which the sporidia are produced. The species are simple, rarely growing in patches, of a large or middle size, and generally inhabiting wood; when dry they are membranous, but nearly-regain their original form upon being moistened.

2399. *Dacrymyces.* From δακρυ, a tear, and μυκης, a fungus; in allusion to their deliquescent nature. Tremella deliquescens of Bulliard, a yellow confluent mass found chiefly upon pine-timber in the spring, is the type of the genus.

2400. *Agyrium.* Apparently from αγυρις, a crowd, in allusion to the clustered disposition of the individuals; although Fries, the author of the name, expressly declares that it has been named " ob superficiem nunquam non lævem." Small dot-like gregarious plants growing upon wood, perennial, seated upon a crust-like spot, and resembling some species of Lecidea.

2401. *Hymenella.* This genus consists of plants growing upon plants, generally upon the stem, having the habit of Sclerotium durum, but softer, more tender, and bearing sporidia within their surface, for which reason they seem as if they consisted only of a kind of elementary *hymenium*, whence their name.

2402. *Næmatelia.* From νημα, gelatine, and ειλεω, to enwrap, on account of the nucleus, which is of various figures, enclosed in the receptacle.

2403. *Acrospermum.* Minute fungi of a rigid habit, parasites upon decaying vegetables. From ακρος, the summit, and σπερμα, seed, on account of the apex of the plants becoming tumid, and emitting the sporules.

2404. *Sclerotium.* From σκληρος, hard, in allusion to the remarkably firm substance of the species. All the species are parasites upon other plants, and some are very destructive.

16309 muscórum *Pers.*	Moss	irregular	½	spring	Or.Y	stems of mosses	G.cr.101. *subterraneum*
16310 salicinum *Pers.*	Willow	patches	0	aut.wi.	Rsh	Salix caprea leaves	
16311 popúlneum *Pers.*	Poplar	patches	0	all sea	Rsh	Populus tremula lvs.	
16312 Ptéridis *Pers.*	Bracken	punctiform	0	aut. sp.	Bl	dead Pteris aquilina	
16313 scutellátum *Alb.*	shield-like	button-like	0	spring	Br	leaves of trees	Grev. crypt. 144
16314 nitidum *Pers.*	shining	less crowd.	0	wi.spr.	Bl	dead herb. stems	
16315 dúrum *Fr.*	hard	corneous	0	wi.spr.	Bl	dead herb. stems	Grev. crypt. 1
16316 bullátum *Dec.*	blistered	confluent	0	aut.	Bl	rotten gourds	
16317 quercinum *Pers.*	Oak	scattered	0	aut.	Bl	dead leaves	Grev. crypt. t. 77
16318 frúctuum *Grev.*	Fruit	crowded	0	aut.	Wsh	putrid fruit	
2405. RHIZOCTO'NIA. *Dec.*	Rhizoctonia.				*Sp.* 1—4.		
16319 crocórum *Dec.*	Crocus-blight	clustered	0	all sea.	Ruf.	saffron roots	Nees syst. f. 135
Thanatóphyta crocórum Nees							
2406. PERI'OLA. *Fr.*	Periola.				*Sp.* 1—3.		
16320 tomentósa *Fr.*	downy	scattered	⅙	wi. spr.	W	potatoe roots	
2407. ACI'NULA. *Fr.*	Ergot.				*Sp.* 1.		
16321 Clávus *Fr.*	common	nauseous	0	sum.	Blsh	glumes of grasses	Doc.mem. t.14.f.8. *Sclerotium*
2408 ERY'SIBE. *Rebentisch.*	Mildew.				*Sp.* 14—37.		
16322 Artemisiæ *Grev.*	Wormwood	patches	0	aut.	Wsh	Artemisia vulgaris	
16323 Trifólii *Grev.*	Clover	powdery	0	aut.	Bl	Trifolium	
16324 Berbéridis *Dec.*	Berberry	spots	0	aut.	Rsh	berberry	
16325 Láthyri *Grev.*	Vetch	powdery	0	aut.	R.Br	Lathyrus pratensis	
16326 Bétulæ *Dec.*	Birch	scattered	0	su.aut.	Blsh	birch leaves	
16327 Robiniæ *Grev.*	Acacia	powdery	0	aut.	Wsh	Robinia viscosa	
16328 Arc'tii *Grev.*	Burdock	patches	0	su.aut.	Rsh	Arctium Lappa	
16329 Aquilégiæ *Dec.*	Columbine	spots	0	aut.	Wsh	Aquilegia vulgaris	
16330 Alchemillæ *Grev.*	Lady's Mantle	powdery	0	su.aut.	Ysh	Alchemilla vulgaris	
16331 Pisi *Dec.*	Pea	crowded	0	aut.	W	garden pea	Grev. crypt. 134
16332 A'ceris *Dec.*	Sycamore	scattered	0	aut.	Blsh	maple & sycamore	
16333 Lonicéræ *Dec.*	Honeysuckle	powdery	0	aut.	Glau.	honeysuckles	
16334 Asperifoliárum *Grev.*	Borage	powdery	0	aut.	Wsh	Asperifoliæ	
16335 Ranúnculi *Grev.*	Crowfoot	scattered	0	aut.	Wsh	Ranunculi	

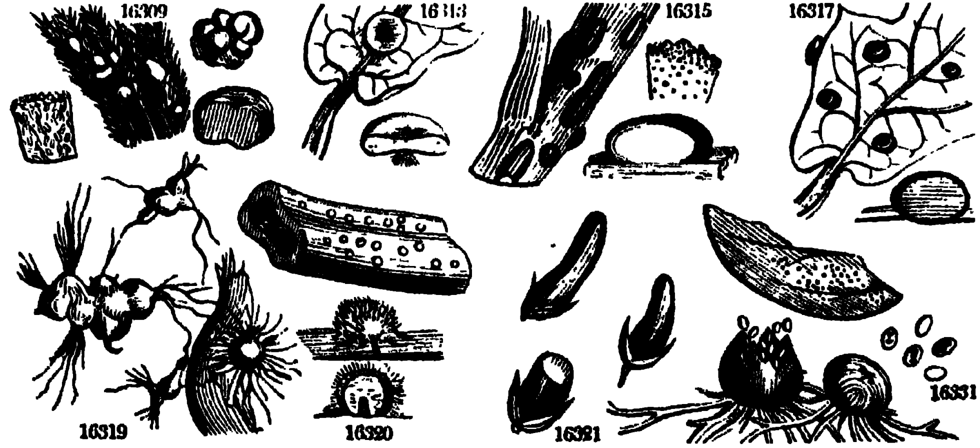
GASTEROMYCETES.

Class I. Angiogastres. — Division I. *Phalloideæ.*

2409. PHAL'LUS. *Mich.*	Phallus.				*Sp* 2—9.		
16336 impudicus *L.*	Stinking Morel	very fetid	8	su aut.	Wsh	woods and hedges	Gr.cry.213, 214. *fœtidus*
16337 caninus *Huds.*	scentless	smaller	4	au.sep.	Pk	rotten hazel trunks	Sow. t. 330. *inodorus*
2410. BATAR'REA. *Pers.*	Batarrea.				*Sp.* 1—.		
16338 phalloides *Pers.*	Phallus-like	long	3	au.	Br	banks	Smith spicil. 1. t. 12

Division II. *Tuberaceæ.*

2411. TU'BER. *Plin.*	Truffle.				*Sp.* 2—6.		
16339 cibárium *Sibth.*	common	esculent	1½	winter	Br	under ground	Nees pilz syst. f. 147
16340 al'bidum *Cæsalp.*	pale	less fragrant	¾	su aut.	Wsh	under ground	



History, Use, Propagation, Culture,

2405. ***Rhizoctonia.*** Subterraneous fungi, reposing upon the roots of living plants, which they destroy. The species appear in the summer or autumn, and are very destructive. They have received their name from their habits; ῥιζα, a root, and κτεινω, to destroy. They are very nearly related to the subterraneous Sclerotia. R. crocorum grows parasitically on the roots of the cultivated Saffron, Crocus sativus, in France, and is so pernicious as to have acquired the name of *la mort du safran.* It is very destructive, soon causing the bulb to perish, and spreading with great rapidity over a whole field of that valuable crop, if not speedily stopped by a trench fifteen to eighteen inches deep, to cut off the communication between the infected and the sound plants. The smallest quantity of earth from an infected field is said to be capable of communicating this plague, even if the ground were not planted with saffron till twenty years afterwards. "Hitherto this destructive parasite has not been heard of but in France. The plants are of an irregular knobbed figure, from half an inch to an inch long, of a light reddish brown, scarcely bursting; granular and paler within. Long branching capillary roots are sent out in all directions, propagating the plants very extensively and readily by offsets which attach themselves to the saffron, and multiplying in the substance of the bulbs soon destroy them." (*Smith.*)

2446. *Periola.* From περι, about, and πιλος, hairiness, in allusion to the appearance the species exhibit when growing upon the roots of plants, or decaying fungi.

16309 Gregarious roundish but very irregular tuberculose orange-yellow within and without or whitish
16310 Depressed epiphyllous scattered or very confluent reddish fulvous
16311 Minute on both sides of the leaf numerous dark mostly angular and subconfluent
16312 Black very minute roundish or oval numerous depressed
16313 Epiphyllous orbicul. flattened at length somew. concave in middle fixed ben. by a central filamentous point
16314 Minute somewhat scattered or partially aggregate very black orbicular depressed
16315 Deep-black oval or elongated cernuous at length substriate or rugose white within
16316 Roundish or oval confluent corneous externally and black paler within and concave
16317 Epiphyllous scattered globular or subdepressed smooth pale at length black, Substance very corneous
16318 Rounded or oblong sometimes confluent white at length brown or black corneous externally, within somewhat hollow and carnose

16319 Rufous, Filaments few spreading over the bulb in the form of a disk

16320 Round deformed downy white

16321 Horn-like cylindrical powdery and purple-black outside, white inside

16322 Very minute on both surfaces of the leaf, Filaments forming a dense whitish web
16323 On both sides of the leaf very globular nearly black, Filaments giving the leaf a farinose aspect
16324 On both sides of leaf form. circular pulverul. spots at length conflu Filam. dichotom. at their extremities
16325 Red-brown minute, Filaments spreading over the whole leaf pulverulent
16326 On the under-surface scattered very visible blackish, Filaments few simple not rendering the leaf whitish
16327 On the upper-surface finely pulverulent, Receptacles minute congregated here and there
16328 On the under-surface thickly covering the whole leaf, Filam. simple granuliferous : bodies pyriform small
16329 On both sides of the leaf forming a light pulverulent surface, Recept. few scattered distinct
16330 On under-surface very numer. min. Filam. few forming no filament. or pulverul. appear. to the naked eye
16331 On both sides of the leaf so crowded as to darken its color, Filaments very long and slender
16332 On the under-surface scattered at length concave, Filaments elongated interwoven
16333 On both sides the leaf very numerous scattered minute, Filaments presenting a glaucous powdery surface
16334 On both sides the leaf scattered becoming confluent pulverulent, Recept. aggregated here and there
16335 Chiefly on under-surface partially scatter. Filam. long flexu. Granulifer. cells oval contain. mostly 4 gran.

GASTEROMYCETES.

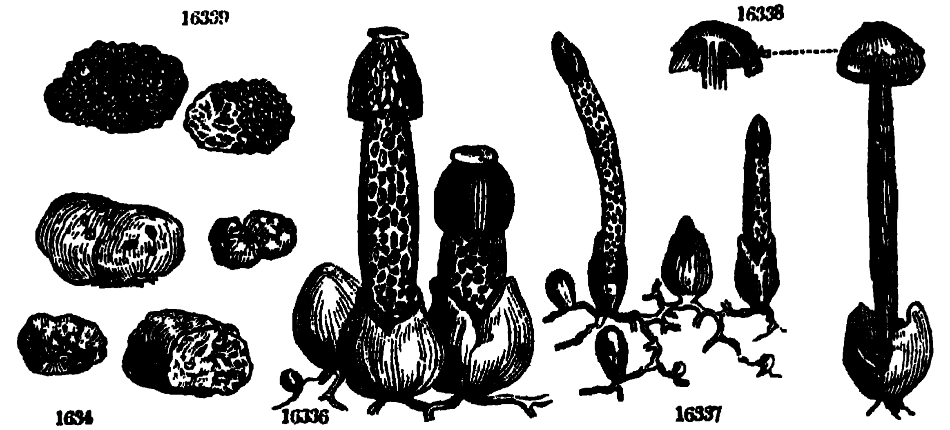
Class I. Angiogastres. — Division I. *Phalloideæ.*

16336 Volva large, Stipes very cellulose white, Cells of the head containing a fetid dull-green sporuliferous slime
16337 Head close to the stipes ovate warted impervious pink

16338 Stipes cylindrical straight mucilaginous

Division II. *Tuberaceæ.*

16339 Very rough with warts blackish
16340 Very rough with warts whitish



and Miscellaneous Particulars.

2407. *Acinula.* Very similar to Sclerotium or Periola; but distinguished by the diffluent coat, containing a nucleus resembling an *acinus* in a berry, whence the name A. Clavus is the Ergot of corn.

2408. *Erysibe.* A Greek name of mildew. Most of the productions arranged under this head are known by the popular name of mildew. They are better characterised by the plants on which they grow, than by their peculiar differences, which, it is probable, depend very much upon the former circumstance.

2409. *Phallus.* Large terrestrial fungi, sometimes growing upon rotten wood, not clustered, appearing in the summer after thunderstorms, fetid, and highly poisonous. Their form is so similar to that of the φαλλος of the Greeks, as not to be overlooked.

2410. *Batarrea.* So named by Persoon, in honor of Antonio Batarra, professor of botany in the Lyceum at Rimini, and author of a Historia Fungorum Agri Ariminensis, published at Faenza, in 1759, in quarto, with forty plates. A very curious plant found only in England, where, however, it is exceeding rare. The volva or wrapper is about the size of a hen's egg, originally of three slightly coriaceous layers, hollow internally, when a spongy stalk is formed which rises suddenly to its full height of about twelve inches. This stalk carries up on its summit full half the innermost layer of the volva, which is white and smooth within, and covered externally with copious brown sporules intermixed with fibres.

2411. *Tuber.* An ancient Roman name. T. cibarium is the famous truffle, so celebrated in the annals of

2412. RHIZOPO'GON. *Fr.* Rhizopogon. *Sp* 1—4.

16341	álbus *Fr.*	white	flocculent	½	aut.	Rufes.	way sides	Bull. champ. t. 404
	Lycopérdon gibbósum Dicks.							

Division III. *Nidulariaceæ.*

2413. NIDULA'RIA. *Bull.* Nidularia. *Sp.* 3—13.

16342	striáta *Bull.*	striated	gregarious	½	au. no.	Brsh	on rotten leaves	Sow. t. 29. *hirsuta*
16343	campanuláta *Sibth.*	bell-shaped	flocculent	½	su.aut.	Ciner.	shavings of wood	Sow. t. 28
16344	Crucíbulum *Hoffm.*	crucible	coriaceous	½	su.aut.	Oc.fer	pine bark	Grev. crypt. 34

2414. MYRIOCOC'CUM. *Fr.* Myriococcum. *Sp* 1.

16345	præ'cox *Fr.*	early	confluent	½	ear. sp.	W	dead leaves, &c.

2415. POLYAN'GIUM. *Lk.* Polyangium. *Sp.* 1.

16346	vitellinum *Lk.*	yolk of egg	gregarious	0	au oct.	Y	damp trunks	Nees syst. f. 131

Division IV. *Carpoboli.*

2416. ATRACTO'BOLUS. *Tode.* Atractobolus. *Sp.* 1.

16347	ubiquitárius *Tode*	common	powdery	0	th. sto.	W	wood,bones,stones,&c.	Fung.meckl.p. 45. f.9

2417. THELE'BOLUS. *Tode.* Thelebolus. *Sp.* 1—2.

16348	stercóreus *Tode*	dung	gregarious	1/12	w. aut.	Ysh	cow dung	Nees syst. f. 363

2418. PILO'BOLUS. *Tode.* Pilobolus. *Sp.* 1—2.

16349	crystállinus *Tode*	transparent	very fugac.	½	cool w.	Bl	horse dung	Bolton, t. 133. f. 1
	β *ro'ridus* Pers.	*frosted*	very fugac.	½	cool w.	Pellu.	horse dung	Bolton, t. 132. f. 4

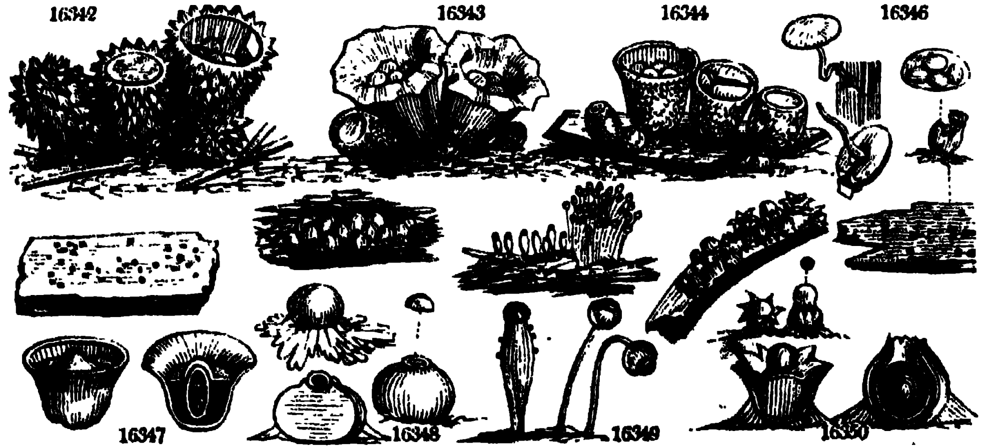
2419. SPHÆRO'BOLUS. *Tode.* Sphærobolus. *Sp.* 1—2.

16350	stellátus *Tode*	starry	emerging	0	su. aut.	Pa.Y	wood, &c.	Grev. crypt. 158

Class II. Pyrenomycetes. — Division I. *Sphæriacei.*

2420. XYLA'RIA. *Hill.* Xylaria. *Sp.* 11—2?

16351	hypóxylon *Grev.*	wood	various	2	all sea.	Bl	stumps of trees	Sower. t. 55
16352	digitáta *Pers.*	fingered	tufted	2	all sea.	Bl	stumps of trees	
16353	polymórpha *Grev.*	polymorph.	variable	2	aut.	Bl	stumps of trees	Sow. t. 69. *digitata*
16354	grácilis *Grev.*	slender	simple	3	aut.	Br	moist places	Grev. crypt. 86
16355	entomorhiza *Dicks.*	insect-root.	stalked	2	aut.	Fusc.	dead larvæ of insects	Dicks. crypt. 1 t. 3.f.3
16356	capitáta *Holmsk.*	capitate	tufted	3	sep. oc.	Br	on Scler. cervinum	Sow.t.354.*agariciformis*
16357	alutácea *Pers.*	tan-like	brittle	2½	au.oct.	pa.tan	dead pine leaves	Sow. t. 159. *clavata*
16358	hypóxylon *Ehr.*	wood	gregarious	½	aut.sp.	Wsh	old trunks	
	β *cupressifórmis* Woodv.	*cypress-like*	gregarious	½	aut.sp.	Wsh	old trunks	Bolton, t. 129. f. g
16359	punctáta *Sowerby*	dotted	gregarious	½	all sea.	Sooty	animal dung	Sow. t. 54



History, Use, Propagation, Culture,

cookery. Dogs are taught to find this fungus by the smell, and to scratch it up out of the earth. An instance is recorded of a man having possessed this power. It is brought to table either simply boiled, or stewed in various forms. It is reported to have a stimulating aphrodisiacal quality, which perhaps renders them more popular than the or, which is trifling. Truffles are found under the surface of the ground in various parts of Eu the soil is light and dry; as well as in Japan and the East Indies. There are said to be num of color.

2412. Large or middle-sized Fungi, emerging from the earth, and resembling potatoes; scarcely eatable; but, according to Gleditsch, possessing aphrodisiacal qualities. On the outside covered with netted corymbose rooting fibres, whence the name, from ῥιζα, a root, and πωγων, a beard.

2413. *Nidularia.* A diminution of *nidus*, a nest. The plants consist of a leathery cup containing several lenticular bodies supposed to contain sporules, and all together resembling a bird's-nest with eggs.

2414. *Myriococcum.* From μυριος, a thousand, and κοκκος, a little capsule. Related to Sclerotium. The only species consists of superficial deformed confluent tubercles, 2-4-lines broad, at first sight resembling a white compound Sphæria with prominent brown orifices.

2415. *Polyangium.* Named by Link, from πολυς, many, and αγγειον, a capsule. Easily distinguished from the last by the internal grumous substance, which Nees and Fries consider unequal sporidia.

2416. *Atractobolus.* From ατρακτος, a spindle, and βαλλω, to cast. The bladder which contains the sporules, is fusiform and closed, and is ejected from the base of the cupule as soon as the operculum is thrown off.

2417. *Thelebolus.* From θηλη, a nipple, and βαλλω, to emit. The uterus protrudes a globose papilliform vesicle. This is found on the dung of swine, after rainy weather in June and July. Tode compares it to the

16341 Round somewhat rugose whitish-brown slightly fibrous at base

Division III. *Nidulariaceæ.*

16342 Obconical hirsute bright-brown striated inside
16343 Campanulate villous cinereous-brown lead-colored and shining inside
16344 Campanulate-cylindrical truncate at each end somew. downy ochrey-brown smooth and pale-yellow inside

16345 Tubercles superficial deformed confluent, at first sight resembling some kind of compound sphæria

16346 About the size of a grain of sand

Division IV. *Carpoboli*

16347 Resembling to the naked eye flour scattered about

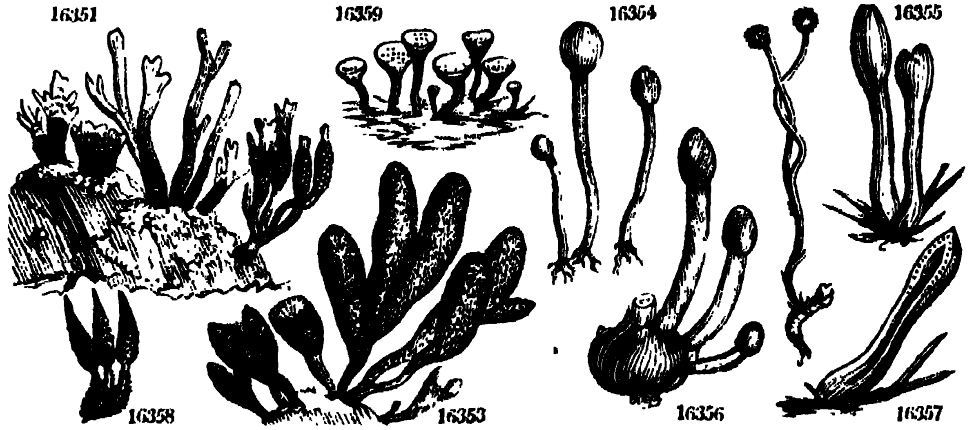
16348 Subglobose saffron-color gregarious sessile

16349 Stem-like receptacle inflated upwards (rarely filiform) Pointed capitular vesicle round depressed black
β Stem-like receptacle globose, Stipes oblong filiform, Capitular vesicle dot-like black

16350 Globose pale-yellow, Orifice regular stellate toothed

Class II. Pyrenomycetes. — Division I. *Sphæriacei.*

16351 Gregarious branched compressed black white and farinaceous towards the apex downy at the base
16352 Gregarious somewhat tufted black, Peduncles glabrous more or less united at their base, Receptacle cylindrical terminated by a sterile acuminate apex
16353 Black gregar. simp. or divid. Pedunc. pass. into a ventric. recept. contain. spherules ben. its whole surface
16354 Stipes elongat. cylindr. equal somew. flexuose, Recept. smooth roundish-ovate brown, Spherules obl. pale
16355 Fleshy, Head globose fuscous, Stipes thin very long
16356 Fleshy, Head ovate globose · Stipes yellow becoming blackish
16357 Fleshy soft, Head clavate pale tan-color confluent with the stipes
16358 Corky simple and branch. compressed at first whitish powdery afterwards naked and black, Stipes villous
2 Smaller simple, Head distinct cylindrical conical acuminate
16359 Stipitate turbin. Disk truncate white dotted with black blackish externally



and Miscellaneous Particulars.

roe of a fish in appearance, and to poppy-seed in size. The color is a tawny yellow. Each individual is globular, attached at the bottom by capillary roots, and crowned by a small papillary tubercle of a more orange or golden hue than the rest.

2418. *Pilobolus.* Named from πιλος, a cap, and βαλλω. A very natural genus, consisting of gregarious little fungi, of a very fugarious nature, inhabiting dung, appearing in the summer and autumn; when full grown they resemble species of Mucor, but in a younger state they are more evidently interwoven, and resemble Sphæria or Sclerotium.

2419. *Sphærobolus.* From σφαιρα, a globe, and βαλλω. The peridium is double, membranous inside, at length becoming elastically inverted, and emitting a globose solid sporangium, filled with sporidia clustered in the centre. Epiphytous persistent plants, generally appearing in the autumn. S stellatus is found in various parts of Europe in autumn upon rotten wood or branches of trees, heaps of sawdust, *or in the tan-pits of hothouses.* In an early state each plant consists of a pale yellow globe larger than a mustard seed. Several such grow crowded in patches, bound down as it were by a fine cottony web. After a while each plant bursts into several starry rays, and by a momentary explosion, projects to the distance of six or eight inches a whitish globular mass of powdery seeds from its internal cavity. Sometimes this ball *of seeds remains sticking to the points of* the rays. When fallen to a distance, the skin of this ball is found empty, the seeds having flown out, in its passage, through a hole in its base. (*Smith.*)

2420. *Xylaria.* From ξυλον, wood, in allusion to their station, or to their woody and durable texture. Once included in Sphæria.

2421. STROMATOSPHÆ'RIA. *Grev.* Stromatosphæria. *Sp.* 24—58.

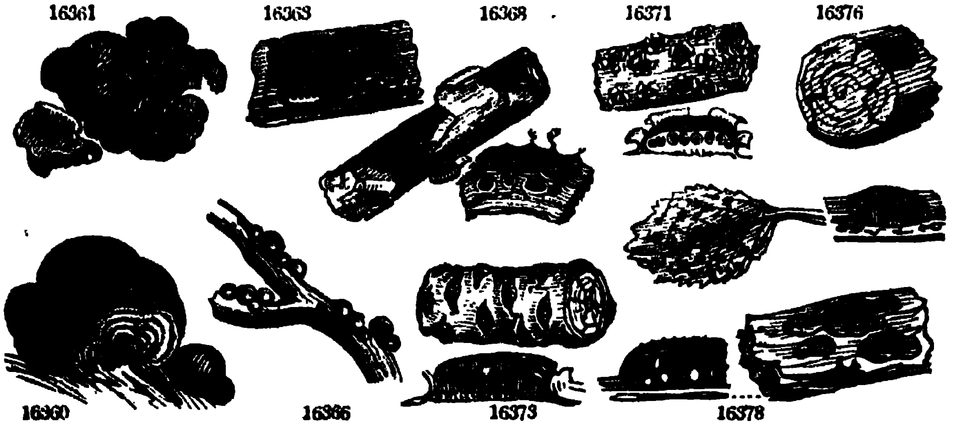
16360	concéntrica *Grev.*	concentric	suberose	1	aut.	Bl	ash trunks	Sow. t. 160. *fraxinea*
16361	deústa *Grev.*	scorched	fleshy	¼	all sea.	Brsh	rotten stumps	Sow. t. 338. *maxima*
16362	fúsca *Grev.*	fuscous	suberose	0	all sea.	Br	dead hazel	
16363	unduláta *Grev.*	wavy	broad	1/12	aut.	Bl	decayed branches	Grev. crypt. 223
16364	striæfórmis *Grev.*	striated	gregarious	0	aut.	Bl	herbaceous stems	
16365	múlticeps *Grev.*	many-head.	masses	1/12	aut.	Bl	dead branches	Sower. t. 394. f. 8
16366	fragifórmis *Grev*	Strawberry-like	clustered	¼	aut.	R.Br	dead beeches	Grev. crypt. 136
16367	stigma *Grev.*	spot	spreading	0	all sea.	Bl	dead hazel, &c.	Grev. crypt. 223
16368	decorticáta *Grev*	decorticating	spreading	0	all sea.	Bl	dead hazel, &c.	Sow. t. 137
16369	láta *Grev.*	broad	spreading	0	all sea.	Bl	wood and deadtrees	Sow. t. 373. f. 9. *fuliginosa*
16370	ulmária *Grev*	Elm	punctiform	0	all sea	Gr. Bl	elm leaves	Sower. t. 374. f. 3
16371	discifórmis *Grev.*	disk-shaped	gregarious	0	all sea.	D. Br	dead hazel, &c.	Sow. t. 216. *depressa*
16372	emérsa *Sowerby*	emersed	gregarious	0	all sea.	Dark	lime branches	Sow. t. 372. f. 10
16373	ellíptica *Grev.*	elliptical	gregarious	0	all sea.	Ru. Br	dead birches	Grev. crypt. 114
16374	parállela *Sowerby*	parallel	deformed	0	all sea.	Dark	dead oaks	Sow. t. 374. f. 4
16375	ribésia *Grev.*	Currant	furrowed	0	all sea.	Dl. Bl	dead currants	
16376	immérsa *Sowerby*	immersed	opaque	0	all sea.	Bl	dead hazels	Sow. t. 374. f. 1
16377	nígro-annuláta *Grev.*	black-ringed	beautiful	0	all sea.	Bl	dead limes	
16378	rubiginósa *Grev*	purplish	crusts	0	all sea.	Br	dead trunks	Grev. crypt. 110
16379	nívea *Grev.*	snow-white	gregarious	0	all sea.	W	dead oak branches	
16380	prunástri *Grev.*	Plum	dense mass	¼	all sea	Bl	dead sloe branches	
16381	quercína *Grev*	Oak	contiguous	1/12	all sea.	Bl	dead oak branches	
16382	ferrugínea *Grev*	rusty	subconfluent	0	all sea	Bl	decayed hazel	
16383	corniculáta *Grev*	horned	subcortical	0	all sea.	Bl	dead branches	

2422. CUCURBITA'RIA *Gray* Cucurbitaria *Sp* 5—13.

16384	Berbéridis *Grev.*	Berberry	crowded	1/12	all sea	Bl	dead herb branches	Grev. crypt. fl. t. 84
16385	pinástri *Grev*	Pinaster	gregarious	0	all sea	R	dead spruce branch.	Grev. crypt. fl. t. 50
16386	coccínea *Grev.*	scarlet	variable	0	all sea	Sc	dead branches	
16387	decolórans *Grev*	discoloring	larger	0	all sea.	Pa R	dead branches	Gr cry. 135. *cinnabarina*
16388	elongáta *Grev.*	long black	cracks	0	all sea	Blsh	furze branches	Grev. crypt. 195

2423. CRYPTOSPHÆ'RIA. *Grev.* Cryptosphæria. *Sp* 30—48.

16389	fagínea *Grev.*	Beech-wood	protruded	0	all sea.	Bl	dead beeches	
16390	pulchélla *Grev.*	pretty	broad patc	0	all sea	Bl	dead birches	Grev. crypt. fl. t. 67
16391	bifrons *Fries*	two-fronted	dry spots	0	wi. spr.	Bl	dry oak leaves	So. t. 373. f. 4 *circumvallata*
16392	Gnómon *Grev.*	Gnomon	yellow spots	0	all sea.	Bl	hazel leaves	Sower. 373. f. 6
16393	Lonicéræ *Sowerby*	Woodbine	longit. cracks	0	all sea.	Bl	honeysuc. branches	Sower. t. 393. f. 6
16394	acúta *Grev.*	acute	very minute	0	all sea.	Bl	dead nettle stems	
16395	Hédera *Sowerby*	Ivy leaf	innate	0	all sea.	Wsh	dry ivy leaves	Sower. t. 371. f. 5
16396	millepunctáta *Grev.*	punctulated	punctiform	0	all sea.	Bl	dead ashes	Grev. crypt. 201
16397	subcónfluens *Sower.*	subconfluent	patches	0	spring	Bl	upon leaves	Sower. t. 370. f. 7
16398	Táxi *Grev.*	Yew	conv. spots	0	all sea.	Bl	dead yew leaves	Grev. crypt. fl. t. 13



History, Use, Propagation, Culture,

2421. *Stromatosphæria.* From στρωμα, a layer or bed, and σφαιρα, a globe, in allusion to the imbedded character of the species. Apparently well divided by Dr. Greville from Sphæria.

2422. *Cucurbitaria.* So named in reference to the form of the sporules, which resemble little flasks. Sphæria

** Receptacle free, not bursting through bark.*

16360 Large black somewhat hemispherical, Surface smooth, Orifices of the spherules scarcely at all raised within composed of regular concentric strata
16361 Large pale and carnose at length brownish-black and rigid spreading thick undulato-rugose: the surface dotted with raised points
16362 Brown hemispher. depress. somew conflu. when crowd. interior of same col. Spher. very slightly promin.
16363 Black thickish undulato-rugose whitish within, Mouths of the spherules round and somewhat prominent
16364 Black gregarious forming linear or oblong striæ smooth, Spherules very minute without obvious mouths
16365 Black irregular mostly free but sometimes bursting through the bark spreading confluent thickish-green within, Mouths of the spherules obtuse granulated prominent
16366 Globose purplish-red shining black within, Sphérules in circumference with more or less promin. orifices

*** Receptacle bursting through bark.*
a. Orifices of the spherules plane, or slightly prominent

16367 Black plane spread. transversely on branch. smooth: inside whitish, Mouths of spherules not prominent
16368 Black plane spreading longitudinally white within, Mouths of the spherules somewhat prominent conical
16369 Black plane widely spreading somewhat rugose at first subdistinct at length confluent and united by a kind of irregular crust, Mouths of the spherules conical and angular
16370 Grey.-black scattered plano-conv round, parasitic on elm leaves, Surface papill. with mouths of spherules
16371 Scattered distinct very gregarious round elevated plane dark-brown dotted with the orifices of the spherules, Orifices nearly plane
16372 Scatter. broadly thin, Perithecia immers scatter. cover. with a dark membran. crust, Orifices burst. forth
16373 Scattered gregarious rather large elliptical rusty-brown smooth minutely pulverulent blackish and friable within, Mouths of the spherules quite concealed
16374 Short of a determinate figure emerging dark, Perithecia somewhat ovate, Orifices obtuse-unequal
16375 Rather small roundish elliptical dull-black bursting transversely through the bark depressed rugoso-sulcate, Surface minutely rough with the mouths of the spherules
16376 Innate-immersed effused smooth black, Perithecia ovate immersed, Orifices prominent somew. depressed
16377 Gregar. distinct bursting through the bark which is marked with a narrow black ring, Disk small covered by an evanescent membr ben white pulverul. dott. with the black orifices of the immersed spherules
16378 Thickish purplish-brown black within covered with a thin pulverul. substance, Spher. conceal. Spor. oval

b Orifices of the spherules more or less spinous

16379 Scattered very gregarious somewhat conical roundish: the disk pulverulent white, Orifices of the spherules somewhat prominent and converging
16380 Deep black bursting transversely through the bark oblong elevated, Orifices of the spherules crowded level-topped acutely 4-sided and grooved
16381 Black round much elevated very gregarious · the orifices thick irregular 4-sided
16382 Black gregarious sometimes subconfluent bursting transversely through the bark ferruginous within, Orifices of spherules erect straight cylindrical spinose
16383 Receptacle very small black, Spherules few crowded with thickish cylindrical elongated obtuse coarctate orifices umbilicate at their apex and piercing the bark

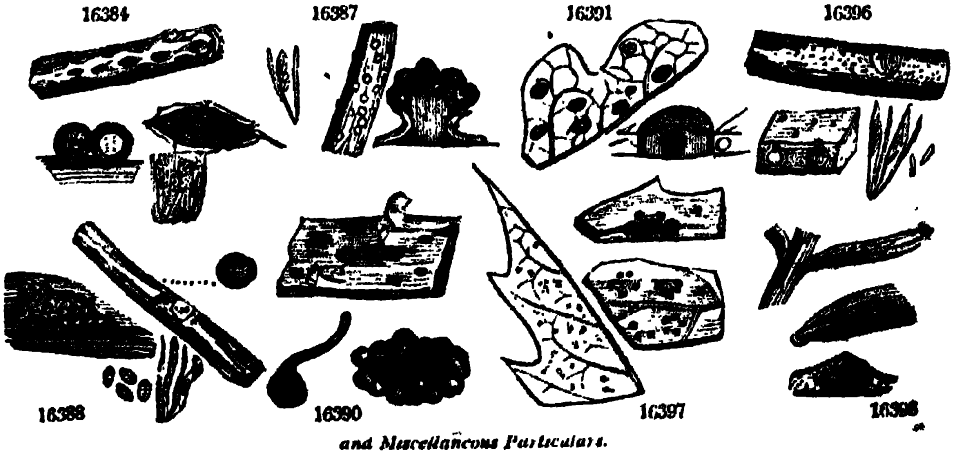
16384 Black ellipt.-obl burst longitudin through the bark, Spher. seat. on recept. crowd. rugose somew. tessellat.
16385 Clustered, Spherules globose dotted red at length black at first immersed in the receptacle, Tubes containing the sporules attenuated at each extremity
16386 Very gregarious, Spherules minute clustered scarlet oval irregular in size smooth: the mouth papilliform
16387 Dull pale-red scattered or crowded on the receptacle, Spherules globose tuberculated and rugose
16388 Black, Stroma very long, Perithecia at first immersed at length sessile crowded globose, Orifice papilliform with a circular depression around it

** Spherules collected into circular clusters*

16389 Black, Spherules few: the mouths elongated rough converging
16390 Black spherules aggregated forming a dense circle, Mouths filiform flexuose converging depressed
16391 Innate grow. on both sides, Leaf arrayed in round spots flat black, Perith convex promin. becom. bossed

*** Spherules more or less scattered, or simply aggregated.*
a. Spherules with an orifice

16392 Spherules few aggregated globose black the orifice suberect filiform shining style like
16393 Gregar. burst. forth, Perithecia glob nearly separate fine black becom. ragged and cup-shap. Orifice simp.
16394 Black shining very numerous ovate conical: the mouth short thick cylindrical piercing the epidermis like a black point, After the decay of the epidermis the spherules are naked
16395 Scattered, Perithecia prominent convex smooth black, Orifice open white
16396 Spherules black minute very numerous globose white within immersed in the substance of the bark: the mouth very short scarcely piercing the epidermis which seems covered with innumerable dots
16397 Upon leaves, Perithecia innate prominent punctiform globose black clustered in unequal spots
16398 Minute scattered, Spherules depressed · the mouth very short not exserted, Epidermis of the leaf convex and slightly ruptured, Sporules naked extremely minute

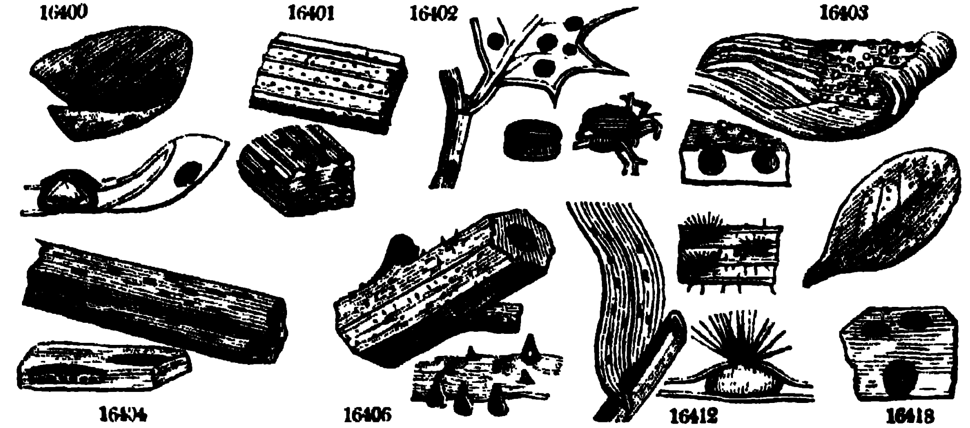


and Miscellaneous Particulars.

Cucurbitula of Tode, seems to have afforded the type of the genus, which contains most of the species constituting the seventh section of Sphæria in Persoon's system.

9423. *Cryptosphæria.* A genus formed by Dr. Greville, to include those plants formerly refered to Sphæria,

16399 strobilina *Grev.*	Pine-cone	uneven	0	all sea.	Bl	dead fir cones	
16400 Laúri *Grev.*	Laurel	scattered	0	all sea.	Blsh	dead laurel leaves	Sower. t. 371. f. 4
16401 dúplex *Sowerby*	double	variable	0	all sea	Bl	Spargan. stems, &c.	Sower. t. 375. f. 4
16402 bifrons *Grev.*	two-fronted	scattered	0	all sea.	Bl	dead holly leaves	Sower. t. 316
16403 aurántia *Grev.*	orange	succulent	0	all sea.	Ysh	dead fungi	Grev. crypt. 78
16404 Ptéridis *Sowerby*	Brake	confluent	6	spring	Bl	P. aquilina stems	Sower. t. 394. f 10
16405 decompónens *Sow.*	decomposing	spots	0	all sea.	Bl	dead poplar branc.	Sower. t. 217
16406 acumináta *Sower.*	acuminate	very min.	0	all sea.	Bl	thistle stems	Sower. t. 394. f. 3
16407 curviróstra *Sower.*	curv.-beaked	very min.	0	all sea.	Bl	Umbellifer. stems	
16408 Tamariscinis *Grev.*	Tamarisk	patches	0	all sea.	Bl	dead Tam. german.	Grev. crypt. fl. t. 45
16409 semi-immérsa *Grev*	½-immersed	shining	0	all sea.	Bl	dead honeysuckle	
16410 herbárum *Grev*	Herbaceous	punctif.	0	winter	Bl	dead herbac. plants	
16411 nebulósa *Grev.*	cloudy	spots	0	winter	Bl	dead herbac. plants	
16412 capilláta *Grev.*	hairy	very min.	0	all sea.	Br.Bl	dead lvs of Holcus mollis	Grev. crypt fl t 69
16413 Ægopódii *Grev*	Ægopodium	spots	0	all sea.	Blsh	living lvs. of Ægopod. Podagraria	
16414 punctifórmis *Grev.*	dot-like	white spots	0	all sea.	Bl	dead oak and other leaves	
16415 microscópica *Grev.*	microscopic	cld.-lik sp.	0	all sea.	Bl	dead Port. laurel lvs.	
16416 glauco-punctáta *Gr*	glauc. dotted	cld.-lik. sp	0	all sea.	B Bl	dead Rusc. aculeat lvs.	
16417 arundinácea *Sow*	Reed	minute	0	spring	Bl	reed stems	Sower. t 336
16418 arbuticola *Sower.*	arbutus	polymorp.	0	spring	Bl	dead Uva ursi lvs.	Sower. t. 370. f. 6
2424 HETEROSPHÆ'RIA. *Grev.*	Heterosphæria				*Sp* 1.		
16419 patélla *Grev.*	collapsed	shining	0	all sea	Bl	dead herbac. stalks	Grev. crypt. 103
2425. SPHÆ'RIA. *Haller*	Sphæria.				*Sp* 38—63.		
16420 spermoides *Pers*	seed-like	crowded	0	all sea.	Bl	rotten wood	Grev crypt fl t 6
16421 Peziza *Pers*	cup	irreg.clust.	0	all sea	R	dead dry wood	Grev. crypt fl 186
16422 Doliolum *Pers*	tub	contiguous	0	all sea.	Bl	dead herbac stalks	
16423 af'finis *Grev.*	red mouthed	pretty	0	aut	R	[illegible] angia atrovirens	Grev crypt. 186
16424 citrina *Pers.*	yell web-like	byssoid	0	aut wi	Y	on rotten wood, &c.	Grev. crypt 215
16425 concéntrica *Bolton*	concentric	confluent	0	aut.	Blsh	upon trees	Bolton, t 180
16426 tuberculósa *Bolton*	warted	superficial	0	all sea	Fusc.	bark of trees	Bolton, t 125 f. 1
16427 sérpens *Pers*	creeping	broad pat	0	spr wi	Bl	dead wood	Sow t 372 f 11 *crustacea*
16428 réptans *Sowerby*	branched	superficial	0	aut	Dark	dead wood	Sower t 395. f. 1
16429 læ'vis *Sowerby*	smooth	immersed	0	aut	Bl	dead wood	Sower. t. 394 f. 5
16430 nummulária *Fries*	moneywort	orbicular	0	aut. wi.	Dark	dead wood	Sower t 373 *diffusa*
16431 enteroleúca *Fries*	white-heart.	crustace	0	all sea.	Wsh	dry branches	Sow t 120 ? *tentaculata*
16432 leiphæ'mia *Fries*	bordered	immersed	0	spr. su	Pallid	dead oak branches	Sower. t. 218. *Saturnus*
16433 oblónga *Sowerby*	oblong	in circles	0	all sea.	Bl	birch bark	Sower t 374. f 7
16434 convérgens *Sower*	converging	patches	0	all sea.	Bl	smooth bark	Sower t. 374. f 6
16435 Nidula *Sowerby*	bird's nest	spots	0	aut.	Dark	bean roots	Sower t. 394. f 2
16436 hydróphora *Sower.* *S Peziza* Tode	pitcher	small	0	aut. sp.	Or R	soft beech wood	Sower t. 23
16437 sanguínea *Sibth.*	blood-red	minute	0	spring	Crim	naked wood	Grev. crypt. 175
16438 papillósa *Sowerby*	pimpled	gregarious	0	all sea.	Dark	rotten wood	Sower. t. 236
16439 stercorária *Sower.*	dung	middle sized	0	spring	Bl	dung	Sower t 357
16440 episphæ'ria *Tode*	parasitic	dots	0	wi. spr.	R	Stromatosphæria	Grev. crypt 175
16441 byssiséda *Pers.*	byssoid	spread. wide	0	all sea.	Br. Bl	dead branches	
16442 hirsúta *Pers.*	hairy	shining	0	all sea.	Bl	dead branches	
16443 pilósa *Pers.*	pilose	shining	0	all sea.	Br	dead branches	
16444 cálva *Pers.*	bald	punctif.	0	all sea.	Bl	dry rotten branches	
16445 aúrea *Grev.*	golden	crowded	0	all sea.	Or	decay. large fungi	Grev. crypt. t. 47
16446 rosélla *Alb.*	rosy	spots	0	aut.	R	red	Grev crypt. 138



History, Use, Propagation, Culture,

which are destitute of a receptacle and remain concealed (κρυπτος, hidden, whence the name) beneath the epidermis of vegetables, which is only perforated by their mouths. They are further characterized by having their spherules not enclosed in filiform tubes as in true Sphæria.

16399 Black roundish oblong scattered bursting through the epidermis, Orifice irregular papillose [minute
16400 Scatter. rather min. plano-convex black. splitt. Epider. in centre and becom. umbilicat. Spor. naked very
16401 Scattered, Perithecia immersed globose black concealed, Orifices dilated naked hemispherical
16402 Scattered black shining plane: the margin slightly raised; the epidermis united with the plant and bursting at the centre into 3-5 acute segments, Sporules naked oblong in 3-5 distinct masses
16403 Gregarious often crowded, Spherules yellowish globose somewhat fleshy, Orifices short cylindrical surrounded by an orange web
16404 Somew. innate parallel conflu. shin. black burst. with paral. slits, Thallus black, Perith. in rows connate
16405 Scattered, Perithecia immersed globose, Orifices min. convex peeping out of a black spot becom. bossed
16406 Gregarious, Perithecia somewhat immersed ovate black, Orifice bursting conical acute
16407 Gregarious, Perithecia covered ovate black, Orifices bursting equal smooth longer
16408 Scattered under the epidermis which is very convex and ruptured in the centre, Mouth very short obtuse not exserted, Sporules oval in filiform tubes
16409 Scattered globose with a very short rounded umbilicated mouth: at first the mouth only visible at length the spherule itself semi-exserted falling out in decay and leaving a cavity
16410 Spherules minute scattered very numerous black round depress. Orifice papilliform piercing the epidermis like minute dots at length naked when it decays
16411 Spherules excessively minute scattered forming dark greyish cloud-like longitudinal spots on the smooth stalks of plants: the orifice somewhat acute penetrating the epidermis

b. Spherules without an evident orifice.

16412 Parasitic on the leaves of dead grasses scattered brown black white within flat hemispherical: the apex furnished with a tuft of black rigid diverging hairs
16413 Scattered or in small groups minute blackish roundish producing pale spots on the leaf
16414 Scattered very gregarious fructiform somewhat shining rarely dehiscent
16415 Excessively minute very gregarious so as to form dark cloud-like irregular spots on the leaf
16416 Spherules very numerous punctiform glaucous or blueish-black rendering the leaf pale
16417 Bursting forth lin. black with hardly any thallus, Perithecia in 1 or 2 rows somew. connate black inside
16418 Gregar. conflu. cover. with a blackened epider. Perith. deform. black: disk finally burst. forth and opaque

16419 Forming nearly equidistant spots upon the stems of large dead herbaceous plants, Very common

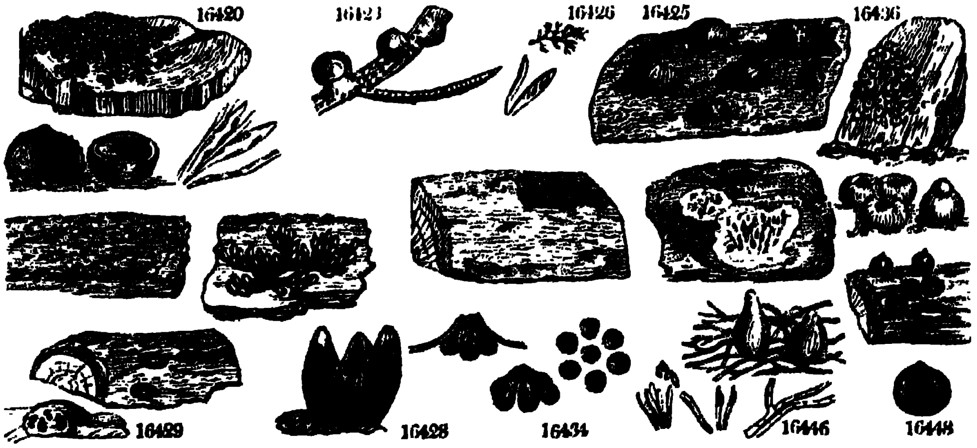
** Spherules with an orifice, not hairy.*

16420 Black globose nearly smooth crowded: the orifice minute slightly papilliform
16421 Fine red min. smooth gregar. glob. with a very min. papill. orifice, Spher. at length collapsed and concave
16422 Black scattered gregarious roundish ovate acute shining: the mouth papilliform
16423 Subgregar. or scattered sessile orange-colored smooth glob. destitute of orifice whit. and filament at base
16424 Perithecia glob. subimmers. Orifices promin. convex furnish. with an effused filament. strat. of a yell. color
16425 Globose deformed brownish-black banded within with concentric layers, Perithecia oblong immersed
16426 Convex pulvinate fuscous whole-colored inside, Perithecia globose, Orifices bossed
16427 Effused thin flattened black, Perithecia subglobose prominent pimpled
16428 Dark, Layer diffused branched, Perithecia oblong smooth pimpled
16429 Elliptical smooth black white inside, Perithecia immersed ovate without orifice
16430 Of a regular figure very flat contigu. dark extern. and internally, Perith. immers. ov. Orif. glob. promin.
16431 Orbic. conv. separ. Layer white, Perithecia min. Orifices numer. disengaged glob. and rostell. somew. rug.
16432 Pustular, Layer adhering to the bark and emerging, Disk palish, Orifices exserted oval and rostellate
16433 Perithecia subovate, Orifices long thickened at end united in an opaque disk bursting transversely
16434 Minute circinate, Perithecia about 6 ovate and converging, Orifices round somewhat tapering emerging
16435 Cæspitose growing to the surface, Perithecia stalked ovate acute smooth dark
16436 Gregarious soft, Perithecia globose smooth somew. pimpled orange-red becoming concave by collapsion

16437 Scattered soft very small, Perithecia ovate smooth pimpled crimson
16438 Dark. Perithecia thin globose smooth, Orifice papillæform
16439 Black shining, Perithecia globose rigid smooth, Orifice papillæform
16440 Sess. min. soft aggregated or scattered smooth blood-red, Perithecia subglob. collapsing, Orifice papilliform

*** Spherules with an orifice, hairy.*

16441 Rather large brownish-black shining globose with a papilliform orifice arising from a dense brown filamentous stratum which sometimes partly envelopes the sperules
16442 Gregarious somewhat clustered quite black, Spherules roundish ovate somewhat tuberculate with short rigid scattered hairs, Orifice obtuse
16443 Spherules minute crowded roundish: when young appearing like one mass of diverging brown hairs at length almost naked towards the apex and black, Orifice minute papilliform
16444 Black gregar. hemispher. minutely granulat.: the apex naked somew. shin.; the base hairy, Orif. papill.
16445 Gregar. very crowd. ov. somew. acum. orange, Orifice moist but the spherules escape in a pulverul. form
16446 Gregarious rose-colored, Spherules ovato-globose subacute or papillose placed on a paler colored web

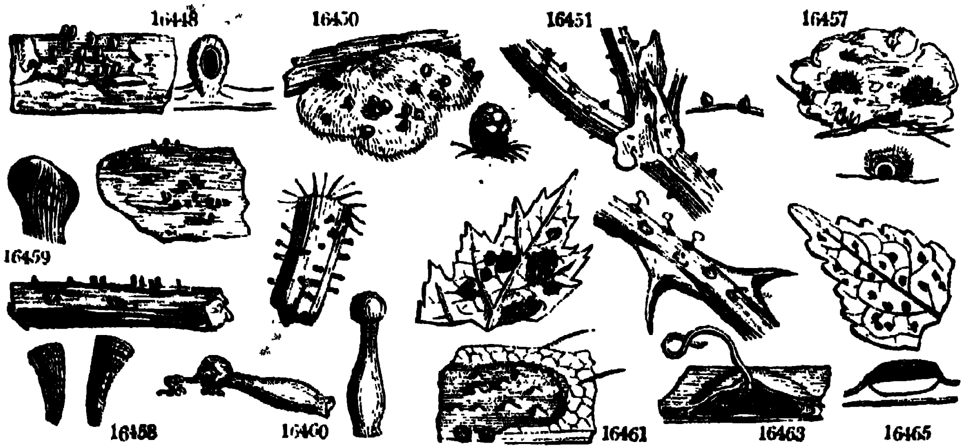


and Miscellaneous Particulars

2424. *Heterosphæria.* From ἕτερος, various, and *Sphæria*; but we do not know in allusion to what peculiarity. A small black dot-like plant.

2425. *Sphæria.* In allusion to the *spherical* figure of the species, which are exceedingly numerous and diffi-

16447 bifórmis *Pers.*	two-formed	scattered	0	spring	Bl	rotten wood	Pers. syn. t. 2. f. 14
β terréstris Sow.	*terrestrial*	clustered	0	spring	Bl	gravelly soil	Sower. t. 373. f. 7
16448 morifórmis *Pers.*	Mulberry	contiguous	0	all sea.	Bl	dead wood	Sow. t. 337. *claviformis*
16449 lignária *Grev.*	black wood	punctiform	0	all sea.	Bl	dead wood	Grev. crypt. 82
16450 rugósa *Grev.*	rugose	tessellated	0	all sea.	Bl	dead Polypor. abietinus	Grev. crypt. fl. t. 39
16451 Pisi *Sowerby*	Pea	scattered	0	wi. spr.	Bl	dead pease haulm	Sower. t. 393. f. 8
16452 púlvis-pýrius *Pers.*	small black	seed-like	0	all sea.	Bl	dead dry wood	Grev. crypt. 152
16453 irregularis *Sower.*	irregular	pulvinate	0	aut.	Brsh	dead wood	Sower. t. 374. f. 9
16454 Vaccínii *Sower.*	Cranberry	patches	0	wi. spr	Dark	live Vacc. Vitis idæa	Sower. t. 373. f. 1
16455 myriocárpa *Fries*	minute-crowd.	punctiform	0	aut.	Bl	dead wood	Grev. crypt. 152
16456 verrucósa *Grev.*	warty	areolated	¼	aut. wi.	Bl	cup of fungi	Grev. crypt. 39
16457 hirsúta *Sowerby*	hirsute	clustered	0	all sea.	Bl	plaster	Sower. t. 386. f. 3
2426. LO'PHIUM. *Fries.*	Lophium.			*Sp* 2—3.			
16458 elátum *Grev*	elongated	scattered	½	all sea.	Bl	pine bark	Grev. crypt. 177
16459 mytilinum *Fr.*	muscle-shap.	crustaceous	0	all sea.	Bl	pine bark	Grev. crypt. 177
		Division II. *Cytisporei.*					
2427. SPHÆRONÆ'MA. *Fries.*	Sphæronæma.			*Sp.* 1—15.			
16460 subulatum *Fries*	awl-shaped	spiculiform	½	aut.	Ciner	on Agarics	Grev. crypt. 189
2428. SEPTA'RIA. *Fries.*	Septaria.			*Sp.* 1—2.			
16461 Ul'mi *Fr.*	Elm-leaf	stains	0	aut.	Br	elm leaves	Grev. crypt. 112
2429. CYTISPO'RA. *Ehrenb.*	Cytispora.			*Sp.* 2—18.		*Sphæria.* Sowerby	
16462 Chrysospérma *Fr.*	yellow-seed.	spots	0	all sea.	Blsh	poplar bark	Sow. t. 138 *cirrhata*
16463 Rosárum *Grev*	Rose twig	pustular	0	aut.	Pallid	dead rose branches	Grev. crypt. 20
2430. PHO'MA. *Fr.*	Phoma.			*Sp.* 2—5.		*Sphæria.* Sowerby	
16464 salígna *Fr.*	willow leaf	pimpled	0	wi. spr	Brsh	dead willow leaves	Sow. t. 372. f. 1 *salicina*
16465 Pópuli *Fr.*	poplar leaf	pimpled	0	wi. spr.	Test.	dead poplar leaves	Sower. t. 374. f. 2
		Division III. *Phacidiacei.*					
2431. DOTHIDE'A. *Fr.*	Dothidea.			*Sp* 7—54.		*Sphæria.* Sowerby	
16466 typhina *Fr.*	Bull-rush	encrusting	0	sum.	Y	live stems of grass	Grev. crypt. 204
Sphæria spiculifera Sower. 270							
16467 Ul'mi *Fr.*	Elm	spots	0	su. aut.	Blsh	elm leaves	Grev. crypt. 200
16468 Robertiana *Fr.*	shining	punctiform	0	su. aut.	Bl	live Geran. Robertian. lvs.	Grev. crypt. 146
Cryptosphæria nitida Grev.							
16469 al'nea *Pers*	alder	punctiform	0	aut.	Bl	live alder leaves	Grev. crypt. 146
Xyloma alneum Pers							
16470 rubra *Fr.*	red	patches	0	aut.	R	leaves	Grev. crypt. 120
16471 fúlva *Fr.*	tawny	patches	0	aut	Br	leaves	
16472 betulina *Fries*	Birch-leaf	punctiform	0	su. aut.	Blsh	birch leaves	Grev. crypt. 200
2432. RHYTIS'MA. *Fries.*	Rhytisma.			*Sp* 1—22.			
16473 corrugátum *Fr.*	wrinkled	gregarious	0	all sea.		crusts of lichens	E. b. 1464. *L. graniformis*
2433. PHACI'DIUM. *Fries.*	Phacidium.			*Sp* 2—20.			
16474 coronátum *Grev.*	crowned	black spot	0	all sea.	Bl	dead oak leaves	Grev. crypt. fl. t. 52
16475 dentatum *Schm.*	toothed	white spot	0	all sea.	Bl	oak leaves	
2434. HYSTE'RIUM. *Tode.*	Hysterium.			*Sp.* 12—52.			
16476 lineáre *Fries*	linear	lines	0	all sea.	Bl	dead wood	Grev. crypt. 167
16477 maculáre *Fries*	pale spot	blotches	0	aut.	Bl	dead leaves	Grev. crypt. 129



History, Use, Propagation, Culture.

cult of determination. Most of them are highly curious objects when minutely examined, and some even beautiful. Sphæria militaris is a fine species, about an inch in height, the head being ovate, of a beautiful scarlet, granulated like orange-peel.

2426. *Lophium.* So named from λοφος, a little elevation. Differs from Sphæria in being completely evolved, dehiscent, compressed, without a veil, and having a nucleus crumbling to powder. The plants are very similar to the valves of a bivalved shell.

2427. *Sphæronæma.* From σφαιρα, a sphere, and νημα, gelatine, in allusion to the round mucous bag in which the sporules are enclosed. The species are minute innate plants, generally growing on wood, very permanent, and often cohering by their base.

2428. *Septaria.* Growing upon dead leaves, in the form of clouds or spots. Named upon account of the septa of the sporidia.

2429. *Cytispora.* From κυτις, a little chest, and σπορα, a sporule. The species are very common, growing upon plants, immersed, soft, bearing fruit during damp weather, and even by watering only, within doors. The most essential character consists not in the cirrhi, common to many fungi, but in the deformed cellular perithecia, by which it may be easily known in any state.

16447 Perithecia somew. ov. rather wart. black cover with strigose hairs of same col. Orifice rather lengthened
β Perithecia numerous seated on a little strigoso villous crustaceous stalk

*** *Spherules without an evident orifice.*

16448 Gregarious obovate deep-black smooth tuberculated
16449 Spher. minute solitary or somew. cluster. black ovate setoso-rugose mouthless, Spor. ovate in cylindr. tubes
16450 Minute black scattered globose very rugose and tuberculated parasitic on the pileus of Polyporus abietinus
16451 Scatter Perith. ellipt. rounded depress. plaited lengthwise opaque black, Orifice hidden somew. compress.
16452 Spher. black min. very numer. crowded roundish somew. tuberculated and often with a transverse furrow
16453 Emerging prominent irregular brownish-black rufous brown internally, Orifices concealed
16454 Tufted innate on the surface, Perithecia subglobose solid without orifice at first villous afterwards naked
16455 Naked more or less crowd. ovate-glob. black shining, Perith very small smooth at first without an orifice
16456 Minute black scattered globose very warty, Parasitic on the cap of Polyporus abietinus
16457 Perithecia subglobose ovate tuberculate black covered with scattered hairs of the same color

16458 Stipit. compress. black transverse striat. dilat. gradual. from stipes into an elongat. wedge-shap. peritheci.
16459 Somewhat stalked dilated upwards striated across shining

Division II. *Cytisporei.*

16460 Perithecia conico-subulate acute yellowish somewhat pellucid, Globule very pale

16461 Spherules aggregated, Sporidia 3 or 4 times divided, Cirrhi often becoming effused

16462 Cells impressed on the receptacle, Disk emerging blackish, Cirrhi yellow [with a cottony margin
16463 Sporulifer. tendr. white simp. Spher. waved: when divid. horizontal. manifest under epider. Orifice black.

16464 One or many-celled convex brownish-black somewhat umbonate in the centre
16465 Generally many-celled roundish flat brownish-testaceous, Orifices obsolete

Division III. *Phacidiacei.*

16466 Long, surrounding the culms whitish becoming dark-yellow at length rendered granular by the orifices

16467 Epiphyll. round. conflu. convex cinereous-black: internally black with white cells, Orifices like granulat.
16468 Epiphyllous subgregarious hemispherical smooth shining very black white within

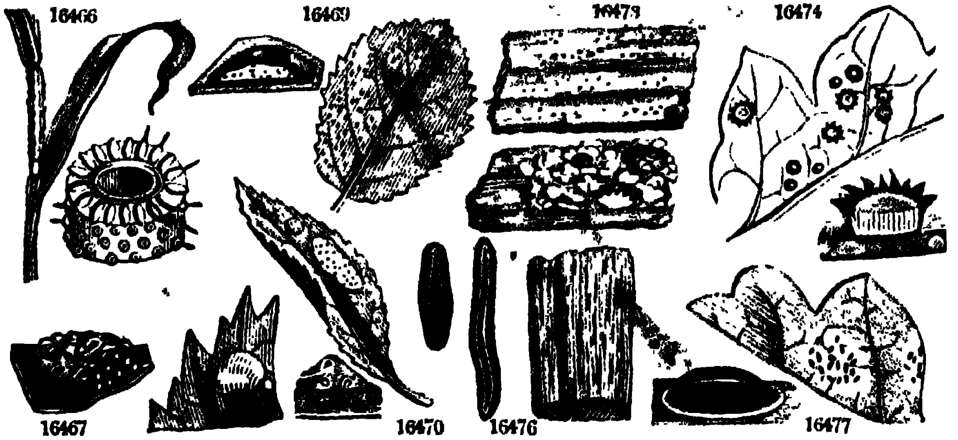
16469 On both sides of the leaf regularly scattered roundish black shining collapsed rugose and plaited

16470 Plane orange-red, Sporules unequal globose
16471 Plane pale fulvous
16472 Epiphyllous somewhat angular and irregular in form subconfluent tuberculose black shining black within: the cellules white

16473 Minute innate on the surface rugose plaited opening with many flexuose cracks

16474 Orbicul. subhemispher. depressed black dehiscent in numer. acute segm. Disk pale greenish or yellowish
16475 Four-sided small black or whitish spots on the leaf splitting in 4-5 acute segments, Disk dingy

16476 Subimmersed crowded parallel linear black, Lips of the orifice tumid smooth, Disk linear
16477 Collected on pale defined spots roundish elliptical black: the margin depressed and paler



and Miscellaneous Particulars.

2430. *Phoma.* Said by its author to be named in allusion to the pustular appearance of the plants, which are of a brownish color, and grow within the substance of leaves.

2431. *Dothidea.* A genus which has been named from δοθιον, a tubercle, and ειδος, similar, and appears to be very distinct. The species are numerous, growing upon plants; many of them are innate and dark, a few colored.

2432. *Rhytisma.* From ῥυτις, a wrinkle. R. corrugatum, the Lichen graniformis of English botany, is a gregarious, subcorneous, shining flattish plant, referred to Lichens by Acharius, but considered by Fries and Ehrenberg to belong to Fungi. It is common upon the crusts of Lichens and upon dry wood.

2433. *Phacidium.* A name with the same meaning as Dothidea; from φακος, and ειδος. Intermediate between Rhytisma and Hysterium, but differing from both in the manner of dehiscence. The species are somewhat innate, epiphytous, tolerably permanent, blackish, and with a kernel which becomes softish.

2434. *Hysterium.* From ὑστερησις, penury, in allusion, perhaps, to the diseased and squalid appearance which trees attacked by this fungus assume. Minute plants, resembling Opegrapha, and like that genus, found occupying the bark of trees; but destitute of a crust.

16478 Rúbi *Pers.*	Bramble-stem	lines	0	aut.	Bl	bramble branches	Grev. crypt. 24
16479 folíicolum *Fries*	various	dot-like	0	spring	Bl	common ivy leaf	Grev. crypt. 129
16480 melaleúcum *Fries*	blk. & white	dots	0	aug.	Bl	Vacc. Vitis idæa	Grev. crypt. 88
16481 pulicáre *Pers.*	flea-like	very grega.	0	all sea.	Bl	rugged oak bark	Grev. crypt. 167
16482 Fráxini *Pers*	Ash	corneus	0	all sea.	Bl	dead ash branches	Grev. crypt. 72
16483 quercínum *Pers.*	Oak	gregarious	0	all sea.	Gr.Br	dead oak branches	
16484 angustátum *Pers.*	tapered	minute	0	all sea.	Dl.B	dead wood & stumps	
16485 Pinástri *Pers.*	Pinaster	scattered	0	all sea.	Bl	dead Scotch fir lvs.	Grev. crypt. fl. t. 60
16486 Juníperi *Grev*	Juniper	spots	0	all sea.	Bl	dead juniper leaves	Grev. crypt. fl. t. 26
16487 gramíneum *Pers.*	Grass	gregarious	0	all sea.	Bl	dead grass leaves	Grev. crypt. fl. t. 87

Division IV. *Xylomacei.*

2435. ACTINOTHY'RIUM. *Kunz.* Actinothyrium. *Sp.* 1

16488 gráminis *Kunz.*	grass	gregarious	0	spring	Bl	culms of grasses	Grev. crypt. 218

2436. LEPTOSTRO'MA. *Fr* Leptostroma. *Sp.* 1—9.

16489 scirpínum *Fr.*	Rush	spots	0	su.aut.	Bl	Scirpus lacustris	Fries obs. t. 1. f. 6

2437. XYLO'MA. *Pers.* Xyloma. *Sp* 8—14.

16490 acerínum *Pers.*	Maple	broad spots	0	all sea.	Bl	living sycamore leaves	
16491 salicínum *Pers.*	Willow	solid spots	0	all sea.	Bl	living Sal.capræa lvs.	Grev. crypt. 118
16492 salígnum *Pers.*	Sallow	yell. spots	0	all sea.	Br	decaying Sal.capræa lvs.	Grev. crypt. 118
16493 populínum *Pers.*	Poplar	small spots	0	all sea.	Brsh	aspen leaves	
16494 Geránii *Grev.*	Geranium	crowded	0	all sea.	Dl.Bl	living Geran.sylv.lvs.	
16495 fagíneum *Pers.*	Beech	very min.	0	all sea.	Bl	dead beech leaves	
16496 concávum *Grev.*	concave	scatt. spots	0	all sea.	Bl	dead holly leaves	Sow t 317. *Sphæria*
16497 pezizoídeum *Pers.*	Peziza-like	punctiform	0	all sea.	Bl	dead oak leaves	So. t.118. *Pez comitialis*

2438. LASIOBO'TRYS. *Kunze* Lasiobotrys. *Sp.* 1—?

16498 Lonicéræ *Kunze*	Woodbine	spots	0	sum.	Bl	honeysuckle leaves	Grev. crypt. 191

2439 ASTERO'MA. *Dec.* Asteroma. *Sp.* 2—?.

16499 Ul'mi *Grev.*	Elm	pale spots	0	all sea.	Bl	living elm leaves	
16500 Alchemílla *Grev.*	Lady's Mantle	pale spots	0	all sea.	Bl	living Alchemilla lvs.	

Class III. Trichospermi. — Division I. *L[illegible]perdinei.*

2440 ONYGE'NA *Pers.* Onygena. *Sp* 1.

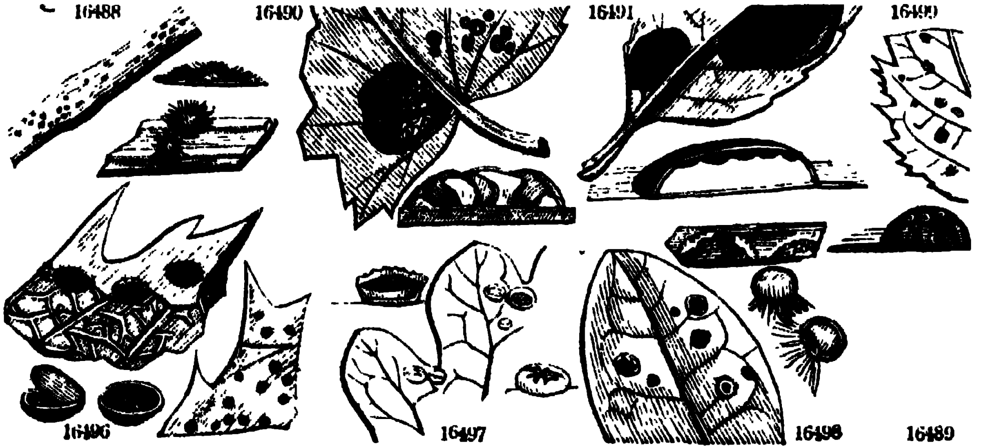
16501 equína *Pers*	horse-hoof	minute	¼	aut	Wsh	decaying hoofs, and similar substances	Willd. fl berol. f 20

2441. TULO'STOMA. *Pers* Tulostoma *Sp.* 1—3.

16502 brumále *Pers*	winter	subsolitary	1	au oct	W.Br	pastures	Bulliard, t. 471 f. 2

2442. SCLERODER'MA. *Pers* Scleroderma. *Sp.* 4—14.

16503 verrucósum *Grev.*	warty	handsome	5	aut.	Y Br	plantations	Grev crypt. fl. t. 18
16504 cépa *Grev* *Tuber solidum* With.	solid	surf.variab.	2	aut.	Y Br	plantations	Grev. crypt fl. t 66
16505 citrínum *Pers.*	Lemon-color.	tessellated	2	aut	Pa.Y	about oak roots	Bolton, t. 116
16506 spadíceum *Pers.*	brown	tessellated	1	sum	Pa.Br	beech trunks	Schæffer, t 188



History, Use, Propagation, Culture,

2435. *Actinothyrium.* So called from ακτιν, a ray, and θυρεω, to enclose, in allusion to the radiated integument of the sporidia. The only known species is innate, growing upon plants, orbicular, almost black, and appearing in the early part of the year.

2436. *Leptostroma.* From λεπτος, thin or delicate, and στρωμα, a layer, in allusion to the disk, which, when the peritheclum separates, becomes naked and very thin.

2437. *Xyloma.* From ξυλον, wood, and λωμα, a margin. The species are innate coated tubercles, of a hard vesicular substance, but which does not produce fructification. One of the most common kinds, X. acerinum, has a ragged border.

2438. *Lasiobotrys.* From λασιος, wool, and βοτρυς, a bunch. This plant originates beneath the epidermis of the leaf, during its green and living state. When mature, it is of a very black color, and regular circular form, from one to two lines in breadth, very slightly convex, the surface uniformly granulated, and the whole generally situated on a paler or colorless portion of the leaf. On the bursting or laceration of the epidermis of the leaf, which takes place in the centre, our plant is found to consist of a multitude of distinct perithecia of a roundish form, closely arranged side by side, destitute of orifice, and the summits of which produce a granulated appearance to the naked eye or a small magnifier. These peritheria are fixed to the leaf by a number of short filaments radiating from their base, and are not to be detached without some

16478 Ellipt. or obl. atten. each end black somew. shin. obscure. striat. Sum. of sporulifer. cells obtuse. club-shap.
16479 Innate scattered elliptical obtuse rather tumid smooth naked black with a longitudinal depression
16480 Minute black irregularly gregarious oval or roundish convex, Sporuliferous tubes club-shaped
16481 Gregarious black oblong or roundish-elliptical obtuse somewhat striate
16482 Convex tumid oblong-elliptical very black disposed in a subconcentric manner, Sporules large obl. yellow
16483 Bursting through the bark oblong elliptical flexuose somewhat ventricose greyish-brown
16484 Gregarious linear narrow parallel smooth of dull black
16485 Minute oval elliptical very black disposed in a subconcentric manner, Sporules large oblong yellow
16486 Very min. oval shin. somew. plane growing longitudinally on leaf, Sporulifer. tubes clavate acum. at apex
16487 Very minute linear elliptical black mostly on the ribs of the leaf or culm

Division IV. *Xylomacei.*

16488 Scattered or gregarious orbicular ¼ to ½ line broad very dark a little ribbed and elevated in the centre

16489 Orbicular opaque bossed in the centre at length entirely separating, Disk whitish

16490 Black spreading in large irregular spots which are either uniform or composed of somewhat distinct dots dehiscence irregular and rugose
16491 Large irregular very thick black white within
16492 Gregarious sometimes crowded roundish slightly convex brown at length blackish
16493 Gregarious rarely scattered over the whole surface flattish irregular smooth dull-brown
16494 Scattered black unequal in size plane: the surface rugose and somewhat papillose in the centre
16495 Minute crowded often in circular groups round black shining plane rugose
16496 Minute roundish regularly scattered black shining smooth: the upper half separating
16497 Clustered orbicular black becoming open, Margin erect somewhat crenate, Disk pale

16498 Perithecia even much crowded black: the radiating fibres simple

16499 Filam. black radiat. subdichotom. at length covered with confluent rugoso plicate shining black tubercles
16500 Filam. very min. extremely fine branch. at length subdist. black, Tubercles producing a pale spot on leaf

Class III. Trichospermi. — Division I. *Lycoperdinei.*

16501 Stipes short somewhat fibrous, Peridium scabrous always closed, Sporules ovate

16502 Stipes smoothish, Peridium globose, Orifice flat

16503 Large gregarious subglobose yellowish-brown, Scales small numerous, Stipes subelongated incrassated below lacunose and variously divided at the root
16504 Globose subdepressed very firm smooth or warty sess. or with a very short thick stipes, Root scarcely any

16505 Middle-sized roundish long-rooted pale lemon-color obsoletely scaly, Scales thickish
16506 Gregarious smaller somewhat spotted smooth brown, Root hard fibrous

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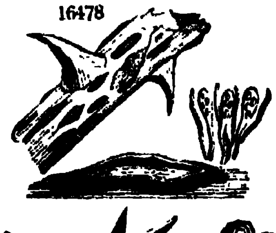

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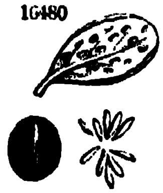

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force. Their surface is smooth black. Within they are replete with a somewhat gelatinous granulose mass, containing subglobose sporidia. The above is a description of the usual appearance of this plant.

A variety, however, occurs in the form of a ring or annulus, the centre being unoccupied. Sometimes the perithecia are scattered in irregular groups, a few together, and may even occur solitary.

2439. *Asteroma.* So named by Decandolle; but we know not with what meaning. Many of the substances referred to this genus are believed to be merely young states of various kinds of Dothidea; some are the black lines by which certain Pyrenomycetes are bounded; others are merely darkened veins of leaves. To this the whole of Actinonema of Persoon, and several of his Capillarias are to be referred.

2440. *Onygena.* So called from ονυξ, a hoof, and γινομαι, to be born, in allusion to the singular circumstance of the original and only species being always found on old horse-hoofs in shady woody places.

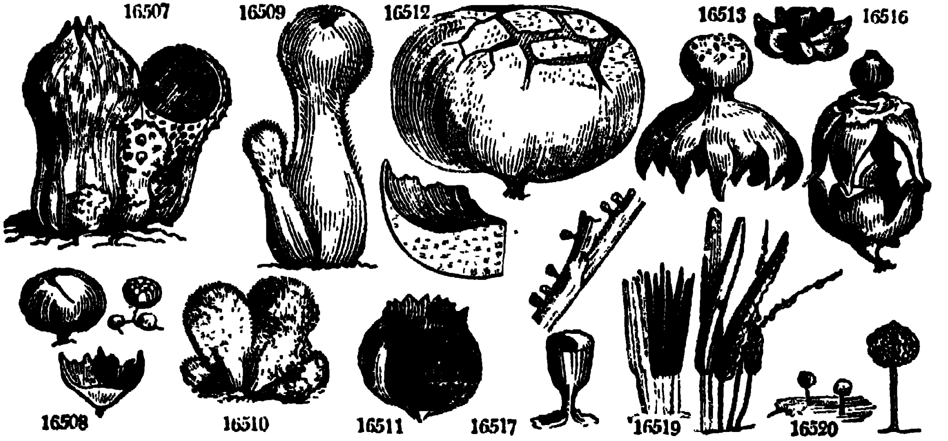
2441. *Tulostoma.* From τυλος, a wart, and στομα, the mouth, in reference to the nature of the orifice by which the seeds of this plant are dispersed. T. brumale is found on the mossy tops of walls about London in the winter and spring. It may easily be overlooked for some unexpanded Agaric.

2442. *Scleroderma.* So called from σκληρος, hard, and δερμα, skin, in allusion to the hardness of the coat of the species. S. spadiceum is found on heaths in England, but is very rare; it is about the size of a chesnut, rather depressed at the top.

2443.	LYCOPER'DON. *Mich.*	PUFF-BALL.			*Sp.* 4—11.			
16507	bovista *Pers.*	large	turbinate	3	aut.	Wsh	pastures	Sower. t. 332 *Proteus*
16508	praténse *Pers.*	meadow	½ subterra.	2	su. aut.	W	pastures	Bulliard, t. 435. f. 2
16509	excipulifórme *Pers.*		chan to br.	2	aut.	W	pastures	Bulliard, t. 450 f. 2
16510	pyrifórme *Pers.*	pear-shaped	tufted	1½	su. aut.	Pa. Br	about tree stumps	Bulliard, t. 435. f. 3
2444.	BOVIS'TA. *Pers.*	BOVISTA.			*Sp.* 2—4.			
16511	nigréscens *Pers.*	blackish	becom blk.	2	su. aut.	W	pastures	Sower. t. 331
16512	gigantéa *Grev.*	gigantic	cracking	12	su. aut.	Y. W	pastures	Bulliard, t. 447
2445.	GEAS'TRUM. *Mich.*	GEASTRUM.			*Sp* 4—5.			
16513	colifórme *Pers.*	purse-shap	subsolitary	2	aut.	Brsh	pastures	Dic. cr. t. 3. f 4. *Lycoperd.*
16514	Woodwárdii *Pers.*	Woodward's	subsolitary	1	aut.	D Br	dry banks	Bry. hist. f 19. *Lycoperd.*
16515	quadrifidum *Pers*	quadrifid	subsolitary	2	aut.	Wsh	pine woods	Sch t. 183 *L. fornicatum*
16516	stellátum *Bolt*	stellated	subsolitary		sp. aut.	Br	moors	Bolt. t. 179. *Lycoperdon*
	Lycoperdon recolligens Woodw.							

Division II. *Trichocisti.*

2446.	CRATE'RIUM. *Trent*	CRATERIUM.			*Sp.* 2—6.			
16517	leucocéphalum *Trent.*	white-head.	pretty	¼	aut.		mosses, &c.	Grev. crypt. t. 65
16518	vulgáre *Dittm*	common	pretty	¼	aut.		mosses, &c.	Sower. t. 239
	Cýathus minútus Sowerby							
2447.	STEMONI'TIS. *Pers*	STEMONITIS.			*Sp* 2—?.			
16519	fasciculáta *Pers.*	fascicled	dense	½	su. aut.	Bl. Br	rotten wood	Greville crypt. 170
	Trichia núda Sow.							
16520	papilláta *Pers.*	pimpled	scattered	¼	aut.	D. Br	rotten wood	Nees syst. t. 10. f. 118
2448	CRIBRA'RIA. *Schrad*	CRIBRARIA.			*Sp* 1—?.			
16521	micropus *Schrad.*	small stalk.	pinheaded	1/12	aut.	Br	pine trunks	Schrad. gen t. 2 f. 1. 2
2449	DICTY'DIUM *Schrad*	DICTYDIUM.			*Sp* 1—?.			
16522	cérnuum *Nees*	cernuous	pinheaded	1/12	all sea.	Bl	rotten wood	Greville crypt. 153
2450.	ARSCY'RIA. *Pers.*	ARSCYRIA			*Sp* 2—?.			
16523	punícea *Pers*	crimson	gregar.	¼	su aut.	Crim.	rotten wood	Greville crypt. 130
	Trichia denudáta Sowerb ' 9							
16524	nútans *Grev*	nodding	weak	¼	su. aut.	Pa. Y	rotten wood	Sower. t. 260 *Trichia*
2451.	LEAN'GIUM. *Link*	LEANGIUM			*Sp.* 2—?.			
16525	florifórme *Link.*	flower like	scattered	1/12	aut	Y	aying trunks	Bulliard, t. 371
16526	Trevelyáni *Grev.*	Trevelyan's	scattered	1/12	aut.	Pa. Br	ves of mosses	Grev crypt. 132
2452	TRI'CHIA *Pers.*	TRICHIA.			*Sp* 3—'			
16527	reticuláta *Pers.*	netted	pulpy	0	aut.	Ysh	rotten wood	Nees syst. t. 10. f. 111
16528	ováta *Pers*	ovate	crowded	0	aut.	Y	rotten wood	Sower t. 85. *turbinata*
16529	falláx *Pers*	deceitful	variable	0	aut.	Rsh	rotten wood	Sower. t. 279
	Sphærocárpus frágilis Sowerb.							
2453.	DIDER'MA. *Pers*	DIDERMA.			*Sp.* 1—?.			
16530	globósum *Pers.*	globose	clustered	0	aut.	Cm.	dead beech leaves	Grev. crypt. 122
2454.	PHY'SARUM. *Pers.*	PHYSARUM.			*Sp* 6—?.			
16531	sulcátum *Link.*	furrowed	weak	¼	sp aut.	Gr	rotten wood	
16532	nútans *Pers.*	nodding	weak	¼	aut.	Gr	rotten wood	Bull t. 407. f 3
16533	nigripes *Link.*	black stem.	firm	¼	aut.	D. Gr	rotten wood	Sturm's Deuts fun. t 42
16534	viride *Pers*	green	rather weak	¼	aut.	Y G	rotten wood	Bull. t. 481. f. 1
16535	leúcopus *Link.*	white stem	very stiff	¼	aut.	GL	dead beech wood	
16536	aúreum *Pers*	golden yell.	gregar.	1/12	sp. aut.	Y	decaying trunks	Grev crypt.



History, Use, Propagation, Culture,

2443. *Lycoperdon.* So called by Tournefort, from λυκος, a wolf, and περδω, to explode backwards, that author certainly having improved upon the foolish old name, Crepitus lupi, by making it less generally intelligible. (*Smith.*) These are roundish tuber-like plants, when ripe, exploding and emitting the sporules in the form of smoke, whence country people call the species puff-balls.

2444. *Bovista.* A name of barbarous origin, having been formed by Dillenius, from the German *Bofist.* Bovista furfuracea, an Italian species, is said by Micheli, to be common on heaths near Florence, where it is sold with others of its tribe, as an article of food. Bovista gigantea is the largest of the genus, and, indeed, of the whole order, measuring not unfrequently nearly 2 feet in diameter. Bulliard mentions having seen many of eighteen, twenty, and twenty-three inches in diameter, and on the authority of others, affirms them to attain the enormous bulk of nearly nine feet in circumference. The flesh is at first white, afterwards of a greenish-yellow, lastly of a brown-grey. The outer peridium cracks and peels off in large flakes on being handled.

2445. *Geastrum.* So called from γης, the earth, and αστηρ, a star, in allusion to the stellate appearance of the species when burst and lying on the ground. A genus formed by Micheli upon the Puff-balls with a stellated volva.

2446. *Craterium.* So named from κρατηρ, a cup, in allusion to the form of the peridium, which in C. vulgare is formed like a small goblet. This is a minute subsolitary plant, with the habit of Calicium.

16507 Large obconical soft whitish plicate beneath, Scales broad often indistinct
16508 White soft hemispherical subsessile somewhat smooth, Warts scattered
16509 Large white variable, Peridium subglob. cover. with spinul. warts, Stipes somew. smooth long and plicate
16510 Cæspit. pyrif. umbon. pale-brown, Scales in form of min. slender spin. process. Root consist. of long fibres

16511 Large white becoming blackish-brown plicate beneath
16512 Almost sessile very large globular yellowish-white, with scattered nearly obsolete scales

16513 Volva multifid, Peduncles and oscula of the peridium numerous
16514 Smaller, Head flat above, Orifice acuminate with longer ciliæ
16515 Peridium globose stalked, Orifice hoary, Radii somewhat quadrifid arched
16516 Volva multifid spreading, Laciniæ equal, Head depressed spherical sessile, Orifice acuminate

Division II. *Trichorisli.*

16517 Cup-shap. redd.-brown, Operculum convex whit. very thin evanescent, Filam. white, Sporules very dark
16518 Campanulate chesnut-color, Operculum firm white, Stipes orange, Sporules blackish

16519 Crowded cylindrical, Stipes black arising from a shining subjacent membrane, Peridia very fugacious blackish-brown, Stipes continued to the summit of the peridium
16520 Dark-brown globose stipitate, Stipes penetrating through the summit of the peridium

16521 Gregarious roundish, Stipes short blackish

16522 Gregar. brownish-purple nodding umbilicated, Membrane of peridium deciduous, Flocci persistent robust

16523 Gregarious often cæspitose stipitate dull crimson, Sporules abundant crimson-red

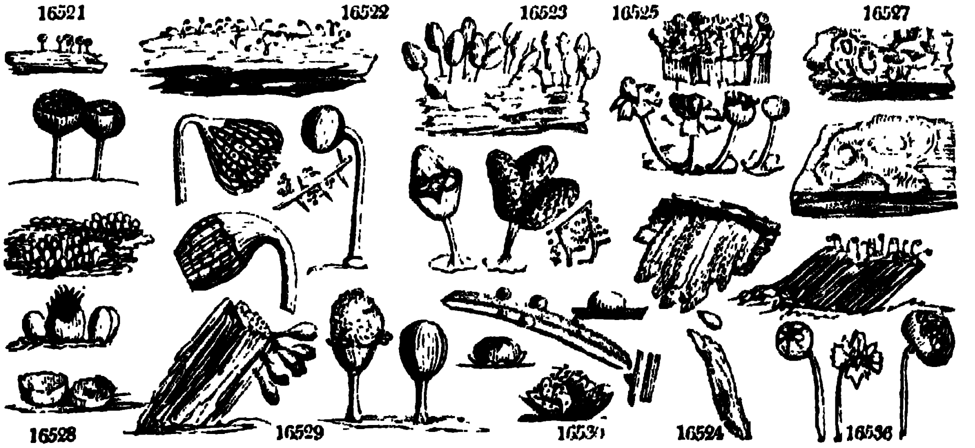
16524 Pale-yellow substipitate cylindrical long weak drooping

16525 Yellow globose stipitate, Peridium splitting into holes which are beautifully expanded and reflexed
16526 Sporangium sess. Peridium splitting into many regular reflexed segm. Colum. very min. Spor. pedicellat.

16527 Effused forming an irregular sort of reticulation yellowish or pale-brown
16528 Crowded obovate ochrey-yellow bursting at the summit
15529 Shortly stipitate reddish at length yellowish bursting at the apex plicate beneath

16530 Sessile subglobose smooth greyish-white: both of the peridia fragile, Sporules globular

16531 Head globose flattish beneath grey inclined, Stipes rather long pale weak sulcate, Sporules dark-brown
16532 Head glob. flatt. ben. bluish-grey nodd. Stipes thin weak whit. not furrow. Spor. and filam. dark-brown
16533 Head globose dark-grey, Stipes long firm black, Sporules and filaments very dark
16534 Subglob. umbilicate ben. yellowish-green, Stipes slender rather weak brown. Sporules and filam. very dark
16535 Head globose depressed pale-glaucous, Stipes very short thick pale at length brownish
16536 Peridium subglobose fine yellow. Stipes slender rather long greyish-brown, Sporules globose



and Miscellaneous Particulars.

2447. *Stemonitis.* From στημων, a stamen, in allusion to the form of some of the species, which may be compared to the male organ of a flower, taking the stipes for the filament, and the head for the anthera.

2448. *Cribraria.* A genus formed by Schrader out of the Sphærocarpi of Bulliard. It has for its essential character, a peridium, the upper part of which has numerous apertures, whence the name, from *cribro*, to perforate. All the species are found in autumn upon rotten wood.

2449. *Dictydium.* From δικτυον, a net, and ειδος, similar; the peridium appears like net-work fastened together by minute delicate ribs. Very minute pinheaded plants, with the appearance of Calicium.

2450. *Arcyria.* From αρκυς, a net. The sporules are fastened together by a net-work of fibres. Beautiful little minute fungi, found upon wood.

2451. *Leangium.* From λειος, smooth, and αγγειον, a vessel, in reference to the smoothness of the peridium. Small wart-like plants, resembling a minute Lycoperdon.

2452. *Trichia.* From θριξ τριχος, hair, in allusion to the internal mass of elastic fibres gradually expanding after the head bursts. These are pin-headed plants, growing upon old wood, and very rarely seen in this country.

2453. *Diderma.* From δις, double, and δερμα, a skin, on account of the double peridium.

2454. *Physarum.* So named, on account of the bladdery appearance of the peridium, from φυσα, a vesicle.

2455.	LEOCAR'PUS. *Link.*	LEOCARPUS.				*Sp.* 1—?.		
16537	vernicósus *Link.*	varnished	enc	¼	aut.	R.Br	stems of grasses	Grev. crypt. 111
	Lycopérdon frágile Sowerb.							

Division III. *Fuliginoidei.*

2456.	LYCOGA'LA. *Mich.*	LYCOGALA.				*Sp.* 3—?.		
16538	miniáta *Pers.*	vermilion	granular	0	sp. aut.	R	rotten wood	Grev. crypt. fl. t 38
16539	argéntea *Pers.*	silvery	fragile	0	aut.	Wsh	rotten wood	Grev. crypt. t. 106
	Reticulária Lycopérdon Sowerb. ,							
16540	minúta *Grev.*	minute	gregario.	0	aut.	W	decayed leaves	Grev. crypt. fl. t. 40
2457.	SPUMA'RIA *Pers*	SPUMARIA.				*Sp* 1—?		
16541	álba *Grev.*	white	frothy	1	aut.	Br	rott.wood,grass,&c.	Sow. t. 280. *Reticularia*

Division IV. *Liceoidei.*

2458.	DICHOSPO'RIUM. *Nees.*	DICHOSPORIUM.				*Sp.* 1.		
16542	aggregátum *Nees*	clustered	spots	0	aut.	Bl	bark of trees	Nees syst. f. 99
	Spumaria physaroides Pers.							
2459.	LI'CEA. *Schrad.*	LICEA.				*Sp* 2—?.		
16543	circumscis'sa *Pers.*	pared	like ovules	0	aut.	Ysh	between bark & wood	
16544	fragifórmis *Nees*	strawberry-like	pulpy	0	aut.	Dl.R	rotten wood	Nees syst. t. 8. f. 102

Class IV. MUCOROIDEI.

2460.	MU'COR *Pers.*	MUCOR.				*Sp* 1—?.		
16545	stercórea *Grev.*	common	watery	2	wint.	W	dung	
	Hydróphora stercórea Tode.							
2461.	THAMNI'DIUM. *Link.*	THAMNIDIUM.				*Sp.* 1—?.		
16546	élegans *Link.*	elegant	whorled	1/12	aut.	Pale	putrid substances	Nees syst. 75
2462	ASCO'PHORA. *Tode.*	ASCOPHORA.				*Sp.* 1—?.		
16547	mucedo *Link.*	mouldy	very slend.	⅛	all sea.	W	putrid substances	Sow. t.378.f 5,6,7. *Mucor*

Class V. PERISPORIA

2463.	EURO'TIUM. *Link.*	EUROTIUM.				*Sp.* 2—?.		
16548	herbarórum *Link.*	herbarium	punctiform	0	all sea.	Y	dried plants	Grev crypt 164
16549	Rosárum *Grev.*	rose	patches	0	sum.	W	rose bushes	Grev. crypt. 164
2464.	AMPHISPO'RIUM. *Link.*	AMPHISPORIUM.				*Sp* 1.		
16550	versicolor *Link.*	changeable	spots	0	wint.	Y	hyacinths in glasses	Nees syst 100

HYPHOMYCETES.

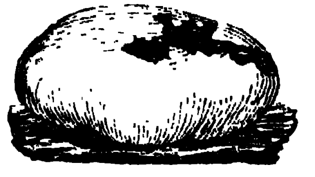
Class I. CEPHALOTRICHI.

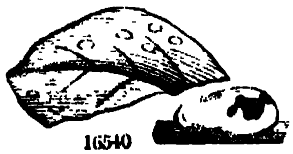
2465.	CERA'TIUM. *Albertini.*	CERATIUM.				*Sp.* 1—?.		
16551	hydnóides *Alb.*	Hydnum-like	fugacious	1/12	aut.	W	dead wood	Berl. mag. v. 3 t 1 f 33

16537

16538

16539





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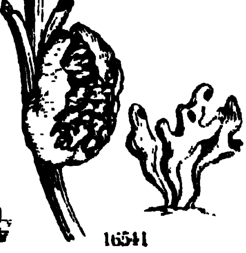

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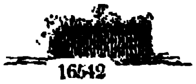

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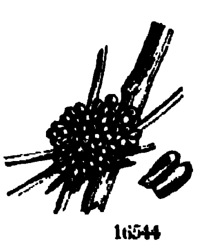


16544

History, Use, Propagation, Culture,

2455. *Leucarpus.* A word with the same meaning as Leangium; which see. L. vernicosus appears as if varnished over with vermilion. The plants grow in clusters upon bits of rotten wood, and are each formed of a pear-shaped stalked peridium, bursting at the end, and letting fall out a nucleus of sporules held together by fibres.

2456. *Lycogala.* From λυκος, a wolf, and γαλα, milk, a genus of fungi whose internal appearance and substance in an early state are like a mass of thick cream. It is included under Mucor by Linnæus, Schreber, and others. L. argenteum is found upon rotten wood in the autumn. It is about an inch or more in diameter, brown and pulpy when young, of a brilliant white when arrived at maturity, discharging, by one or more irregular accidental openings, a mass of rich dark snuff-colored powder.

2457. *Spumaria.* From *spuma*, froth. S. mucilago is spread in the autumn over the leaves and stems of living plants, or over dead branches, when it resembles in some measure stiffened foam or froth.

2458. *Dichosporium.* From διχα, double, and σπορα, a seed; in allusion, we presume, to the double coat of the peridium, the innermost of which is formed of granules like sporules. The only species known is found upon the bark of the oak.

2459. *Licea.* The meaning of this word is unexplained. The species have been referred to Trichia, Didy-

16537 Shortly stipitate obovate reddish-brown shining crowded, Stipes whitish

Division III. *Fuliginoidei.*

16538 Globular gregarious red changing to brown, Sporules orange-red at length purple-grey
16539 Large suboval very fragile silvery-white, Sporules profuse deep-brown, Filaments few

16540 Minute white roundish depressed rarely confluent fragile, Sporules black intermixed with a few filaments

16541 Effused frothy, Peridium furnished internally with horn-like grey processes inclosing brown sporules

Division IV. *Liceoidei.*

16542 The only species

16543 Gregarious sessile yellowish or chesnut-brown subglobose: the upper half of the peridium separating like a lid, Sporules rarely mixed with one or two filaments
16544 Peridia cylindrical very fragile densely crowded forming a roundish or hemispherical mass dull-red changing to pale-brown, Sporules brown in the form of minute abundant dust

Class IV. Mucoroidei.

16545 Byssus-like white becoming yellowish, Stipes erect or lax simple bearing a minute subglobose head

16546 Filaments branched whorled, Peridium elevated

16547 Stipes simple, Heads inflated spherical dark-grey bursting close to the stipes which is long and filiform

Class V. Perisporia.

16548 Gregarious punctiform yellow, Filaments whitish branched
16549 Tufted, Peridia gregar. greenish covered by the filam. which are elongat. simple profuse somew. erect in [centre

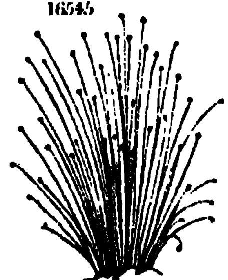
16550 Changes from yellow to grey

HYPHOMYCETES.

Class I. Cephalotrichi.

16552 Growing in small tufts, Filaments subconfluent simple or branched and fasciculated

16545



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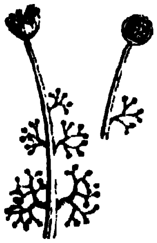

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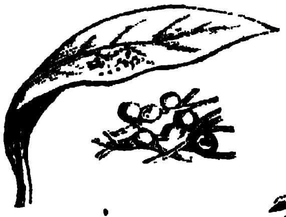

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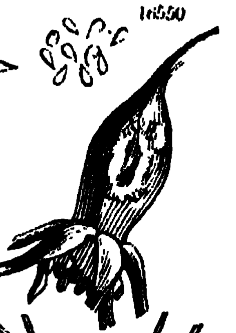

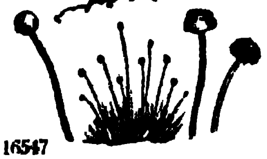

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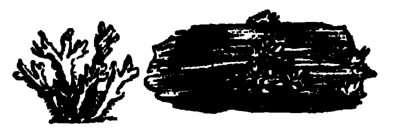

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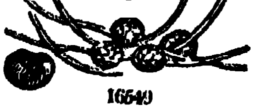


16549

and Miscellaneous Particulars.

mium, &c. by various writers. They are minute productions scarcely bigger than pins' heads, found chiefly on rotten wood of the fir kind.

2460. *Mucor.* An alteration of μυκης, the name of a small fungus. To this genus are referable the greater part of the substances which form the mould upon cheese and other materials.

2461. *Thamnidium.* From θαμνος, a rod or twig, in allusion to the appearance of the plants under the microscope. Minute plants, with a bushy branched stipes, and a head like that of Mucor.

2462. *Ascophora.* From ασκος, a term used by mycologists to denote a peculiar kind of receptacle of sporules, and φερω, to bear. These are pin-headed fungi, with the habit of Mucor, from which they chiefly differ in their peridium being turned inside out after bursting, and being somewhat persistent.

2463. *Eurotium.* Ευρως was the Greek name of a sort of mouldiness, and has been with a sufficient reason applied to this genus of plants.

2464. *Amphisporium.* From αμφι, double, and σπορα, a sporule These organs are of two forms, either roundish with three dots in the middle, or ovate acuminate, and quite pellucid.

2465. *Ceratium.* So named from κερας, a horn, on account of the cornute appearance of the plants under a microscope.

2466.	ISA'RIA. *Pers.*	ISARIA.			Sp 1—?.			
16552	microscópica *Grev.*	microscopic	very min.	0	spring	W	Trichia clavata	Grev crypt. fl. t. 3

Class II. STILBOIDEI.

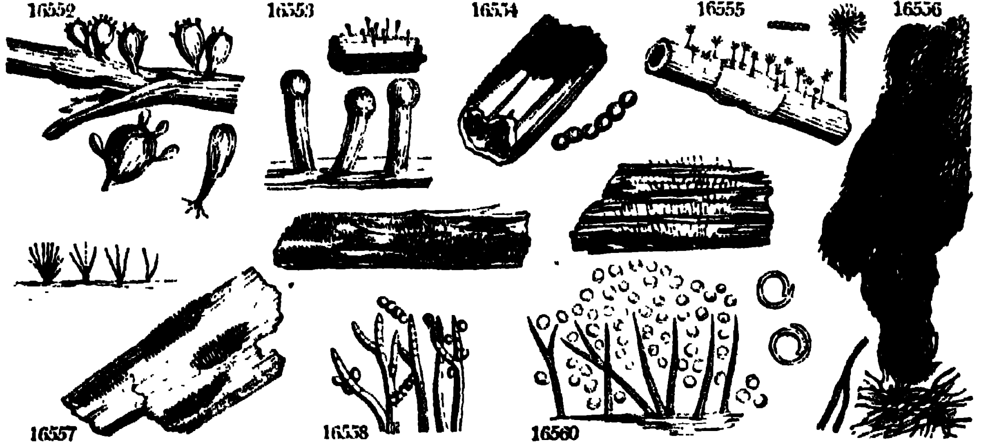
2467.	STIL'BUM. *Tode*	STILBUM.			Sp. 1—?.			
16553	vulgáre *Tode.*	common	very min.	0	aut.	Wsh	decayed stems	Tode fun. meckl. t. 2. f. 16

Class III. INOMYCETES. — Division I. *Byssacei.*

2468.	TO'RULA. *Link.*	TORULA.			Sp 1—?.			
16554	herbárum *Link*	herbaceous	fragile	0	aut.	Bl	dead stems	
2469.	MONI'LIA. *Pers.*	MONILIA.			Sp. 1—?.			
16555	aúrea *Pers.*	golden yell.	stalked	$\frac{1}{12}$	all sea.	Y	rotten wood	
2470.	RACO'DIUM. *Pers*	RACODIUM.			Sp 1—?.			
16556	celláre *Pers.* *Fibrillária vinária* Sowerb	wine-cellar	shaggy	3	all sea.	Sooty	cellars	Sower. t. 402
2471.	DEMA'TIUM *Pers*	DEMATIUM.			Sp 1—?.			
16557	articulátum *Pers.*	articulated	minute	0	aut.	Blsh	stems of herbs	Pers. disp. t. 4. f. 2
2472.	CLADOSPO'RIUM. *Link*	CLADOSPORIUM			Sp 2—?.			
16558	herbarum *Link*	herbaceous	very min.	0	su. aut	Ol. G	dead stems	Nees syst. t 5 f. 64
16559	velutinum *Grev.*	velvety	patches	0	spring	G. Bl	rotten wood	
2473.	HELICOSPO'RIUM. *Nees*	HELICOSPORIUM.			Sp 1			
16560	vegetum *Nees*	quickening	cloud-like	0	oct.	Gr	foot of trees	Nees syst. 66
2474	OZO'NIUM *Lk.*	OZONIUM			Sp 1—?			
16561	auricomum *Link*	yell.-headed	byssoid	3	aut.	Or	rotting wood	
2475	RHIZOMOR'PHA. *Roth*	RHIZOMORPHA			Sp 5—?			
16562	subcorticális *Pers.*	subcortical	net-like	72	all sea	Br	beneath bark	Sow. 392. f 1 & 2. *patens*
16563	divérgens *Grev.*	diverging	creeping	24	aut.	Bsh	beneath bark	Grev. crypt. 154
16564	farinácea *Grev*	mealy	much branc	36	all sea.	W	decayed trunks	
16565	subterranea *Pers*	subterrane.	filament	24	all sea	Bl	mines	
16566	medulláris *Sm.*	medullary	much branc.	144	all sea.	W	cellars	Linn. trans 12 t. 20

Division II. *Mucedines.*

2476	SEPEDO'NIUM. *Link.*	SEPEDONIUM			Sp 1—?			
16567	mycóphilum *Link*	yellow	cloudy	0	aut	Or	dying fungi	Grev crypt. 198
2477	ACREMO'NIUM. *Link*	ACREMONIUM			Sp. 1—?.			
16568	fúscum *Schmidt*	brown	patches	0	aut.	Ol G	dead sticks	Schm. mycol. 1. t. 2. f. 23
2478.	SPORO'TRICHUM *Link*	SPOROTRICHUM			Sp 6—?			
16569	macrospórum *Grev.*	large grained	blotches	0	spr. su	Hoa	apple leaves	
16570	minútum *Grev.*	minute	tufts	0	aut w.	W	dung	Wern. trans. 4. t. 5. f.
16571	sulphúreum *Grev*	sulph.-color.	tufts	0	all sea	Y	casks in cellars	Wern trans. 4 t 5 f.
16572	aurantíacum *Grev*	orange-col.	tufts	0	all sea	Or	damp cellars	Wern. trans. 4. t. 5. f.
16573	stercorárium *Link*	dung	tufts	0	all sea	Or	damp cellars	
16574	tenuis'simum *Grev*	thin	thin coat	0	aut.	W	dead bark	Wern. trans. 4. t. 5. f. 2



History, Use, Propagation, Culture.

2466. *Isaria.* From *ἴσος*, equal, on account, perhaps, of the equality which exists among the filaments of the plants both in size and length.

2467. *Stilbum.* From *στιλβὸς*, shining. The species are all found upon old rotten wood, and are at first watery or gelatinous, but become opake and turbid as they ripen.

2468. *Torula.* A diminutive of *thorus* or *torus*, a bed. This plant forms a thick compact bed or layer upon the plants on which it grows.

2469. *Monilia.* From *monile*, a necklace, with reference to the peculiar manner in which the filaments are articulated.

2470. *Racodium.* *Ῥακιον* was the name among the Greeks for a worthless worn-out ragged garment; and has been applied to the present genus, in allusion to the dirty interwoven cloth-like substance with which it clothes whatever it grows upon. R. cellare is the black substance which overruns the bottles of the wine merchant, and which often hangs in long thick festoons from the sides and roof of his cellars.

2471. *Dematium.* A diminutive of *δεμα*, a bundle or parcel. The filamentous thallus is often collected into bundles.

2472. *Cladosporium.* From *κλαδος*, a branch, because the sporules are attached to the branches of the fungi.

2473. *Helicosporium.* From *helix*, a spiral, in allusion to the manner in which the sporules are curved.

16552 Extremely minute scattered simple club-shaped very white, Filaments and sporidia indistinct

Class II. Stilboidei.

16553 Head roundish whitish semifluid becoming firmer and yellowish, Stipes rather thick cylindrical

Class III. Inomycetes. — Division I. *Byssacei.*

16554 Filaments densely crowded so as to form a black crust

16555 Tufted gold color

16556 Very soft lax much interwoven of a greenish black color, Filaments intermixed with irregular granules

16557 Minute blackish fascicled, Bristles diverging sometimes jointed

16558 Tufted extremely minute of an olive-green color becoming blackish and rigid in old age
16559 Very minute spreading on old wood in wide velvety patches greenish-black, Filaments simple or branched jointed somewhat thickened upwards

16560 The only species

16561 Very irregular rigid diverging: when young from a common centre; afterwards straggling, Filaments tawny orange-color compressed of various sizes

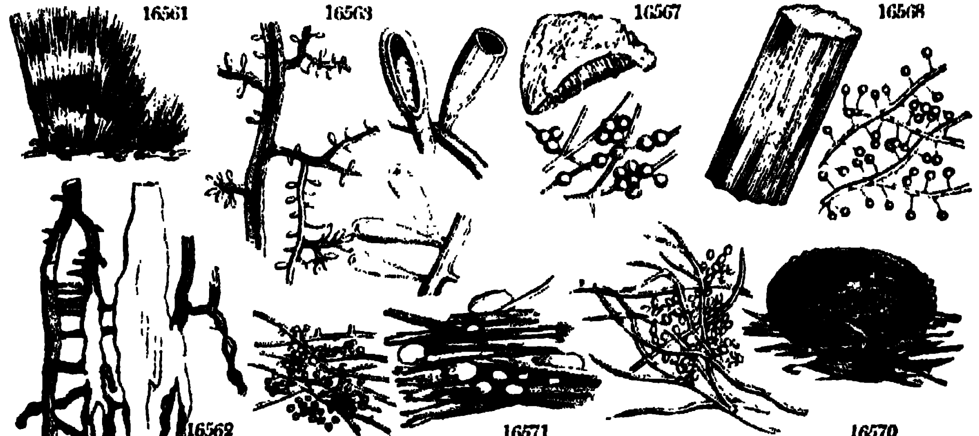
16562 Compressed brown or black shining anastomising often broad and very extensive [regularly patent
16563 Stem pale redd. cylind. subflex. never anastomis. Branches spread in all directions free, Fructific. clavate
16564 Stems covered with a mealy substance
16565 Long branched roundish somewhat separate black
16566 Round much branched snow-white, cellular and yellow inside

Division II *Mucedines.*

16567 Spreading widely within putrefying *Agarici* and *Boleti*, Filam. white, Spor. profuse bright orange-yellow

16568 Filaments spreading branched olive-brown, Pedicels of the sporules numerous alternate

16569 Forming a pulverulent hoariness interspersed with very minute tufts, Filaments few branched straggling, Sporules large obtusely oval
16570 Tufts roundish minute very white, Filaments loosely entangled, Sporules very numerous oval
16571 Tufts yellow irregular roundish, Filaments lax entangled, Sporules numerous subglobose
16572 Tufts of a reddish orange color, Filaments very slender much entangled, Sporules glob. extremely minute
16573 Differs from the last, chiefly in its paler color
16574 Very white forming a web, Filam. densely interwoven very fine, Sporules globular scattered very minute



and Miscellaneous Particulars.

2474. *Ozonium.* We presume, from ὀζος, a branch, in allusion to the manner in which the filaments branch or diverge from a common centre. This genus has been extracted from Dematium by Link

2475. *Rhizomorpha.* So called from its resemblance to the branching fibrous roots of various plants. All the productions referred to this genus are very obscure and uncertain. R. phosphorea, the Clavaria phosphorea of Sowerby, is a plant sometimes existing as a parasite between the wood and bark of trees, or in wine-cellars among saw-dust, and is, when fresh, remarkably luminous in the dark.

2476. *Sepedonium.* From σηπεδων, putrescence. The species grow among the decaying parts of fungi, and other putrid substances.

2477. *Acremonium.* From ακρεμων, a branch; the thecæ are produced about the filaments in fascicles, as branches are about trees.

2478. *Sporotrichum.* From σπορα, and θριξ, hair, in allusion to the filamentous nature of the sporules. A very destructive parasite in some seasons, and probably of general distribution, for it has been detected on a great variety of plants. To gardeners it is well known as a kind of mildew or blight, and is commonly taken for an insect. The leaves of the peach-trees, even when protected by glass, are often attacked by it, nor does the fruit itself always escape, in which case it frequently drops off. The leaves are more or less distorted by it. As its production is probably the result of a peculiar state of the atmosphere, there is little chance of any means being discovered for its prevention.

2479.	**TRICHOTHE'CIUM.** *Link.*	Trichothecium			*Sp* 1—?.			
16575	róseum *Link*	rose-colored	tufts	0	aut. w.	W	rotten wood	
2480.	**ACROSPO'RIUM.** *Nees.*	Acrosporium.			*Sp.* 2—?.			
16576	monilioides *Nees*	Monilia-like	spots	0	sp aut.	W	leaves of grasses	Grev. crypt. fl. t. 73
16577	fasciculátum *Grev.*	fascicled	patches	0	spring	Gl.	rotten oranges	
2481.	**BO'TRYTIS.** *Mich.*	Botrytis.			*Sp.* 4—?.			
16578	diffúsa *Alb.*	diffuse	broad tufts	½	aut.	W	rotten herbac.stems	Wern. trans. 4 t. 5. f. 7
16579	agaricina *Link*	Agaric	wool.coat	0	aut.	W	decaying fungi	
16580	effúsa *Grev.*	effused	spots	0	aut.	Pu.Gr	underside of live lvs.	
16581	parasítica *Pers.*	parasitic	lax	0	spr. su.	W	on shepherd's purse	Sower. t.339
2482.	**ASPERGIL'LUS.** *Mich.*	Mouldiness			*Sp.* 4—?.			
16582	glaúcus *Link*	blue	patches	0	all sea	B	rotten substances	Berl mag. 3. t. 1 f. 23
16583	láneus *Link.*	white	patches	τ½	aut.	Wsh	putrid fungi	
16584	virens *Link*	green	broadspots	τ½	aut	Gsh	putrid fungi	[barium
16585	penicillátus *Grev*	pencilled	spots	0	all sea	D.Gr	damp specimens in Her-	Grev.crypt.fl.t.32
2483.	**STACHYLI'DIUM.** *Link.*	Stachylidium			*Sp.* 1—?			
16586	cándidum *Grev.*	white	spreading	τ½	aut.	W	dead wood	Wern. trans. 4. t. 5. f. 6
2484.	**PENICIL'LIUM.** *Link.*	Penicillium			*Sp* 2—?			
16587	spársum *Grev.*	scattered	broad lines	τ½	aut.	W	rotten herbac.stems	Grev. crypt. fl. t. 58. f.2
16588	glaúcum *Link*	blue	tufts	τ½	all sea	Gl.	rotten substances	Grev. crypt. fl t. 58. f.1
2485	**TRICHODER'MA.** *Pers*	Trichoderma			*Sp.* 1—?.			
16589	viride *Pers.*	green	tufts	0	aut. w.	W	rotten wood	

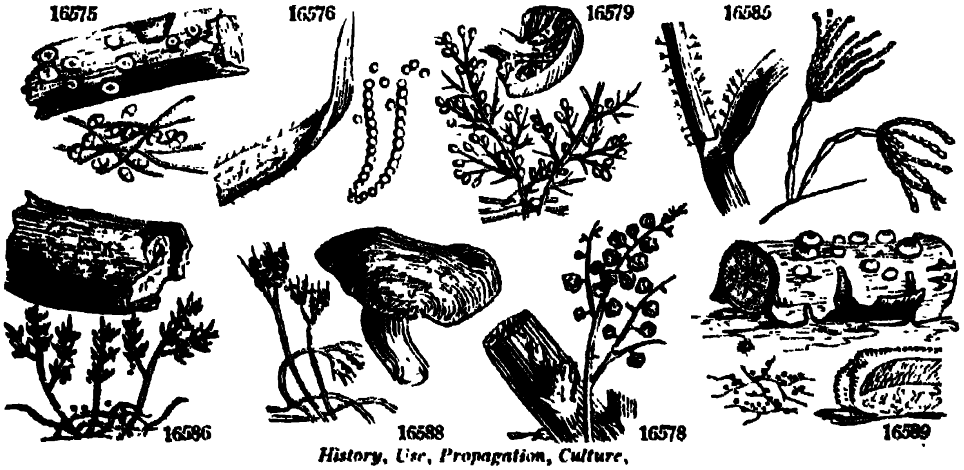
Class IV. Phylleriaceæ.

2486.	**RUBI'GO.** *Link.*	Rubigo.			*Sp.* 1—?.			
16590	al'nea *Pers.*	alder	spots	0	sum	D.Br	under alder leaves	Nees syst. 63
2487.	**ERI'NEUM.** *Pers.*	Erineum			*Sp* 9—?.			
16591	aúreum *Pers.*	golden	velvety spots	0	sum	Bt.Y	lvs Populus nigra	Edin phil.jour. 6 t.3.f 15
16592	griseum *Pers.*	grey	velvety spots	0	spr su	Dl Pu	under oak leaves	Ed.ph jo.6.t.3.f.17 *minu*
16593	acerinum *Pers.*	Sycomore	depress tufts	0	sp aut.	R.Br	un sycomore lvs	Edin.phil jou.6.t 2 f 1&6
16594	pyrinum *Pers.*	Pear	depress tufts	0	aut	R.Br	on crab-tree lvs	Grev crypt fl t 22
16595	tortuósum *Kunze*	tortuous	depress tufts	0	spr su	Wsh	on birch leaves	Grev. crypt. fl. t 94
16596	Juglándis *Dec.*	Walnut	depress tufts	0	sum	Pale	under walnut lvs	Ed ph. jo 6 t 2. f 4 *subul*
16597	clandestinum *Kunz.*	concealed	depress.tufts	0	sum	W Pk	und hawthorn lvs.	Edin phil jour. 6.t.2 f 8
16598	róseum *Kunze*	rose-colored	depress tufts	0	sum	Crim	on birch lvs.	Grev. crypt. fl t. 21
16599	betulinum *Rebent*	Birch	depress tufts	0	spr su	Wsh	on birch lvs	Edin.phil. Jour.6 t.3.f.16

CONIOMYCETES.

Class I Tuberculariæ.

2488.	**TUBERCULA'RIA.** *Tode.*	Tubercularia.			*Sp* 3—?.			
16600	vulgáris *Pers.* *Clavária coccinea* Sowerb.	common	gregario.	τ½	all sea.	Dp.R	decayed sticks	Sower. t. 294
16601	cónfluens *Pers.*	confluent	gregario.	0	aut. sp	F.R	dead sycomore branches	
16602	granuláta *Pers.*	rough	scattered	τ½	aut	Br	dead branches	Grev. crypt. 187



History, Use, Propagation, Culture,

2479. *Trichothecium.* The thecæ are intermixed among a mass of hair-like filaments; whence the name.

2480. *Acrosporium.* From ακρος, the top of any thing, and σπορα, a sporule; the latter occupying the summit of the simple filaments.

2481. *Botrytis.* So called from βοτρυς, a bunch of grapes, in allusion to the clusters of little globular seeds or seed vessels.

2482. *Aspergillus.* This is the name of the brush with which the holy-water is scattered in Catholic ceremonies. The little plant, consisting of a stem and a cluster of sporules at the top, is not unlike a little brush with its handle.

2483. *Stachylidium.* From σταχυς, a spike, and ειδος, similar. The sporules are dispersed in a sort of spiked manner on the filaments.

16575 Tufted, Tufts distinct at length sometimes confluent, Filam. white, Sporules pink very numerous oval

16576 Filaments simple forming white spots of one or two lines in length on the living leaves of grasses
16577 Filam. branched somew. fasciculated erect in spreading tufts white at first at length a fine glauc. color

16578 Very lax tuft. white branch. Branch. few long spread. set with short patent ramuli bear. round clust. of spor.
16579 Tufted confluent white, Filaments one line high, Branches divaricate, Sporules numerous ovate large
16580 Pale purpl.-grey spread. Filam. branch. towards summ t, Branch. divaric. short, Spor. large oval numerous
16581 Somewhat tufted lax white not much branched, Sporules roundish

16582 Tuft. min. formed of white erect filaments with little heads at first white but when mature of a glauc. color
16583 In dense tufts composed of whitish or yellowish suberect entangled filaments with yellowish heads
16584 Tufts rather dense, Filaments entangled suberect heads as well as the filaments greenish
16585 Filaments scattered gregarious about a line high supporting an elongated tuft of beaded sporidia

16586 Filaments branched erect remotely jointed scattered white, Sporules globular

16587 Barren filaments effused interwoven : fertile ones simple somewhat scattered, Heads of sporules white
16588 Densely tufted spreading, Heads of sporules at length glaucous

16589 Tufted, Tufts roundish composed of snow-white interwoven filaments, Sporules profuse green at length giving the whole a green-color

Class IV. Phylleriaceæ.

16590 Irregularly tufted or effused and confluent whitish at length reddish-brown, Peridia shortly branched, Branches thick bearing several round or ovate lobes

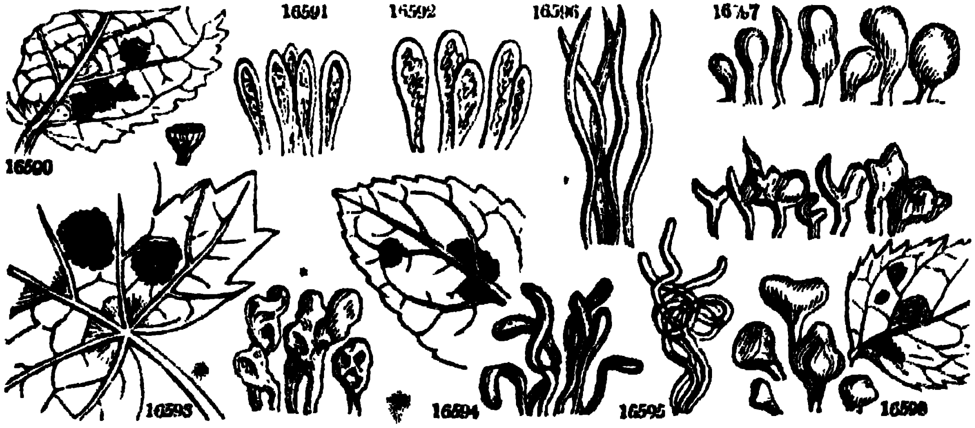
16591 On the surface of the leaf bright gold-color effused sometimes spreading over the whole leaf, Peridia simple crowded club-shaped, Sporules evident excessively minute yellow
16592 Hypophyllous, so minute as scarcely to be raised above the surface of the leaf pale obscure purple widely effused, Peridia simple obtusely club-shaped
16593 On the under surface of the leaf depressed distinct or confluent pale becoming reddish-brown, Peridia club-shaped very rarely turbinate flaccid, the upper half often inclined
16594 Mostly on the under surface of the leaf scattered subeffused rich reddish-brown, Peridia compressed lin. somewhat lax with the apex club-shaped and often truncate
16595 Mostly on the under surface irregularly tufted whitish becoming ferruginous, Peridia linear cylindrical twisted with rounded summits
16596 Hypophyll silky or toment. pale or quadrangular, Peridia erect cylindric long and attenuated to a point
16597 On the under surface whitish-pink becoming subferruginous rarely in the form of spots or tufts but confluent at the margin of the leaf which is rolled inwards and conceals it, Peridia short
16598 Mostly on the upper surface unequally scattered confluent fine crimson, Peridia polymorphous turbinate club-shaped or capitate, the summit frequently truncate
16599 Mostly on the under surface whitish at length dark ferruginous often confluent, Peridia short polymorphous sometimes turbinate but generally with two blunt horn-like patent summits

CONIOMYCETES.

Class I. Tuberculariæ.

16600 Gregarious deep-red rugose furnished with a very short thick pale stipes

16601 Gregarious confluent depressed flesh-red small somewhat plane
16602 Somewhat round somewhat shortly stipitate dull-red at length black, Surface tuberculate wrinkled



and Miscellaneous Particulars.

2484. *Penicillium.* A name with the same meaning as Aspergillus, to which genus this is extremely similar in appearance.

2485. *Trichoderma.* From θριξ τριχος, hair, and δερμα, a coat. The threads to which the sporules are attached spread round, radiating through the powdery mass in little tufts from a subjacent membrane.

2486. *Rubigo.* An ancient Latin name of blight. There was a inferior deity whom the Romans acknowledged under the name of Rubigus, and whom they propitiated in bad seasons. All the productions referred hither are popularly called mildew or blight.

2487. *Erineum.* So named in reference to its hispid appearance, which resembles the common hedge-hog, Erinaceus. Found growing upon leaves in little tufts.

2488. *Tubercularia.* So named in allusion to its warted appearance.

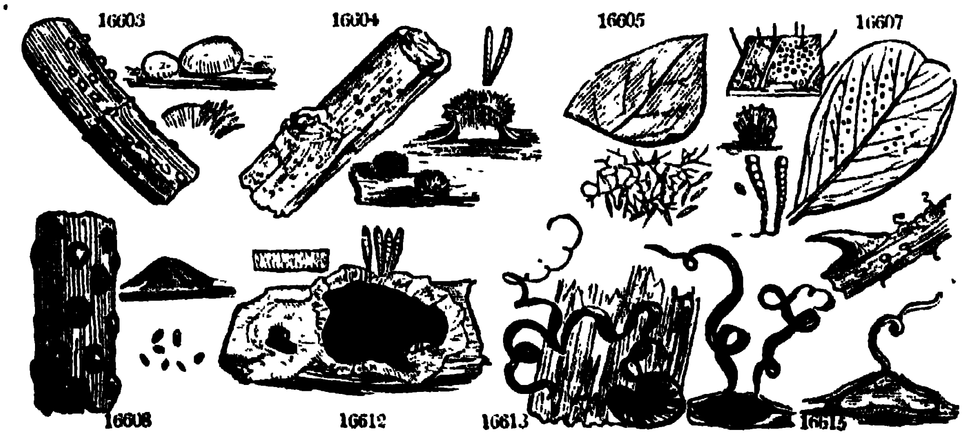
2489.	**FUSA'RIUM.** *Link.*	Fusarium.				*Sp.* 1—?.		
16603	**tremelloides** *Grev.*	gelatinous	very small	0	spring	Pksh	dead nettle stems	Grev. cryp. fl. t. 10
2490.	**EXOSPO'RIUM.** *Link.*	Exosporium.				*Sp.* 1—?.		
16604	**Tiliæ** *Link*	Linden	punctif.	0	sept.	Bl	linden branches	Grev. crypt. 208

Class II. Entophytæ. — Division I. *Stilbosporei.*

2491.	**FUSI'DIUM.** *Link.*	Fusidium.				*Sp.* 2—?.		
16605	**griseum** *Grev.*	grey	effus spo.	0	aut.	Wsh	dead beech leaves	Grev. crypt. fl. t. 102
16606	**flavo-virens** *Dittm*	yellow-green	effus. spo.	0	aut.	Ysh	dead beech leaves	Grev. crypt. fl. t. 102
2492.	**POLYTHRIN'CIUM.** *Kunze.*	Polythrincium.				*Sp.* 1.		
16607	**Trifólii** *Kunze*	Trefoil	punctif.	0	aut.	Bl	clover leaves	Grev. crypt. 216
2493.	**STILBOSPO'RA.** *Hoffm.*	Stilbospora.				*Sp.* 4—?.		
16608	**profúsa** *Grev.*	profuse	spots	0	spring	Br	sycamore branches	Grev. crypt. 212
16609	**microspérma** *Pers.*	small grain.	emerging	0	all sea.	Bl	dead beech bran.	
16610	**ováta** *Pers.*	ovate	dots	0	aut.	Br	dead branches	Grev. crypt. 212
16611	**biloculáta** *Grev.*	two-celled	emerging	0	all sea.	Bl	dead furze branch.	
2494.	**SPORIDER'MIUM.** *Link.*	Sporidermium.				*Sp.* 1—?.		
16612	**átrum** *Link.*	dark	parasitic	0	aut.	Bl	on species of Thelephora	Grev. crypt. 194
2495	**NÆMASPO'RA.** *Pers.*	Næmaspora.				*Sp.* 3—?.		
16613	**Carpini** *Sowerb*	Hornbeam	irregular	0	all sea.	Bl	dead hornbeam	Sower. t. 376
16614	**filamentósa** *Grev.*	filamentous	tortuous	0	all sea.	Gr.Bl	dead branches	
16615	**Rosárum** *Grev.*	Rose	slightly prom.	0	all sea.	Bl	dead rose branches	Grev. crypt. fl. t. 20

Division II. *Hypodermia.*

2496.	**CYLINDROSPO'RIUM.** *Grev.*	Cylindrosporium.				*Sp.* 1—?.		
16616	**concéntricum** *Grev.*	concent.	speck-lik. hea.	0	my jn.	W	cabbage leaves	Grev. crypt. fl. t. 27
2497.	**URE'DO.** *Pers.*	Uredo				*Sp.* 45—?.		
16617	**Geránii** *Dec.*	Geranium	scattered	0	sum.	D Br	on Geranium lvs.	Grev. crypt. fl. t. 8
16618	**Ficáriæ** *Alb.*	Pile-wort	pulverul.	0	su aut.	D Br	under Ficaria lvs.	
16619	**suavéolens** *Pers.*	odoriferous	fragrant	0	spr. su.	Pu.Br	Cnicus arvensis lvs.	
16620	**Polygonórum** *Dec.*	Polygonum	spreading	0	su.aut.	Pa.Br	under Polygonum lvs.	Grev. crypt. fl. t. 80
16621	**Primulæ** *Dec.*	Primrose	scattered	0	sum.	Pa.Br	under primrose lvs.	
16622	**Cichoraceárum** *Dec.*	Syngenesious	spots	0	su aut	D.Br	on Compositæ lvs.	
16623	**Herácleí** *Grev.*	Cow-Parsnep	patches	0	sum.	Pa.Br	under Sphondylium lvs.	
16624	**bifrons** *Grev.*	two-sided	spots	0	aut.	Pa.Br	both sides of sorrel leaves	
16625	**Rúmicum** *Dec.*	Dock	small	0	aut.	Br	on Rumex leaves	
16626	**Fábæ** *Pers.*	Bean	patches	0	aut	Pa.Br	on bean leaves	Grev. crypt. fl. t. 95
16627	**Labiatárum** *Dec.*	Mint	pustular	0	aut.	Y.Br	on mint leaves	
16628	**intrúsa** *Grev*	depressed	scattered	0	aut.	R.Br	on Alchimella lvs.	
16629	**oblongáta** *Li.*	oblong	pustular	0	sum	R.Br	on Luzula leaves	Grev. crypt fl. t. 12



History, Use, Propagation, Culture.

2489. *Fusarium.* The sporules are remarkable for their regular *fusiform* figure.

2490. *Exosporium.* So called by Link, from ἐξ, on the outside, and σπορος, a sporule; on account of their external situation. Entire plant about one-third of a line in diameter, rarely larger, very gregarious, deep black, convex, bursting from beneath the epidermis, and appearing bristly under a pocket magnifier. Sporidia very crowded, elongated, obtuse at the apex, subopake, divided transversely about five times, fixed at the base upon a roundish dark-colored, solid receptacle, and there persistent.

2491. *Fusidium.* A name with the same meaning as Fusarium.

2492. *Polythrincium.* From πολυς, many, and θριγκος, a little division. To the naked eye, this little plant appears in the form of numerous minute black spots of unequal size. Under the microscope, these spots are each found to consist of a number of distinct little roundish tufts of filaments, nearly equidistant from one another, and becoming smaller towards the circumference. The filaments are densely crowded, semitransparent, gradually thickening upwards, somewhat moniliform from the numerous articulations, erect, simple; the sporidia oval, two-celled, scattered among the filaments.

2493. *Stilbospora.* From στιλβω, to shine, and σπορος, a sporule. Asci or sporules naked, imbedded in a black substance flowing from the branches of trees.

16603 Minute roundish or oval subgelatinous, Sporules long slender slightly curved

16604 Gregarious black minute convex, Sporidia elongated obtuse about 5 times transversely divided

Class II. Entophytæ. — Division I. *Stilbospori.*

16605 Mass thin irregular of a whitish or grey color
16606 Mass irregular thin bright-yellow or greenish

16607 The only species

16608 Heaps rather large, Sporidia extremely minute nearly equally 2-celled
16609 Black granulated irregularly ovate at length shapeless, Sporules ovate attenuated at each extremity
16610 Heaps small, Sporidia ovate unilocular
16611 Heaps roundish bursting through the bark, Sporules ovate obtuse 2-celled

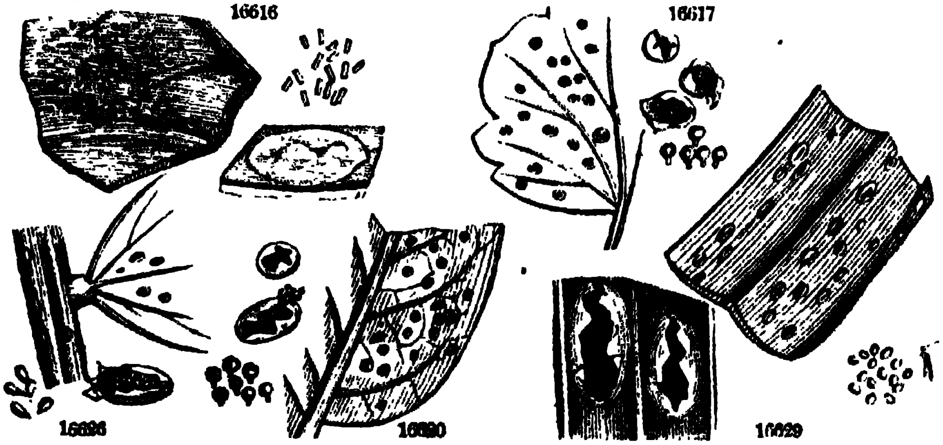
16612 Black very crowded, Filaments linear-oblong 4 or 5 times divided

16613 Spherules depressed black immersed, Sporules large ovate escaping in the form of thick black tendrils
16614 Spherules very small grey black, Sporules excessively minute dust-like under a high magnifying power escaping in the form of long capillary entangled dull-orange tendrils
16615 Spherules waved when divided horizontally elevating the epidermis, Orifice blackish with a cottony margin, Sporules very minute forming a single short slightly tortuous whitish tendrils

Division II. *Hypoderma*

16616 The only species

16617 Hypophyllous scattered dark fuscous round very pulverulent sometimes confluent, Sporidia globose
16618 Aggregated deep-brown chiefly hypophyllous confluent, Sporidia oval sometimes with a very min stipes
16619 Hypophyllous scattered becoming confluent reddish or purplish-brown, Sporidia globose greenish under a high power of the microscope
16620 Hypophyllous circular scattered rarely disposed in a circle round a pale-brown centre, Sporidia globular
16621 Hypophyllous scattered single or disposed in a circle round a central one light-brown, Sporidia globular subovoid and rarely furnished with a minute pedicel
16622 On both sides of leaf dark fuscous minute round scattered, Sporidia globular rarely with a minute pedicel
16623 Hypophyllous scattered sometimes subconfluent roundish light-brown girt by the remains of epidermis, Sporidia oviform sometimes furnished with a very short blunt pedicel
16624 On both surfaces of the leaf and opposite to each other scattered round light-brown girt with the remains of the epidermis, Sporidia globose
16625 On both surfaces of the leaf brown round minute often not bursting : the epidermis rarely disposed in a circle, Sporidia ovoid sometimes with minute pedicels
16626 Scattered round depressed light-brown girt with the remains of the epidermis, Sporidia rounded or suboval rarely with minute pedicels
16627 Hypophyllous pale yellowish-brown sometimes disposed in a circle round : a central one minute rarely confluent, Sporidia roundish or egg-shaped and rather hyaline
16628 Hypophyllous scattered or partially aggregated reddish-brown rounded somewhat prominent minute very unequal, Sporidia roundish or oval rarely pedicelled
16629 On both sides of the leaf scattered distinct oblong reddish-brown girt by the ruptured epidermis, Sporidia subglobose rarely subpedicelled



and Miscellaneous Particulars.

2494. *Sporidermium.* From σπορος, a sporule, and δερμα, a skin, or coat. A plant of a very simple structure, composed entirely of linear-oblong or club-shaped semi-opake bodies, closely arranged side by side, exactly of the same height, and transversely divided by three or four dissepiments. When viewed with the naked eye, it resembles an intensely black thin crust, creeping over the surface of Thelephora. Specimens from Captain Carmichael, as well as those found by Dr. Greville, occurred on Thelephora vulgaris

2495. *Nemaspora.* From νημα, a thread, and σπορα, a sporule. The species resemble distorted threads filled with minute sporules.

2496. *Cylindrosporium.* In allusion to the cylindrical form of the sporules. Found on both surfaces of living cabbage leaves (Brassica oleracea). Frequent in May and June. A very extraordinary plant, forming minute speck-like heaps of an oblong shape, but otherwise very irregular, and projecting into little angles and processes. They are disposed in a concentric manner, are pure white, and change in decay to a dirty yellow. Sporules naked, very numerous, cylindrical, truncate at each extremity, pellucid.

2497. *Uredo.* An old Latin name, from *uro*, to burn or scorch, applied to those occasional discolorations of the surfaces of plants which were attributed to blasts or injuries of the atmosphere or heavenly bodies, and are

16630	Sálicis *Dec.*	Willow	mottled	0	aut.	Y	under Salix pentandra lvs.
16631	Vitellinæ *Dec.*	Golden Osier	pimpled	0	my.aut	Y	under Sal. vitellina lvs.
16632	farinósa *Pers.*	powdery	mealy	0	aut.	Pa.Y	under Sal. Caprea lvs.
16633	Tussiláginis *Pers.*	Colt's-foot	gyrose	0	sum.	Or	under coltsfoot lvs.
16634	Seneciónis *Dec.*	Ragwort	blotches	0	sum.	Or	under Senecio lvs.
16635	cónfluens *Pers.*	confluent	gyrose	0	sum.	Y	on Mercurialis lvs.
16636	Potentillæ *Dec.*	Cinquefoil	powdery	0	sum.	Gol.Y	on Fragaria sterilis lvs.
16637	Rósæ *Pers.*	Rose	mottled	0	sum.	Or	under rose lvs.
16638	Rubórum *Dec.*	Bramble	very powd.	0	sum.	Gol.Y	under bramble lvs.
16639	effúsa *Grev.*	effused	spreading	0	sum.	R.Or	under Rosaceæ lvs. Grev. crypt. fl. t. 19
16640	gyrósa *Rebent*	concentric	gyrose	0	spr. su.	Y	on raspberry lvs.
16641	Alchemillæ *Pers.*	Lady's Mantle	spreading	0	my. jn.	Or	under Alchemilla lvs.
16642	Rhinanthaceárum *Dec.*	bt-yellow	spots	0	su. aut.	R.Y	Scrophularineæ
16643	Lini *Dec.*	Flax	shining	0	sum.	Or.Y	Linum carthartium Grev. crypt. fl. t. 31
16644	Saxifragárum *Dec.*	Saxifrage	brilliant	0	sum.	Or	Saxifrage
16645	Campánulæ *Pers.*	Campanula	bright	0	sum.	Or	under Campanula lvs.
16646	Py'rolæ *Grev.*	Winter Green	minute	0	sum.	Gold.	under Pyrola lvs
16647	Helioscópiæ *Dec.*	Euphorbia	round	0	aut.	Gold.	under Euphorbia lvs.
16648	lineáris *Pers.*	linear	very com.	0	sp. aut.	Y	on grass leaves
16649	æcidiifórmis *Grev.*	Æcidium-like	pustular	0	spring	Y	on Sphondylium lvs.
16650	Cerástii *Grev.*	Cerastium	punctif.	0	sum.	Gold.	on Cerast. viscosum lvs.
16651	pustuláta *Pers.*	pimpled	punctif.	0	spring	Y	on Epilobium palustre lvs.
16652	Sónchi *Pers.*	Sow Thistle	spreading	0	sum.	R.Or	under Sonch. olerac. lvs.
16653	Petasites *Dec.*	Petasites	gyrose	0	aut.	Or	under Petasites lvs.
16654	Populina *Pers.*	Poplar	beautiful	0	aut.	Gold.	under Populus nigra lvs. Ann. wett. 2. t. 11. f. 5
16655	ováta *Strauss*	Aspen	spots	0	aut.	Tawn.	on Populus tremula lvs. Ann. wett. 2 t. 11 f. 6
16656	cándida *Pers.*	white	spreading	0	aut.	W	Cruciferæ Sower. t. 340. *Thlaspi*
16657	ségetum *Pers.*	Smut Brand	spreading	0	sum.	Bl	within grains of corn
16658	urceolórum *Dec.*	sedge	spreading	0	sum.	Bl	on fructif. of Carex
16659	cáries *Dec.*	cankering	destroying	0	aut.	Bl.Br	within grains of wheat Deutschl. fl. t. 34
16660	antherárum *Dec.*	Anther	spreading	0	sum.	Pu	on Caryophylleæ
16661	flosculósum *Dec.*	Floret	spreading	0	sum.	Pu.Br	on Scabiosa arvensis Sow. t. 396. f. 2. *Scabiosæ*

2498. ÆCI'DIUM. *Pers.* Æcidium. *Sp* 21—7.

16662	Pini *Pers.*	Pine	scattered	ħ	sum.	Pa.Or	on Pinus sylvestris Grev. crypt. fl. t. 7
16663	Epilóbii *Dec.*	Epilobium	beautiful	0	sum.	W	on Epilobium montanum lvs.
16664	Violárum *Dec.*	Violet	crowded	0	sum.	Wsh	under Viola canina lvs.
16665	albéscens *Grev.*	whitish	beautiful	0	april	W	Adoxa moschatellina
16666	Taráxaci *Grev.*	Dandelion	spreading	0	sum.	W	under Leontodon Taraxacum lvs.
16667	Periclýmeni *Dec.*	Woodbine	large spot	0	sum.	Ysh	under woodbine lvs.
16668	Búnii *Dec.*	Ground Nut	deformed	0	spring	Ysh	on Bunium lvs.

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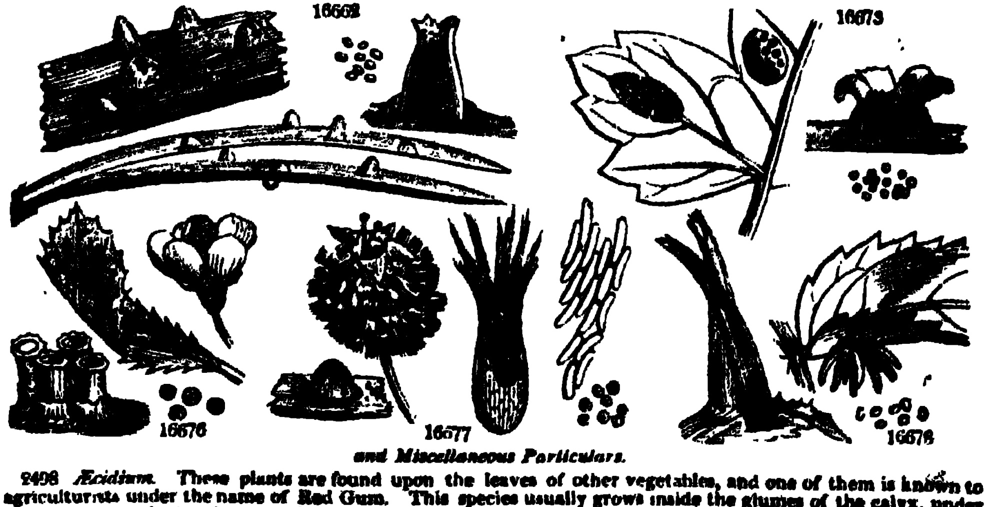
History, Use, Propagation, Culture,

called mildew or blight. All the species are obscure and require further examination. They are in the hands of Bauer, whose knowledge and pictorial powers cannot be better employed than in illustrating this obscure part of vegetation.

16630 Hypophyl. scatter. very min. rounded becom. contigu. but not confluent, Sporidia pyriform subpedicellate
16631 Hypophyl. very min. convex orbicular scattered becom. confluent, Sporidia very min. globul. transparent
16632 Hypophyl. pale ochrey-yell. distinct at first soon bursting becom. conflu. and very pulverul. Sporidia oval
16633 Hypophyllous bright orange-yellow prominent crowded generally forming circles and becoming very confluent, Sporidia very numerous obovate
16634 Hypophyllous orange-yellow oblong irregular becoming confluent, Sporidia numerous
16635 Hypophyllous depressed yellow oblong concentric becoming confluent, Sporidia nearly oval
16636 Chiefly hypophyllous golden-yellow scattered irregular convex becoming confluent, Sporidia subspherical
16637 Hypophyllous small scattered effused orange-yellow, Sporidia suboval sometimes with a minute pedicel
16638 Hypophyllous golden-yellow suborbicular becoming effused, Sporidia very numerous irregularly spherical
16639 Bright reddish-orange broad pulverulent hypophyl. and on nerves and petioles, Sporidia numer. subglob.
16640 Epiphyllous much scattered rather large yellow thick elevated from the leaf and bursting in a gyrose manner, Sporidia subglobose
16641 Hypophyl. lin. obl. crowded arranged in a subparallel manner orange-yell. becom. pale, Sporidia spherical
16642 Hypophyllous and on the petioles and calyx oblong thickish sometimes partly disposed in a circular manner and subconfluent deep reddish-yellow, Sporidia spherical
16643 On both sides of the leaf and stem suborbicular prominent bright orange-yellow scattered, Sporidia oval or even oblong transparent
16644 Hypophyllous and on the calyces rather large oval with an indurated disk after the sporidia have escaped, Sporidia bright orange spherical and granular within
16645 Hypophyllous scattered round depressed rarely confluent, Sporidia yellowish-orange spherical surrounded by the remains of the ruptured epidermis
16646 Hypophyllous punctiform scattered or collected into small clusters golden-yellow scarcely bursting, Sporidia ovate or oblong somewhat transparent and granular within
16647 Hypophyll golden-yell. scatter. distin surround. by remains of ruptur. epidermis, Sporidia subglob. minute
16648 On both sides of the leaf oblong or lin. sometimes forming long lines yellow becoming reddish or brownish in decay, Sporidia globular or suboval
16649 Hypophyllous and on the petioles somewhat aggregated but generally following the course of the veins, bullated yellow bursting in the centre
16650 Chiefly hypophyllous very minute regular numerous convex late in bursting golden-yellow, Sporidia roundish oval or even oblong
16651 Chiefly hypophyllous very minute pale-yellow subrotund convex scattered or collected into clusters scarcely bursting, Sporidia suboval
16652 Hypophyll depressed regular in form redd. orange scattered becoming partially conflu. Sporidia egg-shaped
16653 Hypophyllous depressed minute spreading somewhat aggregated subconfluent irregular in form of a deep orange or orange-red, Sporidia oval
16654 Hypophyllous scattered or crowded distinct convex roundish large compared with the following mostly closed pale becoming golden-yellow, Sporidia very long obtuse at each extremity
16655 Hypophyllous punctiform prominent or papilliform numerous tawny yellow mostly closed, Sporidia ovate
16656 Polymorphous of various forms sometimes disposed in a circular manner quite white frequently never bursting, Sporidia in great profusion globular
16657 Within the fruit and glumes of corn and various grasses spreading and in a short time filling the whole with a profuse black dust, which under the microscope consists of minute spherical sporules
16658 Attacking the fructification of Carices and forming a black compact slightly pulverulent mass composed of a pale solid nucleus surrounded by the naked sporidia which are small and globular
16659 Always inclosed within the grain and filling it with uniform dense fetid blackish-brown mass composed of very minute spherical sporidia
16660 Attack. anth. and ovary of the *Caryophylleæ*, fine purp. Spori. very plentiful pulverul. min. and globul.
16661 Sporidia very min. purpl.-brown plentiful produc. within florets and often filling them with pulverul. mass

16662 Large oblong or conical much scattered pale-orange bursting with an irregular orifice, Sporidia excessively abundant bright-orange
16663 Hypophyllous numerous distinct, Sporidia very white toothed, Teeth beautifully rolled back brittle and vanishing, Sporidia pinkish-orange
16664 Hypophyllous and on the petioles scattered or subaggregated numerous, Peridia whitish split into many small deciduous teeth, Sporidia orange becoming obscure brown
16665 Hypophyllous and on the petioles scattered distinct, Peridia very white split into a few comparatively large teeth, Sporidia yellowish-white, Surface of the leaf blistered whitish
16666 Hypophyllous very numerous subsessile scattered or collected into little clusters, Peridia white split into subrevolute teeth, Sporidia fine orange
16667 Hypophyllous, Peridia distinct but decidedly clustered and crowded prominent becoming subelongated; the mouth with a few broad very delicate deciduous teeth, Sporidia fine orange
16668 Hypophyllous and on the petioles irregularly clustered and deforming the parts on which it grows, Peridia somewhat indistinct round prominent and yellowish with a subentire orifice



and Miscellaneous Particulars.

2498 *Æcidium.* These plants are found upon the leaves of other vegetables, and one of them is known to agriculturists under the name of Red Gum. This species usually grows inside the glumes of the calyx, under the epidermis, which, when the plant is ripe, bursts and emits a powder of a bright orange color. It does not

16669 Jacobæ'æ *Grev.*	Ragwort	agglomerat.	0	sum.	Ysh	under Sen. Jacobæa lvs.	
16670 Prenánthis *Pers.*	Prenanthes	spots	0	sum.	W	under Hierac. sylvat. lvs.	
16671 Urticæ *Dec.*	Nettle	clusters	0	sum.	Ysh	on Urtica dioica	
16672 confértum *Dec.*	dense	clusters	0	sum.	Wsh	on Ficaria	
16673 Grossuláriæ *Dec.*	Gooseberry	bright sp.	0	sum.	R	under gooseberry lvs.	Grev. crypt. fl. t. 62
16674 Ranunculaceárum *Dec.*	Crowfoot	clusters	0	sum.	Wsh	under Ranunc. lingua lvs.	
16675 Cal'thæ *Grev.*	Caltha	bright	0	spring	Or	under Caltha palustris lvs.	
16676 Berbéridis *Pers.*	Berberry blight	spreading	0	sum.	Or	on Berb. vulgaris	Grev. crypt. fl. t. 97
16677 lacerátum *Dec.*	ragged	swollen	0	sum.	Br	on hawthorn	Grev. crypt. 209
16678 cornútum *Pers.*	cornute	spots	½	sum.	Y.Br	on mountain-ash	Grev. crypt. 180
16679 Tussiláginis *Pers.*	Coltsfoot	concentrical	0	sum.	Psh	under Farfara lvs.	Sower. t. 397. f.
16680 rubéllum *Dec.*	pink	concentrical	0	sum.	Crim.	under Rumex lvs.	Sow. t. 405. *Rumicis*
16681 Al'lii *Pers.*	Allium	concentrical	0	sum.	Y	under All. ursinum lvs.	
16682 Thalictri *Grev.*	Thalictrum	clustered	0	sum.	Or	Thalictrum alpinum	Grev. crypt. 4
2499. PUCCI'NIA. *Mich.*	PUCCINIA.				*Sp.* 30—?.		
16683 Rósæ *Grev.*	Rose	many-cell.	0	aut.	Bl	under rose leaves	Grev. crypt. fl. t. 15
16684 Rúbi *Dec.*	Bramble	many-cell	0	aut.	Bl	under bramble lvs.	
16685 grácilis *Grev.*	slender	many-cell.	0	aut.	Bl	under raspberry lvs.	
16686 Potentillæ *Pers.*	Potentilla	many-cell.	0	aut.	Bl	under Potentilla lvs.	Grev. crypt. fl. t. 57
16687 Aspáragi *Dec.*	Asparagus	two-celled	0	aut.	Bl	dead asparagus	
16688 Circæ'æ *Pers.*	Circæa	two-celled	0	aut.	Pk.Br	under Circæa lvs.	
16689 Chrysosplénii *Grev.*	Chrysosplen.	two-celled	0	may	Pa Br	under Chrys. opp. lvs.	
16690 Aviculáriæ *Dec.*	knot grass	two-celled	0	aut.	Bl	under Polygonum lvs.	
16691 Ægopódii *Strauss*	Ægopodium	two-celled	0	aut.	B Gr	on Ægopodium lvs.	
16692 túmida *Grev.*	tumid	two-celled	0	june	Br.Gr	on Bunium Bulbocastanum	
16693 Men'thæ *Pers*	Mint	two-celled	0	spring	Bl	under Mentha lvs.	
16694 Polýgoni *Pers.*	Polygonum	two-celled	0	aut.	R.Br	under Polyg. amphib. lvs	
16695 Centauréæ *Dec.*	Centaury	two-celled	0	aut.	Bl	on Centaurea nigra	
16696 Umbelliferárum *Dec.*	Umbellifer.	two-celled	0	aut.	Vc.D	on Umbelliferæ lvs.	
16697 Saniculæ *Grev.*	Sanicle	two-celled	0	aut.	Bl.Br	under Sanicula lvs.	
16698 variábilis *Grev.*	variable	two-celled	0	aut.	Blsh	on Leont. Taraxacum	Grev. crypt. fl. t. 75
16699 Heráclei *Grev.*	Cow Parsnip	two-celled	0	sum.	Blsh	under Sphondylium lvs.	Grev. crypt. fl. t. 42
16700 Epilóbii *Dec.*	Epilobium	two-celled	0	june	Br	under Epilobium palustre lvs.	
16701 Betónicæ *Dec.*	Betony	two-celled	0	aut.	Ferr.	under Beton. offic. lvs.	
16702 pulverulénta *Grev.*	powdery	two-celled	0	sum.	D.Br	under Epilobium lvs.	
16703 Adóxæ *Dec.*	Moschatel	two-celled	0	sum.	D.Br	on Adoxa Moschatellina	

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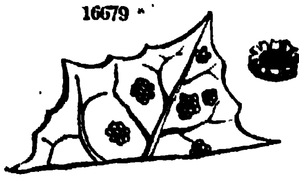

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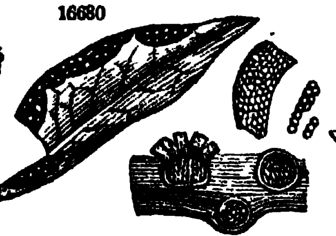

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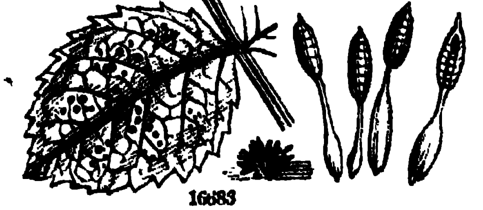

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History, Use, Propagation, Culture,

appear to be materially injurious to the grain, if at all. Ears full of it have been found with very plump grains; and it has also been found upon branded ears. Before the cuticle which covers the fungus bursts, it has much the appearance of a pustule upon the human body.

16669 Hypophyllous at first prominent pustular soon becoming agglomerated very numerous, Peridia splitting into short brittle yellowish-white teeth, Sporidia pale-orange

16670 Hypophyllous in widely scattered agglomerated clusters but not very crowded, Peridia subsessile split into very white exceedingly brittle teeth, Sporidia pale

16671 Hypophyllous and on the petioles and stem, Peridia campanulate agglomerated rarely single split into many short recurved teeth, Sporidia ochre-yellow numerous ovate

16672 Hypophyllous and on the petioles, Peridia in dense agglomerated clusters whitish split into revolute teeth, Sporidia yellowish : the leaf whitish around the clusters

16673 Hypophyllous upon a thickened portion of the leaf, which on the upper surface is of a fine red color with a yellow border, Peridia densely crowded splitting into yellowish-white teeth, Sporidia pale

16674 Hypophyllous, Peridia agglomerated in scattered clusters of various sizes whitish with a brittle dentated margin, Sporidia yellow

16675 Hypophyllous and on the petioles aggregated short somewhat campanulate with numerous very minute marginal teeth, Sporidia bright-orange subglobose or oval

16676 Hypophyllous and on the fruitstalk, seed-vessel, calyx, and even petals, Peridia short or elongated cylindrical densely crowded fine orange, Sporidia yellow under the microscope

16677 Hypophyllous and on the petioles and young fruit, Peridia elongated agglomerated brown splitting to the base in capillary segments, Sporidia numerous light-brown

16678 Hypophyllous, Peridia 2—12 long cylindrical slightly curved yellowish-brown springing from an orange-colored thickened portion of the leaf, Sporidia numerous greyish becoming brown

16679 Hypophyllous marked on the upper surface of the leaf by a yellow or purplish spot, Peridia partly immersed short splitting into white revolute teeth, Sporidia pink-orange

16680 Hypophyllous producing a crimson spot on the upper surface of the leaf, Peridia minute subimmersed splitting regularly into small revolute white teeth, Sporidia yellowish-white

16681 Hypophyllous marked by a pale spot on the upper surface of the leaf and a pale ring round the peridia, which are small not numerous splitting into small brittle yellowish-white teeth, Sporidia pale

16682 Hypophyllous somewhat clustered, Clusters of a roundish form, Peridia oblongo-cylindrical bright-orange, Mouth paler and bursting irregularly

16683 Hypophyllous, Sporidia mucronated 5-7-celled with a white filiform stipes incrassated towards the base which is furnished with a yellow gland

16684 Hypophyllous deep-black tufted, Sporidia 4-celled obtuse mucronate, Stipes slender incrassated at the base

16685 Hypophyllous tufted of various sizes black rather lax scattered, Sporidia 7-9-celled somewhat attenuated mucronate with a slender stipes incrassated at the base

16686 Somewhat tufted scattered black, Sporidia cylindrical 3-4-celled obtuse never mucronated, Stipes filiform

16687 Round. or ov. obl scatter. black somew. convex, Sporidia densely crowded obl. obt. firmly fix. by pedicels

16688 Hypophyl. deep pinkish-brown promin. consist. of a number of distinct aggregat. tufts, Sporidia obl. acute

16689 Hypophyllous small of various sizes few together and confluent pale-brown, Sporidia long somewhat waved much attenuated at each extremity with an elongated stipes

16690 Hypophyllous punctiform minutely tufted subrotund blackish-brown, Sporidia crowded obtusely egg-shaped with a long flexuose filiform pedicel

16691 Chiefly hypophyllous minute aggregated rendering the nerves and petioles swollen dark bluish-grey before bursting, Sporidia nearly black oval not contracted in the centre, Stipes short

16692 Hypophyllous and on the petioles conglomerated confluent brownish-grey before bursting, Sporidia nearly black obtuse scarcely contracted in the centre : the upper cell sometimes divided

16693 Hypophyllous round scattered nearly black, Sporidia of an obtuse irregular figure with a short filiform stipes somewhat incrassated at the base

16694 Hypophyllous minute round very crowded reddish-brown : upper cell of the sporidia thick globose ; the lower one long and narrow, Stipes short

16695 On both sides of the leaf and on the stem in small nearly black scattered tufts surrounded by the remains of the ruptured epidermis, Sporidia oval the two cells nearly equal, Stipes very short

16696 Hypophyllous minute very dark scattered, Sporidia short with both cells obtuse and a short stipes

16697 Hypophyllous circular very variable in size blackish-brown scattered rarely confluent, Sporidia very obtuse with a subelongated stipes

16698 On both sides of the leaf in minute tufts nearly black circular bordered by the remains of the epidermis, Sporidia variable very obtuse rounded 2-celled both often subdivided, Stipes very short.

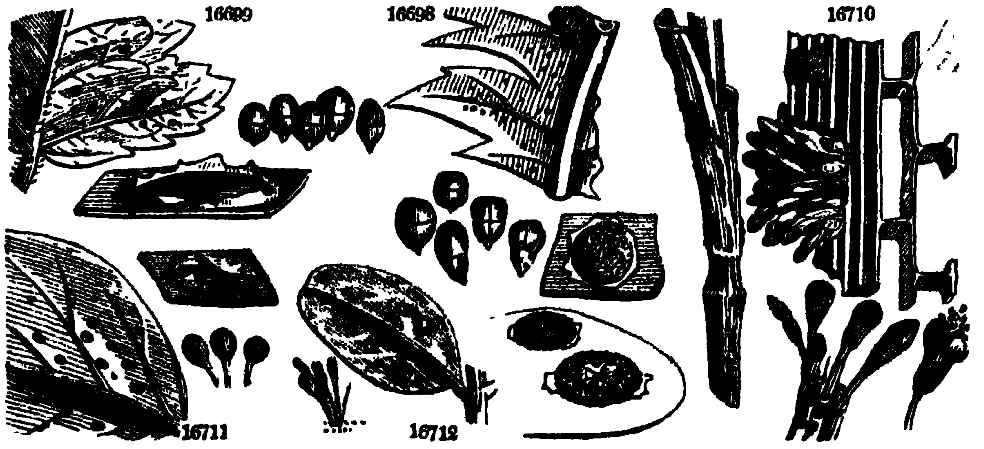
16699 Hypophyllous blackish-brown irregular in figure girt by ferruginous remains of epidermis, Sporidia crowded obtuse divided but scarcely contracted in the middle, Stipes short

16700 Hppophyllous scattered closely over the whole surface small round brown depressed, Sporidia much contracted in the centre nearly resembling figure 8 : the upper cell largest

16701 Hypophyllous very thickly scattered and becoming contiguous but very rarely confluent minute at first and ferruginous after bursting, Sporidia short : upper cell obtuse, Stipes very short

16702 Hypophyllous dark-brown scattered or sub-confluent often concentric, Sporidia crowded pulverulent obtusely oval slightly contracted in the middle : the lower cell terminating in an abrupt and short stipes

16703 On the leaf and petiole crowded confluent, Sporidia dark-brown pulverulent : upper cell obtuse, Stipes somewhat lengthened

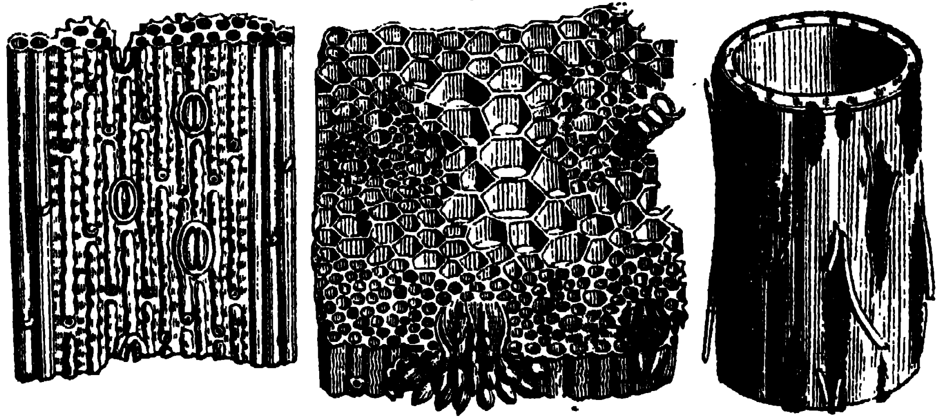


and Miscellaneous Particulars

2490. *Puccinia.* A name of obscure meaning ; possibly derived from *πύκα*, closely packed, in allusion to the crowded manner in which the little plants are placed. P. gráminis is a plant too well known to the farmer under the name of blight. It attacks the stem and leaves of corn, at first having the appearance of orange.

16704 Primulæ *Grev.*	Primrose	two-celled	0	sum.	D.Br	under primrose lvs.	
16705 Violæ *Dec.*	Violet	two-celled	0	sum.	D.Br	under Viola canina lvs.	
16706 Valántiæ *Pers.*	Cross-wort	two-celled	0	sum.	Dp.Br	on Galium verum	
16707 glomeráta *Grev.*	heaped	two-celled	0	spr. su.	Dp.Br	under Senecio Jacobææ lvs.	
16708 Ulmáriæ *Dec.*	Ulmaria	two-celled	0	aut.	Pu.Bl	under Ulmaria lvs	
16709 caricina *Dec.*	Sedge	two-celled	0	aut.	Bl	on Carex leaves	
16710 Gráminis *Pers.*	Grass	two-celled	0	aut.	Bl	on corn & grasses	Sow. t.140. *U.Frumenti*
16711 globósa *Grev.*	globose	one-celled	0	aut.	Bl	on bean leaves	Grev. crypt. fl. t. 29
16712 Búxi *Sow.*	Box	two-celled	0	sum.	Br	leaves of box	Grev. crypt. fl. t. 17

16710



History, Use, Propagation, Culture,

coloured streaks, which afterwards assume a deep chocolate-brown colour. The little plants chiefly attack the parenchyma, immediately below the stomata with which the cuticle abounds. Each individual is so small, that any stoma on a straw will, according to Sir Joseph Banks, produce from twenty to forty fungi, and every one of them will, no doubt, produce at least one hundred reproductive particles; so that the progeny from a single stoma will be enough to infect a whole plant. The period of a generation is supposed not to exceed a week; and as the reproductive particles are exceedingly light, they are wafted aloft in the air, which is thus loaded with clouds of animated dust, ready upon the first favourable occasion to carry blight and disease into all the neighbourhood. The figures which illustrate this subject are copies of Mr. Bauer's illustrations of blight, published in 1805 by Sir Joseph Banks. *a* (preceding page), a piece of infected wheat stem, natural size; *b*, a highly magnified longitudinal cutting of the same; *c* to *n*, highly magnified representations of the Puccinia gráminis in various states; *o*, a piece of the cuticle magnified, and showing the stomata; *p*, a highly magnified transverse cutting of the straw; *q*, a magnified representation of the outside of the straw; *r*, a very highly magnified representation of a part of the same.

The alarming state of the harvest of August 1804, from what is vulgarly called blight, induced Sir Joseph Banks to have some blighted stalks of wheat examined under a powerful microscope, and drawings made from them by Mr. Francis Bauer. These were published in a pamphlet in January 1805, the object of which, as we are informed in the advertisement, was to procure " actual observations on the origin and progress of the disease" from those " intelligent agriculturists, whose residence in the country enables them daily to examine, not only the progress of their crops, but the origin and advances also of all those obstacles which nature has opposed to the success of agricultural labours, as if to awaken the energies of reason, and to reward the farmer for the exertions of his intellectual faculties, by the satisfaction of surmounting them."

As we have here a space that would otherwise be unoccupied, we cannot do better than to fill it up by transcribing the whole of the pamphlet alluded to, there being still ample room for " actual observations " on that baneful disease.

" Botanists have long known that the blight in corn is occasioned by the growth of a minute parasitic fungus or mushroom on the leaves, stems, and glumes of the living plant. Felice Fontana published, in the year 1767, an elaborate account of this mischievous weed[*], with microscopic figures which give a tolerable idea of its form; more modern botanists[†] have given figures both of corn and of grass affected by it, but have not used high magnifying powers in their researches.

" Agriculturists do not appear to have paid, on this head, sufficient attention to the discoveries of their fellow-labourers in the field of nature; for though scarcely any English writer of note on the subject of rural economy has failed to state his opinion of the origin of this evil, no one of them has yet attributed it to the real cause, unless Mr. Kirby's excellent papers on some diseases of corn, published in the *Transactions of the Linnean Society*, are considered as agricultural essays.

" On this account it has been deemed expedient to offer, to the consideration of farmers, engravings of this destructive plant, made from the drawings of the accurate and ingenious Mr. Bauer, botanical painter to His Majesty, accompanied with his explanation, from which it is presumed an attentive reader will be able to form a correct idea of the facts intended to be represented, and a just opinion whether or not they are, as is presumed to be the case, correct and satisfactory.

" In order, however, to render Mr. Bauer's explanation more easy to be understood, it is necessary to premise, that the striped appearance of the surface of a straw, which may be seen with a common magnifying glass, is caused by alternate longitudinal partitions of the bark, the one imperforate, and the other furnished with one or two rows of pores or mouths, shut in dry, open in wet weather, and well calculated to imbibe fluid whenever the straw is damp. Pores or mouths similar to these are placed by nature on the surface of the leaves, branches, and stems of all perfect plants, a provision intended, no doubt, to compensate, in some measure, the want of locomotion in vegetables. A plant cannot when thirsty go to the brook and drink, but it can open innumerable orifices, for the reception of every degree of moisture which either falls in the shape of rain and of dew, or is separated from the mass of fluid always held in solution by the atmosphere; it seldom

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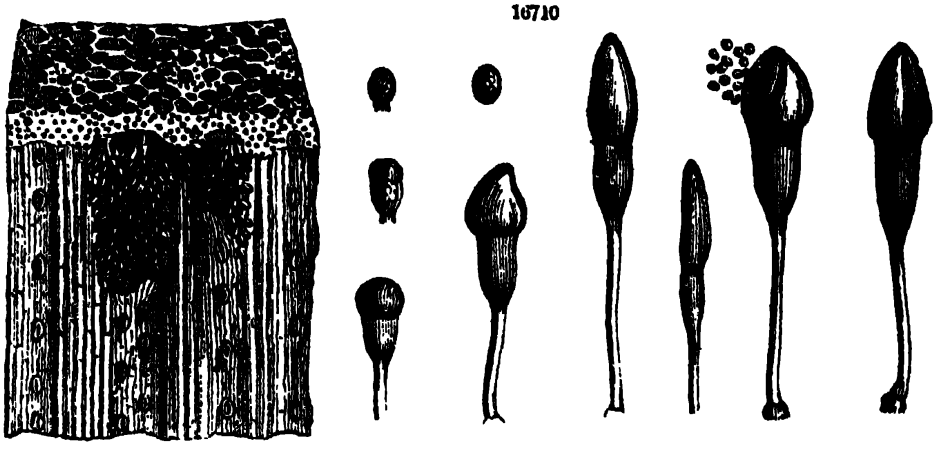
" [*] Osservazioni sopra la Ruggine del Grano, Lucca, 1767. 8vo.

" [†] Sowerby's English Fungi, vol. ii. tab. 140. Wheat; tab. 139. Póa aquática.

16704 Hypophyllous deep brown solitary scattered or concentric and subconfluent, Sporidia rather slender with the lower cell attenuated into a short stipes
16705 Hypophyllous minute scattered sometimes confluent irregular in form nearly black, Sporidia short obtuse small with a short stipes
16706 Hypophyll. very min. scatter. deep-brown, Sporidia thick obt. variable in shape with lower cell fusiform
16707 Hypophyllous tufts circular depressed broad dark fuscous composed of many smaller ones confluent at the centre, Sporidia oblong with lower cell somewhat attenuated
16708 Hypophyllous purplish black scattered in tufts, Sporidia variable generally very obtuse two rarely 3-celled frequently also divided perpendicularly, Stipes short
16709 Epiphyllous brown eventually black oval often confluent and forming long lines, Sporidia oblong with a white filiform stipes firmly fixed at its base
16710 Tufts dense oblong often confluent and forming long parallel lines changing from yellowish-brown to black, Sporidia elongated: the upper cell the shortest, Stipes filiform
16711 Epiphyllous minute scattered nearly black, Sporidia globose with a filiform slender stipes
16712 Scattered reddish-brown round very convex surrounded by the ruptured epidermis, Sporidia oblong 2-celled yellow with a long filiform stem

16710



happens in the driest season, that the night does not afford some refreshment of this kind, to restore the moisture that has been exhausted by the heats of the preceding day. By these pores, which exist also on the leaves and glumes, it is presumed that the seeds of the fungus gain admission, and at the bottom of the hollows to which they lead (*b p*) they germinate and push their minute roots, no doubt (though these have not yet been traced), into the cellular texture beyond the bark, where they draw their nourishment by intercepting the sap that was intended by nature for the nutriment of the grain; the corn, of course, becomes shrivelled in proportion as the fungi are more or less numerous on the plant; and as the kernel only is extracted from the grain, while the cortical part remains undiminished, the proportion of *flour to bran*, in blighted corn, is always reduced in the same degree as the corn is made light. Some corn of this year's crop will not yield a stone of flour from a sack of wheat; and it is not impossible, that in some cases the corn has been so completely robbed of its flour by the fungus, that if the proprietor should choose to incur the expense of thrashing and grinding it, bran would be the produce, with scarcely an atom of flour for each grain.

" Every species of corn, properly so called, is subject to the blight; but it is observable that spring corn is less damaged by it than winter, and rye less than wheat, probably because it is ripe and cut down before the fungus has had time to increase in any large degree. Tull says, ' that white core, or bearded white, which has its straw like a rush full of pith, is less subject to blight than lammas white, which ripens a week later.' (See page 74.) The spring wheat of Lincolnshire was not in the least shrivelled this year, though the straw was in some degree infected: the millers allowed that it was the best sample brought to market. Barley was in some places considerably spotted, but as the whole of the stem of that grain is naturally enveloped in the hose or basis of the leaf, the fungus can in no case gain admittance to the straw; it is, however, to be observed, that barley rises from the flail lighter this year than was expected from the appearance of the crop when gathered in.

" Though diligent enquiry was made during the last autumn, no information of importance relative to the origin or the progress of the blight could be obtained: this is not to be wondered at, for as no one of the persons applied to have any knowledge of the real cause of the malady, none of them could direct their curiosity in a proper channel. Now that its nature and cause have been explained, we may reasonably expect that a few years will produce an interesting collection of facts and observations, and we may hope that some progress will be made towards the very desirable attainment of either a preventive or a cure.

" It seems probable that the leaf is first infected in the spring, or early in the summer, before the corn shoots up into straw, and that the fungus is then of an orange colour; after the straw has become yellow, the fungus assumes a deep chocolate brown: each individual is so small, that every pore on a straw will produce from twenty to forty fungi, as may be seen in the plates, and every one of these will, no doubt, produce at least one hundred seeds; if then, one of these seeds tillers out into the number of plants that appear at the bottom of a pore (*b p*), how incalculably large must the increase be! A few diseased plants scattered over a field must speedily infect a whole neighbourhood, for the seeds of fungi are not much heavier than air, as every one who has trod upon a ripe puff-ball must have observed, by seeing the dust, among which is its seed, rise up and float on before him.

" How long it is before this fungus arises at puberty and scatters its seed in the wind, can only be guessed at by the analogy of others; probably the period of a generation is short, possibly not more than a week in a hot season: if so, how frequently in the latter end of the summer must the air be loaded as it were with this animated dust, ready whenever a gentle breeze, accompanied with humidity, shall give the signal, to intrude itself into the pores of thousands of acres of corn. Providence, however, careful of the creatures it has created, has benevolently provided against the too extensive multiplication of any species of being; was it otherwise, the minute plants and animals, enemies against which man has the fewest means of defence, would increase to an inordinate extent. This, however, can in no case happen, unless many predisposing causes afford their combined assistance. But for this wise and beneficent provision, the plague of slugs, the plague of mice, the plagues of grubs, wireworms, chafers, and many other creatures whose power of multiplying is countless as the sands of the sea, would long before this time have driven mankind and all the larger animals from the face of the earth.

" Though all old persons who have concerned themselves in agriculture remember the blight in corn many years, yet some have supposed that of late years it has materially increased; this, however, does not seem to be the case. Tull, in his *Horse-hoeing Husbandry*, p. 74., tells us that the year 1725 ' was a year of blight, the like of which was never before heard of, and which he hopes may never happen again;' yet the average price of wheat in the year 1726, when the harvest of 1725 was at market, was only 86*s.* 4*d.*, and the average of the five years of which it makes the first, 87*s.* 7*d.*: 1797 was also a year of great blight; the price of wheat, in 1798, was 49*s.* 1*d.*, and the average of the five years, from 1795 to 1799, 68*s.* 5*d.*

"The climate of the British isles is not the only one that is liable to the blight in corn; it happens occasionally in every part of Europe, and probably in all countries where corn is grown. Italy is very subject to it, and the last harvest of Sicily has been materially hurt by it. Specimens received from the colony of New South Wales show that considerable mischief was done to the wheat crop there, in the year 1803, by a parasitic plant very similar to the English one.

"It has been long admitted by farmers, though scarcely credited by botanists, that wheat in the neighbourhood of a barberry bush seldom escapes the blight. The village of Rollesby in Norfolk, where barberries abound and wheat seldom succeeds, is called by the opprobrious appellation of mildew Rollesby. Some observing men have of late attributed this very perplexing effect to the farina of the flowers of the barberry, which is in truth yellow, and resembles in some degree the appearance of the rust, or what is presumed to be the blight in its early state.

"It is, however, notorious to all botanical observers, that the leaves of the barberry are very subject to the attack of a yellow parasitic fungus, larger, but not otherwise different from the rust in corn.

"Is it not more than possible, that the parasitic fungus of the barberry and that of wheat are one and the same species, and that the seed is transferred from the barberry to the corn? Mistletoe, the parasitic plant with which we are the best acquainted, delights most to grow on the apple and hawthorn, but it flourishes occasionally on trees widely differing in their nature from both of these: in the Home Park, at Windsor, mistletoe may be seen in abundance on the lime trees planted there in avenues. If this conjecture is well founded, another year will not pass without its being confirmed by the observations of inquisitive and sagacious farmers.

"It would be presumptuous to offer any remedy for a malady, the progress of which is so little understood; conjectures, however, founded on the origin here assigned to it, may be hazarded without offence.

"It is believed, but not dogmatically asserted (because Fontana, the best writer on the subject, asserts that the yellow and dark coloured blight are different species of fungi), to begin early in the spring, and first to appear on the leaves of wheat in the form of rust, or orange-coloured powder; at this season, the fungus will, in all probability, require as many weeks for its progress from infancy to puberty as it does days during the heats of autumn; but a very few plants of wheat thus infected are quite sufficient, if the fungus is permitted to ripen its seed, to spread the malady over a field, or indeed, over a whole parish.

"The chocolate-coloured blight is little observed till the corn is approaching very nearly to ripeness; it appears then in the field in spots, which increase very rapidly in size, and are in calm weather somewhat circular, as if the disease took its origin from a central position.

"May it not happen, then, that the fungus is brought into the field in a few stalks of infected straw uncorrupted among the mass of dung laid in the ground at the time of sowing? It must be confessed, however, that the clover leys, on which no dung from the yard was used, were [illegible] much infected last autumn as the manure crops. The immense multiplication of the disease in the last season seems however to account for this; as the air was no doubt frequently charged with seed for miles together, and deposited it indiscriminately on all sorts of crops.

"It cannot, however, be an expensive precaution to search diligently in the spring for young plants of wheat infected with the disease, and carefully to extirpate them, as well as all grasses, for several are subject to this or a similar malady, which have the appearance of orange-coloured or black stripes on their leaves, or on their straw; and if experience shall prove that uncorrupted straw can carry the disease with it into the field, it will cost the farmer but little precaution to prevent any mixture of fresh straw from being carried out with his rotten dung to the field.

"In a year like the present, that offers so fair an opportunity, it will be useful to observe attentively whether cattle in the straw yard thrive better or worse on blighted or on healthy straw. That blighted straw, retaining on it the fungi that have robbed the corn of its flour, has in it more nutritious matter than clean straw which has yielded a crop of plump grain, cannot be doubted; the question is whether this nutriment in the form of fungi does or can be made to agree as well with the stomachs of the animals that consume it, as it would do in that of straw and corn.

"It cannot be improper in this place to remark, that although the seeds of wheat are rendered, by the exhausting power of the fungus, so lean and shrivelled that scarcely any flour fit for the manufacture of bread can be obtained by grinding them, these very seeds will, except, perhaps, in the very worst cases, answer the purpose of seed-corn as well as the fairest and plumpest sample that can be obtained, and in some respects better; for as a bushel of much blighted corn will contain one third at least more grains in number than a bushel of plump corn, three bushels of such corn will go as far in sowing land, as four bushels of large grain. Eighty grains of the most blasted wheat of the last year that could be obtained, were sown in pots in the hot-houses; of these, seventy-eight produced healthy plants, a loss of 10 per cent only.

"The use of the flour of corn in furthering the process of vegetation is to nourish the minute plant from the time of its developement till its roots are able to attract food from the manured earth; for this purpose, one tenth of the contents of a grain of good wheat is more than sufficient. The quantity of flour in wheat has been increased by culture and management calculated to improve its qualities for the benefit of mankind, in the same proportion as the pulp of apples and pears has been increased, by the same means, above what is found on the wildings and crabs in the hedges.

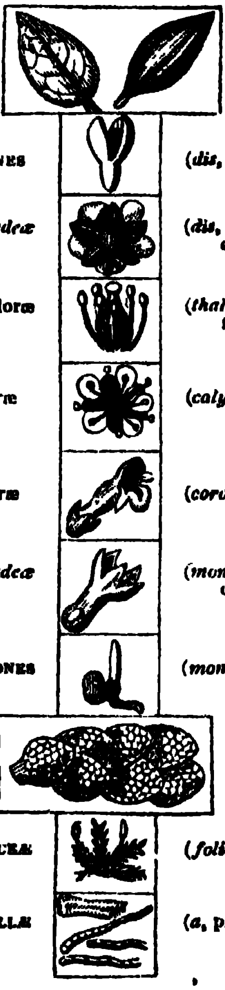
"It is customary to set aside or purchase for seed-corn, the boldest and plumpest samples that can be obtained; that is, those that contain the most flour; but this is unnecessary waste of human subsistence; the smallest grains, such as are sifted out before the wheat is carried out to market, and either consumed in the farmer's family or given to his poultry, will be found by experience to answer the purpose of propagating the sort from whence they sprung as effectually as the largest.

"Every ear of wheat is composed of a number of cups placed alternately on each piece of the straw; the lower ones contain, according to circumstances, three or four grains, nearly equal in size, but towards the top of the ear, where the quantity of nutriment is diminished by the more ample supply of those cups that are nearer the root, the third or fourth grain in a cup is frequently defrauded of its proportion, and becomes shrivelled and small. These small grains which are rejected by the miller, because they do not contain flour enough for his purpose, have, nevertheless, an ample abundance for all purposes of vegetation, and as fully partake of the sap, 'or blood, as we should call it in animals,' of the kind which produced them, as the fairest and fullest grain that can be obtained from the bottoms of the lower cups, by the wasteful process of beating the sheaves."

ENCYCLOPÆDIA OF PLANTS.

PART II.

NATURAL ARRANGEMENT.



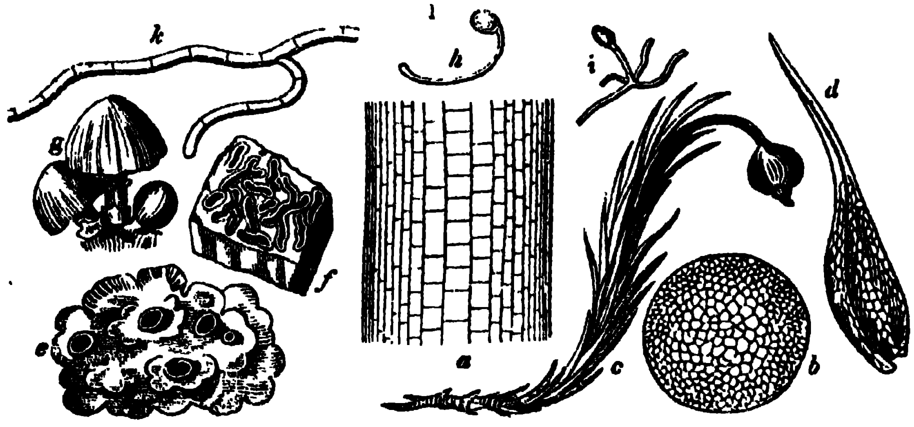
First grand Division, VASCULARES	(*vas*, a vessel; plants with woody fibre and cellular tissue).
First Class, DICOTYLEDONES	(*dis*, two, and *cotyledon*; cotyledons two).
Subdivision I. *Dichlamydeæ*	(*dis*, two, and *chlamys*, a coat or covering; calyx and corolla distinct).
Subclass 1. Thalamifloræ	(*thalamus*, a bed or receptacle, and *flos*, a flower; stamens under the pistilium).
Subclass 2. Calycifloræ	(*calyx* and *flos*; stamens on the calyx).
Subclass 3. Corollifloræ	(*corolla*, and *flos*; stamens on the corolla).
Subdivision II. *Monochlamydeæ*	(*monos*, one, and *chlamys*, a coat or covering; calyx and corolla not distinct).
Second Class, MONOCOTYLEDONES	(*monos*, one, and *cotyledon*; cotyledon one).
Second grand Division, CELLULARES	(*cellula*, a little cell; plants with cellular tissue only).
First Class, FOLIACEÆ	(*foliaceus*, leafy; habit).
Second Class, APHYLLÆ	(*a*, priv., and *phyllon*, a leaf; leafless).

THE difficulties connected with the adoption of the natural system of plants are these, that the characters of many of the orders are at present imperfectly known, and that they depend upon a consideration of many points of structure which are not to be determined without much labor and a considerable degree of practical skill in the use of the microscope and the dissecting knife. But the facilities which the habit of viewing all natural bodies with reference to the relations they bear to other bodies, and not as insulated individuals merely possessing certain peculiarities by which they may be referred to some station in an artificial system, ultimately gives to the investigations of the naturalist, are so great, that difficulties of the nature just alluded to ought not to be suffered to influence the botanist in determining which line of study he will follow, whether that pointed out by Linnæus, or that traced by the hand of nature. By the artificial system of Linnæus, indeed, no great difficulty exists in determining the number of stamens or styles possessed by a given plant, or the nature of their combination, and from the knowledge so obtained, in referring them to their class and order in the Linnæan system. But when this step has been gained, what more has been acquired than the bare knowledge that the plant in question possesses a certain number of stamens and styles? No possible notion can be formed of the relation it bears to other plants of the same nature, of the qualities it probably possesses, or of the structure of those parts not under examination, the fruit for example; and, finally, if it were wished to convey an idea of the plant to a stranger, no means would be in the possession of the Linnæan botanist of doing so, except by stating that the plant belonged to Pentandria Monogynia for example, which is stating nothing. But what would be the condition of the student of the natural affinities of plants in a similar case? It is true he would be obliged to consult more characters than the two uninfluential ones of Linnæus — it would be necessary to ascertain if his subject was Vascular or Cellular; if Vascular, whether it was Monocotyledonous or Dicotyledonous; if Dicotyledonous, whether the leaves were opposite or alternate, stipulate or exstipulate, whether the flowers were monopetalous, polypetalous, or apetalous, the nature and station of the stamens, the condition of the ovarium, and so on. But when he *has* ascertained thus much, only let it be remembered, for a moment, how much he has gained indirectly as well as directly. Perhaps he has discovered that his plant belongs to Rubiaceæ; he will then have learned that all vegetables with opposite entire stipulate leaves, and a monopetalous superior corolla, are also Rubiaceous; if a fragment of the leaves and stem only of such a plant were afterwards submitted to him for examination, he would recognise its affinities, and remember that it was Rubiaceous, and being aware of that fact, he would be able safely to infer that its calyx and corolla would be of a particular nature, that if the roots afforded any color for dying, it would be red; that the medicinal properties of the bark, if any, would be tonic, astringent, and febrifugal, and that its seeds would be of the same nature as those of coffee, and finally, its geographical position would be tolerably certain to him.

The really important obstacle which exists in the way of acquiring this kind of knowledge, is undoubtedly the want of any introduction to the study of it, accompanied by the distribution and characters of the natural orders into which plants are divided. It is to be hoped that English readers at least will not long have to regret this deficiency in their elementary works. In this place, it must suffice to point out the characters upon which the great divisions depend, under which the orders themselves are arranged; and it is to be hoped, that even this small aid will be found to smooth the way, and to remove some of the obstacles that at present are supposed to exist at the very threshold of the temple.

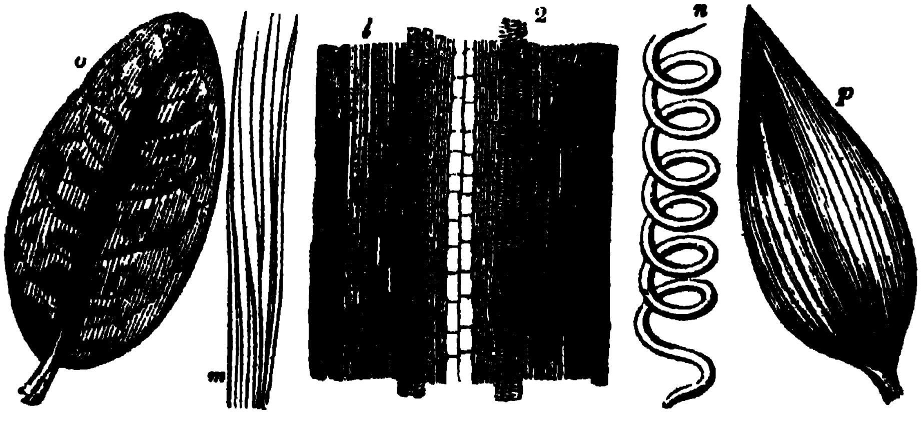
Plants considered with reference to their general structure, are separated into two grand divisions called Cellulares and Vasculares.

The Cellulares answer to the Linnæan Cryptogamia, and are also called Acotyledonous; the Vasculares answer to the rest of the Linnæan system, which is sometimes called Phanerogamia and Cotyledonous.



a, Longitudinal section of a stem.
b, Transverse section of a stem.
c, Stem of a moss, with leaves and theca, or seed-case.
d, Leaf of a moss, magnified.
e, Leafy thallus of a lichen, with shields.
f, Crustaceous thallus of a lichen, with shields.
g, Fungi of the highest dignity.
h, *i*, Fungi of the lowest rank.
k, Conferva magnified.

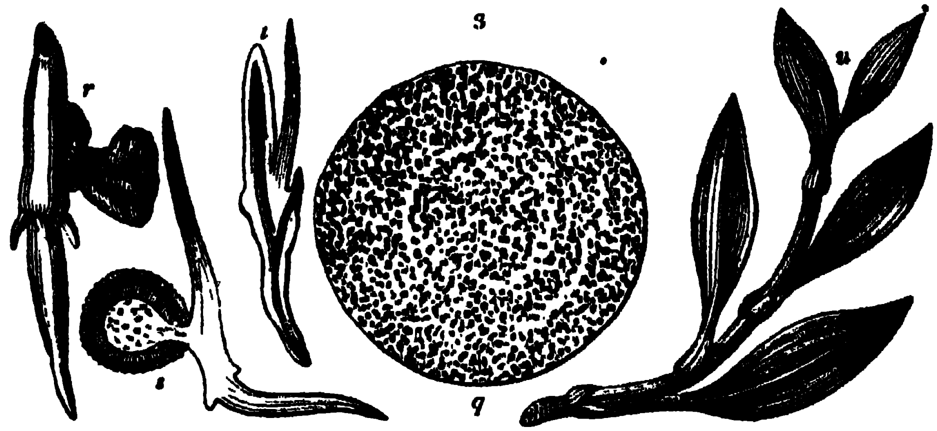
Cellulares, Cryptogamous, or Acotyledonous plants are all, therefore, different terms denoting the same combination of vegetables. The first term is here adopted in preference to the others as expressing the most obvious character upon which the division depends, namely, the cellular, not vascular, structure of the plants composing it. Cellular plants are formed entirely of cellular tissue (*fig.* 1), without woody fibre or spiral vessels; or in more familiar terms by having no veins in their leaves if foliaceous, and not forming wood; they also are destitute of perfect flowers. The lower tribes, such as Fungi and Algæ, are destitute of leaves, and in some points approach the animal kingdom so nearly as to be scarcely distinguishable. In the highest tribe, *Ferns*, apparent veins are formed in the leaves; but as they are imperfectly supplied with spiral vessels, they cannot be considered more than analogous to the veins of other plants. Ferns, however, hold the intermediate station between Cellulares and Vasculares, and are chiefly retained among the former on account of their perfect accordance in other respects. In the whole of Acotyledones, it is unnecessary to examine the seed for the purpose of determining whether it has one cotyledon, several cotyledons, or none, the structure of the perfect plant giving the most obvious and satisfactory evidence.



l, Vertical section of a vascular stem.
m, Woody fibre.
n, Spiral vessel
o, Leaf of a dicotyledonous plant.
p, Leaf of a monocotyledonous plant.

VASCULARES, PHÆNOGAMOUS, or COTYLEDONOUS plants, are also separated into two great classes called Endogenes or Monocotyledones, and Exogenes or Dicotyledones, both which are distinguished as accurately by their obvious physical structure as they are by the minute and obscure peculiarities of the seed. They are all formed with cellular tissue, woody fibre, and spiral vessels (*fig.* 2.), and their leaves are traversed by veins; the last character is sufficient for practical purposes, if it is remembered that they also bear perfect flowers, (that is, flowers furnished either with stamina, or pistillum, or both,) which will always prevent their being confounded with the highest tribes of Cellulares.

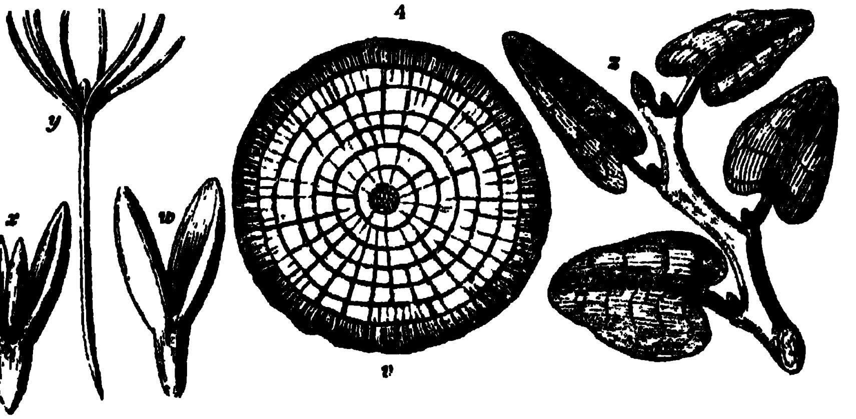
3



q, Transverse section of a monocotyledonous stem.
r, Germination of a monocotyledonous seed.
s, Section of ditto, to show the cotyledon remaining in the testa.
t, Section of a germinating embryo of a grass, to show the two alternate cotyledons of unequal size; the back and front lobes represent these, the middle lobe is the plumula.
u, Stem and leaves of a monocotyledonous plant.

Endogenes, or *Monocotyledonous* plants, are the first remove from Cellulares, and hold an intermediate rank between them and *Exogenes* or *Dicotyledonous* plants, in which vegetation acquires its highest form of developement. They were formerly characterised by having a single cotyledon, but this circumstance is not only not absolute but difficult of determination, except after minute analysis. The real difference in the seed of them and Dicotyledones is this, that in Monocotyledones there is only one Cotyledon (*fig.* 3. *s*); or, if two, that they are alternate with each other (*t*), while in Dicotyledones they are always opposite, and more than one, sometimes several, as in Pinus (*fig.* 4. *y*). The physiological structure of the two classes is, however, that by which they are familiarly distinguished, and exhibits a beautiful proof of the harmony that exists between the great features of vegetation and their first principle, the seed from which they originate. In *Endogenes*, or *Monocotyledones*, there is no distinction between wood and bark (*fig* 3. *q*); in *Exogenes*, or *Dicotyledones*, the wood and bark are distinctly separated (*fig.* 4. *v*). In Monocotyledones the wood and cellular tissue are mixed together without any distinct annual layers of the former being evident; in Dicotyledones the wood and cellular tissue have each their particular limits assigned them, a distinct layer of the former being annually deposited. In Monocotyledones there are no radiations from the medulla to the bark; in Dicotyledones the radiations are distinctly marked. In Monocotyledones there is generally no articulation between the leaves and the stem, while in Dicotyledones the leaves are always jointed with the stem from which they fall off, leaving a scar behind. In Monocotyledones the veins of the leaf pass in parallel lines from the base to the apex, in Dicotyledones they diverge from the midrib towards the margin at various angles; in the former they are unbranched, the principal veins being connected by nearly simple secondary veins; in the latter they are much branched, ramifying in many directions, and giving the surface of the leaf a netted appearance.

4



v, Transverse section of a dicotyledonous stem.
w, An embryo with two cotyledons.
x, An embryo with four cotyledons.
y, An embryo with many cotyledons.
z, Stem and leaves of a dicotyledonous plant.

Such are the very obvious distinctions of the two great classes of Phænogamous, or flowering, plants; and so far is it from there being any necessity for dissecting a seed in order to ascertain its structure, that this point is one of the most easy determination, and about which there cannot be in one case in five hundred the slightest cause of doubt or difficulty. It is almost impossible to take even a morsel of a plant in the hand without instantly being in possession of the knowledge of the structure of its seed, with respect to the cotyledons.

Thus far have we advanced without a single obstacle to impede us. In all farther investigation no greater degree of knowledge or application is requisite than what ought to be possessed by every one who would be able to ascertain the genus of a plant. Many of the orders do not depend upon the minute characters of the seed so much as is believed; the structure of the ovarium and position of the ovula, are aids which frequently make amends for the absence of fruit: and the nature of the foliage and inflorescence are guides which, though sometimes treacherous, are often as faithful as the fructification itself. But as it is not intended to give the characters of the orders in this place, neither is it necessary to advance farther in an explanation of the manner of determining them; upon that point each order would require a particular note. It may, however, be confidently believed, that there are no greater impediments in the road to an acquaintance with the natural relations of plants than those that have been already removed; and that although neither the science of botany, nor any other science, is to be taken by storm, yet that the fortress is sure to be reduced by silent and patient approach.

It only remains to explain briefly upon what principles the names of the orders, suborders, &c. are formed. It is usual, in the school of Jussieu, to give to a natural order a name derived from that of the genus which is understood to be the type of the order; as Ranunculaceæ from Ranúnculus, Rosaceæ from Rósa, and so on. But several deviations from this principle had been admitted by Jussieu, in favor of certain groups of plants, long known by other popular names, derived from certain peculiarities; such as Labiatæ, because their corollas are labiate; Compositæ, because their flowers are what is commonly called compound; Guttiferæ, on account of the resinous juice in which they abound, and some others. It would, perhaps, have been better, if uniformity in nomenclature had not thus been sacrificed to a dread of innovation; but it is now too late to remedy the evil, if such it be; nor would the advantage of alteration be at this day equivalent to the inconvenience. For the purpose of making it at once apparent, whether, in speaking of a group of plants, reference is had to an order or a suborder, it has of late years been thought convenient to terminate the name of the natural order in *aceæ*, and of the suborder in *eæ*. Thus, in speaking of the whole mass of which Ranúnculus is the representative, the word Ranuncul*aceæ* is used; but in speaking of the particular division, or suborder, of which Ranúnculus forms a part, the term Ranuncul*eæ* is employed.' This manner of speaking is, however, at present, very partial in its application, and is of little importance, except in a few cases, of which Ranunculaceæ is one of the most striking examples. In those orders, the titles of which, necessarily, from their grammatical construction, end in *eæ*, as Orchideæ, it is obviously inapplicable, without a total change in a great part of the nomenclature of natural orders, a measure which cannot be too much deprecated.

It may, perhaps, be finally expected, that these remarks should be concluded by a recommendation of some work, from which those who are anxious to become fully acquainted with the principles and distinguishing characters of the Natural System of Botany, may derive the necessary information. Unfortunately, however, such a work has at present no existence. M. Decandolle's Théorie Elémentaire de la Botanique explains the principles upon which the orders of plants are constituted; and M. de Jussieu's Genera Plantarum contains their characters, as determined in 1789: but the latter is now too obsolete to be very useful to the tyro. In our own language, the only work that can be consulted upon the subject with advantage, is the Flora Scotica of Professor Hooker, in which the characters of the natural orders of Scottish plants are concisely indicated by Mr. Lindley. We understand a work upon the subject is in preparation by the latter gentleman, by which this great desideratum in the science of Botany will be supplied. It may be expected to appear in the course of 1829, previously to which, however, the division Botany, in the forthcoming Encyclopædia of Natural History will have been published, in which much information may be expected upon this important subject.

I. VASCULARES.

Class I. DICOTYLEDONES.

Subdivision I. DICHLAMYDEÆ.

This subdivision comprehends all the Dicotyledonous plants, that have both a calyx and corolla, by which they are distinguished from Monochlamydeæ, in which the calyx only exists. It is in consequence of this high developement of the floral envelopes, that the greater part of flowering trees and shrubs are found in Dichlamydeæ, it rarely happening that those with a single floral covering only have any brilliant coloring.

Subclass I. THALAMIFLORÆ.

Petals inserted into the receptacle.

The insertion of the petals and stamens into the receptacle is the great character of this subclass, which, therefore, contains all the polyandrous plants of Linnæus, as the Calycifloræ contain the icosandrous genera of the same botanist.

Section 1. *Carpella numerous, or stamens opposite the petals.*

Order I. RANUNCULACEÆ.

The greater part of the plants of this order are objects of interest with gardeners, containing, as it does, many of the most elegant or showy of the tribes of hardy plants. It is here that the graceful Clématis, the lowly Anemóne, the glittering Ranúnculus, and the gaudy Pæony are found; differing, indeed, in external appearance, but combined by all the essential characters of the fructification. It is remarkable, however, that the acrid and venomous properties of these plants are nearly as powerful as their beauty is great. They are all caustic, and in many of them the deleterious principle is in dangerous abundance. M. Decandolle remarks, that its nature is extremely singular; it is so volatile, that, in most cases, simple drying in the air or infusion in water is sufficient to destroy it: it is neither acid nor alkaline, but its activity is increased by acids, honey, sugar, wine, or alcohol; and it is, in reality, destructible only by water. The crowfoots of our European pastures, and the Anemónes trilobáta and triternáta, of those of South America, are well known poisons of cattle. Blistering plasters are made in Iceland of the leaves of Ranúnculus ácris. The foliage of some species of Clématis is supposed to afford the means employed by beggars of producing artificial ulcers. Some of the Aconites are diuretic, especially Napéllus and Cámmarum. Delphínium Consólida is said to be an ingredient in those French cosmetics which are so destructive of the surface of the skin. The Helléborus, famous in classical history for its drastic powers, and the Nigélla, celebrated in ancient housewifery for its aromatic seeds, which were used for pepper before that article was discovered, are both comprehended in Ranunculaceæ. The range of this order, in a geographical point of view, is very extensive. A great number has been discovered in Europe, but they are so abundant in all parts of the world that an order can scarcely be found more universally and equally dispersed. It is singular, that, with the exception of the climbing species of Clématis and of Xanthorhiza, scarcely an instance occurs in Ranunculaceæ of a shrubby stem.

Tribe 1. CLEMATIDEÆ.

Clématis *L.*
1228 Naravélia *Dec.*

Tribe 2. ANEMONEÆ.

1229 Thalictrum *W.*
1226 Anemóne *W.*
1225 Hepática *W. en.*
1241 Hydrástis *W.*
1231 Knowltónia *Sal.*
1230 Adónis *L.*

Tribe 3. RANUNCULEÆ.

707 Myosúrus *W.*
708 Ceratocéphalus *P. S.*
1233 Ranúnculus *W.*
1232 Ficária *Pers.*

Tribe 4. HELLEBOREÆ.

1239 Cáltha *W.*
1234 Tróllius *W.*
1236 Eránthis *Sal.*
1235 Isopýrum *W.*
1237 Helléborus *W.*
1239 Cóptis *Sal.*
1053 Garidélla *W.*
1209 Nigélla *W.*
1208 Aquilégia *W.*
1204 Delphínium *W.*
1205 Aconítum *W.*

Tribe 5. Pæonieæ.

1164 Actæ'a *Ph.*
1207 Cimicifuga *Ph.*
1202 Pæónia *W.*
709 Xanthorhiza *W.*

Order II. DILLENIACEÆ.

Fine plants, almost exclusively confined to tropical countries. Dillénia speciòsa, a native of India, is a most noble tree with large yellow flowers, rivalling those of a Magnólia. Hibbértia volúbilis is a green-house plant well known for the beauty of its blossoms, and their powerfully fetid smell. The medical properties of this order are scarcely known; a decoction of their leaves or bark is astringent, and used for gargles; and the acid juice of the fruit of some of the species of Dillénia is used in India, mixed with water, as a pleasant beverage in fevers. The foliage of many of the species is extremely scabrous, whence the dried leaves are used for the same purposes as fish-skin and sand-paper in Europe; those of Trachytélla áspera are even employed in China for polishing works of metal.

1201 Curatélla *W.*
1212 Tetrácera *L.*
1206 Trachytélla *Dec.*
1214 Dillénia *W.*
1203 Hibbértia *H. K.*
1211 Colbértia *Sal.*

Order III. MAGNOLIACEÆ.

No one is ignorant of the grandeur of Magnolias, or of the delicious, though sometimes dangerous, fragrance of their blossoms; but it is less generally known, that, from their affinity to the trees that produce the famous Winter's bark and Melambo bark, they possess medicinal qualities of no common power. The bark of all of them is said to have a bitter flavor without any astringency, and combined with a hot aromatic principle. In the United States, the bark of Magnólia glaúca and Liriodéndron tulipífera, is employed for the same purposes as Jesuit's bark, and from the fruit of Magnólia acumináta, a tincture is prepared which has some reputation for removing attacks of rheumatism. The fruit of Illicium anisátum, is the material which flavors the liqueur called Anisette de Bourdeaux. The Magnolias are exclusively inhabitants of Asia and America, no species having hitherto been found either in Europe or in Africa.

1215 Illicium *W.*
1216 Liriodéndron *W.*
1217 Magnólia *W*
1218 Michélia *W.*

Order IV. ANNONACEÆ.

The plants of this order are closely allied to Magnoliaceæ, from which they are principally distinguished by the absence of stipulæ, and by the structure of their anthers and seeds. The latter consist of a hard mass of albumen, ruminated, as the botanists call it, that is to say, perforated by the substance of the seed-coat, in every direction. They are all trees or shrubs, and chiefly inhabitants of the hottest parts of the tropics, but a few have been discovered straggling into the temperate zones of America. The fruit of the Annóna is in many species highly esteemed as an article for the dessert, especially that of the Cherimoyer, which has the reputation of being the finest fruit in the world, next to the Mangosteen. The hard fruits of the species of Uvária are highly aromatic; those of one of them furnish the Piper æthiópicum of the shops. The genus Asimina is the only one which contains any hardy species, and these are so delicate as to be seen very rarely in this country. In Brazil, the bark of Xylópia sericea is used for cordage; for which it is admirably adapted.

1219 Uvária *W.*
1220 Annóna *P. S.*
1221 Artabótrys *R. Br.*
1222 Guattéria *R. & P.*
1223 Asimina *Ad.*
1224 Xylópia *W.*

Order V. MENISPERMEÆ.

The order of Menispermeæ consists entirely of twining shrubs with minute flowers They are extremely dissimilar in habit from the orders which are placed near them, and occupy their present station entirely on account of certain minute but important characters in their fructification. With the exception of Schizándra coccinea none of them are worth cultivating as plants of ornament. The berries of Lardizabála biternáta are sold in the markets of Chile, under the name of *Aguilboquil*, *Guilbogui*, or *Coguill-Vochi*, according to different travellers. The bitter, diuretic, and aperient sorts of Pareira brava, are produced by a species of Menispérmum, as is also the famous Columbo root, so much esteemed for its intense bitterness, and for its use in diarrhœa and dysentery. The poisonous drug, called Cocculus indicus in the shops, is the seed of Menispérmum Cócculus. Several Brazilian species of Cócculus are said to possess powerful febrifugal properties. No species of Menispermeæ is found in Europe; they are chiefly natives of tropical America and Asia.

858 Wendlándia *W.*
1972 Schizándra *W.*
2100 Menispérmum *D.*
2101 Cócculus *Dec.*
2116 Cissámpelos *Dec.*

Order VI. BERBERIDEÆ.

With the exception of Bérberis this order does not contain any genus of much interest; most of the others are low, inconspicuous, herbaceous plants; Nandina is an elegant Japanese shrub The Berberises are all shrubs of much beauty and interest, especially the species with pinnated leaves, which are sometimes called Mahonias. These are all inhabitants either of Europe, Asia, or North and South America; none have ever been seen in Africa or New South Wales. Many of the finest species from Chile and India yet remain to be introduced. The berries of the Berberises are acid and astringent; the latter quality is especially abundant in the stem and bark.

297 Epimédium *W.*
825 Leóntice *W.*
826 Caulophýllum *Mich.*
827 Diphylléia *Mich.*
829 Bérberis *W.*
830 Nandina *W.*

Order VII. PODOPHYLLACEÆ.

Little interesting herbaceous North American plants, nearly related on the one hand to Nymphæaceæ, and, on the other, to the herbaceous genera of Berberideæ. Their juice is held to be purgative.

1166 Podophýllum *W.*
896 Jeffersónia *Ph.*

Order VIII. HYDROPELTIDEÆ.

This order differs from Nymphæaceæ chiefly in having a definite number of seeds. It consists of only two genera, each containing a single species. Both are little floating plants of tropical and northern America. Nothing is known of their properties.

1240 Hydropéltis *H. K.*

Order IX. NYMPHÆACEÆ.

Like the last, these are all floating plants, and, to gardeners, possessed of great interest, on account of the elegant form and various hues of their flowers Three species are known as the lilies of our own streams and ponds, and the remainder occupy similar stations in other countries. Some of the Indian species of Nymphæ'a are delightfully fragrant. The holy Cyamus, or Pythagorean bean of antiquity, is the produce of the Nelúmbium, a stately aquatic, which abounds in all the hotter countries of the East, where its roots are frequently used as an article of food. The ditches, about Pekin and other Chinese cities, are literally choaked up with its abundance. The pericarpia or beans are oblong, hard, smooth bodies, and possess the power of vegetating after having been dried for even thirty years. The flowers and roots of the common white Nymphæ'a have been long celebrated for their sedative and antiaphrodisiacal qualities, which are, however, now considered doubtful. In Sweden, in years of scarcity, the roots of Núphar lútea are pounded into cakes along with the inner bark of Pinus sylvéstris.

This order has been the cause of much difference among botanists, as to its true station in a natural classification, its structure being of so doubtful a character as to leave room for disputing whether it belongs to Dicotyledones or Monocotyledones. Upon this subject M. Decandolle has the following remarks: "Gærtner declares that the embryo is undivided, and therefore monocotyledonous. In 1802, I remarked in the Bulletin Philomathique, that the embryo both of Nymphæ'a and Núphar is enclosed in a peculiar integument, and that a dicotyledonous structure is apparent when that integument is removed; shortly after, M. Mirbel declared that the embryo of Nelúmbium has two thick cotyledones; in 1806, M. Turpin gave an accurate description of the fruit of Nelúmbium lúteum, without however removing the doubts about the real structure of the embryo, and two years afterwards his colleague, M. Poiteau, described the seed and germination of the same plant, pointing out that the embryo consisted of two thick cotyledons enclosed within a stipular membrane, but destitute of radicula: this was subsequently confirmed by M. Mirbel after very minute anatomical examination; that observer compared the seed of Nelúmbium to the seed of Amýgdalus, and also to that of Piper and Saurúrus, and also demonstrated that the structure of the stem was analogous to that of exogenous or dicotyledonous plants. A very different opinion was shortly afterwards held by M. Correa de Serra, an observer of the highest order, who admitted indeed that Nymphæaceæ are exogenous, but contended that the parts which had been taken by previous observers for cotyledons were, in fact, a mere expansion of the radicle, and that cotyledons were as entirely absent in Nelúmbium as in Cúscuta. In the meanwhile M. de Jussieu adhered to the old opinion, that Nymphæaceæ are monocotyledonous; in which he was supported by the late Professor Louis Claude Richard, a name for ever memorable in the annals of Carpology, who published a new view of their structure, in which he differed materially from all his predecessors; this botanist considered the stipulary membrane of Poiteau a simple cotyledon, and the cotyledons of that writer the hypoblastus, or *body of the radicula;* he also refused to admit any evidence derived from the anatomical structure of the stem. In this conflict of opinions, I have determined to station Nymphæaceæ among Exogenes, for the following reasons: 1st, because the structure of their stem is that of Exogenes rather than of Endogenes; 2dly, because the two opposite bodies, enclosed within the little bag or stipulary membrane, described by Poiteau, appear to be undoubtedly cotyledons, which is confirmed by the presence of a plumula between them in Nelúmbium; 3dly, because of the structure of their flower, which has a great affinity with that of Pæónia, Magnólia, and Papáver; 4thly, on account of the similarity between their fruit and stigma and that of Papáver; 5thly, because of their milky juice and convolute leaves, two characters which are not known to exist among Endogenes." Those who are interested in pursuing this curious discussion any farther, will find many remarks and illustrative figures in the English edition of the Analyse du Fruit, published by Mr. Lindley in 1819.

1174 Nymphæ'a *W.*
1176 Núphar *H. K.*
1177 Eurýale *H. K.*
1213 Nelúmbium *J.*

Section 2. *Carpella solitary or connate; Placentæ parietal.*

Order X. PAPAVERACEÆ.

These plants are better known for their medicinal properties than for their beauty. Some of them are the common pests of corn fields, and with grain have been disseminated over all the world. Sanguinária is a neat little American plant well known for its crimson juice, and the [illegible] purgative powers of its roots. Sarracénnia is a genus of very doubtful affinity; consisting of curious little American marsh plants of difficult culture, and remarkable for the singular pitcher-like form of its leaves. The peculiar power of the poppy is, as is well known, narcotic; a property which pervades all the order, although in a less intense degree in all than in the officinal P. somniferum, from which exclusively the drug opium is obtained. The Mexicans use the expressed oil of the seeds of Argemóne mexicána for polishing furniture.

1170 Papáver *W.*
1165 Sanguinária *W.*
1167 Chelidónium *W.*
1168 Röméria *Med.*
1169 Glaúcium *J.*
1171 Meconópsis *Vig.*
1172 Argemóne *W.*
313 Hypécoum *W.*
1073 Boccónia *W.*
? 1173 Saracénia *W.*

Order XI. FUMARIACEÆ.

Tender herbs, with finely cut leaves and annual stems, abounding in a watery juice; without any appearance of milkiness. They are reckoned slightly diaphoretic and aperient, but their medical properties are trifling. Formerly they were combined with Papaveraceæ, from which they are now universally distinguished. The greater part of them are natives of hedges or thickets in the cooler parts of the northern hemisphere; two are natives of the Cape of Good Hope. Many of the species are beautiful ornaments of the flower-garden.

1502 Corýdalis *Vent.*
1503 Cysticápnos *W. en.*
1504 Diclýtra *Dec.*
1505 Adlúmia *Raf.*
1506 Sarcocápnos *Dec.*
1507 Fumária *P. S.*

Order XII. CRUCIFERÆ.

The importance of this order to mankind, and the singular nature of its botanical characters, render it expedient to speak very fully upon it: in which the remarks of the learned M. Decandolle, who has paid Cruciferæ particular attention, will be chiefly followed. The order consists wholly of annual or perennial, often biennial herbs, occasionally assuming a suffrutescent habit; then, however, never exceeding the height of three feet. The roots are either thick and perennial, or annual or biennial and slender, almost always perpendicular and undivided. The young roots are tipped with a little sheath, called the coleorhiza, which is produced by the extended ruptured coat of the epidermis when the rootlet first appears. This is a curious character, and deserves attention. The stems are round or somewhat angular, branched, and often, even in the annual species, indurated at the base. The branches proceed from the axillæ of the leaves, but the uppermost ones are abortive in most cases. The racemes are always opposite to the leaves; sometimes the terminal branch is abortive when the raceme appears to be terminal; but this is merely owing to that circumstance. The leaves are simple, generally radical or alternate, rarely opposite. The flowers are either white, yellow, or purple, or in a few Cape species bright blue. The fruit is called either a siliqua or silicula, the former being a linear pod containing many seeds, the latter a roundish pod containing one or very few seeds, whence this order, which is the same as the Linnæan class Tetradynamia, is divided by Linnæus into two parts, called Siliquosæ and Siliculosæ. In the seed, the radicle and cotyledons are applied to each other in different ways, from which the suborders of M. Decandolle derive their characters. When the edge of the cotyledons is pressed close to the radicula, so that a cross section would be thus ○ =, the cotyledons are said to be accumbent, as in all Pleurorhizeæ; when the side of the cotyledons is pressed to the radicula thus ○ ||, the former are called incumbent, as in Notorhizeæ. If the cotyledons are incumbent, and at the same time half folded together or conduplicate, thus ○ > >, the suborder Orthoploceæ is formed; when the cotyledons are incumbent and spirally twisted, so that a section would resemble this ○ || ||, they constitute the suborder Spirolobeæ; and finally, when the cotyledons [illegible]cumbent, and doubled twice in their length, thus ○ || || ||, we have Diplecolobeæ.

The whole order is preeminently European; 166 species are found in the north and middle of Europe, and 178 on the sea-shores of the Mediterranean; 45 are found between Mogadore and Alexandria; 184 in the countries of the East, that is to say, Syria, Asia Minor, Tauria, and Persia; 99 in Siberia; 35 in China, Japan, and India; 16 in New Holland and the South Sea islands; 6 in the Mauritius and adjacent countries; 70 at the Cape; 9 in the Canaries; 2 in Saint Helena; 2 in the West Indies; 41 in South America; 48 in North America; 5 in Kamtchatka and the bordering islands; and finally, 35 are common to several parts of the globe. From this it appears that there are about 100 species in the southern hemisphere, and about 800 in the northern: or, if they are considered with reference to the zones of temperature, 205 are natives of the frigid zone of the northern hemisphere; 30 of the whole of the tropics; 548 of the temperate zone of the northern hemisphere; and 86 of the southern. The forty-first degree of north latitude may be considered the equatorial line of Cruciferæ, about half being found on one side of it, and half on the other. Their station is very variable; many inhabit open sandy places, some form the vegetation about the limits of the perpetual snows of lofty mountains, and many follow the footsteps of man through all parts of the world.

The useful qualities of the turnip, the radish, the rape, and the cabbage, and its multiform varieties, are all well known. The greater part of the order consists of plants possessing high antiscorbutic powers. These appear to depend upon a certain acrid volatile oily principle, the chemical nature of which is imperfectly known. It is particularly abundant in the seeds of mustard and the roots of horseradish, and the leaves of Lepidium latifolium, which latter exercise a violent influence upon the organs of digestion. The same sort of acrimony, but in less degree, is found in the herbage of the scurvy-grass and the roots of the radish, which act much more mildly when taken inwardly; thus, when any cruciferous plants are found to be eatable, either from culture or other circumstances, it is to be understood to depend upon a reduction of this acrid principle. The exciting powers of this last, are what render the horse-radish, the scurvy grass, and others, so remarkably useful as antiscorbutics; they are also believed to possess diuretic and diaphoretic properties. It is to be remarked, that Cruciferæ are always eatable when their texture is succulent and watery, as in the roots of the radish and the turnip, and the leaves of the cabbage tribe. A further diminution of the acrid principle is produced by blanching. Cruciferæ are said to possess a greater share of azote than any other tribe of plants; as is apparent in their fœtid smell when fermented. The embryo of all the order abounds in oil, whence many species are employed with much advantage for expressing, either for eating or for feeding lamps. Some of the species are extremely beautiful and fragrant, as the Stocks, the Gillyflowers, the Hesperides, the Candytufts, and many others. The Hutchinsias, Drabas, Cardamines, &c. are among the most interesting of alpine plants

SUBORDER I. *PLEURORHIZEÆ.* ○ =

Tribe 1. ARABIDEÆ.

1381 Mathiola *R. Br.*
1382 Cheiránthus *L.*
1383 Nastúrtium *R. Br.*
1384 Leptocarpæa *Dec.*
1385 Notóceras *R. Br.*
1386 Barbaréa *R. Br.*
1387 Bráya *Stern.*
1389 Turritis *R. Br.*
1390 A'rabis *L.*
1388 Párrya *R. Br.*
1391 Macropódium *R. Br.*
1392 Cardámine *L.*
1393 Pteroneúron *Dec.*
1394 Dentária *L.*

Tribe 2. ALYSSINEÆ.

1395 Lunária *L.*
1396 Ricótia *L.*
1397 Farsétia *Turr.*
1398 Berteróa *Dec.*
1399 Aubriétia *Adans.*
1400 Vesicária *Lam.*
1401 Alýssum *L.*
1402 Clypéola *W.*
1403 Peltária *L.*
1404 Petrocállis *R. Br*
1405 Drába *L.*
1406 Eróphila *Dec.*
1407 Cochleária *L.*

Tribe 3. THLASPIDEÆ.

1408 Thláspi *L.*
1410 Hutchinsia *R. Br.*
1411 Teesdália *R. Br.*
1412 Ibéris *L.*
1413 Biscutélla *L.*

Tribe 4. EUCLIDIEÆ.

1414 Euclidium *R. Br.*
1415 Ochthódium *Dec.*

Tribe 5. ANASTATICEÆ.

1416 Anastática *L.*

Tribe 6. CAKILINEÆ.

1417 Cakile *Tourn.*
1419 Chorispora *Dec.*

SUBORDER II. *NOTORHIZEÆ.* ○ ||

Tribe 7. SISYMBRIEÆ.

1420 Malcómia *R. Br.*
1421 Hésperis *L.*
1422 Sisýmbrium *L.*
1423 Alliária *Adans.*
1424 Erýsimum *L.*

Tribe 8. CAMELINEÆ.

1425 Camelina *Crantz*
1426 Néslia *Desv.*

Tribe 9. LEPIDINEÆ.

1427 Corónopus *Sm.*
1428 Lepídium *L.*
1409 Capsélla *Mönch.*
1429 Æthionéma *R.*

Tribe 10. ISATIDEÆ.

1430 Isátis *L.*
1431 Mýagrum *L.*

SUBORDER III. *ORTHOPLOCEÆ.* ○ > >

Tribe 11. BRASSICEÆ.

1432 Brássica *L.*
1433 Sinápis *L.*
1434 Moricándia *Dec.*
1435 Diplotáxis *Dec.*
1436 Erúca *Tourn.*

Tribe 12. VELLEÆ.

1437 Vélla *L.*
1438 Carrichtéra *Adans.*
1439 Succówia *Mönch.*

Tribe 13. ZILL[illegible]

1440 Zílla *Forsk.*
1441 Calepina *Adans.*

Tribe 14. RAPHANEÆ.

442 Crámbe *W*
1418 Rapistrum *Desv.*
1443 Ráphanus *L*

SUBORDER IV. *SPIROLO[illegible]* ○ || ||

Tribe 15. BUNI[illegible]

1444 Búnias *L.*

Tribe 16. ERUCARIEÆ.

1445 Erucária *Gærtn.*

SUBORDER V. *DIPLECOLOBEÆ.* ○ || || ||

Tribe 17. HELIOPHILEÆ.

1446 Helióphila *L*

Tribe 18. Subularieæ.

1447 Subulária *L.*

§ *Of doubtful station.*

1380 Schizopétalon *Sims.*

Order XIII. FLACOURTIANEÆ.

A very small order formerly comprised in Tiliaceæ. It is remarkable on account of the structure of its fruit, to the inner lining of which the seeds are attached upon a branched placenta. Nothing is known of the properties of the Flacourtias. The berries of Flacoúrtia Ramóntchi are eaten in Madagascar. The order consists entirely of small tropical trees or bushes.

2102 Flacoúrtia *W.*

Order XIV. CAPPARIDEÆ.

These are nearly related to Cruciferæ, of the properties of which they partake. Many are very pretty plants, especially Cleóme rósea, and the various species of Cratæ'va. The common caper is an elegant bush, remarkable for its large white flowers and long purple stamens. The species are found occasionally in various parts of the world. The different kinds of Cápparis are reputed to be stimulating, antiscorbutic, and aperient. The bark of the root of the common caper passes for a diuretic medicine. Several species of Cleóme have an acrid taste, which has been compared by travellers to that of mustard. The root of Cleóme dodecándra is employed as a vermifuge in the United States; and the leaves produce an inflammation of the skin, whence they are used in Cochin-china as a sinapism. *Dec.*

1162 Cápparis *W.* 1086 Cratæ'va *W.* 1448 Cleóme *W.*

Order XV. VIOLARIEÆ.

This is one of the most favorite orders with gardeners; consisting, as it chiefly does, of the Violet genus, from which most of the others are recent dismemberments. The greater part are hardy herbaceous plants, some of which are remarkable for their perfume, others for their brilliant colors, and all for their neatness. They are natives of the temperate or cold zones of both hemispheres, often growing at great elevations above the sea. Among them is a tribe called Alsodineæ, consisting of suffrutescent tropical plants; but none of them have been introduced into the gardens of this country. The attention of collectors should be directed to procuring the shrubby Violaceæ of Brazil, some of which possess great interest. The medical properties of the order are found principally in their roots, which appear to possess, in all cases, emetic properties, in a greater or less degree. One of the Ipecacuanhas is the root of a Brazilian viol[illegible] M. Decandolle has the following observations upon the affinities of the Violarieæ: — They are very nearl[illegible] akin, he observes, to the Polygaleæ and Droseráceæ, and especially to the Passifloreæ. From the first they are distinguished by their unilocular fruit, leaves furnished with stipules and two-celled anthers; from Droseraceæ by their solitary style, lengthened embryo and stipulate leaves, the vernation of which is involutive, not circinate. From Passifloreæ they differ in their fruit being capsular, not berried; in their albumen being compact and shining, not pitted; in their stamens being hypogynous, not perigynous; in their anthers being attached along their whole length, not fixed by their middle; finally, in their stigmas being one and not three. The genus Calýptrion approaches Passifloreæ in its twining stem, and Hymenanthéra borders upon Polygaleæ on account of its monospermous pericarpium with solitary pendulous seeds.

541 Ionidium *Vent.* 540 Viola *W.* 539 Sauvagésia *Jacq.*

Order XVI. POLYGALEÆ.

Most of the plants of this order are interesting, and deserving the attention of the gardener, some for their neatness, some for their beauty, and some for their use in medicine. They are natives of most countries, and are either low herbaceous plants, occasionally less than an inch in height (small specimens of Polýgala purpúrea), or shrubs varying from a dwarf, rigid, spiny habit, to a tall, graceful, drooping appearance. Polygaleæ are remarkable for the union of their stamens into a single body, their one-celled anthers opening with a pore, and their irregular flowers, one of which is often keel-shaped, and beautifully crested or bearded. The leaves have generally a bitter astringent taste, which is much more abundant in the roots, combined with an acrid and somewhat resinous flavour: these properties are particularly sensible in P. sénega, which is reputed a sudorific, diuretic, sialagogue, cathartic, or mild emetic, according to the manner in which it is administered. The Yelhoi of South America, the root of a species of Monnina, has the same properties as P. sénega, and is particularly used as a remedy for dysentery. The well known Rattany, or Ratanhia root, of Chile, is the produce of a plant of this order, and possesses powerful tonic and astringent qualities. According to the analysis of a French chemist, it contains gallic acid, but neither tannin nor resin.

1508 Polýgala *W.* 1509 Muráltia *Neck.* 1510 Múndia *Kunth.* 1511 Securidáca. *L.*

Order XVII. DROSERACEÆ.

The order of sun-dews is a small group of plants, natives of marshes or inundated grounds in all the temperate parts of the world. The species are very remarkable for the abundance of glandular hairs with which all the parts of the foliage are covered. Only two species are in any degree frutescent. The young leaves are always rolled up in the circinate manner, so remarkable in ferns. Their medicinal properties appear to be trifling: the leaves have the power of curdling milk.

702 Drósera *W.* 1009 Dionæ'a *W.*

Order XVIII. BIXINEÆ.

The plants of this order are few in number, and not remarkable either for beauty or use. The Bixa orellána is chiefly known for producing the seed called in the shops Arnotta (*Rocou*, Fr.), and used for coloring cheese; the properties of the Arnotta are slightly purgative and stomachic. They are all bushes or small trees, and mostly tropical. Azaras, Chilian shrubs with fragrant flowers, are not yet known in the gardens of Europe.

1178 Bixa *W.* 1179 Prockia *L.*

Order XIX. CISTINEÆ.

The common rock roses of our gardens give an accurate idea of this order, which contains little else. They are all very ornamental, and particularly well calculated for covering rockwork. The species of Cistus and Heliánthemum have been multiplied by Dunal in an extravagant manner, as has been well demonstrated by Mr. Bentham. They are natives of most parts of the world in dry elevated places. The gum called Ladanum is the produce of some kinds of Cistus; it exhales a fragrant perfume when burnt, and possesses slightly tonic and stomachic properties.

1089 Hudsónia *W.* 1197 Cistus *J.* 1198 Heliánthemum *J.* 222 Lechea *W.*

Section 3. *Ovarium solitary*. *Placenta central*.

ORDER XX. CARYOPHYLLEÆ.

These consist of herbs or low undershrubs, inhabiting the mountains and pastures of all parts of the world. In Europe and Siberia they are particularly abundant, and least so in Africa and South America. Many are common weeds, as most of the Cerástiums, Spérgulas, and others. Several of the Silénes are very ornamental, and among the Arenárias are to be found some dwarf species of considerable elegance. But it is in Diánthus that the pride of the order consists: this genus is almost unrivalled for the brilliancy of its colors, the neatness of its foliage, and the perfume of its flowers. From the finest of its species the title of the order has been derived. The virtues of Caryophylleæ are slight. Saponária officinális, and one or two others, have been praised for possessing antisyphilitic properties; the root of Siléne virginiána is reputed anthelmintic; and the Arenária peploides, being fermented, is used by the Icelanders for food.

Tribe 1. SILENEÆ.

1044 Gypsóphila *W.*
1046 Diánthus *W.*
1045 Saponária *W.*
1047 Cucúbalus *L.*
1048 Siléne *L.*
1067 Lýchnis *W.*
1066 Agrostémma *W.*
604 Velésia *W.*
687 Drýpis *W.*

Tribe 2. ALSINEÆ.

91 Ortégia *W.*
311 Buffònia *W.*
319 Sagina *W.*
920 Mœhringia *W.*
931 Elátine *W.*
225 Mollúgo *W.*
691 Pharnáceum *W.*
220 Holósteum *W.*
1070 Spérgula *W.*
1069 Larbréa *St. Hil.*
1049 Stellária *W.*
688 Alsine *W.*
1050 Arenária *W.*
1068 Cerástium *W.*
1051 Cherléria *W.*

ORDER XXI. LINEÆ.

Separated by M. Decandolle from Caryophylleæ, from which it is well distinguished by its fruit having several cells, or in the language of the botanist just named, being formed by the cohesion of several carpella. Most of the species are pretty plants, bearing yellow, blue, or white flowers. They are of immense importance in the world, on account of the tenacity of their fibres when made into flax. The seeds of common flax are between mucilaginous and oily; the leaves of Linum cathárticum and L. selaginoides, the latter a native of Peru, are purgative.

701 Linum *W.*
321 Radiola *Sm.*

ORDER XXII. FRANKENIACEÆ.

Distinguished from Caryophylleæ by the fruit not having a central separate placenta, but bearing the seeds on the inner margin of the valves. The species are natives of arid situations in Europe, Africa, and South America. They have not much beauty, and no known medical properties. Besides the genus here recorded, there are two others mentioned by M. Decandolle.

835 Frankénia *W.*

ORDER XXIII. MALVACEÆ.

Before this order was dismembered of Bombaceæ and Byttneriaceæ, it contained most of the grandest flowers in nature. Even now, the splendour of the various species of Málva, Althæ'a, to which the hollyhock belongs, and Hibíscus, renders it one of the most remarkable groups of plants. With the exception of the numerous genus Sida, nearly all Malvaceæ are objects worthy of the gardener's care, particularly those which are hardy. In stoves or greenhouse, the softness of their branches and leaves render them peculiarly liable to the attacks of the red spider, mealy bug, and scale, from which few collections are free; a circumstance which makes them less generally esteemed than the surpassing beauty of many of them merits. The greater part of the order is clothed with stellate pubescence, and a reniform one-celled anther is a character common to the whole. These two peculiarities, together with the alternate stipulate leaves, distinguish Malvaceæ from all the rest of Dichlamydeæ. All the species abound in a nutritive mucilage; a quality which renders the young heads of the Ochro, or Hibiscus esculéntus, an object of great value within the tropics, as an ingredient in soups. In Brazil, the Abútilon esculéntum serves the same purposes. The emollient properties of Althæ'a officinális, or Guimauve of the French, are well known to physicians, as a remedy for catarrhs and pulmonary complaints. A decoction of the leaves of Sphærálcea cispiatina is used for similar objects in Brazil. A species of Pavónia is employed in the same country as a diuretic in the form of a decoction. The straight shoots of Sida micrántha are employed as rocket-sticks at Rio Janeiro. The chewed leaves of Sida carpinifólia allay the inflammation occasioned by the stings of wasps. The tough fibres of many Malvaceæ are manufactured into cordage. Their petals are astringent; whence those of Hibiscus Rósa sinénsis are used in China to blacken the eyelashes and the leather of shoes. The fibrous threads in which the seeds of Gossýpium are enveloped furnish the valuable cotton, an article of immense importance to the world; these threads when examined by the microscope, will be seen to be finely toothed, which explains the cause of their adhering together with greater facility than those of Bombax and several Apocineæ, which are destitute of teeth, and which cannot be spun into thread without an admixture of cotton.

1471 Málope *W.*
1472 Málva *W.*
1475 Lavatéra *W.*
1474 Althæ'a *W.*
1473 Kitaibélia *W.*
1476 Maláchra *W.*
1477 Uréna *W.*
1484 Cristária *Cav.*
1485 Anóda *Cav.*
1486 Periptera *Dec.*
1487 Sida *W.*
1478 Pavónia *W.*
1479 Achánia *W.*
1480 Hibiscus *W.*
1482 Redoutéa *Vent.*
1483 Palávia *W.*
1488 Lagunéa *W.*
1481 Gossýpium *W.*

ORDER XXIV. BOMBACEÆ.

Distinguished from the last by the imbricate æstivation of the calyx, and the arrangement of the stamens in five sets, or, in Linnæan language, brotherhoods. The species are mostly fine trees with large showy flowers, and natives of the tropics. Some of them are among the largest trees in the world; Adansónia, the Baobab of Senegal, has been seen with a diameter of twenty-five feet, and specimens of Bómbax Ceiba, and Eriodéndron anfractuósum, are not uncommon an hundred feet in height. The wood of all the species is light and soft, as in Malvaceæ, from which this order probably does not differ in its medicinal properties.

1458 Ochróma *W.*
1466 Helicteres *W.*
1490 Carolinea *W.*
1491 Adansónia *W.*
1492 Bómbax *W.*
1493 Myródia *W.*

ORDER XXV. BYTTNERIACEÆ.

Much the same kind of plants as those of the two last orders, from which they were not formerly distinguished; and from which they scarcely differ, except in their bilocular anthers. Many of the Stercúlias are fine umbrageous trees, the seeds of which are large and eatable; especially those of the famous Kola, which possess the property, being chewed, of rendering bad water pleasant to the palate. The seeds of the Chicha, another and very noble species of the genus, are highly esteemed in Brazil for the dessert. Astrapæ'a, and several other genera related to it, are among the most beautiful in the world. The flowers of a species of Pentapétes, called by the Indians, Machucunha, give out a mucilaginous refrigerant juice, which is employed in gonorrhæa. Guazúma ulmifólia has its fruit filled with a pleasant mucilage, which is sweet and very agreeable; an extract of the bark of the same plant is used in Martinique to clarify sugar; its old bark is employed in the form of a strong decoction, as a sudorific. Walthéria Douradinha contains a great deal of mucilage, and is employed by the Brazilians as an antisyphilitic.

Tribe 1. STERCULIACEÆ.

2036 Sterculia *W.*
2037 Heritiéra *W.*

Tribe 2. BYTTNERIEÆ.

1607 Theobróma *W.*
1609 Abróma *W.*
1608 Bubróma *W.*
703 Commersónia *W.*
704 Rulingia *R. Br.*
526 Buttnéria *W.*
527 Ayénia *W.*
1098 Kleinhófia

Tribe 3. LASIOPETALEÆ.

525 Seringia *Gay.*
524 Thomásia *Gay.*
523 Lasiopétalum *Sm.*

Tribe 4. HERMANNIACEÆ.

1445 Hermánnia *W.*
1456 Melóchia *W.*
1454 Walthéria *W.*

Tribe 5. DOMBEYACEÆ.

1489 Ruízia *W.*
1468 Pentapétes *W.*
1467 Dombéya *J.*
1457 Melhánia *J.*
1469 Astrapæ'a *Lindl.*
1470 Pterospérmum *W.*

ORDER XXVI. TREMANDREÆ.

A very small order containing only seven species, all small bushes, natives of New Holland, and remarkable for the peculiar neatness of their appearance. In habit, they may be compared to heaths, with which they agree in the anthers bursting by a pore at the end. Nothing is known of their properties.

879 Tetrathéca *Sm.*

ORDER XXVII. TILIACEÆ.

Trees, shrubs, or herbs, in general not remarkable for their beauty, the greater part of the last being the commonest weeds of the tropics. The Lime, from which the order derives its name, is a genus of fine trees with fragrant flowers, and Sparmánnia and Enteléa are handsome broad-leaved greenhouse arborescent plants. The inner bark of Tilia is tough and separable, and supplies the material whence the Russia mats used by gardeners and others are prepared. Córchorus olitórius is cultivated in Egypt as a kitchen-garden vegetable; the fibres of the bark of Córchorus capsuláris are twisted into fishing lines; and the roasted nuts of the Lime tree are reported to bear some resemblance to chocolate

1087 Triumfétta *W.*
1100 Heliocárpus *W.*
1180 Sloánea *W.*
1181 Apeiba *W.*
1182 Sparmánnia *W.*
1183 Enteléa *R. Br.*
1184 Munti[illegible] *W.*
1185 Gréwia [illegible].
1186 Tília *W.*
1187 Córchorus *W.*

ORDER XXVIII. ELÆOCARPEÆ.

These differ from Tiliaceæ in nothing except their lobed petals and anthers opening by two pores at the apex. The flowers of some of the species of Elæocárpus are fragrant, the fruit eatable, and the hard rugose stones manufactured into necklaces.

1102 Elæocárpus *W.*

ORDER XXIX. SAPINDACEÆ.

One of the distinctive peculiarities of this order consists in the petals having an additional lobe in the inside, or a tuft of hairs instead. Nearly all the plants have compound leaves, and bunches of white flowers; a few of them are twining herbs, but the greater part are trees or shrubs, all natives of the warmer parts of the world, and in a great proportion, of the East. The only genus which will bear the climate of England is Kolreutéria, a fine shrub or small tree, with panicles of white or pale yellow flowers. Nephélium and Dimocárpus are both genera bearing excellent fruit. The rind of the berry of Sapindus saponária is of a soapy quality, as the name of the plant indicates. The pulp of Melicócca, the arillus of Blighia sápida, and the kernel of Berthollétea and Pékea are all excellent eating.

926 Sapindus *W.*
1971 Nephélium *W.*
883 Dimocárpus *W.*
831 Cossignia *Juss.*
832 Ornítrophe *W.*
884 Melicócca *W.*
885 Blighia *H K.*
886 Metaiba *Aubl.*
887 Kolreutéria *W.*
923 Paullinia *W.*
924 Seriána *W.*
925 Cardiospérmum *W.*
897 Dodonæ'a *W.*
1991 Amiróla *Pers.*

ORDER XXX. HIPPOCASTANEÆ.

The only genus is Æ'sculus, from which some botanists have divided the smooth-fruited species under the name of Pávia. The order is much valued for the grandeur of the foliage and flowers of most of the species, which are all hardy trees. Their bitter fruit has sometimes been used as a sternutatory; it contains a large quantity of potash, and an abundance of starch. The bark is astringent, bitter, and febrifugal, and has been recommended as a substitute for Cinchóna.

866 Æ'sculus *W.*

ORDER XXXI. HIPPOCRATICEÆ.

Little is known of this order. The species are tropical arborescent or climbing shrubs, with opposite simple leaves, and small inconspicuous flowers. The genus Tonsélla, of which there is none in cultivation, contains some species known in Sierra Leone as bearing poisonous fruit.

83 Hippocrátea *L.*

ORDER XXXII. MARCGRAAVIACEÆ.

Very curious half-climbing shrubs, all natives of hot countries. Some of them bear among the flowers, which are large and showy, singular hollow bodies, like the pitchers of Sarracénia. The order has been well illustrated by Professor Hooker, in the 160th article of his Exotic Flora.

1163 Marcgraávia *W.*

ORDER XXXIII. ACERINEÆ.

Valuable trees, native of the woods of Europe, Siberia, and North America. Their flowers are in all cases inconspicuous; the breadth and rich color of their leaves constituting their beauty. All the larger species abound in a very saccharine sap, from which sugar is prepared in North America; it is chiefly made from A'cer saccharinum and Negúndium, but may be obtained from many others.

2143 A'cer *W.*
2144 Negúndium *Dec.*

ORDER XXXIV. MALPIGHIACEÆ.

Undulated unguiculate spreading petals form one of the most obvious characters of this order, the species of which are all tropical, and are either trees or shrubs, often climbers. Many of the Malpighias are well known for the prurient hairs produced on the surface of their leaves; their fruit is eatable, their timber of a deep red color, and their bark a febrifuge. Their showy pink or yellow flowers, and firm neat foliage, render all this order worthy of cultivation, except Aspicárpa, which is a weed.

1054 Malpighia *W.* 1056 Hiræ'a *W.* 1007 Gærtnéra *W.*
1055 Banistéria *W.* 29 Aspicárpa *Rich.*

ORDER XXXV. HYPERICINEÆ.

The whole of these abound in a resinous juice, and are in most cases glandular in some degree. Their leaves are all dotted, and which is very remarkable, the dots are often black, even upon the yellow petals. These latter have a singular obliquity, which is not indicated by their outline, but by the arrangement of their veins. The juice just noticed as abundant in this order is yellow, viscid, rather bitter, often purgative or anthelmintic; and so very analogous to Gamboge, that the juice of Hypéricum baccátum, and some other Guiana species, has received the name of American Gamboge. Most Hypericineæ are bitter, and slightly astringent, whence they have been used as febrifuges. A small part of the order is tropical; but in its most genuine form it consists of herbaceous or undershrubby plants, delighting in the shade of groves and thickets in the cooler parts of Europe and Asia. Nearly all the flowers are yellow; those of H. cochinchinénse are dull red.

1617 Hypéricum *W.* 1618 Ascýrum *W.* 694 Parnássia *W.*

ORDER XXXVI. GUTTIFERÆ.

Trees or shrubs found in the hottest parts of the world, and well known by their thick entire opposite leaves and resinous juice. In the countries where they grow they are of great importance. One, the Garcinia mangostána, bears a fruit, the equal of which is supposed not to exist. The well known Gamboge is the inspissated juice of Garcinia Gambógia, and, perhaps, other species; the juice of others is found an efficacious vermifuge, and also a remedy for the chiggers, one of the worst pests of equinoctial America. The bark and fruit of many Garcinias are astringent. The unripe fruits of Grias cauliflóra are pickled. The flowers of all the order being showy, the foliage good, and the properties interesting, every species deserves cultivation.

1079 Garcinia *W.* 1190 Mamméa *W.* 2151 Clúsia *W.*
1085 Canélla *W.* 1616 Xanthochýmus *Roxb.* 1188 Grias *W.*
1189 Calophýllum *W.*

ORDER XXXVII. VINIFERÆ.

The vine is the type and representative of this order. Cissus and Ampelópsis differ little from it in botanical characters, and not at all in habit. The common grape is the only species that bears really good fruit; the American kinds, with large fleshy berries, being spoiled by a disagreeable foxy flavor, which is not found to be removed by cultivation.

501 Vitis *P. S.* 502 Ampelópsis *W.* 505 Ci[illegible]s *W.* 454 Leéa *W.*

ORDER XXXIII. GERANIAC[illegible]

The Gerániums are well known to all gardeners for their beauty, and the facility with which hybrid varieties are produced among them. Geránium and Eródium are chiefly natives of the northern hemisphere; and Pelargónium of the southern. Different as they appear from Viniferæ in most respects, there are some points in which a curious resemblance may be found between the two orders. The young stems of both are articulated and separable at the articulations; and the lower leaves are opposite, while the upper ones are alternate. In Geraniaceæ no tendrils are produced, but the peduncles are opposite to the leaves, as in Vitis, and occupy the place of tendrils. M. Decandolle observes, that of the true Geraniaceæ, some are slightly acid, especially those of which the leaves and bark are succulent; several exhale a resinous smell which is sometimes agreeable, but occasionally so powerful as to be unpleasant. The resinous principle is so abundant in Geranium spinósum, that its stem burns like a torch, and exhales an agreeable perfume. The most common property of European geraniums is to be astringent, which is chemically determined by their juice being blackened by sulphate of iron; this is particularly remarkable in G. Robertiánum and sanguíneum, which are both accounted vulnerary, and in G. moschátum, praténse, and others, in which it is united to a slight aromatic principle, whence they have been recommended for various purposes, and among others for removing calculous disorders. The astringent property of the geraniums is also present in G. maculátum, which grows in much abundance about Philadelphia; the root of this plant, boiled in milk, is used for the cholera in children. Barton is of opinion, that it would be a good substitute for gum kino in nephritis and obstina[illegible] diarrhœas.

14[illegible]ódium *W.* 1461 Pelargónium *W.* 1463 Geránium *W.* 1465 Monsónia *W.*

ORDER XXXIX. OXALIDEÆ.

For[illegible]onfounded with the last order. It is the opinion of modern botanists, that the species are more nearl[illegible] Rutaceæ or Zygophylleæ, and that their character and peculiar habit is quite sufficient to disting[illegible]m. The beauty of the genus O'xalis is very great, and the readiness with which the species may be c[illegible]ed and caused to flower, would have been expected to make them universal favorites; they are not, however, much seen in cultivation. Their properties are well known: all of them have a slightly acid taste, whence some have occasionally been employed as salad; their acidity is very agreeable and depends upon the presence of a small quantity of oxalate of potassa. In some of the species of equinoctial America oxalic acid exists in great abundance. Several species are employed in Brazil as a remedy for certain fevers of that country.

1064 Biophýtum *Dec.* 1065 O'xalis *W.* 1058 Averrhóa *W.*

ORDER XL. TROPÆOLEÆ.

These are climbing or trailing herbs with handsome solitary axillary flowers, and fleshy stems and leaves. They are distinguished from Geraniaceæ by their stamens being separate, and not agreeing in number with the petals; by their axillary flowers, and fleshy indehiscent fruit. It is very curious, that this is the only order in which the peculiar acrid flavor of Cruciferæ is found to exist. Tropæ'olum pentaphýllum, with probably other species, is a powerful antiscorbutic. All are natives of shady places in various parts of South America. The roots of some are fleshy and eatable.

875 Tropæ'olum *W.*

ORDER XLI. BALSAMINEÆ.

The flower of this order has been remarked by a learned botanist to be that of Fumariaceæ, the capsule of O'xalis, the embryo of Linum, and the habit peculiar. The well-known elastic spring with which the seeds are ejected, constitutes a principal character of the order. All the species are annuals, with the exception of Impátiens fruticósa; they delight in moist hot situations, generally within the tropics; and are remarkable for the singularity and varied colors of their flowers.

538 Impátiens *W.*

ORDER XLII. ZYGOPHYLLEÆ.

The hardness of the wood of the shrubby species of this order is most remarkable, if the softness of the stems of the herbaceous ones is remembered. To this the extreme difficulty of propagating Guaiacum is to be attributed. Zygophýllum Fabágo is employed as an anthelmintic, but it is in the Guaiacum that the great medical virtues of the order are found: all the genus is extremely exciting; the wood and bark of Guaiacum officinále and sánctum have a rather bitter acrid flavor, and are principally used as sudorifics, diaphoretics, or alteratives; they have been found to contain a particular substance differing both from gum and resin, which has been called guayacine. Many of the species bear beautiful flowers, especially the Tribuluses, which with their brilliant yellow Cistus-like blossoms, enliven many a barren rock in the tropics. None are found in the colder latitudes of the world.

994 Zygophýllum *W.*
995 Fagónia *W.*
996 Tribulus *W.*
993 Guaiacum *W.*

ORDER XLIII. MELIACEÆ.

The nearest affinity of this order is probably with Sapindaceæ. It is particularly distinguished by the stamens being united into a tube bearing the anthers. The leaves are usually pinnated, and most of the species, which are all either trees or shrubs, are natives of tropical forests. Mélia bears bunches of fine lilac colored flowers, but few of the genera are interesting on account of their inflorescence. The qualities of the different species are little known. Canélla álba is aromatic, and is used in equinoctial America as a spice. The bark of Guárea trichilioides is said by Aublet to be purgative and emetic. The pulpy fruit of Mélia Azedarách is said to be poisonous; both this part and the inner bark have been used as anthelmintics either in substance or in decoction. It is asserted by Michaux, that the pulp that surrounds the kernel is considered in Pekin a specific in scrophulous cases. The oil expressed from the seeds of the same plant is said to have strong antispasmodic powers.

888 Guárea *W.*
987 Trichilia *W.*
988 Mélia *W.*
989 Quivisia *Cav.*
991 Ekebérgia *W.*
992 Heýnea *Roxb.*

ORDER XLIV. CEDRELEÆ.

Some of the finest trees of the tropical regions of the globe are comprehended in this order, as the well known mahogany, and the New Holland cedar, which is a species of Cedréla. Their winged seeds distinguish them from Meliaceæ. The bark of Cedréla Túna is employed in the East Indies as a febrifuge, as is also that of the mahogany in the West. But the most powerful remedy for fevers in the whole order is the Soymida of the West Indies, which is the produce of Swieténia febrífuga; its taste is bitter and nauseous, and its virtues are extolled as equalling those of Cinchóna.

990 Swieténia *W.*
531 Cedréla *W.*

ORDER XLV. AURANTIACEÆ.

These are also known under the name of *Hesperideæ.* They consist of trees or shrubs of the greatest beauty and utility. The well-known orange and lemon are the representatives of the order, the characters of which are so well defined that there is no material deviation from the type afforded by those species. The thick leaves, articulated with their petiole, and abounding in transparent reservoirs of odoriferous oil, are the most obvious peculiarities. The flowers are fragrant, and the fruit in all cases fleshy, and generally eatable. The wood is particularly close-grained. The volatile oil contained in the reservoirs of the leaves and fruit possesses powerful tonic and stimulating properties. M. Decandolle thus explains the singular structure of the fruit of the orange. In the opinion of this learned botanist it consists, first, of a thick, valveless, indehiscent indusium or coat, which is most likely to be considered a continuous torus. Secondly, of several carpella, verticillate around an imaginary axis, often separable without laceration; membranous, and either containing seeds only, or filled with pulp, lying in innumerable little bags proceeding from the inner coats of the cells.

500 Triphásia *Lour.*
1003 Limónia *W.*
1004 Glycósmis *Corr.*
1615 Citrus *W.*
1005 Murraýa *W.*
1006 Coókia *W.*
1196 Æ'gle *Corr.*
2149 Ferónia *Corr.*

ORDER XLVI. TERNSTROMIACEÆ.

A very small order, consisting wholly of trees or shrubs, bearing handsome white or yellowish flowers. They are nearly related to Camellieæ, from which they do not differ at all in habit. Nothing is known of their properties. Noronha states that a species of Saurauja found in Java has a subacid fruit, in flavor resembling the Tomato, and that it is eaten by the Javanese under the name of Koleho.

1083 Eúrya *Th.*
1494 Gordónia *W.*
1495 Stuártia *W.*

ORDER XLVII. CAMELLIEÆ.

Camellias are too well known in our gardens to render it necessary to say much upon their peculiarities. The Camellia is one of the most beautiful, and the tea one of the most useful, plants in the world. Both are natives either of China, Japan, or Nepal. The tea is well known for the stimulating influence of its decoction upon the nerves, which is attributed by Cullen to the presence of a narcotic principle. The seeds of Caméllia oleifera yield a fine oil. None of the species bear fragrant flowers. Their nearest affinity is with Ternströmiaceæ, from which they probably ought not to be separated.

1496 Caméllia *Ker*

ORDER XLVIII. OLACINEÆ.

Smooth trees or shrubs, with simple stalked exstipulate alternate entire leaves, and little axillary flowers. Botanists doubt whether what is called a calyx is not rather an involucrum, in which case the corolla would become a calyx, and the station of the order among Monochlamydeæ, rather than in this place.

890 Ximénia *W.*

ORDER XLIX. RUTACEÆ.

An interesting and extensive, but rather heterogeneous, group of plants, natives of all countries and all situations. The species are either fetid northern herbaceous plants, as the garden rue, or neat heath-like southern shrubs, with an aromatic odor, as the Cape Diósmas; broad or long-leaved Australasian shrubs, with a stellate pubescence, as Phebálium, or tropical trees with panicles of pallid minute flowers, as the Cuspárias and Xanthóxylums. The order contains nearly 300 species, of which but a small proportion is in our gardens. The medical properties of many genera are considerable. Rúta and Péganum are emmenagogue, anthelmintic, and sudorific. Diósma abounds in a volatile oil of an agreeable smell, but acrid flavor; several of its species are reputed antispasmodics. The Xanthóxylums are said to possess acrid, stimulating, or tonic qualities; Cláva Hérculis and fraxineum are said, in America, to be powerful sudorifics and diaphoretics. According to Barton, they possess a remarkable power of exciting copious salivation, not only when applied to the mouth, but even when taken internally; they have both been found powerful remedies in paralysis of the muscles of the mouth. Xanthóxylum caribæ'um is regarded in Guiana as a detersive vulnerary and febrifuge. The famous febrifugal Angostura bark is the produce of Cuspária febrífuga.

Tribe 1. RUTEÆ.

998 Rúta *W.*
1088 Péganum *W.*
1293 Meliánthus *W.*
905 Jambolifera

Tribe 2. DIOSMEÆ.

997 Dictámnus *W.*
898 Calodéndrum *W.*
880 Corræ'a *W.*
999 Crówea *Sm.*
878 Borónia *Sm.*
304 Ziéria *Sm.*
517 Diósma *W. en.*
518 Adenándra *W. en.*
519 Baryósma *W. en.*
520 Agathósma *W. en.*
1965 Empleúrum *W.*

Tribe 3. ZANTHOXYLEÆ.

303 Fagára *W.*
2066 Xanthóxylum *W.*

Tribe 4. CUSPARIEÆ.

41 Galipéa *Aubl.*
1500 Monniéria *W.*

ORDER L. CORIARIEÆ.

Five species constitute the whole of this order, distributed in South Europe, New Zealand, Peru, and Mexico. They possess no beauty, and are only interesting on account of their problematical station in a botanical arrangement. The leaves of C. myrtifólia are astringent, and are employed in dying black. Its berries are very poisonous. On one occasion, during the Spanish war fifteen French soldiers were taken ill after eating them, and three died from their powerful narcotic effects.

2091 Coriária *W.*

Section 4. *Fruit (gynobasic) inserted into a fleshy receptacle, with which the style is continuous.*

ORDER LI. OCHNACEÆ.

Beautiful yellow-flowered tropical shrubs or trees with lucid leaves. The roots and leaves of Walkéra serráta, a Cingalese plant, are bitter; a decoction of them, either in water or milk, is used in Malabar as tonic, stomachic, and antiemetic. The bark of Gómphia hexaspérma is found useful in healing sores produced in cattle in Brazil by the stings of insects.

1001 Gómphia *W.*
1191 O'chna *W.*

ORDER LII. SIMARUBACEÆ.

Thirteen plants, found in equinoctial America, constitute this order. They are trees or shrubs, with an intensely bitter bark, a milky juice, and pinnated leaves. The Quassia is well known as the most pure and intense bitter hitherto discovered; the same property exists, in a milder degree, in the rest of the order Quássia amára is a very ornamental plant, but rare, at present, in collections.

1002 Quássia *W.*

SUBCLASS II. CALYCIFLOREÆ.

Petals separate, inserted into the calyx.

ORDER LIII. CELASTRINEÆ.

This order differs from the succeeding, in having the stamens alternate with the petals; the sepals imbricated in æstivation; and the ovarium wholly superior. It consists entirely of shrubs or small trees, with simple, rarely compound, alternate or opposite leaves, and inconspicuous flowers of a greenish or white color. Several are favorite ornaments of our shrubberies, as the Staphyléa, the Celástrus, and the Euónymus; the latter of which is valued on account of its beautiful-colored fruit. The fruit of Euónymus europæ'us is a brisk purgative, as is also the inner bark, and in strong doses powerfully emetic. The famous Paraguay tea is the foliage of a species of I'lex. The bark of Prinos verticillátus possesses such active, astringent, bitter, tonic, and febrifugal qualities, that it is used in North America, with success, as a substitute for Cinchóna. A decoction of the twigs of Maýtenus boária is used to bathe the swellings produced by the poisonous shade of the tree Lithi.

Tribe 1. STAPHYLEACEÆ.

684 Staphyléa *W.*

Tribe 2. EUONYMEÆ.

509 Euónymus *W.*
507 Celástrus *W.*
31 Maýtenus *Mol.*
516 Elæodéndrum *W.*

Tribe 3. AQUIFOLIACEÆ.

682 Cassine *W.*
301 Hartógia *W.*
300 Curtísia *W.*
605 Bumálda *Th.*
314 Myginda *W.*
315 I'lex *W.*
828 Prinos *W.*
543 Plectrónia *W.*
514 Schrebéra *Retz.*

ORDER LIV. RHAMNEÆ.

In habit, this altogether agrees with the last, from which the medical properties of the species are not widely different. Throughout the order, as far as it has been examined, there is a remarkable agreement between the fruit and the inner bark, especially in Rhámnus cathárticus, frangula, and others, in which they both are purgative and emetic. Some, as the Jujuba, and the African Lote, nevertheless, yield a wholesome and agreeable fruit; and the berries, of the greater number, yield, under the chemist's hands, green or yellow dyes of much importance in manufactures. The leaves of Rhámnus theézans are substituted for tea by the poorer sort among the Chinese. The bark of Ceanóthus cærúleus is esteemed in Mexico as a good febrifuge.

506 Zizyphus *W.*
505 Paliúrus *Gært.*
504 Œnóplia *Mich.*
503 Rhámnus *W.*
510 Ceanóthus *W.*
512 Pomadérris *W.*
542 Phýlica *W.*
2146 Gouánia *W.*
532 Hovénia *Th.*
2060 Schæfféria *W.*

ORDER LV. BRUNIACEÆ.

Small heath-like shrubs, all natives of the Cape of Good Hope, and extremely ornamental, both in flower and foliage. Their properties are unknown.

533 Brúnia *W.*
511 Stáavia *W.*

ORDER LVI. SAMYDEÆ.

Tropical shrubs or small trees, with entire, stipulate, alternate leaves, covered with pellucid dots, and axillary flowers of little shew. Some of the species of Samyda are pretty, but very rare. Their properties are unknown. M. Decandolle remarks, that in their fruit they approach Bixineæ and Flacourtianeæ; but on account of the position of their stamens must be arranged in the vicinity of Rhamneæ and Rosaceæ.

1034 Samyda *W.*

ORDER LVII. HOMALINEÆ.

Evergreen handsome shrubs, with alternate leaves and deciduous stipulæ; they are readily known by their parietal placentæ, an unusual character among the orders that surround them. Blackwéllia fagifólia has fine bunches of starry white fragrant flowers. Aristotélia is an evergreen half hardy shrub, with eatable berries. Little is known of their medical properties; the root of Homálium Racoúbea is used in Guiana as a cure for gonorrhœa.

1108 Blackwéllia *Juss.* 873 Astránthus *L.* 1084 Aristotélia *W.*

ORDER LVIII. TEREBINTHACEÆ.

This order is, notwithstanding the labors of several botanists, in a very confused state; from want of sufficient knowledge of many of the genera, which have been hitherto imperfectly described, it is difficult either to determine the value of the characters assigned to the tribes, or the dignity of the tribes themselves. All the species are shrubs or trees, with alternate exstipulate leaves, and inconspicuous flowers, and abound in a balsamiferous resin, which is chiefly present in the leaves and bark, and from which the denomination of the order has been derived. Notwithstanding the minuteness of their flowers, many of the species are valuable as ornamental plants, on account of the beauty of their foliage, others for the sake of their utility in arts or medicine, and others for their fruit. The walnut, the Cashew nut, and the Pistachio are valuable for their nuts, which are well known articles of the markets of Europe. The Spóndias and Mángo are equally famous in the tropics. The well-known balsam of Tolu is the produce of the Toluifera; the balsam of Mecca, of the Amýris gileadénsis; and balm of Acouchi, of the Icica acuchini; gum comes from Amýris elemifera and Icica leptophýlla; mastich from Pistácia atlántica and lentiscus; and Venetian turpentine from Pistácia terebinthus. Schinus Mólle produces a resin which in Peru is used as a dentrifice, as myrrh is with us. Some of the best varnishes are prepared from the exudation of Amýris guianénsis, Rhús vérnix, copallina, and others; the finest kinds of incense are also afforded by plants of this order, such as the wood and resin of the different species of Icica, of Amýris balsamifera, and of Canárium commúne, the Coumia, which is used in Guiana for such purposes, and finally, the Boswellia thurifera, which is the true frankincense of Indian temples. But among the fragrant and wholesome plants of which the order chiefly consists, lie concealed others in which acrid and poisonous qualities no less abound. Such are several pieces of Rhus, the juice of which produces blisters upon the skin, and the Amýris toxífera, the juice of which is accounted poisonous. To conclude this long list of the uses and dangers of Terebinthaceæ, the bark of Brúcea is used as an astringent in dysenteries, that of Rhus glábra as a febrifuge and as a mordant for red colors, and that of Rhus coriária as a powerful means of tanning skins of animals. It is curious to remark how strongly Terebinthaceæ are connected with Amentaceæ through Júglans.

Tribe 1. ANACARDIEÆ.

935 Anacárdium *W.* 2065 Pistácia *W.* 2067 Picrámnia *W.*
513 Mangifera *W.* 85 Comocládia

Tribe 2. SUMACHINEÆ.

681 Rhus *W.* 2093 Schinus *W*

Tribe 3. SPONDIACEÆ.

1059 Spóndias *W.*

Tribe 4. BURSERACEÆ.

2164 Burséra *W.* 1010 Garúga *Roxb*

Tribe 5. AMYRIDEÆ.

889 Amýris *W.*

Tribe 6. PTELEACEÆ.

298 Ptélea *W.* 529 Toddália *Lam.* 84 Cneórum *W.* 683 Spathélia *W.*

Tribe 7. CONNARACEÆ.

1057 Cnéstis *Lam.* 2061 Brúcea *W.*

Tribe 8. JUGLANDEÆ.

1999 Júglans *W.*

ORDER LIX. LEGUMINOSÆ.

The family to which the various kinds of pulse belong is one of the most familiar to the world, and at the same time one of the most useful to mankind. Their papilionaceous flowers characterise a large number, and their pods and pinnate leaves the remainder, with a few exceptions, which it is not necessary to particularise. As objects of ornament, many are possessed of unrivalled beauty, for example, among hardy flowering trees, the Robinia and the Labúrnum; among shrubs, for decorating the borders of the flower-garden, the various tribes of Cýtisus, Caragána, Colutèa, Amórpha, and others; among hardy climbers, the far-famed Glýcine of China, and its sister of North America, with the species of the herbaceous genera Vicia and Láthyrus; and, lastly, among hardy herbaceous plants, the numerous species of Lupinus and Astrágalus. Great, however, as is the beauty of the Leguminosæ which can brave the inclemencies of the seasons of Northern Europe, it must give way before the splendor and elegance of their brethren of the tropics. The flowers of the Erythrina, or Coral tree, are of the deepest crimson, and borne in profusion upon some of the loftiest trees of the forest. The Bauhinias, with their snake-like stems and twin leaves, hang in festoons of flowers from branch to branch of other trees, and are only rivalled by the less vigorous and elegant, but more richly colored blossoms of the Carpopógons. But all these, with their broad heavy foliage and gaudy colors, are far surpassed by the rugged trunks, trembling airy foliage, and golden flowers of the Mimósa, which cast a charm over even the most sterile deserts of burning Africa. While the forests of hot countries are thus indebted to species of this order for their timber, the meadows and pastures of the same latitudes are enamelled with the flowers of myriads of Hedýsarums, and animated by the wonderful motion of sensitive plants. As in our own country, the gayest part of our scenery is in many places indebted to the yellow flowers of our furze and broom, so in other countries the same effect is produced by other genera of Leguminosæ; by Lipária, Borbónia, and Aspálathus, at the Cape of Good Hope, and by the Pultenæas, Daviésias, Aótuses, and multitudes of similar genera in New Holland. The wood of the order is very hard and durable, with a yellow tinge, sometimes changing into green, as in the Labúrnum of Europe, and in the better known Brazil wood of commerce, produced by Cæsalpinia. The following useful remarks upon the properties of the order are made by M. Decandolle:—

"The family of leguminous plants, though established upon characters of primary importance, offers, nevertheless, so large a number of species and such singular botanical anomalies, that it is easy to foresee that its properties will exhibit little uniformity. Still more exceptions may be anticipated if one reflects, that the chemical principle which is found most abundantly in every part of leguminous plants, and to which we must attribute their principal properties, is the extractive. It is probable that this principle, either from its own nature, or from its peculiar power of uniting with different matters, or perhaps instead of being a simple principle, it is rather a compound of different matters; it is probable, I say, that the extractive principle exhibits much less uniformity in its results than any other. It is, without doubt, to the presence of the extractive principle, in considerable quantities, that many leguminous plants owe their purgative properties, which are common to several extracts, and which many chemists attribute to the acetate of potash, which they are almost universally found to contain. Thus the leaves and foliaceous pods of Cássia sénna *Lin.*, of Cássia lanceoláta *Forsk.*, of Cássia emargináta of the Antilles, of the Cássia marylándica employed in the United States, of Colùtea arboréscens, of Spártium púrgans, and perhaps also of Coronilla émerus, act as brisk purgatives, and often cause wind and pain in the bowels. The juice of Coronilla vária excites vomiting, and may even become poisonous when taken in too large quantities. It is, perhaps, from a different cause that the pulp which is contained in the husks of leguminous plants operates upon the human body; it purges gently without causing the least pain, and ought to be considered as laxative rather than purgative. Such is the character of the juicy pulp that exists in the Cássia fistula *Lin.*, in the Tamarindus indica *Lin.*, in the Ceratónia siliqua *Lin.*, and probably in the Mimósa inga and the M. fagifólia, which are eaten in small quantities in the Antilles, but which, taken more copiously, would have the same effect as our Carobs. There are some fruits of Leguminosæ, for example, the Sophóra and the Gleditschia, with tumid pods, in which is found a juice which surrounds, it is true, the seeds, as in the plants just mentioned, but which differs from them altogether in its very astringent and nauseous flavor; the nature and properties of this juice deserve to be examined by chemists, and would undoubtedly throw some light upon the nature of Leguminosæ. I am induced to think, that the astringent juice of the Sophóra is a secretion of the pericarp, whilst the sweet and purgative juice of the Cássia would be a secretion of the external part of the seed; but this hypothesis requires to be verified: what leads me to this opinion, is the flavor commonly found in husks; in the Carobs, for example, the husk is astringent, and the pulp sweet and laxative. But let us return to the properties which may be attributed to the extractive principle. It is undoubtedly from some one of these modifications that the singular property of the Piscidia and many Galégas is derived, which are employed in America to stupefy fish, which are taken by this means as readily as with Nux vómica. The decoction of the root of Galéga virginiána is considered in America as a powerful vermifuge. It is, perhaps, indeed, to the very same cause that the rubefacient powers of the fresh leaves of some Leguminosæ are to be ascribed, which act readily upon the skin if applied as plasters; as, for example, in Ornithopus scorpioides among ourselves, and Hyperanthera moringa elsewhere. It appears to me, that it is to the greater or less considerable mixture of the extractive principle with the fæcula contained in the seed, that the different properties of the pulse of leguminous plants may be attributed. If found in small quantities, the seed may serve as food for man and animals, as we see in French beans, peas, lentils, chick peas, beans, and many others, &c. If found, in a more considerable quantity, it will render them purgative or emetic, as in the Cýtisus labúrnum, the Anagýris fœ'tida, and even in most Coronillas. It is remarkable that the botanical characters of Leguminosæ should so strictly agree with the properties of their seeds: the latter may be divided into two sections; namely, first, those of which the cotyledons are thick and filled with fæcula, and destitute of cortical pores, and which, moreover, in germination do not undergo any change, but nourish the young plant by means of that supply of food which they already contain; secondly, those of which the cotyledons are thin, with very little fæcula, and furnished with cortical pores, and which change at once into leaves at the time of germination for the purpose of elaborating food for the young plant. All the seeds of the first section are employed as food in different countries; none of those of the second section are ever so employed; the Cajan, which has long been classed among the Cýtisi, was apparently an exception to this general rule; but observation has proved the contrary. Bearing in mind its known properties, I formerly paid particular attention to its structure, and I have shown in a note, which accompanies my catalogue of the Montpelier garden, that the Cajan forms a particular genus much more nearly allied to the French bean than to the Cýtisi, and that it, in fact, belongs to the first of the sections which I have just described. The seeds of Leguminosæ present also many other anomalies more difficult to reduce to any fixed laws: thus some are found which contain a rather large portion of fixed oil; such as the seed of the A'rachis hypogæ'a, lately introduced into European agriculture, and that of Guilandina moringa which produces oil of ben; there are some, of which the flavor and smell are rather powerful; as the seed of Dipterix or Coumarouna odóra of Aublet, which, under the name of Tonquin bean, is used for perfuming snuff; there are others which, like the chick pea, have rather a bitter taste and exciting properties, and are on that account administered for the jaundice. There are others again, like those of the Andira, which are so bitter as to be used in Java and Brasil as tonic, alexiteric, and vermifuge. In a word, are not the aperient and diuretic properties which are observable in the herbage and the roots of many leguminous plants, such as broom, beans, Onónis, Guilandina ringa and moringa, Anthýllis crética, &c. to be attributed to a modification of this extractive principle? There are, in another view, roots which are furnished with tubercles, that is to say, with reservoirs of fæcula which furnish mankind with wholesome food, as we see in the Láthyrus tuberósus, which is eaten in Holland, the Dólichos tuberósus, and the D. bulbósus, which the Indians use as food. The roots of the liquorice have a sweet and mucilaginous taste, which is well known by every body, and which, united to an acrid and rather exciting principle, causes it to be employed as a pectoral; the analysis of this root, published by M. Robiquet, proves that independently of its woody skeleton, the same kind of amylaceous fæcula is found as in the tuberous roots of which we have just been speaking, it is thence seen that the acrid flavor of decoctions of liquorice depends on the small quantity of resinous oil which it contains, and that its sweet properties are by no means analogous to common sugar, since it is insoluble in cold water, soluble in warm water or in alcohol, not capable of fermentation, and does not yield to the action of nitric acid any of the known products of sugar. It may here be added, that the sugary flavor of liquorice, and its other properties, are not confined to this genus; they are found equally in the roots of Trifólium alpinum, vulgarly called Mountain liquorice; in those of the A'brus precatórius, from which a pectoral draught is prepared in Hindoostan, called Velti, and in others. The barks of some trees of the leguminous class, are remarkable for their bitterness, and are used as febrifuges; the different kinds of Geoffróya possess this bitter and febrifugal quality in a remarkable degree; in India, the bark of the Æschynómene grandiflóra and of the Cæsalpínia bonducélla are employed for the same purpose. The barks of many leguminous plants are also remarkable for their astringent qualities, caused by the quantity of tannin which they are found to contain; this is observable in the Acácia Cátechu, and in the Acácia arábica, which is used for tanning leather, and elsewhere. It is well known that almost all coloring matter proceeds from the extractive principle; and as it appears that this principle abounds in Leguminosæ, we ought to find in them a considerable number of the colors which are used by dyers: to this family, in fact, belong the principal blue colors, known by the name of indigo, extracted from every kind of Indigófera and from some Galégas; and the red colors, which are yielded by all the species of Cæsalpínia and of Hæmatóxylon. We may add the red juice, which is drawn from the Pterocárpus dráco and Santalinus, under the name of sandal and of dragon's-blood; from Erythrina monospérma, under the name of gum lac; and also from Dalbérgia monetária. These juices appear to differ in many particulars, but their history and analysis are at present so far from being known, that it is impossible to form a true estimate of the nature of their differences. But anomalies of this nature are far from being confined to the plants just mentioned. Among the exotic drugs employed in the arts they are very common: such, for example, are the balsam of Capivi, produced by the Copaifera; the balsam of Peru, which, Mutis says, is obtained from Myróxylon; the Cachou, which has been found to be almost pure tannin, and which is supposed to be produced by Acácia Cátechu; of the same character is that remarkable resin that is yielded by Hymenæ'a Courbaril; gum Arabic, produced by the bark and roots of Acácia senegalénsis, nilótica, arábica, and others; gum tragacanth obtained from Astrágalus créticus, gummifera, and vérus; and finally, *manna*, secreted by Hedýsarum alhági."

The arrangement of this tribe of plants has been found to be attended with much difficulty. By Linnæus, and the writers who succeeded him, the number of genera was much smaller than those admitted by botanists of the present age; many additions have been made in consequence of the discovery of New Holland, and a large number of subdivisions in old genera have been from time to time introduced by one writer or another. To combine these scattered improvements under one uniform system has lately been attempted by the learned botanist, from whom the foregoing extract has been taken. This was not executed at the time when those parts of the present work, in which leguminous plants are found, were written; for which reason the names of the suborders will not be found in the body of the work. M. Decandolle's method, however, being here adopted, it will be useful to explain the principles upon which it is founded. He divides Leguminosæ into two grand divisions, the first of which consists of plants, the radicle of whose seed is curved back upon the edge of the cotyledons, and the second of those whose radicle and cotyledons are straight: the former are CURVEMBRIÆ, the latter RECTEMBRIÆ. In the *Curvembriæ*, certain diversities in the structure of the calyx and corolla again divide into two principal forms, one of which, comprehending all the genera with papilionaceous flowers, is called Papilionaceæ, and the other, consisting of a very small number of species, with one or two petals or more, and an obscurely lobed calyx, is called Swartzieæ. The last is not subdivided, but the Papilionaceæ resolve themselves into the two great tribes pointed out by M. Decandolle, namely, those with fleshy cotyledons and eatable pulse, *Sarcolobæ*, and those with foliaceous cotyledons and seeds which are not eatable, *Phyllolobæ*. Each of these is divisible by three, upon slight differences in the fructification. In *Rectembriæ* two suborders, Mimoseæ and Cæsalpineæ, are formed upon variations in the æstivation of the calyx and corolla; in the former, it is valvate, in the latter, imbricated; the first constitute a single tribe, the latter divide into three, distinguished by less momentous peculiarities of structure. Having premised thus much, the following tabular explanation will be intelligible:

I. CURVEMBRIÆ.
 PAPILIONACEÆ.
 a. Phyllolobæ. { Tribe 1. *Sophoreæ*. Pod continuous. Stamens distinct.
 Tribe 2. *Loteæ*. Pod continuous. Stamens united by the filaments.
 Tribe 3. *Hedysareæ*. Pod with transverse articulations. Stamens mostly united by the filaments.
 b Sarcolobæ. { Tribe 4. *Vicieæ*. Pod polyspermous, dehiscent. Leaves cirrhous, the first alternate.
 Tribe 5. *Phaseoleæ*. Pod polyspermous, dehiscent. Leaves not cirrhous, the first opposite.
 Tribe 6. *Dalbergieæ*. Pod one or two-seeded, indehiscent. Leaves not cirrhous.
2. SWARTZIEÆ. Tribe 7. *Swartzieæ*.

II. RECTEMBRIEÆ.
1. MIMOSEÆ. Tribe 8. *Mimoseæ*.
2. CÆSALPINEÆ. Tribe 9. *Geoffreæ*. Sepals and petals imbricated in æstivation. Stamens variously connected by the filaments.
 Tribe 10. *Cassieæ*. Sepals and petals imbricated in æstivation. Stamens distinct.
 Tribe 11. *Detarieæ*. Sepals before expansion indistinct, calyx bladder-like. Petals 0.

SUBORDER I. *PAPILIONACEÆ*.

Tribe 1. SOPHOREÆ

941 Sophóra *H. K.*
940 Edwárdsia *Sal.*
942 Ormósia *Jacks.*
945 Virgília *Lam.*
943 Anagýris *W.*
944 Thermópsis *R. Br.*
947 Baptísia *R. Br.*
946 Cyclópia *R. Br.*
948 Podalýria *R. Br.*
949 Chorozémia *Lab.*
950 Podolóbium *H. K.*
951 Oxylóbium *H. K.*
952 Callistachys *Vent.*
953 Brachysêma *H. K.*
954 Gompholóbium *H. K.*
955 Burtónia *H. K.*
956 Jacksónia *H. K.*
957 Viminária *H. K.*
958 Sphærolóbium *H. K.*
959 Aótus *H. K.*
960 Dillwýnia *H. K.*
961 Eutáxia *H. K.*
962 Sclerothámnus *H. K.*
963 Gastrolóbium *H. K.*
964 Euchilus *H. K.*
965 Pultenæ'a *H. K.*
966 Daviésia *L. T.*
967 Mirbélia *L. T.*

Tribe 2. LOTEÆ.

Subtribe 1. *Genisteæ*.

1536 Hóvea *H. K.*
1525 Platylóbium *Sm.*
1531 Bossiæ'a *Sm.*
1534 Goódia *R. Br.*
1532 Scóttia *R. Br.*
1533 Templetónia *H. K.*
1527 Ráfnia *Th.*
1526 Borbónia *W.*
1565 Lipária *W.*
1584 Hállia *Th.*
1530 Crotalária *W.*
1523 Vibórgia *W.*
1535 Loddigésia *R. M.*
1539 Lebéckia *W.*
1529 Sarcophýllum *Th.*
1528 Aspálathus *W.*
1540 U'lex *W.*
1537 Spártium *W.*
1538 Genista *W.*
1566 Cýtisus *W.*
1541 Onónis *W.*
1542 Anthýllis *W.*

Subtribe 2. *Trifolieæ*.

1605 Medicágo *W.*
1603 Trigonélla *W.*
1598 Melilótus *J.*
1600 Trifólium *J.*
1599 Lupináster *Ph.*
1604 Dorýcnium *W.*
1601 Lótus *W.*
1602 Tetragonólobus *Roth.*
1606 Hymenocárpus *W.*

Subtribe 3. *Clitoriæ*.

1597 Psorálea *W.*
1589 Indigófera *W.*
1556 Clitória *W.*
1555 Galáctia *Mx.*
1552 Glýcine *L.*

Subtribe 4. *Galegeæ*.

1501 Petalostémum *Mich.*
1596 Dálea *P. S*
1574 Glycyrrhiza *W.*
1575 Liquorítia *Mönch.*
1591 Galéga *P. S.*
1590 Tephrósia *P. S.*
1545 Amórpha *W.*
1512 Nissólia *W.*
1567 Mulléra *W.*
1568 Robínia *W.*
1581 Sesbánia *H. K.*
1524 Piscídia *W.*
1569 Caragána *Royen.*
1573 Colútea *L.*
1570 Swainsónia *H. K.*
1572 Lessértia *H. K.*
1571 Sutherlándia *H. K.*

Subtribe 5. *Astragaleæ*.

1592 Phâca *W.*
1593 Oxýtropis *Dec.*
1594 Astrágalus *Dec.*
1595 Biserrula *W.*

Tribe 3. HEDYSAREÆ.

Subtribe 1. *Coronilleæ*.

1579 Scorpiúrus *W.*
1576 Coronilla *H. K.*
1578 Ornithopus *W.*
1577 Hippocrépis *W.*

Subtribe 2. *Euhedysareæ*.

1587 Zórnia *Mich.*
1583 Stylosánthes *Swz.*
1582 Æschynómene *H. K.*
1580 Smithia *Sal.*
1588 Hedýsarum *W.*
1585 Lespedéza *Mich.*
1586 Flemingia *Roxb.*

Tribe 4. VICIEÆ.

1564 Cicer *W.*
1561 Vicia *W.*
1562 E'rvum *W.*
1563 Ervilia *Lk.*
1560 Pisum *W.*
1558 Láthyrus *W.*
1557 O'robus *W.*
1559 O'chrus *Bauh.*

Tribe 5. PHASEOLEÆ.

1643 Róthia *W.*
1546 A'brus *W.*
1548 Terámnus *Browne*
1553 Kennédia *Vent.*
1547 Phaséolus *W.*
1549 Carpopógon *Roxb.*
1551 Stizolóbium *P. S.*
1550 Dólichos *W.*
1544 Lupinus *W.*
1554 Cylista *W.*
1521 Erythrina *W.*
1522 Bútea *W.*

Tribe 6. DALBERGIEÆ.

1514 Pongámia *Vent.*
1513 Dalbérgia *W.*
1515 Pterocárpus *W.*
1516 Ecastaphýllum *Rich.*
1520 Amerimnum *W.*

SUBORDER II. or Tribe 7. *MIMOSEÆ.*

2124 Mimósa *W.*
2123 I'nga *W.*
2125 Schránkia *W.*
2126 Desmánthus *W.*
982 Adenanthéra *W.*
984 Prosópis *Roxb.*
2127 Acácia *W.*

SUBORDER III. *CÆSALPINEÆ.*

Tribe 8. GEOFFREÆ.

1543 A'rachis *W.*
1517 Geoffróya *W.*
1464 Brównea *W.*
1518 Dipterix *W.*

Tribe 9. CASSIEÆ.

2155 Gleditschia *W.*
2094 Gymnocládus *W.*
979 Guilandína *H. K.*
978 Cæsalpínia *H. K.*
977 Poinciána *H. K.*
981 Hoffmanséggia *Cav.*
985 Hæmatóxylon *W.*
976 Parkinsónia *W.*
983 Cádia *W.*
2156 Ceratónia *W.*
867 Jonésia *W.*
1449 Tamarindus *W.*
974 Cássia *W.*
975 Cathartocárpus *P. S.*
971 Afzélia *Sm.*
969 Schótia *W.*
986 Copaífera *W.*
973 Cynométra *W.*
1519 Parivóa *Aubl.*
972 Hymenæ'a *W.*
970 Bauhínia *W.*
968 Cércis *W.*
30 Codárium *Vahl*

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980 Hyperanthéra *W.*

ORDER LX. ROSACEÆ.

With the exception of Chrysobalaneæ and Sanguisorbeæ, this order is so uniform in its appearance, that Rósa, the type from which all the other genera are to be considered variations, when justly understood, will be found to contain every form of structure which is essential to the order. Having stated this, it will be at once obvious, that if the other genera have such close affinity to Rósa, they must also bear a great analogy in beauty. And this is, indeed, the fact. Amýgdalus and Prúnus among trees, and Potentilla, Géum, and others, among herbaceous genera, rival the rose in their blossoms, and, in many particulars, surpass that most lovely of all flowers in foliage and general appearance. But it is not for charms alone of smell, or blossom, or foliage, that this order has fixed itself so high in the estimation of mankind. It has also the rare merit of comprehending all the most important of the fruits of the temperate regions of the world. Thus the apple and the pear belong to Pýrus, the plum and the apricot to Prúnus, the peach and the nectarine to Amýgdalus; Eriobótrya produces the loquat, Méspilus the medlar, and finally, the quince is borne by the Cydónia. The medical powers of many plants of this order are not less active than their fruit is excellent. The principal of these is the well-known Prussic acid, which exists in abundance in the leaves and kernels of many genera, especially of Prúnus and Amýgdalus: it is the basis of Laurel water, which, when taken in small doses, acts either as a violent purgative or as an emetic; and, in stronger doses, is said to destroy irritability without exciting inflammation; these properties, however, although thus dangerous in the distilled water of the laurel and other similar plants, can scarcely be said to exist in any important quantity in the plants in a state of nature. The kernel of the bitter almond, for example, in which the Prussic acid is more abundant than usual, is used for many culinary and other purposes without any bad effect. There are, however, cases in which it is said to be dangerous to eat the fresh leaves or kernels; as in the Prúnus virginiána, the leaves and fruit of which are reputed in the United States to be poisonous to certain animals. Besides the Prussic acid, there are several other principles which abound in the order. All Drupaceæ yield a gum which is nearly allied to gum Arabic, and which affords a strong evidence of the affinity that exists between Rosaceæ and Leguminosæ. A great deal of astringency is found in many species, whence different parts have been occasionally employed as febrifuges, and as remedies for hæmorrhage, diarrhœa, and dysentery. The root of the Tormentilla is used for tanning in the Ferro Isles; and that of the Capollim cherry in Mexico. The bark of Prúnus virginiána is used as a febrifuge in the United States; Potentilla réptans has been praised for the same properties. The root of Géum urbánum has been found, by Milandi and Moretti, to contain one eleventh of its weight of tannin; it has been used both in America and Europe as a substitute for Jesuit's bark. The leaves of Drýas octopétala in the north of Europe, of Rúbus árcticus in Norway, of Prúnus spinósa and ávium, and of Rósa rubiginósa have been manufactured into a sort of substitute for tea. The bark of the root of Gillénia trifoliáta is remarkable in having, in addition to the astringency already mentioned, an emetic property, on which account it is employed in North America as Ipecacuanha. It is said, that a similar power exists in other Spiræ'as.

It must not be omitted, that the order Rosaceæ nearly answers to the Icosandria of Linnæus.

Tribe 1. CHRYSOBALANEÆ.

1130 Chrysobálanus *W.*
870 Parinárium *Juss.*
499 Hirtélla *W.*
1080 Orangéria *Lam.*

Tribe 2. AMYGDALINEÆ.

1128 Amýgdalus *W.*
1129 Prúnus *W.*

Tribe 3. SPIRÆACEÆ.

1156 Kérria *Dec.*
1141 Spiræ'a *W.*
1142 Gillénia *Mönch.*

Tribe 4. NEURADEÆ.

1063 Griélum *W.*

Tribe 5. DRYADEÆ.

1159 Drýas *W.*
1161 Sievérsia *W.*
1155 Géum *W.*
1160 Colúria *R. Br.*
1140 Waldsteinia *W.*
1149 Rúbus *W.*
1150 Dalibárda *Mich.*
1151 Fragária *W.*
1154 Tormentilla *L.*
1153 Potentilla *L.*
710 Sibbáldia *W.*
1101 Agrimónia *W.*
1152 Comárum *W.*

Tribe 6. SANGUISORBEÆ.

255 Alchemilla *W.*
256 Sanguisórba *W.*
1190 Potérium *W*
2106 Cliffórtia *W.*
68 Ancistrum *L.*

Tribe 7. ROSEÆ.

1148 Rósa *W.*

Tribe 8. POMACEÆ.

1132 Cratæ'gus *L.*
1136 Raphiolépis *Lindl.*
1135 Photínia *Lindl.*
1137 Eriobótrya *Lindl.*
1139 Cotoneáster *Lindl.*
1138 Amelánchier *Lindl.*
1131 Méspilus *Lindl.*
1133 Pýrus *Sm.*
1134 Cydónia *Juss.*

ORDER LXI. SALICARIÆ.

Most of these are very showy plants, in particular the genera Lýthrum and Lagerstrœ'mia, which are the representatives of the order. They are chiefly natives of temperate climates, on mountains and among bushes. Glaux and Péplis are common shore plants in England. Heimia is remarkable for its yellow flowers. Little is known of the properties of Salicariæ; they are mostly astringent; the common Salicária is used in inveterate diarrhœas; a species of Lýthrum is used in Mexico as a vulnerary and astringent, and Lawsónia, which is used by the Turkish women to stain their nails, is also supposed to possess similar properties. There is a plant of this order called Hanchinol in Mexico, which is said to possess much more remarkable powers than any of the preceding; its expressed juice, taken in doses of four ounces, excites violent perspiration and secretion of urine, and is said to cure venereal disorders in an incredibly short space of time.

877 Grislea *W.*
1097 Cúphea *Jacq.*
1195 Lagerstrœ'mia *W.*
1094 Lýthrum *W.*
1095 Nesæ'a *Kunth.*
1096 Heimia *Lk.*
302 Ammánnia *W.*
568 Glaux *W.*
836 Péplis *W.*
898 Lawsónia *W.*
1031 Acisanthéra *J.*

ORDER LXII. MELASTOMACEÆ.

All these are remarkable as handsome tropical shrubs or trees, with large purple or white flowers, and leaves with several costæ, or nerves as they are incorrectly termed. The genera admitted in the body of the work are those received by the greater part of previous writers; they have been much increased, and apparently with great propriety, by Mr. D. Don. The species are generally ill treated in collections, where they are not unfrequently to be found under the form of sickly stunted plants, instead of noble broad-leaved spreading shrubs, with masses of brilliant flowers. To be grown well they require much heat, much moisture during the summer, and much pit-room and head-room. The fruit of true Melástomas is a fleshy insipid juicy berry, which is for the most part eatable, and is often so deep a black as to dye the teeth and mouths of those who eat it. They are nearly related to Myrtaceæ, from which they differ in the want of essential oil, and of the dot-like reservoirs of the leaves which contain it. The juice of the leaves of M. succósa and aláta is used as a lotion for recent wounds by the inhabitants of Guiana.

899 Osbéckia *W.*
900 Rhéxia *W.*
1029 Melástoma *W.*
1030 Petalóma *W.*
1075 Blákea *W.*

ORDER LXIII. MYRTACEÆ.

Dotted leaves, with marginal ribs, and an inferior ovarium and single style, are the great features of Myrtaceæ. They are all fine evergreen shrubs or trees, generally bearing white flowers, and in the first section producing fleshy fruit. It is there that the Allspice, the Clove, the Rose-apple, and the Guava find their station, by the side of the common myrtle and pomegranate of Europe. The section with capsular fruit comprehends, with the exception of the gigantic Eucalýptuses, almost wholly, handsome hard-wooded New Holland or South Sea shrubs, with white or crimson flowers and stamens; yellow flowers are very uncommon. The volatile oil contained in the little reservoirs of the bark, the leaves, and the floral envelopes, gives these plants the fragrance which has caused them to be celebrated by poets of all ages. It is very aromatic, a little acrid, and slightly tonic and stimulant, whether it is under the form of Cajeputi oil, the produce of Melaleúca leucadéndron, or of oil of cloves or of myrtle. In the clove this oil is so abundant as to constitute nearly a fifth of the whole weight of the calyxes that produce it. There is also a considerable proportion of astringent principle in these plants; in the bark of the pomegranate it is very obvious; and in Mýrtus régni and lúma of Chile, Eugénia malaccénsis, it is so abundant as to render a decoction of those plants of great use in cases of dysentery. Eucalýptus resinífera produces an astringent resinous substance resembling gum Kino. The leaves of the Chilian myrtles, Leptospérmum scopárium, and some other species, have been used as substitutes for tea.

Tribe 1. BACCATÆ.

1193 Alángium *J*
1118 Psídium *W.*
1119 Eugénia *W.*
1120 Caryophýllus *P. S.*
1121 Mýrtus *W*
1122 Calyptránthes *W.*
1123 Piménta *Lindl.*
1124 Olýnthia *Lindl.*
1127 Púnica *W.*
1499 Cáreya *Roxb.*
1082 Decumária *W.*

Tribe 2. CAPSULARES.

891 Bæ'ckia *Sm.*
1115 Leptospérmum *W.*
1116 Fabrícia *W.*
1117 Metrosidéros *W.*
1126 Eucalýptus *W.*
1610 Melaleuca *H. K.*
1611 Tristánia *Br.*
1612 Calothámnus *Lab.*
1613 Beaufórtia *Br.*

Tribe 3. LECYTHIDEÆ.

1125 Stravádium *Juss.*
1497 Barringtónia *W.*
1498 Gustávia *W.*

ORDER LXIV. COMBRETACEÆ.

Combrétum and Quisquális are among the most splendid of the climbing plants of the tropics, adorning the trees from which they depend with garlands of white and crimson, and yellow. The bark of Búcida Búceras is used with success in Guiana for tanning leather. The juice of Terminália vérnix is employed by the Chinese as a varnish; it is, however, caustic, and its exhalation dangerous; benzoin is the produce of Terminália Benzóin. The kernel of several species is eaten as a nut, and the expressed oil has the remarkable quality of not becoming rancid.

514 Conocárpus *W.*
916 Combrétum *W.*
1027 Getónia *Roxb.*
1028 Quisquális *W.*
2140 Terminália *W.*

ORDER LXV. PASSIFLOREÆ.

The beauty of Passiflóras is well known; they are remarkable for the singular arrangement of the stamens and pistillum, upon a column surrounded by several lines of circumvallation, formed by as many rows of barren thread-like colored stamens, which are popularly called the rays. The fruit of several species of passion-flower is filled with a pleasant acidulated pulp, on which account they are eaten as dessert fruit. It is not known that they possess any medical properties. The station of the order is not settled; it is undoubtedly very near Cucurbitaceæ.

1459 *Passiflóra W.*
2075 Modécca *Lam.*

ORDER LXVI. CUCURBITACEÆ.

Here is the station of the gourd, the melon, and the cucumber, succulent climbing vegetables, the fruit of which administers to us many of our comforts and necessities. The importance of the gourd in hot countries is of the highest degree, where, from the nature of the climate, few of those culinary vegetables that are so abundant in the north can be made to succeed. Among these tribes of climbing annuals, the papaw tree is a remarkable deviation from the ordinary character of the vegetation. Its fruit, however, and flowers are in all respects those of Cucurbitaceæ. The fruit is mostly sweet, watery, refreshing, and pleasant to the palate; but the coloquintida gourd, the spirting cucumber, and the Trichosánthes amára, are all possessed of violent bitter, drastic, purgative qualities, which are, indeed, to be found, in a slight degree, even in the mildest of the eatable gourds. M. Decandolle observes, that as the violent action of the Colocinth resin is much softened by the mixture with it of gum, it is probable that the difference in the fruits of the order depends upon the different proportions between these two substances. The seeds of the gourd, like those of the passion-flower, possess none of the properties of the pulp; they are sweet and nutty, and readily form an emulsion. The roots of the bryony are purgative, but also contain a wholesome fæcula. It is said that the roots of a species of bryony are eaten in Abyssinia, after being merely boiled. There are some Cucurbitaceæ, the roots of which are intensely bitter; those of one of this description are used in Peru, to remove the pains attendant upon inveterate venereal disorders.

551 Gronóvia *W.*
1940 Angúria *W.*
1976 Lúffa *Cav.*
2019 Trichosánthes *W*
2020 Momórdica *W.*
2021 Cucúrbita *W.*
2022 Cúcumis *W.*
2023 Sícyos *W.*
2024 Bryónia *W.*
2095 Cárica *W.*

ORDER LXVII. LOASEÆ.

Nothing is known of the qualities of this order. It consists of succulent cut-leaved plants, generally covered with asperities or rigid stinging hairs, and yellow or white flowers. They are all natives of America, and handsome annuals. A very few of them are climbers.

1113 Bartónia *Ph.*
1194 Mentzélia *W.*
1619 Loása *L.*

ORDER LXVIII. HALORAGEÆ.

Obscure weeds, chiefly distinguished from Onagrariæ, by their naked and solitary ovula. They are natives of moist places or ponds, in various parts of Europe and North America. Some of the species of Halorágis are tropical. They are not known to possess any medicinal properties.

23 Hippúris *W.*
27 Callítriche *W.*
932 Halorágis *W.*
1988 Serpícula *W.*
1987 Myriophýllum *W.*
258 Isnárda *W.*
309 Ludwígia *W.*

ORDER LXIX. ONAGRARIÆ.

A very well defined order, generally known by its pollen cohering, by a sort of filamentous substance, an inferior polyspermous ovarium, a tetrasepalous tetrapetalous flower, with a definite number of stamens, and a single style. From this form there are some anomalous variations, such as Circæ'a and Lopézia, which are, however, easily reconciled to the usual structure of the order. Most of the genera are pre-eminently beautiful; as Epilóbium, Œnothéra, and Fúchsia, which are old favorites among gardeners. The properties of Onagrariæ are little known, and probably very weak. The leaves of Jussiæ'a peruviána are used as an emollient poultice, the seed of Trápa nátans as an eatable nut, and the root of Œnothéra biénnis as a sort of salad.

71 Circæ'a *W.*
18 Lopézia *Cav.*
902 Gaúra *W.*
903 Epilóbium *W.*
904 Fúchsia *W.*
308 Trápa *W.*
1026 Jussiæ'a *W.*
901 Œnothéra *W.*
2064 Montínia *W.*

ORDER LXX. FICOIDEÆ.

These are all plants with a greater or less degree of succulence; the Mesembryánthemums and Hymenógyne are well-known dry-stove plants, many of which are beautiful in the highest degree. Of the former of these two, the flowers are of all colors, many of the most vivid hues, and remarkable for expanding only beneath bright sunshine; this phenomenon, indeed, is common to the whole order. Tetragónia expánsa, Sesúvium portulacástrum, and Mesembryánthemum edéle, are excellent substitutes for summer spinach. A large quantity of saline matter is contained in all of them; in Reaumúria vermiculáta, a substance is secreted, which has been found by chemical analysis to consist of muriate of soda and nitrate of potash. The whole order grows in very dry or saline places, in the temperate regions of the world. Four fifths of the whole are natives of the Cape of Good Hope. The leaves of the different species of Mesembryánthemum, offer the most remarkable instances of figure known in the vegetable world.

1090 Nitrária *W.*
1107 Glinus *W.*
1143 Sesúvium *W.*
1144 Aizóon *W.*
1145 Tetragónia *W.*
1146 Mesembryánthemum *L.*
1147 Hymenógyne *Haw.*
1210 Reaumúria *W.*

ORDER LXXI. PORTULACEÆ.

With the exception of Turnéra, Támarix, Talinum, and a few species of Claytónia, the whole of this order consists of insignificant weedy plants, of no beauty, and little use. Claytónia perfoliáta and common purslane, which are occasionally used as salads, being the only species of a useful kind. They are chiefly herbaceous plants, frequenting dry barren situations, or the sea-shore of all parts of the world; all are insipid and inodorous, and destitute, as far as is known, of medicinal properties. Some of the kinds of Támarix have an astringent tonic bark, and yield, when burnt, a large proportion of sulphate of soda. Turnéra resembles a Cistus.

224 Móntia *W.*
537 Claytónia *W.*
689 Teléphium *W.*
1091 Portuláca *W.*
1092 Talinum *Haw.*
1093 Anacampséros *L.*
1036 Triánthema *W.*
871 Limeum *W.*
692 Portulacária *W.*
1037 Sclerânthus *W.*
690 Corrígiola W.
686 Turnéra *W.*
685 Támarix *W.*

ORDER LXXII CACTI.

All succulent plants destitute for the most part of leaves, the place of which is supplied by fleshy stems of the most grotesque figure; some angular, and attaining the height of thirty feet, others roundish, covered with stiff spines, like the hedgehog, and not exceeding the stature of a few inches. Their flowers are in many cases large and remarkably specious, varying from pure white to rich scarlet and purple, through all the intermediate gradations of colors. The species are chiefly natives of the hottest and dryest parts of the tropics, and are cultivable with little care, in pots filled with rubbish, in a dry-stove. Their fruit is fleshy and watery, and generally insipid, but it is eaten in their native countries for the sake of its refreshing moisture and coolness. Two species of Opúntia are hardy in Great Britain. The characters of this order and the next are very similar, although their habit is so widely different. Cacti are sometimes called Nopaleæ.

1111 Cáctus *W*
1112 Rhipsalis *Gært.*

ORDER LXXIII. GROSSULACEÆ.

Distinguished from the last by the definite number of their stamens and woody leafy stems. The utility and excellence of the gooseberry and currant are known to every one. None of the other species equal these, although the fruit of several possesses considerable excellence. The berry of most of these is sweet, watery, and acid, but that of Ribes nigrum, and a few more, is tonic and stimulant, which appears to have some connection with the presence of glands upon the leaves of those species.

550 Ribes *W.*

ORDER LXXIV. SEMPERVIVEÆ.

Still another order of succulent plants, but with a habit very different from that of those which have gone before. The species are often characterised by the rosulate or densely imbricated arrangement of their leaves, but this is not by any means a universal character. They are natives, for the most part, of dry barren places in Europe, North Africa, and the Cape of Good Hope, and are cultivable with ease in pots of dry rubbish. Many of them have extremely beautiful flowers, especially those of the genera Sempervivum and Crássula, which are either white, yellow, or deep rose color. Their leaves are used medicinally as refrigerant and abstergent; they are also, in a slight degree, astringent, and in Sédum ácre so acrid, that, taken internally, they operate violently both as purgatives and emetics. The leaves of Sédum teléphium are occasionally eaten as a vegetable, but they are always found to leave behind a slight and unpleasant taste of burning.

1061 Sédum *W.*
1110 Sempervívum *W.*
1060 Cotylédon *W.*
927 Vérea *W.*
698 Róchea *Dec.*
928 Bryophýllum *Sal.*
874 Séptas *W.*
1062 Penthórum *W.*
699 Crássula *W.*
320 Tillæ'a *W.*

Order LXXV. SAXIFRAGEÆ.

The whole of these plants constitute the glory and delight of the cultivator of alpine plants. This is to be attributed to the neatness and perpetual verdure of their leaves, and the exquisite simplicity and elegance of their flowers, rather than to any striking attractions, of which they are wholly destitute: their blossoms being generally white or pale pink, occasionally becoming brownish-purple. All the genuine species are humble herbaceous plants, affecting mountainous situations, but occasionally found in marshes by the sides of springs, and even upon dry walls. All are natives of cold regions, or of the most temperate mountainous situations of hot ones. They are slightly astringent; some of them, as Heuchéra americána, eminently so. Infusions of the leaves have been reckoned lithontriptic, and the powdered root of the last-named plant is used with success in cancerous disorders. Hydrángea, which is shrubby, is not a legitimate inhabitant of the order.

1041 Saxífraga *W.*
1042 Tiarélla *W.*
1043 Mitélla *W.*
606 Heuchéra *W.*
930 Adóxa *W.*
361 Gálax *W.*
1040 Chrysosplénium *W.*
1039 Hydrángea *W.*

Order LXXVI. PHILADELPHEÆ.

This consists at present of a single genus, which was formerly referred to Myrtaceæ, but which has lately been separated with much acuteness by Mr. Don. The species are hardy ornamental shrubs, natives of North America, with white flowers; in some cases fragrant. Nothing is known of their properties.

1114 Philadélphus *W.*

Order LXXVII. CUNONIACEÆ.

These were formerly included in Saxifrageæ, from which Mr. Brown first distinguished them. They are shrubs of the southern hemisphere, mostly with pinnated leaves and white flowers. Callicoma and Bauéra, which have simple leaves, are elegant green-house shrubs. The bark of a species of Weinmánnia is employed in Peru for tanning leather, and is said to be also used for adulterating the quinquina. Nothing is known of the properties of the remainder.

1038 Cunónia *W.*
1099 Callicoma *B. R.*
1199 Bauéra *H. K.*
919 Weinmánnia *L.*

Order LXXVIII. ARALIACEÆ

Araliaceæ are a slight divergence from the well-known Umbelliferæ, with which they nearly agree in habit, except in being frutescent, and from which they are obviously distinguished by their 5-celled fruit. Their flowers have no beauty, but the foliage of many is extremely fine, especially of the species of Actinophýllum; that of our common ivy must not be omitted. Their medicinal properties are much the same as those of Umbelliferæ, except the fruit, which differs in virtues as it does in botanical structure. Their bark exudes an aromatic gum resin, as in Arália umbellifera. Their roots are tonic, with, in some cases, the flavor of parsnep. The famous ginseng, which is produced by a Pánax, is reputed to have powerful tonic, restorative, and even aphrodisiacal qualities; but it is probable that these have been greatly exaggerated.

607 Cussónia *L.*
696 Arália *W.*
697 Actinophýllum *R. & P.*
549 Hédera *W.*
1109 Gastónia *Juss.*
2166 Pánax *W.*

Order LXXIX. UMBELLIFERÆ.

One of the least attractive groups of plants, and at the same time one of the most important to the world. They are not more useful as food than they are dangerous as poison; while in their native ditches they are often suspicious lurid weeds, but under the influence of cultivation they lay aside their venom, and become wholesome food for man. They are generally recognised by their hollow stems and cut leaves, with what botanists call a sheathing petiole; that is to say, with a petiole, the base of which wraps round the stem. Their flowers are mostly white or greenish, rarely, as in Astrántia, some species of Caúcalis, and others, of a pink color. The inflorescence is umbellate, and their fruit consists of two ribbed portions, improperly called seeds, which are held together by a common axis, and a thickened discus. All are natives of damp ditches or way-sides, in cool parts of the world; in the tropics they are either extremely rare or wholly unknown, and when present, have generally a character unlike that of our European species The simplicity of their structure, and uniformity of their appearance, has rendered their classification a matter of very great difficulty. It has been attempted in modern days by Lagasca, Sprengel, and Koch, all of whom have added something to our knowledge; but much still remains to be done. The arrangement of Professor Sprengel, objectionable as it is many points, is here adopted as the most perfect, upon the whole, of any yet published. The culinary and agricultural importance of many species is well known; the parsnep and carrot form a large part of the staple winter store of the inhabitants of Europe, as the Arracachas do of those of South America; and the Prangos of Thibet is supposed to be the most important and productive of any in the whole world, as a forage plant. The medicinal properties of Umbelliferæ are not more powerful than they are at variance with each other. While the seeds of some are aromatic, and stimulating in the highest degree, the fresh roots and leaves of others are not less narcotic. This has been supposed to arise from the difference in the state of the sap in different parts of the plant; and it has been thought that the narcotic principle is only to be found in the ascending sap, while the aromatic stimulant properties are found in the juices, which are fully elaborated and matured. It has been already observed, that their dangerous properties are often removed by cultivation; the common celery is a familiar instance of this; but the most remarkable, that of Œnánthe pimpinelloides, a most dangerous species when wild, which is cultivated about Angers for the sake of its roots, which are there called Jouanettes, and about Saumur, where they are known by the name of Méchons. The roots of some Umbelliferæ contain a large proportion of sugar; those of the carrot, when dried, more than an eighth; those of the parsnep just an eighth; and those of the chervil about eight parts in 100. Galbanum, Opopanax, and Assafœtida, are all the produce of different species of Umbelliferæ.

Tribe 1. DESCISCENTES.

2165 Arctópus *W.*
548 Lagöécia *W.*
622 Erýngium *W.*
624 Echinóphora *W.*
644 Actinótus *Lab.*
623 Sanicula *W.*
637 Dóndia *Spreng.*
674 Astrántia *W.*

Tribe 2. HYDROCOTYLINÆ.

638 Hydrocótyle *W.*
659 Spanánthe *Jacq.*

Tribe 3. BUPLEURINÆ.

657 Bupleúrum *W.*
2147 Hérmas *W.*

Tribe 4. PIMPINELLEÆ.

635 Pimpinélla *W.*
649 Ledebúria *Lk.*
642 Séseli *W.*
647 Sison *W.*
652 Ægopódium *W.*
655 Cárum *W.*
656 Cnidium *Cuss.*
632 Œnánthe *W.*
636 Phellándrium *W.*
651 A'pium *W.*
653 Méum *Jacq.*

Tribe 5. SMYRNIEÆ.

650 Smýrnium *W.*
633 Críthmum *W.*
660 Ulospérmum *Lk.*
677 Cáchrys *W.*
678 Hippomárathrum *Lk.*
618 Coriándrum *W.*
648 Cicúta *W.*
661 Æthúsa *W.*
666 Hasselquístia *W.*
673 Tordýlium *W.*

Tribe 6. CAUCALINEÆ.

626 Caúcalis *W.*
625 Daúcus *W.*
627 Tórilis *Gært.*
628 Olivéria *Vent.*
634 Athamánta *W.*
638 Trachyspérmum *Lk.*
640 Búbon *W.*
631 Búnium *W.*
676 Rúmia *Hoffm.*

Tribe 7. SCANDICINEÆ.

619 Scándix *P. S.*
630 Mýrrhis *P. S.*
621 Chærophýllum *P. S.*
620 Anthríscus *P. S.*

Tribe 8. AMMINEÆ.

639 A'mmi *W.*
641 Cúminum.
646 Sium *W.*
649 Cónium *W.*
665 Ligústicum *W.*
645 Trínia *Hoffm.*

Tribe 9. SELINEÆ.

663 Selínum *W.*
670 Peucédanum *W.*
672 Herácleum *W.*
675 Zosímia *Hoffm.*
671 Pastináca *W.*
668 Férula *W.*
664 Angélica *W.*
662 Imperatòria *W.*
643 Thápsia *W.*
669 Laserpítium *W.*
667 Artédia *W.*
654 Anéthum *W.*

ORDER LXXX. RHIZOPHOREÆ.

The mangroves are plants of arborescent stature, which are remarkable, in tropical countries, for growing upon the shores of the sea, even as far as low water. The seeds have the singular property of germinating, while enclosed within the capsule, and adhering to their parent, and pushing forth a long thread-like radicle, which lengthens till it reaches the soil, where it takes root, and forms a new individual. The bark of Rhizóphora gymnorhiza, which is very astringent, is used in India for dying black.

1078 Rhizóphora *W.*

ORDER LXXXI. HAMAMELIDEÆ.

Hardy American deciduous shrubs, with the appearance of Amentaceæ, to which they are undoubtedly closely allied notwithstanding their situation here, which must be considered quite artificial. Nothing is known of their medicinal qualities.

1200 Fothergílla *W.*
312 Hamámelis *W.*

ORDER LXXXII. CAPRIFOLIACEÆ.

This is an eminently beautiful order, consisting either of twining or erect shrubs with clusters of trumpet-shaped fragrant flowers, or of fine bushes having cymes of white blossoms. The honeysuckle is the representative of the former, the dogwood of the latter. Here too is found the modest and delicate Linnæ'a, which, however inferior its attractions for the vulgar eye may be to those of its more ostentatious neighbours, yields to none of them in elegance or interest for the botanist. All the genera have a more or less astringent bark; that of Lonicéra corymbósa is used in Chile for dying black; that of Córnus flórida in North America in intermittent fevers, as is also the bark of Córnus serícea, which, according to Barton, is scarcely inferior to Quinquina. The Elders are the link between honeysuckles and umbelliferous plants, to the latter of which they are allied by their stinking divided foliage and half herbaceous habit; their flowers are sudorific and soporific in a high degree, their leaves and inner bark are emetics and drastic purgatives. Trióstum perfoliátum is intermediate between this order and Rubiaceæ, with the former of which it agrees in its purgative, and with the latter in its emetic, qualities, which resemble those of ipecacuanha. All Caprifoliáceæ love shady cool places in both hemispheres; but few have been found in such as endure a very severe climate.

474 Caprifólium *R. S.*
475 Lonicéra *R. S.*
476 Symphória *Ph.*
477 Diervílla *J.*
478 Trióstum *W.*
292 Linnæ'a *W.*
306 Córnus *W.*
679 Vibúrnum *W.*
680 Sambúcus *W.*

ORDER LXXXIII. LORANTHEÆ.

None of these are cultivable; they are all genuine parasites rooting beneath the bark of the trees on which they grow, and deriving from their juices the whole of their nutriment. The Viscums have little or no beauty, but the Lorânthi are among the most lovely of plants, hanging in clusters of rich scarlet flowers from the branches of trees in the tropics, which they often clothe with a beauty not their own. The misletoe of the Druids is supposed to have been the Loránthus europæ'us, the common Viscum never being seen upon the oak, while the Loránthus inhabits no other tree. If this be so, the latter must have once existed in this kingdom although now extinct. It has been suggested, that all vestiges of their religion were extirpated with the Druids, which will account for the Loranthus having disappeared wherever that religion formerly held its sway.

2054 Víscum *W.*

ORDER LXXXIV. RUBIACEÆ.

Opposite entire leaves with intervening stipulæ, a monopetalous superior corolla, with a definite number of stamens and a bilocular ovarium, are the great characteristics of Rubiaceæ; an order of such extent that it embraces a very large proportion of the whole of phænogamous plants, including within its limits humble weeds and lofty trees, plants with important medicinal qualities and flowers of varied dyes, and herbs of neither value nor beauty as far as has yet been ascertained. The sections into which the order has been divided are merely artificial, with the exception of Stellatæ, which are the representatives of the order in northern regions. Among these the Rúbia, or madder, is the most important on account of its dye; Galium also possesses some qualities of minor consequence, which have been already indicated in the body of this work. Among the other sections, the plants of beauty or value are innumerable: of the former description, the genera Ixóra, Bouvárdia, Catesbæ'a, Portlándia, Coutárea, Gardénia, Mussæ'nda, Hamèllia, Cephaélis, Cephalánthus, and many others, are notable examples; to the latter, every genus has a contribution of one kind or another. The root of Oldenlándia umbelláta is employed in India for staining nankin; that of Morinda umbelláta in the Moluccas, and of Morinda citrifólia in India, is used for dying red and brown. The potent febrifugal properties of the Cinchóna need not be insisted on; it is less generally known that the bark of Pincknéya púbens, Macrocnémum corymbósum, Guettárda coccínea, and Portlándia grandiflóra, possesses similar, but weaker powers. The bark and roots of Antirhóa are used, in the Isle of Bourbon, to stop hæmorrhage; and that of Morinda Róyoc is used for ink. Astringent properties of a very marked character are found in the juice of Naúclea Gámbir of Hunter, and the Uncária Gámbir of Roxburgh, both which are often improperly confounded with Gum kino, which is the produce of a very different plant. Some of the species formerly comprehended under the genus Cinchóna, but since separated by the name of Exostémma, possess strong emetic powers. The same qualities exist in Psychótria emética Cephaélis, Ipecacuánha, and Psychótria herbácea, which are often used as ipecacuanha. The seed of the Coffèa furnishes the valuable beverage which is so much esteemed in Europe and the East, under the name of coffee

SECTION I. *STELLATÆ.*

266 Gálium *W.*
267 Rúbia *W.*
268 Aspérula *W.*
269 Sherárdia *W.*
271 Crucianélla *W.*
2136 Valántia *W.*
617 Phýllis *W.*

SECTION II.

270 Spermacóce *W.*
285 Chomélia *W.*
288 Ixóra *W.*
292 Siderodéndrum *W.*
290 Pavétta *W.*
291 Ernódea *Swz.*
294 Mitchélla *W.*
439 Pædéria *W.*
479 Coffèa *W.*
480 Chiocócca *W.*
482 Cánthium *Pers.*
494 Webéra *W.*
483 Psychótria *W.*
495 Plócama *W.*
833 Richárdia *L.*

SECTION III.

287 Bouvárdia *H. K.*
261 Houstónia *W.*
293 Coccocýpsilum *W.*
295 Oldenlándia *W.*
296 Manéttia *W.*
406 Ophiorhiza *L.*
456 Dentélla *W*
457 Macrocnémum *W.*
460 Rondelétia *W.*
455 Spermadictyon *Roxb.*
832 Hillia *W.*
289 Catesbæ'a *L.*
485 Posoquéria *Aubl.*
458 Exostémma *Rich.*
462 Portlándia *W.*
461 Coutaréa *Aubl.*
487 Gardénia *P. S.*
488 Genipa *P. S.*
489 Oxyánthus *Dec.*
490 Rándia *P. S*
491 Mussæ'nda *W.*
492 Pincknéya *Mich.*
481 Serissa *W.*

SECTION IV.

493 Erithalis *W.*
486 Vanguiéra *W.*
1981 Guettárda *W.*

SECTION V.

484 Hamélia *W.*

SECTION VI.

497 Cephaëlis *W.*
496 Morinda *W.*
498 Sarcocéphalus *Afz.*
521 Naúclea *W.*
286 Adina *Sal.*
275 Cephalánthus *W.*
459 Burchéllia *R. Br*
2060 Anthospérmum *W.*

ORDER LXXXV. OPERCULARINEÆ.

Exotic weeds, nearly related to Rubiaceæ. Their properties are unknown. M de Jussieu has remarked that their affinity to Valerianeæ is supported by the curious circumstance, that birds devour the young shoots of the Opercularias as they do those of the Corn-salads.

250 Operculária *W.*
251 Cryptospérmum *P. S.*

ORDER LXXXVI. VALERIANEÆ.

Small herbaceous plants, more interesting for the sake of their symmetry and neatness, than on account of any particular attractions: they may be considered a connecting link between Rubiaceæ and Dipsaceæ. Many of the Valérians, and all the Patrínias, are pretty plants. The Valerianéllas are useful esculents, known under the name of corn-salads. Their medicinal properties are of a decisive character. The roots of Valeriána officinális, Phu, and others, are bitter, tonic, aromatic, antispasmodic, and vermifugal; they are occasionally used as febrifuges. The odour of Valerian is not generally agreeable, but the Orientals collect with care, on the mountains of Austria, the roots of Valeriána céltica, with which they perfume their baths; and the natives of India, at this day, employ the Valeriána jatamánsi, the spikenard of old times, as a perfume, and against hysterics and epilepsy.

20 Centránthus *Mich.*
72 Fédia *Dec.*
78 Valeriána *W.*
79 Patrínia *W.*
80 Valerianélla *Dec.*

ORDER LXXXVII. DIPSACEÆ

Very nearly akin to Compositæ, of which they have nearly the habit. All are herbaceous plants with flowers growing in heads. Some of the Scabiósas are very handsome, and popular border flowers. The whole tribe is cultivated with great facility Some of the species of Scabiósa have been employed as diaphoretic and antisyphilitic, but are now neglected.

70 Morina *W.*
262 Dipsacus *W.*
263 Cephalária *Schr.*
264 Scabiósa *W.*
265 Knaútia *W*

ORDER LXXXVIII. CALYCEREÆ.

Obscure weedy South American plants, differing from Compositæ, chiefly in the position of their ovula.

1842 Acicárpa *Juss.*

ORDER LXXXIX. COMPOSITÆ.

A most extensive and natural order, obviously characterized by the cohesion of their antheræ, and the arrangement of their florets in involucrated heads, or calathidia, as they are now called. Most of them may be said to be ornamental plants, and yet but a very few hold that station in the opinion of the public. It is difficult to account for this circumstance, nor is this the place to enter upon such an investigation; certain, however, it is, that with the exception of Dáhlias, the varieties of Chrysánthemum sinénse, and a few Caléndulas and Arctótises, and perhaps Tagétes, scarcely a single Composita now finds a place in a fashionable flower garden. The prevailing color of the flower in the order is yellow; red, purple, or scarlet, being comparatively uncommon. The species inhabit every part of the world, and in all, perhaps, in nearly equal proportions: — in Europe and the north of the world they are chiefly herbaceous; but within the tropics, they are more frequently frutescent. Their medical properties are very important; Tussilágo fárfara, Chamomile, I'nula, Solidágo Virgaúrea, Matricária Parthénium, Stévia febrifúga, and Eupatórium perfoliàtum, are instances of the presence of tonic and febrifugal properties; Tanacétum and Santolina are anthelmintic; Matricária and the Achilléas emmenagogue; some Eupatóriums, Achilléas, Artemisias, and Caléndulas, are sudorific; certain Liátrises are diuretic, and Erigeron philadélphicum is both sudorific and diuretic. Ptármica and A'rnica are sternutatory, and Spilánthes, Siegesbéckia orientália, A'nthemis pyrethrum, and others, powerfully excite salivation; finally, many Achilléas, Chamomile, Tanacétum, and Eupatóriums, are tonic and antispasmodic. Others seem to possess all these properties combined, and are reckoned among the best alexiterics, as the Ayapana of Brazil, and the Guaco of Peru. Every one knows the excellent and refreshing flavor communicated to vinegar by Tarragon: the same effects are produced in the Alps by Achilléa nána, Artemisia glaciális, rupéstris, and spicáta. Some species of Achilléa, Béllis, and Artemisia have been used as substitutes for tea. The seeds of many Compositæ, as Mádia and Verbesina, yield a copious oil; and the fleshy roots of Heliánthus tuberósus, a wholesome food for man. The juice of Lactúca virósa is highly narcotic, and has been even employed with extraordinary advantage as a substitute for opium. It is not necessary to mention the utility of the leaves of the lettuce, the endive, the succory, the cardoon, or the roots of Scorzonéra and Salsafis, as culinary productions; they must be familiar to all our readers; as also the fleshy receptacle of the artichoke and some other plants. The flowers of Echinops strigósus are used as a kind of tinder; those of the artichoke, the cardoon, and others, have the power of curdling milk. The arrangement of Compositæ is attended with extreme difficulty; the greatest progress that has yet been made in reducing them to order has been with M. Cassini, by whom they are called Synanthereæ: but unfortunately, the remarks of that learned botanist are so scattered and unconnected, that the public has hitherto been able to derive little benefit from his labors. His general arrangement is here adopted, but for the reasons now given, his genera have not been enquired after, as, until they shall have been more completely systematized, the adoption of them would necessarily be full of errors, which would only add to the confusion that already too extensively exists. Those who wish to make themselves masters of this very interesting and difficult branch of systematic botany, should consult the Opuscules phytologiques of M. Cassini, and Mr. Brown's elaborate essay on the structure of Compositæ, in the Transactions of the Linnean Society.

SUBORDER I. *INULEÆ.*

1767 Relhánia *W.*
1765 Leyséra *W.*
1764 Longchámpsia *W.*
1722 Gnaphálium *W.*
1848 Cassinia *H. K.*
1681 Ammóbium *R. Br.*
1713 Ixódia *H. K.*
1727 Astélma *R. Br.*
1747 Podolépis *H. K.*
1725 Antennária *R. Br.*
1726 Metalásia *R. Br.*
1846 Stœ′be *W.*
1844 Œdéra *W.*
1723 Leontopódium *R. Br.*
1728 Athrixia *Ker*
1730 Elichrýsum *W.*

Tribe 1. ARCHETYPÆ.

1838 Filágo *L.*
1724 E′vax *Lam.*
1839 Micrópus *W.*
1734 Conýza *W.*
1744 I′nula *W.*
1745 Pulicária *Gært.*
1731 Carpésium *W.*
1785 Columéllia *Jac.*
1710 Neurolæ′na *R. Br.*

Tribe 2. BUPHTHALMEÆ.

1797 Buphthálmum *W.*
1849 Sphæránthus *W.*

SUBORDER II. *LACTUCEÆ.*

Tribe 3. PROTOTYPÆ.

1659 Scólymus *W.*
1623 Arnopógon *W.*
1626 Picrídium *P. S.*
1627 Sónchus *W.*
1628 Lactúca *W.*

Tribe 4. CREPIDEÆ.

1639 Helminthia *J.*
1634 Picris *W.*
1651 Lapsána *W.*
1653 Rhagadiolus *W.*
1629 Chondrilla *W.*
1632 Apárgia *W.*
1652 Zacíntha *W.*
1637 Borkhaúsia *Dec.*
1636 Lagóseris *Lk.*
1638 Crépis *W.*
1640 Myóseris *Lk.*

Tribe 5. HIERACIEÆ.

1630 Prenánthes *W.*
1635 Hierácium *L.*
1641 Tólpis *W.*
1644 Krígia *W.*
1649 Soldevílla *Lag.*
1654 Moscária *Fl. per.*
1643 Róthia *W.*
1642 Andrýala *W.*

Tribe 6. SCORZONEREÆ.

1647 Robértia *Rich.*
1648 Seriola *W.*
1650 Hypochæ′ris *W.*
1620 Geropógon *W.*
1621 Tragopógon *W.*
1633 Thrincia *W.*
1631 Leóntodon *W.*
1624 Podospérmum *Dec.*
1625 Scorzone′ra *W.*
1622 Tróximon *Gært.*
1645 Hyóseris *W.*
1646 Hedýpnois *W.*
1655 Catanánche *W.*
1657 Cichórium *W.*

SUBORDER III. *ADENOSTYLEÆ.*

1678 Palafóxia *Lag.*

SUBORDER IV. *EUPATORIEÆ.*

Tribe 7. AGERATEÆ.

1689 Stévia *W.*
1687 Agératum *W.*
1688 Cælestína *Cass.*
1700 Lavénia *W.*
1704 Piquéria *W.*

Tribe 8. ARCHETYPÆ.

1683 Mikánia *W.*
1685 Eupatórium *W.*

Tribe 9. LIATRIDEÆ.

1682 Liátris *W.*

SUBORDER V. *AMBROSIEÆ.*

Tribe 10. IVEÆ.

1841 I′va *W.*

Tribe 11. ARCHETYPÆ.

1974 Xánthium
1977 Ambrósia

SUBORDER VI. *ANTHEMIDEÆ.*

Tribe 12. CHRYSANTHEMEÆ.

1721 Artemísia *W.*
1711 Húmea *Sm.*
1835 Solíva *Fl. per.*
1834 Híppia *W.*
1774 Cénia *J.*
1775 Cótula *W.*
1718 Balsamíta *W.*
1776 Grángea *W.*
1719 Pentzia *Th.*
1720 Tanacétum *W.*
1770 Pyréthrum *W.*
1788 Chrysanthéllum *P. S.*
1769 Chrysánthemum *W.*
1771 Matricária *W*
1773 Lidbéckia *W.*

Tribe 13. SANTOLINEÆ.

1717 Athanásia *W.*
1715 Otánthus *Lk.*
1714 Santolína *W.*
1777 Anacýclus *W.*
1778 A′nthemis *W.*
1837 Eriocéphalus *W.*
1781 Achilléa *W.*
1806 Osmites *W.*
1816 Sphenógyne *R. Br.*

SUBORDER VII. *ARCTOTIDEÆ.*

Tribe 14. GORTERIEÆ.

1812 Gortéria *W.*
1813 Gazánia *H. K.*
1811 Didélta *W.*
1801 Galárdia *W.*
1809 Cullúmia *H. K.*
1810 Borckhéya *H. K.*

Tribe 15. ARCHETYPÆ.

1814 Cryptostémma *R. Br.*
1815 Arctothéca *W.*
1831 Arctótis *H. K.*

SUBORDER VIII. *CALENDULEÆ.*

Tribe 16. ARCHETYPÆ.

1830 Caléndula *W.*

Tribe 17. OSTEOSPERMEÆ.

1832 Osteospérmum *W.*

SUBORDER IX. *MUTISIEÆ.*

Tribe 18. ARCHETYPÆ.

1748 Chætanthéra *Fl. per.*

Tribe 19. GERBERIEÆ.

1750 Gerbéria *Burm.*
1829 Chaptália *Vent.*
1752 Perdícium *H. K.*

SUBORDER X. *TUSSILAGINEÆ.*

1737 Tussilágo *W.*

SUBORDER XI. *NASSAUVIEÆ.*

Tribe 20. TRIXIDEÆ.

1686 Dumerília *Lag.*
1825 Tríxis *Dec.*

Tribe 21. ARCHETYPÆ.

1656 Triptílion *Fl. per.*

SUBORDER XII. *CARLINEÆ.*

1671 Acárna *W.*
1670 Atráctylis *W.*
1658 Bacázia *Fl. per.*
1676 Cardopátum *Pers.*
1669 Carlína *W.*
1662 Saussúrea *Dec.*
1677 Stæhelína *W.*
1673 Stobæ'a *Th.*
1729 Xeránthemum *W.*
1674 Onobróma *Gært.*

SUBORDER XIII. *CENTAURIEÆ.*

1819 Centauréa *W.*
1665 Cnícus *W.*
1817 Zœ'gea *W.*

SUBORDER XIV. *CARDUINE.*

1660 A'rctium *W.*
1663 Cárduus *W.*
1675 Cárthamus *W.*
1668 Cýnara *W.*
1820 Galáctites *P. S.*
1818 Leúzea *Dec.*
1666 Onopórdum *W.*
1667 Berárdia *Vill.*
1661 Serrátula *W.*
1664 Sílybum *Gært.*

SUBORDER XV. *ECHINOPSEÆ.*

1850 Echínops *W.*
1699 Lagásca *Cav.*

SUBORDER XVI. *TAGETINEÆ.*

1749 A'rnica *W.*
1702 Kleínia *W.*
1763 Péctis *W.*
1766 Sellóa *Spreng.*
1760 Tagétes *W.*
1759 Bœbéra *W.*

SUBORDER XVII. *HELIANTHEÆ.*

Tribe 22. HELENIEÆ.

1782 Trídax *W.*
1707 Cálea *W.*
1716 Caleácte *R. Br.*
1690 Cephalóphora *W.*
1792 Galinsógea *W.*
1755 Helénium *W.*
1692 Hymenopáppus *J.*
1694 Marshállia *Ph.*
1762 Schkúhria *W.*

Tribe 23. COREOPSIDEÆ.

1697 Bídens *W.*
1804 Coreópsis *W.*
1803 Cósmea *W.*
1758 Dáhlia *Cav.*
1761 Heterospérmum *W.*
1840 Parthénium *W.*
1824 Sílphium *W.*
1791 Synedrélla *P. S.*
1753 Tetragonothéca *W.*

Tribe 24. ARCHETYPÆ.

1793 Acmélla *P. S.*
1807 Encélia *Cav.*
1798 Heliánthus *W.*
1708 Isocárpha *R. Br.*
1693 Melananthéra *Mx.*
1709 Petróbium *R. Br.*
1698 Platýpteris *Kth.*
1696 Sálmea *Dec.*
1780 Sanvitália *Cav.*
1805 Sĭmsia *Pers.*
1695 Spilánthes *W.*
1790 Verbesína *W.*
1754 Ximenésia *W.*
1768 Zínnia *W.*

Tribe 25. RUDBECKIEÆ.

1823 Baltimóra *W.*
1786 Eclípta *W.*
1799 Gymnolómia *Kth.*
1796 Heliópsis *P. S.*
1795 Pascália *W.*
1800 Rudbéckia *W.*
1802 Tithónia *Desf.*
1821 Wedélia *W.*

Tribe 26. MILLERIEÆ.

1852 Brotéra *W.*
1712 Cæsúlia *W.*
1787 Meyéra *Swz.*
1779 Centrospérmum *Spr.*
1827 Chrysógonum *L.*
1834 Euxénia *Cham.*
1847 Nauenbúrgia *W.*
1845 Flavéria *Juss.*
1735 Mádia *W.*
1828 Melampódium *W.*
1822 Milléria *P. S.*
1826 Polýmnia *W.*
1808 Sclerocárpus *W.*
1789 Siegesbéckia *W.*
1794 Zaluzánia *P. S.*

SUBORDER XVIII. *ASTEREÆ.*

1783 Amellus *W.*
1743 Kaulfússia *Nees.*
1739 A'ster *W.*
1740 Solidágo *W.*
1732 Báccharis *W.*
1733 Molína *Fl. per.*
1756 Béllis *W.*
1742 Calótis *R. Br.*
1757 Béllium *W.*
1772 Boltónia *W.*
1705 Chrysócoma *W.*
1736 Erígeron *W.*
1784 Stárkea *W.*
1836 Paládia *W.*
1746 Grindélia *W. en.*
1679 Pterónia *W.*

SUBORDER XIX. *SENECIONES.*

1701 Cacália *W.*
1741 Cineréria *W.*
1751 Dorónicum *W.*
1833 Othónna *W.*
1738 Senécio *W.*

SUBORDER XX. *VERNONIEÆ.*

1843 Elephantópus *W.*
1703 Ethúlia *W.*
1853 Gundélia *W.*
1851 Rolándra *W.*
1684 Sparganóphorus *Gærtn.*
1672 Stokésia *W.*
1706 Tarchonánthus *W.*
1680 Vernónia *W.*
1691 Ampherépbis *Kth.*

ORDER XC. CAMPANULACEÆ.

These differ from the last in not having the flowers in heads, in their usually distinct anthers, which are, however, syngenesious in Lobélia, in their polyspermous fruit, and also in exuding a milky juice. All the genera are pretty, and some highly ornamental. They are mostly herbaceous, and by far the greater number are extra-tropical, abounding especially in the woods and coppices of the North. The roots of Campánula Rapúnculus are used as a vegetable under the name of Rampion. The juice of some of the Lobélias is highly caustic and inflammatory; when taken internally, producing vomiting and even death: nevertheless, the root of Lobélia siphilitica, in small doses, acts as a diaphoretic, in greater quantity as diuretic or purgative, and, if taken in considerable quantities, as an emetic. An infusion of Lobélia infláta is used in North America as a remedy for leucorrhœa; and the root of Lobélia cardinális is employed in the same country as a vermifuge.

464 Lobélia *W.*
463 Campánula *W.*
465 Phyteúma *W.*
466 Trachélium *W.*
546 Lightfoótia *L'Her.*
895 Michauxia *W.*
467 Roélla *W.*
545 Cýphia *W.*
834 Canarina *W.*
547 Jasione *W.*

ORDER XCI. GOODENOVIÆ.

New Holland and South Sea herbs or undershrubs, very nearly akin to the last, from which they differ more in artificial characters than in habit. All of them are pretty, and deserving culture. Nothing is known of their properties.

468 Goodénia *R. Br.*
469 Euthāles *R. Br.*
470 Dampièra *R. Br.*
472 Velléia *Sm.*
473 Scæ'vola *R. Br.*

ORDER XCII. STYLIDEÆ.

Like the last, the properties of this very small but curious order are, if any, undiscovered. All are inhabitants of New Holland, and either herbs or half-herbaceous shrubs. They have pink flowers, ornamented with glittering glands; their stamens are united into a column, which is terminated by a sessile stigma, and which is irritable in so high a degree, that, if touched with a pin, it instantly starts from its place with great elasticity.

1932 Stylídium *R. Br.*

ORDER XCIII. GESNERIEÆ.

Fine tropical herbs, with broad, fleshy, downy leaves, and purple or scarlet flowers. They all require stove heat, and decayed vegetable soil; in their native country, which is chiefly equinoctial America, they are found growing in the woods, where the earth is little more than a bed of rotten leaves and bark.

1290 Gesnéria *W.*
1291 Gloxinia *W.*

ORDER XCIV. ERICEÆ.

These are distinguished from the neighbouring orders by their polyspermous fruit, aristate anthers, and dry shrubby habit. Every genus is eminently beautiful, and worthy of the most assiduous cultivation. The first tribe is a native of hill-sides and open plains, chiefly of the extra-tropical regions of the earth. Some are famous for their beauty, some for their fragrance, and many for their foliage. The heaths are the glory of the Cape, the Arbutuses of Europe, the Andrómedas of America, and Cléthra of the Canaries. The second tribe is distinguished from the rest by its inferior berry, and is not less valuable for its fruit than conspicuous for its beauty. The species are principally North American. Monotropeæ stand in their systematic station as they grow in their native woods, lowly herbs among thickets of bushes and trees. Rhodoraceæ, once considered a distinct order, are chiefly North American; their flowers are less tubular than those of true Ericeæ; but their habit is not materially different; here the Azálea the Kálmia, and the Rhododéndron, the pride of European gardens, as they are of their native woods, find their station. The utility of the fruit of Vaccinium is well known; its bark is reckoned tonic, stimulant, and astringent, and their fruit slightly styptic. The berries of A'rbutus úva-úrsi are considered lithontriptic; its leaves have also been employed successfully in infusions in obstinate cases of gonorrhœa. Extract of Chimáphila umbelláta, in the form of pills, in doses of five scruples a day, has been found successful in cases of dropsy. Some of the species are possessed of narcotic qualities; this is the case with Lédum, Rhododéndron chrysánthum, and especially Azálea póntica; honey obtained from the juice of which is said by Xenophon, to have caused the death of many soldiers in the famous retreat of the ten thousand. An infusion of Rhododéndron máximum is used in America in cases of chronic rheumatism, and that of Rhododéndron pónticum in Asia, against gout and rheumatism.

Tribe 1. ERICEÆ VERÆ.

284 Blæ'ria *W.*
892 Erica *W.*
534 Brossæ'a *L.*
535 Itea *L.*
536 Cyrilla *L.*
1016 Andrómeda *W.*
1018 Gaulthéria *W.*
1019 A'rbutus *W.*
1017 Enkiánthus *B. M.*
1020 Cléthra *W.*
1021 Mylocáryum *W. en.*

Tribe 2. VACCINIEÆ.

906 Oxycóccus *P. S.*
907 Vaccinium *L.*

Tribe 3. MONOTROPEÆ.

1022 Pýrola *W*
1023 Chimáphila *Ph.*
1008 Monotrópa *W.*

Tribe 4. RHODORACEÆ.

403 Azálea *W.*
404 Chamælédon *Lk.*
893 Menziésia *Sm.*
1011 Kálmia *W.*
1012 Lédum *W.*
1013 Rhodóra *W.*
1014 Rhododéndron *W.*
1015 Epigæ'a *W.*
1076 Bejária *Ph.*

SUBCLASS III. COROLLIFLORÆ.

Petals cohering in the form of a hypogynous corolla, which is not attached to the calyx.

To this subclass are to be referred all genera which have a monopetalous corolla, with the stamens inserted into it, and a superior ovarium.

ORDER XCV. MYRSINEÆ.

Showy shrubs, with evergreen undivided leaves, and cymes of white or red flowers. Theophrásta is a very rare stove plant, with a simple stem, and undulated spiny toothed leaves. The Ardisias are common in collections. None are natives of Europe, but are found in the hot parts of Asia, Africa, and America. Nothing is known of their properties.

408 Theophrásta *L.*
409 Clavija *Fl. per.*
435 Ardisia *W.*
2160 Myrsine *R. Br.*
443 Bæobótrys *Vahl.*

ORDER XCVI. SAPOTEÆ.

These are also shrubs, which are mostly evergreen, and natives of the warmer regions of the world. Some of the Bumélias are found in the southern states of N America, but none of the order exists in Europe. They are chiefly valuable for their fruit, which, in many cases, contributes richly to the dessert. Mímusops eléngi, Imbricária malabárica, Sideróxylon spinósum, are all of this description; the star apples of the West Indies, the produce of several species of Chrysophýllum, and particularly of C. cainito, are esteemed delicious; and the Mediars, Lucumas, and Sapotillas of equinoctial America, all the fruit of different kinds of A'chras, are among the most valuable productions of the western world. The seeds of all the order are oily: those of A'chras sapóta are accounted diuretic and aperient. Their oil is not fluid, but so concrete as to have the appearance and consistence of butter, whence the name of butter-tree has been applied to different species both in Africa and India. The most famous of this description is the Indian mava, mahva, or madhuca, the Bássia butyrácea of botanists; the seeds of which are so oleaginous, that a single tree has been known to produce three quintals of oil; the dried flowers of the same tree are mixed by some Indians with their food, and a kind of spirit is distilled from them by others. The juice of all the sapotas is milky, but not acrid and poisonous like that of most other lactescent orders, but, on the contrary, yielding a wholesome beverage or food. Here is supposed to belong the famous Palo de Vaca, or Cowtree of South America, the trees of which are regularly milked by the inhabitants of the districts in which it grows. According to Brown, the bark of some of the A'chrases is so astringent and febrifugal as to be substituted for quinquina.

423 Bumélia *W.*
424 Chrysophýllum *W.*
425 Sideróxylon *W.*
426 Jacquinia *W.*
427 A'chras *W.*
433 Sersalisia *R. Br.*
434 Manglilla *Juss.*
881 Mímusops *W.*
1024 Inocárpus *W.*
1074 Bássia *W.*

ORDER XCVII. SYMPLOCACEÆ.

Shrubs with serrated leaves, turning yellow in drying, and small white flowers which are sometimes fragrant The leaves of most of them are astringent; those of Alstónia tinge the saliva greenish yellow, of Sýmplocos tinctória are used in America under the name of Sweet-leaf, for dying yellow.

1614 Sýmplocos *L.*

ORDER XCVIII. EBENACEÆ.

Some of these are hardy trees or shrubs, with deciduous leaves and white flowers, natives of woods, mountains, and banks of streams in North America and Europe; others are tropical evergreens. Among the former, the best known are the Snow-drop tree, or Halési, with pendent shewy white blossoms; and the different species of Stýrax: of the latter, many of the Diospýruses' produce are eatable fruit; as, for example, the Mabolo of the Philippine Islands, which is as big as a peach, and the Kaki of Japan, which resembles an apricot. All these fruits are remarkable for their extreme austerity before maturity, and the necessity of letting them decay, like our medlars, before they are fit for table. They are also distinguished for the excessive hardness of their wood, and for the black colour it sometimes acquire when old, as the Ebony. The bark of Diospyros virginiána is used in North America in intermittent fevers

1035 Royéna *W.*
2086 Mába *J.*
2159 Diospýros *W.*
1025 Stýrax *W.*
1081 Halésia *W.*
1105? Visnea *W.*

ORDER XCIX. OLEINÆ.

The olives are known by their monopetalous corolla, with a valvular æstivation, two stamens alternate with the segments, a bilocular ovarium with no discus at the base, and pendulous collateral ovula. They were formerly combined with the jasmines. They have all simple opposite leaves; their flowers are either white, yellow, or purple, and frequently fragrant. The Phillyréas are among our finest evergreens, and the Lilac or Syrínga perhaps at the head of hardy deciduous bushes. The ash is an anomalous genus which hardly belongs to the order. The seed of the olive contains so large a proportion of fixed oil, that it has long been one of the most important objects of cultivation in the South of Europe. The bark and leaves of many Oleinæ are bitter and astringent; these properties are particularly apparent in the ash, which has often been employed successfully as a febrifuge. From the exudation of many species of that genus, the mild purgative called manna is formed; it is most commonly found upon the O'rnus. M. Decandolle remarks, that in proof of the natural affinity of the plants here combined, and of the propriety of separating the jasmines from them, it has been found that all the olives as now restricted, will bud or graft upon one another, but not on the jasmines. Thus the lilac will graft on the ash, the Chionánthus, and the Fontanésia, and even upon Phillyréa latifólia, and the olive will take upon the Phillyréa, and even on the ash.

32 O'lea *W.*
33 Phillyréa
35 Notelæ'a *B. P.*
34 Chionánthus *W.*
36 Ligústrum *W.*
37 Syrínga *W.*
67 Linociéra *B. P.*
66 Fontanésia *W.*
69 O'rnus *P. S.*
2157 Fráxinus *W.*

ORDER C. JASMINEÆ.

Fragrance is the predominant property of the jasmine, and has made it for ages the favourite of poets and of the people; this arises from the presence of an oil which can be extracted so as to retain its perfume. In medicinal qualities, the jasmines do not differ materially from the last; they are neatly distinguished by botanists by the direction of their ovula which are erect in Jasmineæ, and pendulous in Oleinæ.

38 Nyctánthes *W.*
39 Jasmìnum *W.*

ORDER CI. APOCYNEÆ.

We now turn from the contemplation of plants endued with mild and agreeable properties and fragrant flowers, and often bearing food for man, to others which are among the most dangerous and fatal poisons; whose juices, milky indeed, like the Cowtree, are not a wholesome and delicious beverage like those of Sapoteæ, but on the contrary acrid, caustic, or bitter. They are readily known by the twisted direction of the segments of the corolla, which have been compared to the rays of a Catherine's wheel, whence they were called by Linnæus, Contortæ. By far the greatest part of the order consists of tropical trees and shrubs: a few Apócynums, Amsónias, and Vincas, are natives of the colder zones of the earth. Many are elegant climbers, as the different species of Echites and Melodinus. The splendid Oleánder belongs to Nérium; the different species of Plumiéria, Camerária, Strophánthus, and Arduina are stove plants of the greatest beauty. The medicinal action of these plants is highly powerful. The Strychnos, or nux vomica tree, is remarkable for its bitterness and acrid deleterious effects, which are indicated not only when introduced into the stomach, but still more violently when absorbed into the system by inoculation. In general, the Apocyneæ are acrid, stimulating, and astringent; their principles, when in excess, act so powerfully on the nerves as to produce stupefaction. The root of Ophióxylon is very bitter and purgative: under the name of snake-root it is used in India as an antidote to the bites of serpents. The bark of Cérbera Mánghas is purgative; of Echites antidysentérica, and the Wrightia of the same name, astringent and febrifugal; the leaves of the Vinca are so astringent, that they have been used successfully in tanning; those of Nérium oleánder are said to abound in free gallic acid. The inspissated juice of a species of Cérbera, known in Mexico under the name of Ycotli, is a fatal poison.

407 Allamánda *W.*
410 Vinca *W.*
411 Nérium *R. Br.*
412 Wrightia *R. Br.*
413 Echites *R. Br.*
414 Ichnocárpus *R. Br*
415 Plumiéria *W.*
416 Strophánthus *Dec.*

417 Cameräria *W.*
418 Tabernæmontána *W.*
2152 Ophióxylon *W.*
419 Amsónia *Mich.*
420 Cérbera *W.*
436 Arduina *W.*
437 Strýchnos *W.*
438 Carissa *W.*
440 Gelsémium *J.*
441 Rauwólfia *W.*
572 Apócynum *R. Br.*
573 Melodinus *Forst.*
299 ? Monétia *W.*

Order CII. ASCLEPIADEÆ.

These differ from the last only in having the stamens united into a sort of fleshy crown, and the pollen coherent in masses of a waxy substance like that of Orchideæ; their properties, habit and geographical range, are much the same. Periplóca is a singular instance of an asclepiadeous plant being a hardy shrub, every other frutescent species of the order being natives of countries where frost is unknown. Hoýa comprehends climbing plants, with waxen, clustered, odoriferous flowers distilling honey. Perguläria is valued for its fragrance, Ceropégia for its singularity, and Asclépias for beauty and hardiness. But the most extraordinary genera of the order are Stapélia, Piaránthus, and Huérnia, in which the place of leaves is supplied by fleshy short stems of various forms, and whose flowers are not less singular for their curious and complex organisation, than they are remarkable for their strange coloring and spotting, and offensive for their fœtor. The root of Gymnéma vomitórium, Asclépias curassávica, Calótropis prócera, and some others, is employed in different countries for ipecacuanha. An infusion of the root of Asclépias decúmbens has the singular property of exciting general perspiration; whence it is successfully used in Virginia for pleurisy. It is very singular that, in a tribe of plants so generally poisonous as these are, the young shoots of some species should be an article of food: of this nature are Perguläria édulis, Periplóca esculénta, Apócynum indicum, and several more.

574 Periplóca *R. Br.*
575 Cryptostégia *R. Br.*
576 Hemidésmus *R. Br.*
577 Secamóne *R. Br.*
578 Microlóma *R. Br.*
579 Sarcostémma *R. Br.*
580 Dæ'mia *R. Br.*
581 Cynánchum *R. Br.*
582 Oxystélma *R. Br.*
583 Gymnéma *R. Br.*
584 Calótropis *R. Br.*
585 Dischídia *R. Br.*
586 Xysmalóbium *R. Br.*
587 Gomphocárpus *R. Br.*
588 Asclépias *R. Br.*
589 Gonólobus *R. Br.*
590 Perguläria *R. Br.*
591 Marsdénia *R. Br.*
592 Hoýa *R. Br.*
593 Ceropégia *Roxb.*
594 Stapélia *R. Br.*
595 Piaránthus *R. Br.*
596 Huérnia *R. Br.*
597 Brachystélma *R. Br*
598 Carallúma *R. Br.*

Order CIII GENTIANEÆ.

An order in some degree intermediate between Polemoniaceæ and Scrophularineæ, from both which it is distinguished both by habit and fruit, some of the genera border closely upon Apocyneæ. The species are natives of cool or mountainous regions or pools in all parts of the world. The Gentians are mostly dwarf herbaceous plants, with deep blue flowers; the latter color, and different shades of orange, being the prevailing hues. They are all pretty, and many beautiful in the highest degree; but, with a few exceptions, they are impatient of cultivation. The medicinal properties of the root of Gentiána lútea, rúbra, and purpúrea, are eminently tonic, stomachic, and febrifugal; their bitterness is second only to Quássia. Similar, but more feeble virtues, are found in most of the order, especially in Villársia ováta, Gentiána peruviána, Chirayita, Fraséra Wálteri, &c. Spigélia anthélmia is used as a vermifuge; and the root of Spigélia marylándica infused in water as anthelmintic, and in wine as febrifuge. Potália amára is used in Guiana as an emetic. A kind of spirit is distilled in Switzerland from the roots of Gentiána, macerated in water.

281 Sebæ'a *R. Br.*
282 Fraséra *Walt.*
280 E'xacum *W.*
364 Chirónia *L.*
365 Eústoma *P. L.*
366 Erythræ'a *P. S.*
367 Sabbátia *P. L.*
894 Chlóra *W.*
600 Gentiána *W.*
599 Swértia *W.*
379 Spigélia *W.*
378 Lisiánthus *W.*
368 Logánia *R. Br.*

362 Menyánthes *W.*
363 Villársia *R. Br.*

Order CIV. BIGNONIACEÆ.

The showy trumpet-shaped flowers and broad leaves of these plants, render them objects of general admiration. The greatest number is found in the equinoctial regions, a few only passing beyond those limits to the north Bignónia rádicans is a hardy climbing plant, of exceeding beauty; and the Jacarándas are resplendent with flowers of blue or purple, and leaves which emulate the elegance of the Acácia. Nothing important is known of their qualities. Their wood is said to resist the attack of worms.

64 Catálpa *Juss.*
1294 Bignónia *W.*
1295 Jacaránda *Juss.*

Order CV. COBÆACEÆ.

A climbing genus with large purple flowers, recently separated from the Bignónias by Mr. Don. Nothing is known of its medicinal properties.

388 Cobæ'a *Cav.*

Order CVI. POLEMONIACEÆ.

Herbaceous plants with showy blue, red, or white flowers, and often with pinnated leaves. They are natives of cool or mountainous parts in Europe and America. Nothing is known of their properties.

369 Phlox *W*
70 Polemónium *W.*
389 Cántua *W.*
390 Hoitzia *Cav.*

Order CVII. CONVOLVULACEÆ.

Nearly the whole of these are twining plants, with shewy flowers expanding beneath the influence of bright sunshine. A few are shrubs, but the greater part are herbaceous, and very many annual. They are frequently, also, weeds, which, from their creeping roots, are difficult to extirpate. All parts of the world produce them, from the cold regions of the north to the burning soil of the equator. Cúscuta is a singular parasite, wholly destitute of leaves. The root of many is filled with a milky acrid juice, which is very purgative. Scammony, jalap, and some other drugs, are the produce of Convolvulaceæ. The root of Convólvulus flóridus and scopárius, and Ipomæ'a quamóclit, is stimulatory; that of Convólvulus batátas, which is the sweet potato of America and Southern Europe; and Convólvulus édulis are wholesome articles of food.

Hydroleæ are little known, pretty, herbaceous plants, mostly with blue flowers, native both of cold and tropical countries; Diapénsia lappónica being an inhabitant of Lapland mountains, and Hydrólea spinósa of West Indian marshes. Their botanical characters are very nearly the same as those of Polemoniaceæ. The roots of Hydrólea spinósa are reputed bitter, and slightly purgative.

Tribe 1. GENUINÆ.

383 Ipomæ'a *R. Br.*
384 Convólvulus *W.*
385 Argyréia *Lour.*
387 Calystégia *R. Br.*
602 Fálkia *L.*
695 Evólvulus *L.*
310 Cúscuta *W.*
603 Dichóndra *W*
391 Rétzia *Th.*

Tribe 2. HYDROLEÆ.

601 Hydrólea *W.*
358 Diapénsia *W*
359 Pyxidanthéra *Mi.*

Order CVIII. BORAGINEÆ.

True Boragineæ are chiefly herbaceous plants, with alternate exstipulate leaves, the surface of which is covered over with minute asperities, and with flowers arranged in one-sided spikes or racemes, occasionally solitary. Each flower has also four distinct little nuts or seeds, as they are commonly called. Some E'chiums and a few more are shrubs. They are found abundantly in Europe, Siberia, and the North of Africa, less commonly in India, and the equinoctial parts of the world; in some quantity in North America, and in tolerable abundance in New Holland. Within the tropics the order is principally represented by Heliotrópiums and Tournefórtias; in colder latitudes by Anchúsas, Cynoglóssums, herbaceous E'chiums, and the like. Some are mere weeds, quite unworthy of culture; others are eminently beautiful, as many E'chiums, Onósmas, Onosmódiums, Sýmphytums, and others. In general they are mucilaginous and emollient, qualities which are especially abundant in the root of Sýmphytum and Cynoglóssum. Pure nitre has been found in several plants of the order. A red color is given out by Anchúsa tinctória, Lithospérmum tinctórium, and Onósma echioides, which is used in dying. Several plants are employed on the same account in America. The Hydrophylleæ are often considered as distinct, on account of their capsular fruit and cartilaginous albumen. One or two of these are pretty plants, but most of them mere weeds.

Tribe 1. Asperifoliæ.

316 Coldénia *W.*
325 Heliotrópium *L.*
326 Myosótis *B. P.*
327 Echinospérmum *Sw.*
328 Máttia *Sch.*
329 Tiarídium *Lehm.*
330 Lithospérmum *W.*
331 Bátschia *Mich.*
332 Onósma *W.*
333 Anchúsa *W.*
334 Sýmphytum *W.*
335 Onosmódium *Mich.*
336 Cynoglóssum *W.*
337 Omphalódes *Lehm.*
338 Pulmonária *W.*
339 Cerinthe *W.*
340 Borágo *W.*
341 Trichodésma *R.Br.*
342 Asperúgo *W.*
343 Nónea *Mönch.*
344 Lycópsis *W.*
345 E'chium *W.*
346 Tournefórtia *R. Br.*
347 Nolána *W.*

Tribe 2. Hydrophylleæ.

372 Hydrophýllum *W.*
373 Phacélia *Mich.*
386 Nemóphila *Nutt.*
432 Ellisia *W.*

Order CIX. CORDIACEÆ.

Trees formerly referred to the last order, from which their habit, plaited cotyledons, and dichotomous style divide them. Little is known of their properties, except that the flesh of their fruit is emollient and mucilaginous. The nuts of Córdia Sebesténa are employed sometimes as laxatives

428 Córdia *W.*
429 Varrónia *W.*
430 Ehrétia *W.*
431 Bourréria *Gært.*

Order CX. SOLANEÆ.

The baneful nightshade represents this order, which participates very generally in its qualities, although they are frequently hidden beneath a fairer form, and often much mitigated. Many of the Solánums are very handsome. The Verbáscums, Datúras, and Solándras are all plants of great beauty, although the former, on account of their frequency, are despised in gardens. Cápsicums are famous for their pungent fruit and seeds; Brunsfélsias for their fragrance, and Nicotiánas, or Tobacco, for their fœtor. The leaves indeed of the whole order are disagreeably scented. The usual effect of Solaneæ is narcotic; but it is thought that this has been exaggerated, on account of the intense and deleterious properties of A'tropa belladónna. These, according to the observations of Vauquelin, depend upon the presence of a bitter nauseous matter which is soluble in spirits of wine, forming with tannin an insoluble compound, and giving out ammonia when decomposed by fire. Notwithstanding the narcotic power of the roots of the Mandrake, the Belladónna, and others, those of the potato are found to contain an abundant fæcula, which is among the most valuable food of man. The leaves of many Solaneæ are exciting and narcotic, but in very unequal degree, as in Tobacco, Phýsalis, Henbane, &c.; those of the Nightshade excite vertigo, convulsions, and vomiting. The juice of Stramónium is given in North America, in doses of from twenty to thirty grains, in cases of epilepsy. The fruit of Phýsalis Alkekéngi is a veterinary diuretic; that of P. édulis is used in tarts, that of Solánum Lycopérsicum, and Melongena, is served at table in various forms, under the name of Tomatoes and Aubergines.

375 Verbáscum *W.*
374 Ramónda *P. S.*
1377 Alonsóa *H. K.*
1376 Célsia *W.*
376 Datúra *W.*
377 Brugmánsia *P. S.*
380 Nicándra *J.*
381 Hyoscýamus *L.*
382 Nicotiána *W.*
446 A'tropa *W.*
447 Mandragóra *W. en.*
448 Phýsalis *W.*
449 Sarácha *Fl. per*
273 Witheringia *W.*
450 Lýcium *W.*
371 Véstia *W. en.*
451 Solánum *W.*
452 Nyctérium *Vent.*
453 Cápsicum *W.*
1336 Crescéntia *W.*
1375 Brunsfélsia *W.*
445 Solándra *W.*
446 Céstrum *W.*
1378 Anthocércis *R. Br.*
1000 ? Códon *W.*

Order CXI. OROBANCHEÆ.

Leafless parasites on roots, with brown or colorless scaly stems and flowers.

1335 Orobánche *W.*
1339 Lathræa *W.*

Order CXII. SCROPHULARINEÆ.

A great part of Linnæus's Didynamia Angiospermia is found here, capsular fruit and didynamous stamens being among the most obvious characteristics of the order. The species are generally herbs with opposite leaves, very rarely shrubs, and natives of mountains, valleys, ditches, woods, and waysides, in all parts of the world. The Personatæ have the palate so prominent as to close up the orifice of the corolla. Ringentes have the palate open. Some are highly ornamental, as Digitális, Pediculáris, Calceolária, &c, others are mere weeds, as is the case with a large proportion of them Most of them have a weak unpleasant smell, a bitterish taste, and acrid and suspicious properties; but this odor is sweet and aromatic in the Ambúlia of Lamarck; the taste is refreshing in Mimulus lúteus, which is a culinary plant in Peru, and the ordinary acrid properties become emollient in some Antirrhinums. The Rhinanthaceæ are remarkable for their astringent tonic bark and leaves. The leaves and roots of Scrophulária aquática, Gratiola officinális and peruviána, and Calceolária, act as purgatives, or in strong doses produce vomiting: these properties exist, in a high degree, in Digitális purpúrea. The leaves of this plant, reduced to powder, excite vomiting and vertigo, excite urine and saliva, and lower the pulse: in too strong doses they cause death; in moderate doses they are useful in scrophula, dropsy, asthma, &c.

Tribe 1. Personatæ (or Rhinanthaceæ).

1343 Antirrhinum *J.*
1344 Linária *J.*
1345 Anarrhinum *Desf.*
1346 Nemésia *Vent.*
1347 Maurándya *W.*
1349 Pediculáris *W.*
1342 Euphrásia *W.*
1340 Rhinánthus *W.*
1341 Bártsia *W.*
1337 Castilléja *Sm.*
1299 Tourréttia *J.*
1298 Chelóne *W.*

Tribe 2. Ringentes.

40 Verónica *W.*
43 Gratíola *W.*
51 Calceolária *W.*
276 Scopária *W.*
279 Búddlea *W.*
1297 Pentstémon *W.*
863 Disándra *W.*
1338 Halléria *W.*
1348 Gerárdia *W.*
1350 Erinus *W.*
1351 Mímulus *W.*
1352 Hornemánnia *W. en.*
1353 Mázus *Lour.*
1354 Isopléxis *Lindl.*
1355 Digitális *W.*
1356 Scrophulária *W.*
1357 Vandéllia *L.*
1358 Sibthórpia *W.*
1359 Limosélla *W.*
1360 Browállia *W.*
1361 Stemódia *W.*
1362 Treviràna *W. en.*
1363 Colúmnea *W.*
1364 Russélia *W.*
1365 Dodártia *W.*
1366 Lindérnia *R. Br.*
1367 Herpéstis *R. Br.*
1368 Caprária *P. S.*
1369 Buchnéra *B. P.*
1370 Manúlea *W. en.*
1371 Angelónia *Kth.*
1372 Schizánthus *R. & P.*
1373 Beséria *W.*
1374 Teédia *P. S.*
1379 Cymbária *W.*

Tribe 3. MELAMPYRACEÆ.

1315 Melampýrum *W.*

ORDER CXIII. LABIATÆ.

A portion of Diandria Monogynia, and the whole of Didynamia Gymnospermia of Linnæus, make up Labiatæ, which are characterized by their didynamous stamens, four little nuts or naked seeds, single style, and irregular corolla. They are mostly natives of extra-tropical countries, although under the form of Hýptis, Anisoméles, Leúcas, O'cymum, &c., they are found in the hottest zones of the world. Many are extremely odoriferous in the leaves, some bear handsome flowers, but by far the greater part are no better than weeds. They are all remarkable for their tonic, cordial, and stomachic virtues: they contain both a bitter and an aromatic principle, in different proportions. The bitterness which is given out in decoctions, resides in a gum-resinous secretion, abounding in some Teúcriums, which are particularly employed as stomachics, and sometimes as febrifuges: those which abound in essential oil, and which are consequently aromatic, are used as stimulants. From the different degree of combination of these principles in different plants, they have obtained various uses; such as savory, thyme, marjoram, for seasoning of food; sage, balm, ground ivy for tea; marum, marjoram, lavender, and thyme, for sternutatories; others, such as lavender, mint, balm, and rosemary, for perfumes. It is a remarkable fact, that the essential oil of all contains camphor, which exists in such quantity in sage and lavender, that it has been supposed that the separating of it might become an object of commerce.

§ 1. *Diandræ.*

55 Lýcopus *W.*
56 Amethýstea *W.*
57 Ziziphora *W.*
58 Cúnila *P. S.*
59 Hedeóma *P. S.*
60 Monárda *W.*
61 Rosmarinus *W.*
62 Sálvia *W.*
63 Collinsónia *W.*

§ 2. *Tetrandræ.*

1242 A'juga *W.*
1243 Anisoméles *R. Br.*
1244 Teúcrium *W.*
1245 Westringia *Sm.*
1246 Saturéja *W.*
1247 Thýmbra *W.*
1248 Hyssópus *W.*
1249 Népeta *W.*
1250 Elshóltzia *W.*
1251 Lavándula *W.*
1252 Sidéritis *W.*
1253 Bystropógon *W.*
1254 Méntha *W.*
1255 Perilla *W.*
1256 Hýptis *Poit.*
1257 Horminum *Ort.*
1258 Gléchoma *W.*
1259 Lámium *W.*
1260 Galeópsis *W.*
1261 Galeóbdolon, *E. B.*
1262 Betónica *W.*
1263 Stáchys *W.*
1264 Zietênia *Pers.*
1265 Ballóta *W.*
1266 Marrúbium *W.*
1267 Leonúrus *R. Br.*
1268 Phlómis *R. Br.*
1269 Leúcas *R. Br.*
1270 Leonótis *R. Br.*
1271 Moluccélla *W.*
1272 Clinopódium *W.*
1273 Pycnánthemum *Th.*
1274 Origanum *W.*
1275 Thýmus *L.*
1276 A'cynos *Pers.*
1277 Calamintha *Ph.*
1278 Melissa *W.*
1279 Dracocéphalum *W.*
1280 Melittis *W.*
1281 O'cymum *W.*
1282 Plectránthus *W.*
1283 Trichostéma *W.*
1284 Prostanthéra *R. Br.*
1285 Scutellária *W.*
1286 Prunélla *W.*
1287 Cleónia *W.*
1288 Prásium *W.*
1289 Phrýma *W.*

ORDER CXIV. PEDALINÆ.

Herbaceous plants, formerly included in Bignoniaceæ, from which they are distinguished by the small number of seeds in each cell of the fruit. Natives of the tropics, with shewy trumpet-shaped flowers. The seeds of Sésamum abound in oil, which is easily expressed, for which the common species is extensively cultivated in hot countries.

1296 Sésamum *W.*
1300 Martýnia *W.*
1331 Pedálium *W.*

ORDER CXV. MYOPORINEÆ.

South Sea and New Holland shrubs, with scarcely any hair. The leaves are simple, alternate, or opposite, with no stipulæ. The flowers, scarlet, white, or blue, axillary without bracteæ. These are very near Verbenaceæ. Stenochílus is the handsomest genus of the order: the Avicénnias are shore plants, growing in the place of the mangroves, and shooting their long roots to a great distance among the mud, sometimes to the length of six feet along the surface before they fix themselves. Their medicinal properties, if any, are unknown.

1323 Avicénnia *L.*
1332 Myopórum *Forst.*
1333 Stenochílus *R. Br.*
1334 Bóntia *R. Br.*

ORDER CXVI. VERBENACEÆ.

A mixture of weeds and shewy herbs, of humble creeping plants and of lofty timber trees. Some of the Vitexes and Clerodéndrums are handsome shrubs: Aloýsia is esteemed for the fragrance of its flowers, and Holmskióldia for the refulgent scarlet of its enlarged calyxes. Téctona produces the famous Indian teakwood. No properties of consequence have been attributed, by medical men, to any plant of the order, those formerly ascribed to the vervain and chaste-tree being now disregarded. The species are natives of waysides in Europe, and of woods and barren plains in the tropics.

1322 Verbéna *L.*
54 Stachytárpheta *Vahl*
1319 Zapánia *J.*
1320 Priva *P. S.*
1314 Lippia *L.*
272 Callicárpa *W.*
65 Ghinia *W.*
274 Ægiphila *W.*
421 Téctona *W.*
1309 Hebenstréitia *W.*
1310 Hósta *Jacq.*
1317 Vitex *W.*
1318 Cornútia *W.*
1313 Aloýsia *Fl. per.*
1316 Selágo *W.*
1312 Lantána *W.*
1311 Gmelina *W.*
1321 Spielmánnia *W.*
1324 Caldásia *W.*
1325 Clerodéndrum *B. P.*
1326 Volkaméria *H. K.*
1327 Holmskióldia *H. K.*
1328 Petréa *W.*
1329 Citharéxylum *W.*
1330 Duránta *W.*

ORDER CXVII. ACANTHACEÆ.

These are known by the elastic dehiscence of their capsules, and the hooked processes of the seeds. They are almost entirely tropical herbs or shrubs, with the pubescence, if any, simple or capitate, but never stellate. Their leaves are opposite, occasionally arranged in fours, simple and undivided, or very seldom lobed. The flowers are either in imbricated heads or open racemes, always enclosed in their bracteæ; and are white, blue, yellow, scarlet, or purple. Some of the species are very shewy, but few of them are cultivated commonly; a large proportion are mere weeds. The Thunbérgias are fine climbers, and the Acánthus móllis, the foliage of which gave rise to the classical acanthus of architecture, is, perhaps, except Morina pérsica, one of the most interesting of hardy herbaceous plants. It is also one of the few species to which any medical properties are ascribed, being used sometimes as an emollient by reason of its mucilage. Justicia biflóra is employed in Egypt as a poultice, J. Ecbólium as a diuretic, and J. pectorális as a vulnerary.

45 Elytrária *M.*
46 Hypoéstes *R. Br.*
47 Justicia *W.*
48 Dicliptera *W.*
49 Eránthemum *P. B.*
1302 Barléria *W.*
1303 Phaylópsis *Juss.*
1304 Ruéllia *J.*
1305 Bléchum *R. Br.*
1301 Acánthus *W.*
1306 Aphelándra *R. Br.*
1307 Crossándra *P. I.*
1308 Thunbérgia *W.*

ORDER CXVIII. LENTIBULARIÆ.

Very pretty interesting aquatics, which are scarcely susceptible of cultivation, except in a few cases. The Pinguículas are either European or North American, inhabiting elevated patches in bogs: the Utriculárias are floaters, found in most countries in marshes and little rills: their flowers, are white, yellow, or blue.

52 Pinguícula *W.*
53 Utriculária *W.*

Order CXIX. PRIMULACEÆ.

Beautiful dwarf herbs, inhabiting the mountains and meadows of all parts of the world, but especially in the northern hemisphere. Nothing can be more lovely than the little delicate alpine Primulas, Androsáces, Arétias, and Soldanéllas, with their little modest blossoms, sometimes rivalling the whiteness of the surrounding snow, sometimes emulating the intense blue of the empyrean, as if the one had borrowed its hues from heaven, and the other from the spotless mantle of the earth. Hottónia is a naiad of the stream, inhabiting several parts of England, in ponds and ditches, which are enlivened for many a month with its rosy flowers, peeping from among the sedge and under grass, by which it is environed. All the genera are familiar to gardeners, except Centúnculus and Schwénckia, of which the former is singular in the order, as being an obscure minute weed, and the latter has inelegant green flowers, curious to the botanist but ungrateful to the florist. The prominent botanical character is the one-celled fruit, with a central placenta, and the stamens opposite the petals. The properties of Primulaceæ are feeble and of little consequence; they appear to be slightly astringent and bitter; the root of Cýclamen is acrid, and only eaten by wild boars; the flowers of the primrose and cowslip are fragrant, and mildly sudorific and soporific. Cortúsa Mathioli has been used in nervous disorders.

350 Primula *W*
349 Androsáce *W.*
348 Arétia *W.*
351 Cortùsa *W.*
352 Soldanélla *W.*
353 Dodecátheon *W.*
354 Cýclamen *W.*
355 Hottónia *W.*
356 Lysimáchia *W.*
392 Lubínia *Comm.*
357 Anagállis *W.*
360 Córis *W.*
277 Centúnculus *W.*
42 Schwénckia *W.*
471 Samólus *W.*
862 Trientális

Order CXX. GLOBULARINÆ.

Pretty alpine plants with blue flowers. The leaves of Globulária Alýpum are very bitter and powerfully purgative, giving at the same time a tone to the stomach and intestines.

260 Globulária *W.*

Order CXXI. PLUMBAGINEÆ.

These are properly placed at the limit between Monochlamydeæ and Dichlamydeæ, to either of which they are referable in the minds of some botanists, although it appears, upon the whole, to be most convenient to station them where they are now arranged. They are low shrubs or herbaceous plants, with shewy red or blue flowers of an arid texture, inhabiting salt marshes and subalpine tracts, in the temperate latitudes of both the northern and southern hemispheres. All the Státices and Armérias are fine plants worth cultivating. The root of Státice Limónium is astringent and tonic; of the Plumbágos, the root and whole plant are acrid and caustic, and employed as vesicatories.

324 Plumbágo *W.*
705 Arméria *W. en.*
706 Státice *W. en.*

Subdivision II. MONOCHLAMYDEÆ.

Perianthium simple.

The absence of corolla characterizes this subdivision of dicotyledonous vegetation, but as the term corolla is subject to frequent misunderstanding, it should be borne in mind, that whenever there is only one floral envelope, that envelope is to be considered calyx, whether green, as in most cases, or colored, as in the Marvel of Peru.

Order CXXII. PLANTAGINEÆ

Little inconspicuous herbs found in waste places all over the world. The leaves are stellate, and occasionally ternate; the pubescence is jointed; the flowers are brownish, and arrayed in dense spikes. Their leaves are rather bitter and astringent; their seeds mucilaginous and rather acrid; those of Plantágo arenária are imported in large quantities from the south of France, for the purpose of forming an infusion in which muslins are washed. P. média is sometimes cultivated by farmers under the name of ribgrass.

278 Plantágo *W.*
1967 Littorélla *W.*

Order CXXIII. NYCTAGINEÆ.

With the exception of Mirábilis, in which the colored calyx has a shewy effect, all the order consists of weeds, growing often among the loose sand on the sea coast of the tropics and western hemisphere; none are found in Europe. The Abrónias are curious, neat, and often fragrant. The root of Mirábilis Jalápa was formerly considered the jalap, which is now known to be an error; it is however purgative, although in a less degree. Boerhaávia tuberósa is also a reputed purgative.

19 Boerhaávia *W.*
81 Calyménia *R. P.*
322 Mirábilis *W.*
323 Abrónia *Juss.*
864 Pisónia *W.*

Order CXXIV. AMARANTHACEÆ.

Upon this order Dr. von Martius has the following remarks: Leaves, especially when young, of a lax soft texture, abounding in saccharine, mucilaginous, and fibrous particles, and therefore fit for food. The seeds are farinaceous, consisting chiefly of starch and mucus. Their virtues are nutritive, emollient, demulcent; the root of Gomphréna officinális is tonic and stimulant. The species are either gregarious or solitary; mostly diffuse and villous, and existing in dry stony exposed places, or erect and reclining on other vegetables, with little pubescence, when found on the skirts of ancient forests; a few are found in saline coast places; finally, they are more common in low land, little elevated above the surface of the sea, than in mountainous regions. They are met with in both hemispheres; rarely under the equator, but increasing both northwards and southwards as we recede from them; they are confined to no countries in particular, but are found to affect all regions of the world. Among an abundance of weeds, we distinguish a few fine plants deserving cultivation, as the Globe Amaránthus, the Cockscombs, and a few species of Amaránthus, one of which, under the name of Love-lies-bleeding, is commonly reared for the sake of its long, tail-like, pendent masses of crimson flowers. Amaránthus oleráceus, and a few others, are occasionally cultivated as potherbs.

552 Achyránthes *W.*
553 Philoxérus *R. Br.*
554 Desmochæ'ta *Dec.*
556 Alternanthéra *R. Br.*
560 Ærúa *Juss.*
561 Lestibudésia *R. Br.*
563 Deeríngia *R. Br.*
565 Celósia *R. Br.*
566 Gomphréna *R. Br.*
918 Aphanánthe *Lk.*
1975 Amaránthus *W.*
2069 Irésine *W.*

Order CXXV. ILLECEBREÆ.

Weeds distinguished from Amaranthaceæ by their membranous stipules. They are found in dry barren places, for which they are better fitted than for a garden, unless as objects of curiosity.

555 Illecébrum *Juss.*
557 Paronýchia *Juss.*
559 Anýchia *Mich.*
569 Móllia *W.*
614 Herniária *W.*
82 Loéflingia *W.*
221 Polycárpon *W.*
226 Minuártia *W.*
227 Quéria *W.*

Order CXXVI. CHENOPODEÆ.

The habit of this order is a better distinction from Amaranthaceæ, than any artificial character which it is easy to point out. While Amaranthaceæ have a dry perianthium with a dense inflorescence, Chenopodeæ on the contrary have a fleshy perianthum and a very effuse inflorescence. In the former, the stamens are usually inserted under the ovarium; in the latter into the calyx, but this mark is not constant. None of them, unless Phytolácca is excepted, can be esteemed plants of ornament; on the contrary, they have a weedy uninviting appearance, which is not improved by the fetid smell of some of them. But, although their appearance is less attractive than that of the Amaranths, their use to man is far more considerable. Their qualities are very various; Camphorósma has the smell of camphor; Petivéria stinks like onions; Phytolácca roots, leaves, and berries, are violent purgatives and emetics; the latter are esteemed in North America nearly equal to Guaiacum, and are employed in chronic rheumatisms, and in rheumatic pains following venereal diseases; an extract of the berries has been employed in scrophula and cancerous ulcers; and the young shoots of the plant are eaten in the United States as asparagus. Some of the Chenopódiums, as Ambrosioides, Bótrys, &c., possess antispasmodic and tonic properties; the leaves of Spinácia, and of many Chenopódiums, are eaten as spinach; as are those of Basélla in China and India. Salsóla and Salicórnia are often employed as pickles. Beet roots are equally valuable as a culinary and agricultural production, and the leaves are an excellent vegetable when boiled. But the most remarkable feature in the properties of the order is the abúndant production of soda, which is obtained from many of the species, as from all the Salsólas, Salicórnias, Anabásis, many species of A'triplex, several salt marsh Chenopódiums, and others. The seeds of Chenopódium anthelminticum are used as a vermifuge, those of A'triplex horténsis excite vomiting, frequently attended with acute pain; those of Chenopódium quinóa are said to be used as rice. To conclude this list of remarkable properties in one of the most vile of all assemblages of plants, the roots of beet yield an abundance of sugar.

21 Pollichia *W.*
22 Salicórnia *W.*
92 Polycnémum *W.*
611 Chenopódium *W.*
609 Salsóla *W.*
610 Kóchia *Roth.*
612 Béta *W.*
608 Anabásis *W.*
558 Chenólea *W.*
613 Bósea *W.*
28 Blitum *W.*
26 Corispérmum *W.*
253 Rivina *W.*
254 Camphorósma *W.*
693 Basélla *W.*
865 Petivéria *W.*
917 Galénia *W.*
1071 Phytolácca *W.*
1937 Ceratocárpus *W.*
1943 Axýris *W*
1964 Diótis *W.*
2070 Spinácia
2138 A'triplex
2139 Rhagódia *R. Br.*
2072 Acnida *W.*

ORDER CXXVII. POLYGONEÆ.

Herbaceous or suffrutescent fleshy-leaved plants, chiefly natives of the northern hemisphere; a few Polýgonums and Coccolóbas are found to the south, the former in barren places, the latter on sea shores. A great part of the order consists of worthless weeds. Some of the Polýgonums, and all the Eriógonums, are handsome plants, the Rhéums are famous in medicine. The root of Rheum is tonic and purgative; most of the Rúmexes and Polýgonums are also tonics. The juice of the Coccolóbas is very astringent. The young leaves and shoots of several species of Rúmex and Rhéum are eaten either raw or baked, under the name of sorrel, French sorrel, and tart rhubarb. For the sake of its seeds, Polýgonum Fagopyrum is cultivated by farmers under the name of buck-wheat; the seeds of P. aviculáre are very emetic and purgative. The fleshy calyx of the Coccolóbas is colored; and, the fruit growing in clusters, the genus has received the name of the sea-side grape.

228 Kœnigia *W.*
838 Atrapháxis *W.*
856 Rúmex *W.*
857 Oxýria *Dec.*
921 Polýgonum *W.*
922 Coccolóba *W.*
937 Eriógonum *Mi.*
938 Rhéum *W.*
1052 Brunnichia *W.*
1106 Calligonum *W*
2090 Triplaris *W.*

ORDER CXXVIII. BEGONIACEÆ.

The acid qualities, sheathing stipules, and alternate leaves of these tropical herbs approximate them to Polygoneæ, notwithstanding the very different structure of their fructification. Most of the species are pretty, some very handsome; all requiring great heat and humidity to be grown in perfection.

1989 Begónia *W.*

ORDER CXXIX. LAURINEÆ.

Noble trees or shrubs with handsome foliage and inconspicuous flowers. They are chiefly natives of hot countries, where they constitute some of the most valuable of the productions known under the name of spice. By botanists they are readily recognized by the singular circumstance of their anthers having each four cells, the valves of which are hinged as it were to the upper edge of each cell, and do not open longitudinally like those of most other plants. It is well known that the cinnamon is the produce of the Laúrus cinnamómum, and that its properties are eminently aromatic, wa[illegible], and stomachic. The same peculiarities, but in a less degree, exist also in Laúrus cássia, L. malabáthrica, and L. culilaban, which are all occasionally substituted for true cinnamon; they are found in the leaves of Laúrus parvifólia, in the bark of the species which produces the Pichurim bean; in that of L. cupularis, which is the Isle of France cinnamon; of L. quixos, which yields the Peruvian cinnamon, in L. Benzoin, which was used as spice in the United States during the American war; and finally, in the common bay tree of our plantations. Laúrus sassafras yields the sassafras chips of the shops, but its bark is much more powerful. The fruit of many Laurineæ are extremely aromatic; that of Laúrus Pérsea is an agreeable West Indian fruit, called the alligator pear. Camphor is the produce of Laúrus cámphora, and of another or two; this substance is found indeed in small quantities in the roots of almost all the order; one of the cinnamons is even named Capuru Carundu, which signifies camphorated cinnamon.

934 Laúrus *W.*
936 Cassýtha *W.*
1942 Hernándia *W.*
1077 Agathophýllum *W.*

ORDER CXXX. MYRISTICEÆ.

Closely allied to the last, especially in sensible properties. The arillus of Myristica is the mace of the shops, and its nut, the famous nutmeg. It is well known that this abounds with oil; in Viróla sebifera the oily secretion is so copious, that it is readily separated by immersion in boiling water under the form of fat.

2120 Myristica *W.*

ORDER CXXXI. PROTEACEÆ.

Favorite shrubs with gardeners, both on account of the neatness of their foliage and the beauty of their flowers. With very few exceptions, they are confined to the southern promontory of Africa, and to New Holland, where they adorn large tracts of country. They are shrubby or arborescent plants with an arid habit. The leaves are simple, evergreen, narrow, entire or serrated. The flowers generally grow in clusters, and are green, yellow, or red, sometimes in true Proteas surrounded by colored bracteæ with dark hairy margins. Their stamens are four, with distinct anthers, which rarely adhere together. The pollen is triangular; the stigma undivided and usually oblique. Their fruit is of various kinds, either a solitary nut or a sort of cone consisting of many nuts immersed among the indurated remains of abortive flowers. Of their properties, little is known. Some of the Rhópalas afford tolerable timber; the bark of Prótea speciósa and grandiflóra is astringent and useful in diarrhœas. The seeds of Embóthrium tinctórium yield a powder which is employed for dying pink. The Próteas of the Cape, and the Banksias and Dryándras of New Holland, are the finest plants of the order.

229 Petróphila *R. Br.*
230 Isopógon *R. Br.*
231 Prótea *R. Br.*
232 Leucospérmum *R. Br.*
052 Aúlax *R. Br.*
2053 Leucadéndron *R. Br.*
233 Mimétes *R. Br.*
234 Serrúria *R. Br.*
235 Nivénia *R. Br.*
236 Sorocéphalus *R. Br.*
237 Spatálla *R. Br.*
238 Persoónia *R. Br.*
239 Grevillea *R. Br.*
240 Hákea *R. Br.*
241 Stenocárpus *R. Br.*
242 Lambértia *R. Br.*
243 Xyloméium *R. Br.*
244 Telopéa *R. Br.*
245 Lomátia *R. Br.*
246 Rhópala *R. Br.*
247 Bánksia *R. Br.*
248 Dryándra *R. Br.*
2142 Brabéjum *W.*

ORDER CXXXII. THYMELÆÆ.

Nearly all shrubby plants, found in all parts of the world, but most abundantly in the south of Africa. The flowers are white, yellow, or red, most commonly in clusters, and often fragrant; the foliage is entire, either smooth or silvery, and generally very neat. Their wood is particularly soft; their inner bark easily separable, and in Dáphne Lagetta, pulls out by the division of the vertical fibres into a sort of network resembling lace. Their bark is extremely acrid, acting as a vesicatory when applied to the skin, and if chewed, producing extreme heat and torture in the mouth; a decoction of it has been used with some success in venereal diseases. The seeds of these plants are poisonous to man, but birds eat them with impunity. The fibres of Dirca and Lagétta are used for cordage; those of Dáphne gnidium and Passerina tinctória are employed in the south of Europe for staining wool yellow, which is converted into green by the addition of Isátis.

73 Pimeléa *B. P.*
249 Struthiola *W.*
909 Lagétta *J.*
910 Dáphne *W.*
911 Dirca *W.*
912 Gnidia *W.*
913 Stelléra *W*
914 Passerina *L.*
915 Lachnæ'a *W.*
1032 Dáis *W.*

ORDER CXXXIII. SANTALACEÆ.

Trees or dwarf herbs, with inconspicuous or unattractive flowers. They are chiefly natives of the Cape, New Holland, and India, a few only being found in Europe and North America. Their virtues are few. The wood of Sántalum álbum has a sweet aromatic flavor, and a slightly bitter taste: it is chiefly known as a perfume, although it is said to possess mild sudorific properties. The leaves of Myoschilos are purgative, of Osýris japónica eatable as salad; Thésium is slightly astringent.

307 Sántalum *W.*
569 Thésium *W.*
908 Memécylon *W.*
1033 Bucida *W.*
2051 Osýris *W.*
2141 Fusánus *L.*
2161 Nýssa *W.*
2162 Hamiltónia *W.*

ORDER CXXXIV. ELÆAGNEÆ.

Hardy shrubs or small trees, with deciduous leaves, covered, as well as the bark, with minute silvery scales: their flowers are inconspicuous, but sometimes agreeably fragrant. They occupy but little space; a few inhabiting China and Japan, and the remainder Europe, North America, and Guiana. The berries of Hippóphae rhamnoides, which are slightly acid, are used as a kind of sauce by the Swedes.

259 Elæágnus *W.*
2057 Shephérdia *Nutt.*
2058 Hippóphae *W.*

ORDER CXXXV. ARISTOLOCHIÆ.

Here we are on the limits of Monocotyledones and Dicotyledones. The species are herbaceous or half shrubby plants, with simple, often reniform, leaves; and mottled grotesque flowers, usually brownish purple. Their roots are all bitter, and possessed of tonic and stimulating properties; but the degree in which they exist in different species is not at present ascertained. The Aristolóchias have been in former days praised as emmenagogues, and many are still used in South America as a remedy for the bite of serpents. A'sarum europæ'um is a purgative and emetic when fresh, but its powers are much diminished by drying; its dried leaves are occasionally used by the country people in some parts of England as a sternutatory.

1072 A'sarum *W.*
1934 Aristolóchia *W.*

ORDER CXXXVI. EUPHORBIACEÆ.

Weeds and lofty trees, of such varied appearance and property, that it is scarcely possible to frame a brief character by which they can be expressed. Their vegetation in cold countries is mostly herbaceous, in hot countries frutescent or arborescent; their juice is milky, and their flowers mostly inconspicuous. It is for their medicinal properties that they are chiefly known, and these are as various as their aspect; mostly, however, dangerous, and always to be suspected. In a few of them, the smell and taste are aromatic; but in most, there is either no smell or it is nauseous, and the taste constantly acrid and pungent. Some possess also an acrid limpid fluid, which is given out by the leaves when touched. Many of them act strongly upon the kidneys, as several species of Phyllánthus, the leaves of Mercuriális ánnua, and the root of Ricinus commúnis. Many are said to be powerful medicines in cases of dropsy. The bark of several Crótons, the wood of Cróton Tiglium and Búxus, the leaves of the same, and also of Cicca disticha, several Euphórbias, and others, are recorded as sudorifics, and useful against syphilis; as emetics, we find the roots of the Euphórbias, the juice of Cómmia, A'nda, Mercuriális perénnis, &c. A great number are purgative, especially the leaves of Búxus and Mercuriális, the juice of Euphórbia, Cómmia, Húra, the seeds of Ricinus, Cróton Tiglium, A'nda, and Játropha. The effects of some others are so dangerous, particularly Hippómane, that it is not advisable to administer them even in very small doses; even in many Euphórbias it is difficult to draw a line between the quantity in which they are poisonous, and that in which they are harmless or useful. The nature of their poison is mostly acrid, occasionally, however, mixed with something narcotic, as is apparent from the effect of those which are used for poisoning or rather stupifying fish. The purgative oil in which the seeds of many are found to abound, has been determined to reside wholly in the albumen; hence the embryo of some, as Omphálea diándra, is eaten as nuts. Boiling or roasting has also the effect of dissipating their noxious effects; thus Játropha Manihot, than which there scarcely exists a more dangerous poison, affords a food when submitted to fire, called cassava, the flour of which is often used in London as a luxury for making puddings, than which few are reputed to be more wholesome. But the most curious of all the products of Euphorbiaceæ is the Caoutchouc, that singular substance which, although the produce of dangerous acrid trees, possesses nothing whatever which has been found capable of acting upon the human system in whatever way applied, which is unalterable either in air, in water, or in spirits, although it *softens* at a high temperature. It is chiefly produced by Siphónia elástica, but also exists in the juice of very many others, as Excæcária Agallócha, Hippómane Mancinélla, Húra crépitans, Sápium aucupárium, Plukenétia volúbilis, the Játrophas, Mábea, Omphálens, and many others. Tournesole, another curious chemical preparation, is the juice of Cróton tinctórium, but is also found in several others. Many other properties belong to this order, which it would be too long to detail in this place. The curious reader will find ample information in the medical division of M. Adrian de Jussieu's monograph of the order, from which most of the foregoing remarks are taken.

SECTION I.

1963 Pachysándra *Mi.*
1957 Búxus *W.*
1978 Securinéga *W.*
2071 Flúggea *W.*

SECTION II.

1958 Cicca *W.*
Phyllánthus *W.*
2092 Kiggelária *W.*
2025 Andráchne *W.*
2122 Cluýtia *W.*
2148 Bridélia *W.*

SECTION III.

2032 Cróton *W*
2118 Adélia *W.*
2044 Bórya *W.*
2105 Rottléra *Roxb.*
2104 Gelónium *Roxb.*
2119 Loureira *W.*
2034 Ricinus *W.*
2033 Játropha *W.*
2028 Aleurites *W.*
2097 Hyænánche *H. K.*

SECTION IV.

2038 Acálypha *W.*
2088 Mercuriális *W.*
2040 Plukenétia *W.*
1944 Trágia

Section V.

2031 Sápium *W.*
2026 Stillingia *W.*
2030 Hippómane *W.*
1992 Acidóton *W.*
2035 Húra *W.*
2117 Excæcária *W.*
2029 Omphálea *W.*

Section VI.

2039 Dalechámpia *W.*
1103 Euphórbia *W.*
1104 Pedilánthus *Neck.*

Order CXXXVII. RESEDACEÆ.

Weeds of no interest, except the Réseda odoráta for its delicious fragrance. R. lutéola, a common annual in waste places, yields a yellow color fit for dying.

1102 Réseda *W.*
2099 Datisca *W.*

Order CXXXVIII. CALYCANTHEÆ.

Handsome grateful deciduous shrubs, with deliciously fragrant flowers, natives of North America and Japan. They are not known to possess any medicinal virtues, but their odour insures them a place in every garden, notwithstanding the uninviting look of the blossoms themselves.

1157 Calycánthus *L.*
1158 Chimonánthus *Lindl.*

Order CXXXIX. ATHEROSPERMEÆ.

Allied to the last in sensible and botanical qualities: they are shrubs, natives of America and New Holland, of which little is known either to gardeners or botanists.

2103 Peúmus *Pers.*

Order CXL. EMPETREÆ.

Dwarf heath-like shrubs, with obscure flowers and berries, natives of Europe and North America.

2045 Empétrum *L.*

Order CXLI. URTICEÆ.

Few are the objects in this order deserving the care of the cultivator; it is rather extraordinary, however, that those few are abundantly so. Among worthless weeds and shabby half herbaceous shrubs, some of which are covered with rough points, and others defended by stinging hairs, we find the fig, the mulberry, the hemp, the hop, and the bread-fruit, all objects of the first consequence to the world. Here also is placed the half fabulous Upas, with which lying travellers and credulous naturalists have long deluded Europe. The Upas tree is now known to be the Antiáris toxicária, the inspissated juice of which is indeed a frightful poison, but the baneful effects of whose branches are purely imaginary. Similar, though inferior, qualities have been found to exist in Ficus toxicária, and some of the Artocarpuses. The root of the black mulberry is bitter, acrid, and purgative; of Dorsténia brasiliénsis, emetic; of D. contrayérba, bitter, aromatic, hot, and stimulant. A decoction, or the dried leaves, of hemp, is eminently narcotic, and forms the basis of the well known intoxicating Turkish drug called Bang or Haschisch. The tenacious nature of the fibres of the hemp is also found in other plants of the order, especially Urtica cannabina, the hop, the bread-fruit tree, the common stinging-nettle, and others.

1962 Urtica *W.*
1961 Pilea *Lindl.*
2157 Parietària *W.*
1960 Bœhméria *W.*
933 Forskóhlea *W.*
1993 Thelýgonum *W.*
2059 Broussonétia *W.*
2073 Cánnabis *W.*
2074 Húmulus *W.*
2167 Ficus *W.*
2043 Cecrópia *W.*
1969 Maclúra *Nutt.*
1959 Mórus *W.*
1935 Artocárpus *W*
257 Dorsténia *W.*
75 Gunnéra *W.*
2158 Brósimum *W.*
1973 Franzéria *Cav.*
2063 Tróphis *W.*
2050 Stilágo *W.*

Order CXLII. AMENTACEÆ.

Here is the group in which all the timber trees of Europe, and most of those of all cold countries, are stationed. Every genus consists of plants important to the wants of man. The alder, the birch, the willow, the poplar, the oak, the chesnut, the hornbeam, and the plane, are all collected in this place, to which they have been brought by the coincidence of similar fructification existing in all of them. This similarity depends upon their producing flowers of one sex only, the males of which are always arrayed in catkins, of which the flowers are destitute of calyx or corolla, in the place of which is produced a single scale. Their bark is furnished with an astringent principle, which has rendered them valuable either for staining black, as in the alder and the oak gall; or for tanning, as in the oak; or as febrifuges, as the alder, the birch, the oak, most of the willows, and also Pópulus tremuloides, which is well known in North America as a tonic and stomachic febrifuge. The substance called tacamahaca was formerly supposed to be produced by some of the poplars, but it is now believed to be obtained from a very different plant, Fagára octándra. The fruit of many Amentáceæ contains a considerable proportion of fæcula, which renders it fit for the food of man and other animals, as the acorns of the oak, the mast of birch, the nut of Castánea and Córylus, &c.

1955 A'lnus *W.*
1956 Bétula *W.*
2042 Sálix *W.*
2087 Pópulus *W.*
2001 Liquidámbar *W.*
2002 Plátanus *W.*
2003 Salisbúria *L. T.*
1995 Ostrya *W.*
1996 Carpinus *W.*
1994 Castánea *W.*
1997 Fágus *W.*
1998 Córylus *W.*
2000 Quércus *W.*

Order CXLIII. ULMACEÆ.

Many of the observations upon the last order are also applicable to this, which differs rather in certain technical characters, than in any arrangement of nature The elm is its representative, from which the others only slightly differ.

616 Planéra *Mich.*
615 Ulmus *L.*
2145 Céltis *W.*

Order CXLIV. CASUARINEÆ.

These are nearly related to Coniferæ, than which they are dwarfer, and of far less importance. By various writers they have been tossed about between Amentaceæ and Coniferæ, and have at last settled in a place by themselves. The leaves of Comptónia asplenifólia are employed in the United States against diarrhœa. The berries of Myrica cerifera yield, on boiling, an abundance of wax which is manufactured into candles; the nuts of Ephédra distáchya are eatable; the wood of some of the Casuarinas is remarkably hard and durable.

1936 Casuarina *W.*
2115 Ephédra *W.*
1041 Comptónia *W.*
2055 Myrica *W.*
2056 Nagèia *Gærtn.*

Order CXLV. CONIFERÆ.

These bear the same relation in point of consequence to resinous trees, that Amentaceæ bear to those that are not resinous. They are well known as lofty timber, yielding valuable wood and abundance of resin.

Among them is now numbered the loftiest tree in the world, a species of pine found by Mr. Douglas in California, which grows 220 feet high, with a circumference of 60 feet. Pitch, turpentine, Venice turpentine, are produced by various species. Gum Sandarach, by Thúja quadriválvis; a matter like olibanum, by Juníperus lýcia; a sort of liquid storax, by Altingia excélsa. The Juniperuses in which the resin is "incompletely oxygenized," are more fragrant, and also stimulating in a greater degree; as the savin for example. The berries of many of these plants possess similar qualities. Their seeds are all oily; those of Pinus Pínea, Cémbra, and Lambertiána, and Salisbúria adiantifólia, are eatable as nuts. The fleshy fruit of the ivy, which is poisonous, is an exception to the general innoxious character of the order. Coniferæ are mostly inhabitants of the northern parts of the world, where they form immense forests, and supply with their dense persistent leaves the place occupied by the evergreen trees of warmer climates. A few are found in the southern hemisphere.

2012 Pínus *W.*
2013 A'bies *Salisb.*
2014 Lárix *Salisb.*
2015 Schubértia *Mirb.*
2017 Cuprèssus *W.*
2018 Thúja *W.*
2113 Juníperus *W.*
2112 Araucária *J.*
2010 Bélis *Salisb.*
2011 A'gathis *Salisb.*
1970 Exocárpus *Lab.*
2016 Podocárpus *L'her.*
2114 Táxus *W.*

Order CXLVI. CHLORANTHEÆ.

Obscure Asiatic weeds of no known use, and wholly destitute of interest for gardens.

25 Chloránthus *W.*

Order CXLVII. PIPERACEÆ.

The peppers are far more valuable in commerce than interesting in cultivation, their flowers being in all cases very insignificant, and their leaves so uniform in appearance, as to create but little variety. Nearly the whole indeed of the herbaceous species or Peperómias, as they are sometimes called, are mere weeds. The berry of the pepper is well known to be hot, aromatic, pungent, and stimulating; not only in the common peppers of the shops, but also in P. cubéba, carpúnga, and heterophýllum. The Piper anisátum yields a strong smell of anise; a decoction of its berries is used in Spanish America for washing ulcers. The Piper Bétel and Siribóa afford the Malays a powerfully acrid and exciting preparation, which, they suppose, invigorates and enables them to withstand the debilitating influence of their climate. In the South Sea Islands, an inebriating beverage is procured by the mixture of the leaves and stems of P. inébrians with water. No pepper has yet been found beyond the limits of the tropics. Saurúrus is the representative of the order in extra-tropical countries.

77 Piper *W.*
872 Saurúrus *W.*

Order CXLVIII. CYCADEÆ.

The true station of this very curious order is extremely uncertain. Although placed here in conformity with the common practice, it is to be supposed that its true station is in the immediate vicinity of ferns, with which the species agree in vernation, and in many curious particulars. All are natives of countries beyond the reach of frosts, chiefly of the Cape of Good Hope and equinoctial America. With a low trunk which rarely exceeds the height of a few inches, they have the fronds and appearance of pigmy palms, and the inflorescence of gigantic Equisétums. The trunk of Cýcas contains a great quantity of fæcula, which is manufactured into a kind of spurious sago; and a similar substance, it has lately been ascertained, may be obtained from the stem of Cýcas. (*Gard. Mag*, vol. iv.)

2107 Cýcas *W.*
2108 Zámia *W.*

Class II. MONOCOTYLEDONES.

The physiological peculiarities of this class of plants have been already explained in the general remarks which precede this arrangement of natural orders. To what is there stated, little remains to be added, except that in these northern regions, every thing included in it is herbaceous, and that in hotter latitudes, few deserve the name of either bush or tree, except the palms, and a few Aroideæ and Asphodeleæ.

Section I. *STAMENS EPIGYNOUS.*

Order CXLIX. HYDROCHARIDEÆ.

Floating white-flowered plants, of which Stratiótes is the most majestic. They possess no known properties, but have the singular character in Monocotyledones of being in some cases lactescent. The species are natives of various parts of the world.

308 Trápa *W.*
859 Damasónium *W.*
2089 Hydrochäris *W.*
2096 Stratiótes *W.*

Order CL. ORCHIDEÆ.

Of all tribes of plants, this is the most singular, the most fragrant, and the most difficult of culture. The flowers are often remarkable for their grotesque configuration, which has been likened to heads and bodies of animals, and for the strange character of their stems, which are sometimes attenuated into a degree of gracefulness scarcely equalled even among grasses, and sometimes contracted into a clumsy goutiness of figure such as is known no where else. The species are found inhabiting the mountains and meadows of the cooler parts of the globe, or adhering by their tortuous roots to the branches of the loftiest trees of the tropical forest, to which their blossoms often lend a beauty not their own. Vulgarly, this last description of plants is called parasitic; they are, however, not so, deriving no support from the juices of the plants on which they grow; but on the contrary, are epiphytes, merely adhering to other plants for support, and vegetating amidst the rich black soil which collects at the foot of all trees growing in a hot humid climate. It is very singular that the pollen of these plants has no parallel, except among the very different and distinct order of Asclepiadeæ. The only medical properties of the order exist in the roots of some of the O'rchises, from which the nutritious substance called salop is prepared. The Vanilla of the shops is the pod of the genus called Vanilla. From the boiled stems of some of the Brazilian species a tenacious glue is obtained, which is employed in many useful purposes.

Tribe 1. Neottieæ. *Lindl.*

1870 Goodyéra *R. Br.*
1871 Diúris *Sw.*
1872 Ponthiéva *R. Br.*
1873 Neóttia *L.*
1876 Listéra *R. Br.*
1874 Spiránthes *Rich.*
1875 Stenorhýnchus *Rich.*

Tribe 2. Arethuseæ. *Lindl.*

1877 Arethúsa *L.*
1878 Calopógon *R. Br.*
1879 Pogónia *R. Br.*
1881 Caleána *R. Br.*
1880 Epipáctis *Sw.*
1882 Corallorrhiza *Haller.*

Tribe 3. Gastrodieæ. *R. Br.*

1926 Prescótia *Lindl.*
1930 Vanilla *Sw.*

Tribe 4. Ophrydeæ. *Lindl.*

1859 O'rchis *L.*
1863 Glóssula *Lindl.*
1864 Anacámptis *Rich.*
1860 Nigritélla *Rich.*
1865 A'ceras *R. Br.*
1866 O'phrys *L.*
1869 Serápias *R. Br.*
1855 Dìsa *Sw.*
1861 Habenária *R. Br.*
1858 Gymnadénia *R. Br.*
1857 Platanthéra *Rich.*
1867 Chamórchis *Rich.*
1868 Hermìnium *R. Br.*
1862 Bartholìna *R. Br.*
1856 Satýrium *W.*

Tribe 5. Vandeæ. *Lindl.*

1923 Calánthe *R. Br.*
1913 Octoméria *R. Br.*
1892 Maxillária *Fl. per.*
1901 Camarídium *Lindl.*
1902 Ornithídium *Salisb.*
1904 Pholidóta *Lindl.*
1910 Ornithocéphalus *Hook.*
1909 Cryptarrhéna *R. Br.*
1917 Aérides *Sw.*
1916 Vánda *R. Br.*
1915 Sarcánthus *Lindl.*
1922 Aeránthes *Lindl.*
1921 Angræ'cum *Pet. Th.*
1919 Ionópsis *Kth.*
1918 Renanthéra *Lour.*
1885 Cymbídium *Swz.*
1887 Lissochìlus *R. Br.*
1888 Geodórum *Jacks.*
1895 Oncídium *Sw.*
1898 Macradénia *R. Br.*
1886 Brássia *R. Br.*
1896 Cyrtopódium *R. Br.*
1889 Catasétum *Rich.*
1920 Eulóphia *R. Br.*
1891 Xylóbium *Lindl.*
1908 Polystáchya *Hooker*
1890 Trizeúxis *Lindl.*
1883 Rodriguésia *Fl. per.*
1884 Goméza *R. Br.*
1893 Notýlia *Lindl.*

Tribe 6. Epidendreæ. *Lindl.*

1911 Blétia *Fl. per.*
1914 Brassavóla *R. Br.*
1907 Epidéndrum *L.*
1906 Cáttleya *Lindl.*
1905 Broughtónia *R. Br*
1903 Isochìlus *R. Br.*

Tribe 7. Malaxideæ. *Lindl.*

1912 E'ria *Lindl.*
1900 Dendróbium *H.K.*
1899 Anisopétalum *Hooker*
1897 Cœlógyne *Lindl.*
1925 Maláxis *L.*
1927 Micróstylis *Nutt.*
1928 Líparis *Rich.*
1929 Calýpso *Salisb.*
1894 Pleurothállis *R. Br.*
1924 Stélis *Sw.*

Tribe 8. Cypripedieæ.

1931 Cypripédium *W.*

Order CLI. SCITAMINEÆ.

These are distinguished from the last by their pollen not cohering in masses, their seeds not being winged, and their plurilocular ovarium. Their sensible qualities are also widely different. The species are natives only of the tropical parts of the world, where they form stemless or caulescent herbaceous plants, with long broad leaves, and flowers of white, yellow, or red, often possessing great fragrance, and generally much beauty. Their sensible qualities reside either in the root or the seeds. The former is the part used of the Ginger, the Galangale, the Cóstus, Turmeric, Zedoary, and others, all of which are more or less aromatic. The root of turmeric is also well known as affording a yellow dye, a property which it possesses in common with some others. The seeds of Cardamom are well known for their aromatic stimulating powers.

6 Hedýchium *W.*
7 Roscóea *Sm.*
8 Alpínia *W.*
9 Hellénia *R. Br.*
10 Zingiber *Rosc.*
11 Cóstus *Rosc.*
12 Kæmpféria *W.*
13 Amómum *Rosc.*
14 Curcúma *W.*
15 Glóbba *Rosc.*
16 Mantísia *Sims*

Order CLII. CANNEÆ.

Differing from the preceding, in the absence of aromatic principles, in the petaloid nature of the filament, and the single cell of their anther, they wholly resemble them in external appearance and geographical distribution. The Cánnas are well known for their beautiful flowers, and the Maránta arundinácea is celebrated for the abundance of nutritive fæcula which is prepared from it, and imported to Europe under the name of arrow-root.

1 Cánna *W.*
2 Maránta *W.*
4 Thália *W.*
5 Phrýnium *W.*
3 Calathéa *Meyer.*

Order CLIII. MUSACEÆ.

A noble order of plants, resembling the two last in appearance, but of far more gigantic stature, different geographical distribution, and sensible qualities. All the species, without exception, are among the grandest in the vegetable world, whether the breadth and beauty of their foliage, or the surpassing grandeur of their flowers, be considered. They are not, like Scitamineæ and Canneæ, confined to the tropics, but approach in many points towards the cooler latitudes of either hemisphere. While the Strelitzias, resplendent with orange and scarlet and white, are peculiar to the Cape of Good Hope, the plantain is laden with its enormous masses of wholesome pleasant fruit, in the mild climate of Madeira; the Heliconias and Uránias appear in the sultriest forests of Madagascar and Guiana. The fruit of the Músa is, as just stated, pleasant and wholesome; the leaves of the same plant form a valuable thatching for cottages; and the fibres of a particular species are manufactured into a fine hemp, from which the most delicate muslins of India are prepared.

570 Helicónia *W.*
571 Strelítzia *H. K.*
721 Músa *W.*
722 Uránia *W.*

Order CLIV. HÆMODORACEÆ.

The name of this order, derived from *αιμα*, blood, indicates its most striking peculiarity; the roots of several species of Hæmodórum, Wachendorfia, and Heritiéra yielding a brilliant crimson dye. The species have equitant leaves, and six stamens, with anthers turned towards the ovarium; in which last character they differ from the closely allied order of Irideæ. They are found, with very few exceptions, in the Cape of Good Hope and New Holland.

108 Xiphídium *W.*
110 Wachendórfia *Ker*
111 Hæmodórum *Sm.*
113 Dilátris *Ker*
718 Lophíola *B. M.*
719 Argolásia *Juss.*
720 Anigozánthos *Lab.*

Order CLV. IRIDEÆ.

The peculiarity of this order exists in the superior six-cleft perianthium, three stamens opposite the outer segments, and the anthers so inserted that the line of their bursting is towards the outside of their flower. Occasionally, they are still called by the old appellation of Ensatæ. Most of the species are extremely beautiful; and as they are generally very easily cultivated, they have become universal favorites in gardens. Many of the species are found by the side of streams, or in rich pastures in Europe, Siberia, and America; others adorn the most barren deserts of the same countries, with their perishable flowers; a third set, consisting for the most part of Sisyrinchium and its allies, are found in cool parts of the islands in the South Seas; and, lastly, a large proportion of the order contributes to the herbage of Southern Africa, that indescribable charm which has captivated all observers. Their medicinal virtues are trifling. I'ris florentina and germánica have roots, which, when dry, smell like violets, and are slightly stimulant, acting as sternutatories or purgatives, according as they are employed. The stigmas of the Crócus form the well-known saffron, which differs from the general character of the order, in being aromatic, and possessing a valuable coloring matter, which has the singular property of entirely disappearing under the influence of the sun's rays.

93 Crócus *Ker*
94 Witsénia *Ker*
95 I'xia *Ker*
96 Trichonéma *Ker*
97 Geissorhìza *Ker*
98 Hesperántha *Ker*
99 Sparáxis *Ker*
100 Tritónia *Ker*

101 Watsónia *Ker*
102 Babiána *Ker*
103 Lapeyroúsia *Ker*
104 Melasphæ′rula *Ker*
105 Gladíolus *Ker*
106 Anomathéca *Ker*
107 Antholýza *Ker*
112 Aristéa *Ker*
115 I′ris *Ker*
116 Moræ′a *Ker*
117 Márica *Ker*
118 Pardánthus *Ker*
1450 Patersónia *R. Br.*
1451 Ferrária *Ker*
1452 Tigrídia *J.*
1453 Galáxia *W.*

ORDER CLVI. AMARYLLIDEÆ.

Here we have another group of vegetation so lovely as to have excited admiration from the days of Solomon, who called them the lilies of the field, down to our own period Their roots are all bulbous. In stature they seldom exceed a foot or two: in Doryánthes, and some species of Crinum alone, much surpassing such a size; in foliage they possess a uniformity of figure which is very singular; in color they vary from white and yellow to deep scarlet and azure blue; in fragrance they vie with the violet and the primrose. Some of the species are natives of thickets in the cooler provinces of Europe and Asia; others are found deep rooted in the burning shores of islands where scarcely a blade of grass interposes itself between them and the torrid rays of a scorching sun; many spring up in the gloomy, damp, and sultry woods of equinoctial America; and another set intermingles with the Ixias and Gladioluses of Southern Africa. Several of the Narcissi, independent of their beauty, possess emetic qualities; from the viscid juice of Hæmánthus toxicárius, the Hottentots procure a poison wherewith to smear their arrows.

711 Narcissus *W.*
712 Pancrátium *W.*
713 Eucrósia *B. Reg.*
714 Eúrycles *Salisb.*
715 Calostémma *R Br.*
716 Chlidánthus *Herb.*
717 Chrysiphíala *Ker*
731 Hæmánthus *W.*
732 Galánthus *W.*
733 Leucójum *W.*
734 Strumária *Jacq.*
735 Crinum *W.*
736 Cyrtánthus *H. K.*
737 Brunsvígia *Heist.*
738 Neríne *Herb.*
739 Amarýllis *W.*
740 Vallóta *Herb.*
741 Griffínia *Ker*
742 Sternbérgia *W.*
743 Zephyránthes *Herb*
744 Habránthus *Herb.*
745 Doryánthes *R. Br*
746 Gethýllis *H. K.*
748 Alstrœméria *W.*
749 Conanthéra *Fl. per.*

ORDER CLVII. HYPOXIDEÆ

America, New Holland, the Cape of Good Hope, Polynesia, and the Indian Archipelago give birth to these plants, which have sweet yellow flowers and linear leaves, protected by long weak hairs. Nothing is known of their medicinal qualities.

750 Hypóxis *W.*
751 Curcúligo *H K.*

ORDER CLVIII. DIOSCOREÆ.

A climbing stem, and broad, cordate, or angular leaves, inconspicuous yellowish flowers, and a large fleshy root, are the obvious characteristics of this order, of which the yam is the representative; the roots of this plant yield one of the most important articles of food in the tropical countries.

2083 Testudinária *Burch.*
2084 Rajánia *W.*
2085 Dioscórea *W*

SECTION II. *STAMENS PERIGYNOUS.*

ORDER CLIX. HEMEROCALLIDEÆ.

These are fine shewy plants, bearing their flowers in umbels or racemes, either white, yellow, red, or blue; they are mostly inhabitants of temperate zones, and are of little utility, with the exception of the Aloe, the purgative powers of which need not be insisted on. This genus is, besides, remarkable among Monocotyledones for its fleshy leaves, in which, and its woody stem, it offers a striking deviation from the usual structure of these plants.

747 Polliánthes *L.*
767 Agapánthus *W.*
768 Blandfórdia *R. Br.*
769 Hemerocállis *W.*
770 A′loe *W.*
776 Alétris *W.*
777 Trítoma *B. M.*
778 Veltheímia *H. K.*
779 Sansevièra *W.*
780 Tulbághia *W.*
792 Brodiæ′a *Sm.*

ORDER CLX. ASPHODELEÆ.

Different from Hemerocallideæ in their expanded flowers and dark crustaceous seed-coat; the only characters which have yet been discovered to distinguish them. The species are all pretty, many very handsome, some bulbous, some with fasciculated roots, a few with arborescent stems. They are uncommon in tropical countries, very abundant in temperate latitudes, and not unfrequent in the cooler regions of the world. Among the prettiest are Gágea, Scilla, and Hyacinthus; the least interesting are Chlorophýtum and Zuccágnia. Aspáragus and Dracæ′na have berried fruits; the former is diuretic, and when young is employed as a favorite food; the same properties are possessed by Scilla and A′llium. The stamens of Arthropódium are remarkable for their tuft of yellow hairs, of Dianélla for the thickening of the filaments. Many of the A′lliums are very pretty, and admired notwithstanding their unpleasant odor; their roots are all eatable, and those of some among the most useful articles of food. Thysanótus, the fringed violet of New Holland, has rich purple blossoms, with long delicate fringes which sparkle in the sun, as if continually bedewed with minute particles of water. From Phórmium ténax the strong fibrous substance called New Zealand flax is prepared. Xanthorrhæ′a has an arborescent stem which abounds in resin.

808 Asphódelus *W.*
807 Bulbíne *W. en.*
806 Eremúrus *Bieb.*
809 Anthéricum *W.*
810 Arthropódium *R. Br.*
811 Chlorophýtum *Ker*
812 Cæ′sia *R. Br.*
813 Narthécium *B. M.*
814 Dianélla *Lam.*
815 Eustréphus *R. Br.*
805 Massónia *W.*
803 Scilla *W.*
804 Puschkínia *Bieb.*
802 Ornithógalum *W.*
801 Gágea *Sal.*
800 Eriospérmum *W.*
796 A′llium *W.*
797 Albúca *W.*
795 Sowerbæ′a *L. T.*
798 Xanthorrhœ′a *R. Br.*
791 Eúcomis *W.*
799 Thysanótus *R. Br.*
794 Aphyllánthes *W.*
775 Phyllóma *B. M.*
774 Dracæ′na *W.*
816 Aspáragus *L.*
817 Drímia *Jacq.*
818 Uropétalon *Ker*
819 Hyacinthus *B. M.*
820 Zuccágnia *Th.*
821 Muscári *B. M.*
822 Lachenália *W.*
823 Phórmium *W.*
824 Cyanélla *W.*
793 Peliosánthes *B. R.*
2111 Rúscus *W.*

ORDER CLXI. SMILACEÆ.

These scarcely differ from the baccate Asphodeleæ, except in their usually trifid style, and the membranous integuments of the seed. Many are interesting plants, especially the lily of the valley, a species of Convallária, the odor of which is perhaps the most grateful in the vegetable kingdom. Several others, as Uvulária, Smilacina, Polygonátum, and Trillium are objects of ornament. Smilax is remarkable for its twining stems, and its leaves, which resemble those of Dicotyledones; the roots of several species form the sarsaparilla of the shops, a drug, the nature of which is mucilaginous and rather bitter, and which is employed as diaphoretic and diuretic. Medéola is also an active diuretic. The roots of Támus are purgative and dangerous.

785 Uvulária *W.*
786 Streptópus *M.*
787 Convallária *Desf.*
788 Smilacina *Desf.*
789 Polygonátum *Desf.*
790 Ophiopógon *Ker*
843 Myrsiphýllum
846 Medéola *W. en.*
2081 Smilax *W.*
2082 Támus *W.*
850 Trillium *W.*
729 Páris *W.*

ORDER CLXII. BROMELIACEÆ.

Of these the eatable pine-apple is the representative, from which the other genera differ more in the want of a fleshy fruit than in general appearance. Their habit is acid, their leaves rigid and toothed with spines, and covered with minute scales, their bracteæ often colored with scarlet, and their flowers either white or blue.

They are all natives of tropical countries, with the exception of Tillándsia, which, in the humid woods of Carolina, forms dense festoons among the branches of the trees; this, like many others of the order, is an epiphyte, vegetating among the black mould that collects upon the bark of trees in hot damp countries; others are inhabitants of deep and gloomy forests; and others form, with their spiny leaves, an impenetrable herbage in the extensive pampas of Buenos Ayres and Brazil. From the Agáve mexicána a fermented beverage is prepared, from which a strong colorless spirit, resembling the best Scotch whiskey, is distilled.

726 Bromélia *W.*
728 Pitcairnia *W.*
727 Guzmánnia *Fl. per.*
729 Tillándsia *W.*
723 Bonapártea *F. P.*
724 Agáve *H. K.*
725 Furcræ'a *V.*

ORDER CLXIII. LILIACEÆ.

It is doubted whether several of the preceding orders are not rather sections of this; until, however, the combination of these shall be effected by some hand yet more masterly than those by which they have been divided, it is best to let them remain as they are. The beauty of the plants composing the Liliaceæ, strictly so called, is universally acknowledged; the rich colors of the branching lilies, the vivid hues of the painted tulip, the modest graces of the humble Erythróniums, and the portly forms of the Yúccas are all attractions of which no good garden should be destitute. The species are all inhabitants of either cold or temperate latitudes.

771 Lílium *W.*
772 Túlipa *W.*
773 Fritillária *W.*
781 Yúcca *W.*
782 Erythrónium *W.*

ORDER CLXIV. MELANTHACEÆ.

These, too, are pretty herbs, although destitute of the grandeur of the preceding, which, however, they far surpass in the potency of their virtues. The flowers of many are inconspicuous, and of a dull-green or yellow color, sometimes assuming a livid hue, which will bespeak the nature of their powers. A dangerous or poisonous acrid juice is their characteristic, which is particularly active in some of them, such as the Cólchicum and Verátrum. The roots of the former are the basis of the eau médicinale, and are now used in cases of gout with much success. The root of Verátrum is believed to have been the hellebore of the ancients, an active drug, which, administered in small doses, is a drastic purgative, in more abundance a violent emetic. The root of Helónias dioica, infused in water, is anthelmintic, but, steeped in spirits, yields a bitter and tonic tincture. The leaves of Cólchicum and Verátrum often produce vomiting and severe pain in the animals that eat them; the flowers of the first are also said to be poisonous, and its seeds to possess the same properties as the roots, but in a milder degree. Groves and pastures in Europe and Siberia and North America are the most frequented by Melanthaceæ, several are found at the Cape, and Gloriósa is a native of the woods of middle Africa.

851 Cólchicum *W.*
784 Bulbocódium *W.*
845 Melánthium *L.*
847 Xerophýllum *Mich.*
842 Lichtensteinia *W.*
848 Wúrmbea *L.*
849 Androcýmbium *W.*
844 Tofiéldia *Hud.*
852 Helónias *L.*
858 Nolína *Mich.*
2128 Verátrum *W.*
783 Gloriósa *W.*

ORDER CLXV. BUTOMEÆ.

Fine water plants, of which Bútomus, by general consent the most beautiful of British plants, has purple flowers; and Limnochária, a native of the marshes of Brazil, has yellow ones.

939 Bútomus *W.*
1175 Limnochária *Rich.*

ORDER CLXVI. ALISMACEÆ.

Handsome water plants, with white flowers, and many ovaria. Some are common in our English ditches, others are found in similar situations in the tropics.

860 Actinocárpus *R. Br.*
1988 Sagittária *W.*
861 Alísma *W.*

ORDER CLXVII. COMMELINEÆ.

Mostly inhabitants of marshy ground, in either hemisphere, but not known in Europe except in cultivation. America is their grand station. Many are insignificant creeping plants, especially the Commelínas; others, as the Pontedérias are very handsome; and the Dichorizándras are exceedingly noble caulescent plants, with large thyrses of blue flowers: this color is the prevailing one of the order.

84 Callísia *W.*
88 Commelína *B. P.*
89 Aneiléma *B. P.*
90 Cartonéma *R. Br.*
730 Pontedéria *W.*
765 Tradescántia *W.*
766 Dichorizándra *Vand.*

ORDER CLXVIII. JUNCEÆ.

Inconspicuous, rigid, worthless weeds, for the most part; Xýris and Philydrum, which have pretty yellow flowers, if belonging to the order, being exceptions. They clothe barren ground in most parts of the world, and are the first approach to the formation of a regular perianthium, as we ascend in the scale of vegetation. Xerótes has the habit of a low palm.

86 Xýris *L.*
760 Júncus *L.*
761 Lúzula *Dec.*
839 Flagellária *W.*
2076 Xerótes *R. Br.*
17[illegible] Philýdrum *R. Br.*

ORDER CLXIX. ERIOCAULEÆ.

Pretty interesting little bog plants, found in all parts of the world. The order consists of Eriocaúlon only, many of whose species are easily cultivated, though seldom seen in gardens. The Eriocaúlon septanguláre, found in a lake in the Isle of Skye, is, perhaps, the rarest of European plants. They are not known to possess any medical virtues.

223 Eriocaúlon *W.*

ORDER CLXX. PANDANEÆ.

With the habit of palms and the inflorescence of Aroideæ, this fine order stands very distinctly separated from all others. The stem is an arborescent caudex, either growing to a considerable height, or weak, and lying on the ground. The leaves of some are formed into a coarse cordage; the flowers of P. odoratíssimus, and the fruit of some others, are eaten. All are tropical.

2004 Carludóvica *Fl. per.*
2041 Pandánus *W.*

ORDER CLXXI. NAIADES.

Floating uninteresting plants, scarcely susceptible of cultivation: they form a close approach to Cellulares.

1938 Zannichéllia *W.*

ORDER CLXXII. RESTIACEÆ.

Rigid, inelegant, often leafless plants, with split vaginæ, and the habit of some Cyperaceæ, or true Junceæ. They are all inhabitants of the southern hemisphere, especially of the Cape of Good Hope and New Holland.

2046 Willdenóvia *Th.*
2047 Réstio *W.*
2048 Elégia *W.*
2110 Leptocárpus *R. Br.*

ORDER CLXXIII. PALMÆ.

These were well named by Linnæus, the princes of the vegetable world; for they far surpass all other plants in the grandeur and majesty of their port. Their lofty stem, supported by a mass of fibrous roots, which frequently creep along the surface of the ground, consists of wood with longitudinal fibres, soft in the centre, but hard as horn itself at the circumference; it is almost always unbranched, bearing a tuft of leaves at the summit; in a very few cases it is dichotomous, always round, and it terminates by a single bud; by the fall of the petioles of the leaves, which sheath it in a greater or less degree at the base, it is covered with large scars. The leaves, technically called fronds, are pinnate or flabelliform, never simple; and, in a young state, before they expand, they are folded up in plaits from the base to the apex. The flowers are small, with bracteæ at their base, either sessile or seated in some cavity, of a pallid color, and contained in a large bag called a spatha; when they open, the mass of inflorescence, called a spadix, bursts suddenly through the under side of the spatha, generally evolving the most fragrant odors. Impregnation takes place rapidly, through the injection of the pollen upon the humid surface of the stigmas, which gape open to receive it. The fruit is perfected in a period varying from six months to a year; when ripe it is a drupe or berry, with either a fibrous or fleshy coat; the mass of its kernel consists of oily albumen, which, in the case of the cocoa nut, is soft enough to be eaten, but which in most species is as hard as horn. Dr. von Martius, the celebrated traveller in Brazil, to whom the world is indebted for nearly all that is known of these plants, concludes his remarks upon the characters of the order in the following words: — "Palms, the noble offspring of Terra and Phœbus, are natives of those happy countries within the tropics, where the rays of the latter are ever-beaming. In all such climates they are to be found, with this limitation, however, that in the southern hemisphere they do not overstep the 35th degree of latitude, nor in the northern the 40th. Most species are confined within fixed and narrow bounds, for it comes to pass that wherever a district is characterized by striking peculiarities of soil or climate, those species exist which are not found elsewhere; but few, on the contrary, extend over a large extent of surface, as the Cócos nucífera, Acrocómia sclerocárpa, Borássus flabellifórmis, &c. It is probable that the number of palms existing on the face of the earth, will be found by future travellers to amount to as many as a thousand species. Most of them love the margins of springs and streams, but few establish themselves on the shores of the ocean, and yet a smaller number ascend into the alpine regions of their country; some collect in large forests; some are scattered singly or in clusters, among woods and plains. In the most ancient periods of the world, when the genera of plants were beginning to be formed, palms scarcely existed; they were preceded in the creation by the more ancient Ferns, Cycadeæ, Grasses, and Equisetaceæ. Some of their remains have, however, been found in variegated sandstone, and in limestone of the third order (fletzkalk), part of which belong to unknown species, and part to species still in existence. But in the times succeeding the deluge, they appear, from the written evidence of historians and poets, to have followed the footsteps of man, to whom their fruit yielded food, drink, and oil; their stems houses, arms, utensils, flour, and wine; and their leaves cordage and roofs for habitations. In cultivation their soil should be slightly saline; they are propagated by seeds more readily than by truncheons of the stem; when cultivated they undergo no alteration, except in producing more fleshy or stemless fruit: it is extremely difficult to transplant them beyond their own country, naturally their migration is absolutely opposed by the barriers of the ocean."

762 Corýpha *W.*
763 Licuála *W.*
764 Thrinax *W.*
855 Sábal *P. S.*
753 Cálamus *W.*
1982 Ságus *W.*
1983 Cócos *W.*
1984 E'late *W.*
1985 Báctris *W.*
2007 Caryóta *W.*
2008 Nípa *Ju.*
2009 Aréca *W.*
2049 Phœ'nix *W.*
2077 Elǽis *W.*
2078 Chamædórea *W.*
2079 Borássus *W.*
2080 Mauritia *W.*
2109 Latánia *J.*
2153 Rhápis *W.*
2154 Chamæ'rops *W.*

SECTION III. *STAMENS HYPOGYNOUS.*

ORDER CLXXIV. GRAMINEÆ.

The order of grasses is beyond doubt the most natural of all that the ingenuity of systematic botanists has contrived; it is also the most numerous in species. The inflorescence is very much alike throughout the order, and the floral envelopes, which are bracteæ in a progressive state to the form of calyx and petals, offer few striking characters by which the genera can be characterized. Hence it is that the classification of the order, and its division into genera, has not only been found extremely difficult, but has given rise to much difference of opinion among botanists; some of whom, adhering to the synthetical arrangement of Linnæus, admit but a small number of genera, while others, admitting the analytical principles of modern science, divide it into a vast number. The middle course in this, as in most other cases, is probably the just one. A subdivision of the order into tribes, has been attempted by Palisot, Trinius, Dumortier, Raspail, Kunth, Link, and others; that of M. Kunth is here adopted. The general habit of grasses is so familiar to every one, that it may be passed over in silence. They are remarkable for exhibiting, in no case, properties that are actually poisonous; possessing on the contrary, in almost all cases, wholesome and nutritive qualities. These latter are especially obvious in their seeds, which always contain a farinaceous substance, mixed with a certain proportion of glutinous matter. No one is ignorant of the various and important uses of the seeds of wheat, rye, barley, oats, maize, rice, and others, and in general of all the larger kinds of grass. It must however be remarked, that if the smaller sorts are not employed in like manner, it is merely on account of their minuteness, and not on account of any difference in their nature; in fact, in times of scarcity, and in half cultivated countries, use has advantageously been made of Festúca flúitans, Zizánia aquática, Avéna fátua, Pánicum sanguinále, Avéna elátior, Brómus secalínus, and E'lymus arenárius. It is also to be noted, that the particular uses for which the seeds of certain grasses are employed, are not peculiar to them, but may be obtained from all the others, with slight modifications. Thus beer is made, not only from barley but also from wheat; spirituous liquors not only from our European cerealia, but also from rice. But it must be remarked, that a singular exception to the generally wholesome properties of grasses, appears to exist in Lólium temuléntum, the seed of which is reported to be narcotic and inebriating, and even poisonous; there is no doubt, however, that these qualities have been greatly exaggerated; for in the first place they disappear in bread or beer manufactured from Lólium temuléntum; and secondly, in times of scarcity, people have frequently lived upon it. But even supposing all that has been stated upon the subject to be true, this plant will still be found to be little different from wheat, when long exposed to wet; so well, indeed, is this known by country people, that a belief exists, that in wet summers wheat is actually transmuted into rye grass. The exciting properties of the oat, which are very unusual in this order, have been found to reside in the husk and not in the seed, and to depend upon the presence of a minute quantity of an aromatic principle, analogous to Vanilla, lying imbedded in the envelope of the seed, and capable of being extracted by aid of alcohol. As to the deleterious effects of the ergot of rye, these do not depend certainly upon any such property in the rye itself, but is caused either by the ergot disease, or, as is believed, by the parasitic fungus, from the attack of which it arises. Now let us pass from the seeds of Gramineæ to their stems, and we shall find a no less remarkable uniformity of nature in them. They all contain, especially before flowering, a sweet sugary mucilage, which varies in quantity in different species. The sugar cane, in which this is found in greatest abundance, not only constantly exists in the most favorable condition for producing it, as it rarely flowers, but is also one of the largest grasses known. The maize also abounds in sugar; and the same substance is secreted in such abundance by the Sórghum saccharátum, that attempts have actually been made in Italy to cultivate it as the sugar cane. The creeping roots of grasses, which are generally mucilaginous and demulcent, are sometimes used in medicine; but they are of more importance for retaining in banks the sand of the sea shore, so as to form artificial cliffs on flat coasts, to restrain the inroads of the sea. The stems of Andropógon schœnánthus, the leaves of Andropógon citrátum, the roots of Andropógon nárdus, and the whole plant of all the species of Anthoxánthum, exhale an aromatic odor, and possess slightly tonic properties. To conclude, the epidermis of grasses has been found to contain a considerable quantity of silex.

Tribe 1. Paniceæ.

139 Páspalum *W.*
140 Axónopus *P. de B.*
141 Milium *W.*
142 Knáppia *E. B.*
143 Digitária *P. S.*
144 Pánicum *B. P.*
145 Setária *P. de B.*
146 Echinochlóa *P. de B.*
147 Orthopógon *P. de B.*
148 Penicillária *P. de B.*
149 Lappágo *W.*
134 Cénchrus *P. S.*
135 Pennisétum *Rich.*

Tribe 2. Stipaceæ.

150 Stipa *W.*
138 Oryzópsis *Mich.*

Tribe 3. Agrostideæ.

151 Muhlenbérgia *Schr.*
152 Chætúrus *Lk.*
153 Lagúrus *W.*
154 Polypógon *W. en.*
155 Gastridium *P. de B.*
156 Agróstis *W.*
157 Trichódium *Mi.*
158 Tristegis *Nees.*
159 Sporóbolus *B. P.*
160 Airópsis *Desv.*
161 Cinna *P. de B.*
136 Spartína *W.*
162 Psámma *P. de B.*
163 Crýpsis *W.*
133 Cornucópiæ *L.*
164 Alopecúrus *W.*
165 Phléum *W.*
166 Achnodónton *P. de B.*
167 Chilochlóa *P. de B.*
168 Phálaris *W. en.*

Tribe 4. Bromeæ.

169 Corynéphorus *P. de B.*
76 Anthoxánthum *W.*
170 Aira *W.*
171 Avéna *P. S.*
172 Trisétum *P. S.*
173 Danthónia *P. de B.*
174 Gaudinia *P. de B.*
175 Arúndo *With.*
176 Chrysúrus *P. S.*
177 Sesléria *P. de B.*
178 Cynosúrus *P. S.*
179 Kœléria *P. S.*
180 Dáctylis *W. en.*
181 Glycéria *R. Br.*
182 Festúca *W.*
183 Mygalúrus *Lk.*
184 Brómus *W.*
185 Brachypódium *P. de B*
186 Uniola *W.*
187 Triodepis *P. de B.*
188 Dipláchne *P. de B.*
189 Ceratochlóa *P. de B.*
190 Schismus *P. de B.*
191 Triódia *R. Br.*
192 Beckmánnia *Host.*
193 Mélica *W.*
194 Molinia *P. de B.*
195 Briza *W.*
196 Pòa *W.*
197 Eragróstis *P. de B.*
198 Megastáchya *P. de B*

Trib[illegible] Chlorideæ.

199 Sclerochlóa *P. de B.*
200 Eleusine *R. Br.*
201 Dactylocténium *P. de B.*
202 Leptochlóa *P. de B.*
203 Cýnodon *P. S.*
204 Dinébra *P. de B.*
205 Echinária *Desf.*

Tribe 6. Hordeaceæ (or Cereales.)

206 Triticum *W.*
207 Lólium *W.*
208 E'lymus *W.*
209 Secále *W.*
210 Hórdeum *W.*
211 Microchlóa *R. Br.*
212 Ophiúrus *P. de B.*
213 Monérma *P. de B.*
137 Nárdus *W.*

Tribe 7. Sacchariňeæ.

214 Perótis *H. K.*
215 Sáccharum *W.*
216 Imperáta *Cyr.*

Tribe 8. Oryzeæ.

217 Leérsia *R. Br.*
837 Orýza
754 Ehrhárta *W.*

Tribe 9. Olyreæ.

1950 Zéa *W.*
1951 Cóix *W.*
1952 Trípsacum *W.*
1953 Heteropógon *Rich.*
1954 Olýra *W.*
1979 Zizánia *W.*
1980 Phárus *W.*
2129 Andropógon *W.*
2130 Chlóris *W.*
2131 Sórghum *W. en.*
2133 Ischæ'mum *W.*
2132 Hólcus *W. en.*
2134 Æ'gilops *W.*
2135 Manisúris *W.*

Tribe 10. -Bambusaceæ.

218 Diarrhéna *Mich.*
131 Remiréa *Aub.*
219 Arundinária *W.*
752 Bambúsa *W.*

Station Uncertain.

132 Lygéum *W.*

Order CLXXV. CYPERACEÆ.

The sedges, as these may be called in English, differ from grasses not only in their comparative worthlessness, and the different developement of the parts of fructification, but also in the sheath, at the base of the leaves, being closed up, not slit. As objects of ornament they are of no value, and as subjects of agricultural interest of but little; they are, moreover, of little utility to man. They are chiefly valuable for covering, with the appearance of herbage, waste, and barren, marshy, or sandy tracts, in which little else will thrive. The roots of Cárex arenária, distícha, and hirta, possess diaphoretic and demulcent properties, whence they are sometimes called German sarsaparilla. Some of the Scirpuses and Cypéruses have eatable nutty roots; the stems of Scirpus lacústris, Eleócharis palústris, Cypérus téxtilis, and others, are manufactured into mats and the bottoms of chairs; the roots of Cypérus esculéntus abound in oil, a very unusual circumstance; the papyrus of the ancients was manufactured from the stem of Cypérus papýrus; finally, the roots of Cypérus lóngus, odorátus, and others, are fragrant.

74 Cládium *Schr.*
119 Schœ'nus *Vahl*
120 Rhynchospóra *Vahl*
121 Fimbristylis *Vahl*
122 Isolépis *R. Br.*
123 Scirpus *R. Br.*
124 Eleócharis *R. Br.*
125 Erióphorum *P. S.*
126 Trichóphorum *P. S.*
127 Cypérus *W.*
128 Papýrus *Lk.*
129 Kyllínga *W.*
130 Mariscus *Vahl*
1947 Cárex *W.*
1948 Cobrésia *W.*
1949 Uncinia *Rich.*

Order CLXXVI. AROIDEÆ.

Herbaceous, stemless, or caulescent plants, with broad fleshy leaves, approaching very nearly to those of Dicotyledons. Their flowers are enclosed within a spatha, and are imbedded on a simple cylindrical spadix. Some are natives of Europe and of similar latitudes, but the greater number inhabit the tropics, where they often climb by their rooting stems to the tops of lofty trees. They have thick fleshy roots, which, when fresh, contain an acrid stimulating principle, which is so volatile that it passes off freely upon the application of heat; whence the roasted roots of many species are among the most common articles of negro food. The leaves of A'rum seguinum are so paralyzing, that if chewed they deprive one of the power of utterance; whence in the West Indies it is called the *dumb cane*; the leaves of Dracóntium pertúsum are acrid; fresh gathered, and applied all over the surface of the body, they produce a slight inflammation and blistering, and are used in Demerara, by the natives, in dropsical cases. The root of A'rum triphýllum, boiled in milk, has been found efficacious in consumption. The flowers of many species are highly fetid. Typhineæ, or bullrushes are very like Cyperaceæ in habit. Pistiaceæ are floating plants, in which the organs of fructification are reduced to the very simplest state. Juncagineæ are obscure marsh or river plants.

Trib[illegible]. Genuinæ.

252 Póthos *W.*
755 A'corus *W.*
756 Oróntium *W.*
758 Tácca *W.*
2006 A'rum *W.*
2005 Caládium *W.*
868 Dracóntium *W.*
869 Cálla *W.*
876 Roxbúrghia *Dr.*
769 Aspidístra *Ker*
757 Tupístra *B. M.*

Tribe 2. Typhineæ.

1945 Týpha *W.*
1946 Spargánium *W.*

Tribe 3. Pistiaceæ.

1939 Lémna *W.*

Tribe 4. Juncagineæ.

109 Leptánthus *Mich.*
854 Aponogéton *W.*
840 Scheuchzéria *W.*
317 Potamogéton *W.*
841 Triglóchin *W.*

Order CLXXVII. FLUVIALES.

With these the Vasculares and Monocotyledones terminate: it has long been apparent that we have been descending in the scale of vegetation; and hence, the last order exhibited a structure the most simple of all vascular plants. In the present order, Zostéra and Rúppia are so closely allied to Algæ, that they may be mistaken for them.

24 Zostéra *L.*
318 Rúppia *W.*

II. CELLULARES.

The characteristics of this division have already been explained in the preliminary observations upon the natural orders; and the remarks which were required for each natural order of Cellulares have already been given in Cryptogamia in the body of the work. It has, therefore, been thought advisable to adopt from Professor Agardh such observations as he has made upon the orders, as a sort of contrast to those already given.

Class 1. FOLIACEÆ.

Order I. FILICES.

Of these the stem is perennial, often subterraneous and creeping, and occasionally becoming arborescent and leafy above the ground. The fronds or leaves are usually pinnatifid, and more or less compound; sometimes nearly simple and entire, with reticulated veins. The capsules are minute, one-celled, seldom many-celled, brown, membranous, and surrounded by a thick articulated elastic ring, irregularly bursting, and either clustered on the lower surface of the frond, or compound in spikes. Their vernation is circinate, and some are propagated by bulbs. The old botanists denied any fruit whatever to Ferns; believing the seeds of these plants to be so rare as to invest any body with invisibility who could collect them. Afterwards, their capsules were believed to be their seeds. Linnæus, and some others, doubted whether their fructification were seeds or pollen. Finally, the experiments of Ehrhart and Lindsay proved, beyond all cavil, that they were really seeds. As to the male organs nothing is known; some suppose them to be glands of the frond, others the elastic ring, some the indusium, and others the pores of the epidermis; lastly, Martius has supposed them to be the membrane including the spiral vessels. Ferns are chiefly inhabitants of the torrid zone, becoming rarer as we approach the poles. They delight in a humid soil, and they often grow parasitically upon trees. The medicinal virtues of some are highly astringent, of others anthelmintic, of others purgative; some have acquired celebrity for their pectoral, others for their corroborant qualities. The young leaves and roots of some constitute an article of food; beer is obtained from the roots of others, and, finally, Aspidium frágrans has been used as tea.

Tribe 1. Polypodiaceæ.

2168 Polybótrya *H. & B.*
2169 Acróstichum *L.*
2170 Hemionitis *L.*
2171 Gymnográmma *Desv.*
2172 Meniscium *Schreb.*
2173 Xiphópteris *Kaulf.*
2174 Céterach *W.*
2175 Polypódium *L.*
2176 Tænitis *Swz.*
2177 Nothochlǽna *R. Br.*
2178 Onocléa *L.*
2179 Struthiópteris *W.*
2180 Allosórus *Bernh.*
2181 Ellobocárpus *Kaulf.*
2182 Lomária *W.*
2183 Bléchnum *L.*
2184 Woodwárdia *Sm.*
2185 Doódia *R. Br.*
2186 Asplénium *L.*
2187 Allantódia *R. Br.*
2188 Scolopéndrium *Sm.*
2189 Diplázium *Swz.*
2190 Ptéris *L.*
2191 Vittária *Sm.*
2192 Lonchítis *L.*
2193 Antróphyum *Kaulf.*
2194 Adiántum *W.*
2195 Cheilánthes *Swz.*
2196 Davállia *Sm.*
2197 Dicksónia *L'Her.*
2198 Balántium *Kaulf*
2199 Aspidium *Swz.*
2200 Woódsia *R. Br.*
2201 Cyathéa *Sm.*
2202 Trichómanes *L.*
2203 Hymenophýllum *Sm.*

Tribe 2. Osmundaceæ.

2204 Tódea *W.*
2205 Osmúnda *L.*
2206 Lygódium *Swz.*
2207 Anémia *Swz.*

Tribe 3. Ophioglosseæ.

2208 Botrýchium *Swz.*
2209 Ophioglóssum *L.*
2210 Maráttia *Swz.*

Order II. EQUISETACEÆ.

Marsh plants, with a verticillate arrangement of their branches, and a highly indurated epidermis. Their seeds are remarkable for a hygrometrical movement. The quality of some is said to be hurtful to cattle, which is denied by others. Formerly they were used in medicine as astringents and diuretics. Equisétum hyemále has been employed for tea, and as a polishing material for furniture, under the name of Dutch rushes.

2211 Equisétum *L.*

Order III. LYCOPODINEÆ.

With the habits of mosses they have the seeds of ferns. They are herbaceous prostrate plants, with imbricated simple leaves. Lycopódium complanátum, Selágo, and clavátum as used as dyes; the sporules of Lycopódium clavátum are said to be employed for ameliorating wine, and are also used in making fire-works, on account of their inflammable nature. The herb of Lycopódium clavátum and Selágo is emetic, and produces abortion. Lycopódium phlegmária is reputed an aphrodisiac.

2212 Lycopódium *L.*
2213 Psilótum *Swz.*

Order IV. MARSILEACEÆ.

Floating or erect simple-leaved plants of no known use. The Marsileas, which are to some countries what Lémna is to this, are not known in cultivation.

2214 Isoétes *L.*
2215 Pilulária *L.*

CLASS II. APHYLLÆ

ORDER V MUSCI.

Winter plants, reviving in humid air, abundant about the poles, rare at the equator. They cover the mountains of the earth as high as the limits of perpetual snow; growing in patches, they clothe the most barren spots with verdure, preserve trees from heat and cold, prepare the earth for nourishing more perfect plants, and fill up bogs and morasses with vegetable matter. To the economy of nature they are, therefore, more subservient than to the purposes of man. Medicinal astringent properties were formerly ascribed to some few, but they are now neglected or forgotten.

Tribe 1 EVAGINULATI.

2216 Sphágnum *L.*

Tribe 2. VAGINULATI OLOCARPI.

2217 Pháscum *L*
2218 Schistostéga *Mohr*
2219 Gymnóstomum *Hedw*
2220 Hymenóstomum *R Br*
2221 Tetraphis *Hedw*
2222 Encalýpta *Hedw*
2223 Grimmia *Hedw*
2224 Weissia *Hedw*
2225 Dicránum *Hedw*
2226 Trichóstomum *Hedw*
2227 Cinclidótus *P de B*
2228 Tórtula *Ehr*
2229 Pterogónium *Sw.*
2230 Didýmodon *Hedw*
2231 Spláchnum *L*
2232 Conóstomum *Sw*
2233 Orthótrichum *Hedw*
2234 Zýgodon *Hook*
2235 Diphýscium *Mohr*
2236 Buxbaúmia *L*
2237 Funária *Hedw*
2238 Bartrámia *Hedw*
2239 Póhlia *Hedw*
2240 Brýum *Hedw*
2241 Polýtrichum *L*
2242 Anictángium *Hedw.*
2243 Fissidens *Hedw*
2244 Leúcodon *Schwægr*
2245 Fontinális *L*
2246 Anómodon *Hook*
2247 Neckéra *Hedw*
2248 Daltónia *Hook*
2249 Hookéria *Sm*
2250 Léskea *Ehr*
2251 Hýpnum *L*

Tribe 3 VAGINULATI SCHISTOCARPI

2252 Andreǽa *Hedw.*

ORDER VI HEPATICÆ

Creeping small plants, with their leaves arranged in an imbricated manner. They differ from Lichens in structure, color, and fruit; from Musci, in the dehiscence of their capsule. Their qualities are mild, if any; some of them are fragrant.

2253 Jungermánnia *L*
2254 Marchántia *Mich*
2255 Riccia *E B*
2256 Anthóceros *E B*
2257 Targiónia *E B.*
2258 Sphærocárpus *E B*

ORDER VII ALGÆ.

Plants ascending from the simplest form known in vegetation to a very compound state. The lowest are filiform, leafless, with their fructification immersed; the highest are leafy, with the fructification included in an indehiscent wart-like pericarpium. Some copulate like animals, others have a spontaneous motion like worms. Their color is lively, in the lowest grades green, in the highest red or purple. Some are ephemeral and microscopical, annual or perennial, and others extend to the length of many fathoms. They grow at the bottom of the sea, or in fresh water, the depths of which they clothe with vegetation, as the higher orders of plants cover the earth with forests. They grow on stems in the water only, or on each other. Some exhale oxygen, others are scented like violets. Their taste is mild; their substance gelatinous, membranous, or coriaceous, usually covered externally with mucus. The structure of the lowest is articulated; of the highest fibrous.

Tribe 1 DIATOMEÆ.

2259 Achnánthes *Ag*
2260 Diátoma *Ag*
2261 Fragillária *Ag.*
2262 Meloseira *Ag*
2263 Desmidium *Ag*
2264 Schizonéma *Ag*

Tribe 2 NOSTOCHINEÆ.

2265 Palmélla *Ag*
2266 Echinélla *Ag*
2267 Alcyonidium *Ag*
2268 Nóstoc *Ag*
2269 Corynéphora *Ag*
2270 Rivulária *Ag*
2271 Chætóphora *Ag*
2272 Scythyménia *Ag*

Tribe 3 CONFERVOIDEÆ

2273 Byssocládium *Ag*
2274 Mycinéma *Ag*
2275 Chroolépus *Ag*
2276 Trentepóhlia *Ag*
2277 Scytonéma *Ag*
2278 Stigonéma *Ag*
2279 Protonéma *Ag*
2280 Hygrocrócis *Ag*
2281 Leptomitus *Ag*
2282 Mesogloia *Ag*
2283 Batrachospérmum *Ag*
2284 Draparnáldia *Ag*
2285 Oscillatória *Ag*
2286 Calothrix *Ag*
2287 Lýngbya *Ag*
2288 Bángia *Ag*
2289 Zygnéma *Ag*
2290 Mougeotia *Ag.*
2291 Hydrodictyon *Ag*
2292 Conférva *Ag*
2293 Bulbochæ'ta *Ag*
2294 Nitélla *Ag*
2295 Chára *L.*
2296 Cerámium *Ag.*
2297 Griffithsia *Ag*
2298 Chætospóra *Ag*
2299 Polysiphónia *Grev*
2300 Rytiphlæ'a *Ag*
2301 Ectocárpus *Ag*
2302 Sphacellária *Ag*
2303 Cladostéphus *Ag*

Tribe 4 ULVACEÆ.

2304 Vauchéria *Ag*
2305 Códium *Ag*
2306 Bryópsis *Ag*
2307 Solenia *Ag*
2308 Ulva *L*
2309 Pórphyra *Ag*

Tribe 5 FLORIDEÆ.

2310 Polyídes *Ag*
2311 Ptilóta *Ag*
2312 Rhodoméla *Ag*
2313 Chóndria *Ag.*
2314 Sphærocóccus *Ag.*
2315 Halyménia *Ag*
2316 Bonnemaisónia *Ag.*
2317 Delessèria *Ag.*

Tribe 6. FUCOIDEÆ.

2318 Lemánea *Ag*
2319 Chordária *Ag*
2320 Scytosiphon *Ag*
2321 Sporóchnus *Ag*
2322 Haliseris *Ag*
2323 Encœ'lium *Ag*
2324 Zonária *Ag*
2325 Laminária *Ag.*
2326 Lichína *Ag*
2327 Furcellária *Ag.*
2328 Fucus *L*
2329 Cystoseira *Ag*

ORDER VIII LICHENS

Lichens are not only most useful in the Œconomy of Nature, as preparing the surface of the earth for the reception of larger vegetables, but they are, moreover, of great utility to man. Many, as Cetrária islándica, are eatable, having a bitter principle, and giving out a styptic tincture, if immersed in alcohol. Others, steeped in urine or salts, are used for dying; crustaceous species of this kind are Variolária orcína, Lecanóra tartárea, Leprária chlorína, &c.; foliaceous species, Parmélia saxátilis, Sticta pulmonácea, Solorína cròcea, Gyróphora deústa and pustuláta, &c., and branched kinds, Roccélla tinctória (the common Orchal), Ùsnea plicáta, Alectória jubáta, and others. In medicine, Cetrária islándica and nivális, Sticta pulmonácea, Alectória usneoídes are tonic and nutritive; Parmélia parietína, Borrèra purpurácea, Evérnia prunástri, &c., are astringent and febrifugal; Peltidéa aphthósa, anthelmintic; Evérnia vulpína, poisonous. Some yield a gum, as Evérnia prunástri. Sticta pulmonácea may be employed for bittering beer instead of hops, and Ramalína scopulórum instead of soap. The various species give the grey hue to old walls and stones, cover desert heaths, and mottle the bark of ancient trees.

Tribe 1. IDIOTHALAMI.

2330 Spilóma *Ach.*
2331 Solorína *Ach.*
2332 Lecídea *Ach.*
2333 Calícium *Ach.*
2334 Gyróphora *Ach.*
2335 Endocárpon *Ach.*

Tribe 2. CŒNOTHALAMI.

2336 Thelotréma *Ach.*
2337 Pyrénula *Ach.*
2338 Varioláría *Ach.*
2339 Urceolária *Ach.*
2340 Lecanóra *Ach.*
2341 Parmélia *Ach.*
2342 Borrèra *Ach.*
2343 Cetrária *Ach.*
2344 Sticta *Ach.*
2345 Peltidéa *Ach.*
2346 Nephróma *Ach.*
2347 Roccélla *Ach.*
2348 Evérnia *Ach.*
2349 Cenómyce *Ach.*
2350 Bæomýces *Ach.*
2351 Isídium *Ach.*
2352 Stereocaúlon *Ach.*
2353 Sphæróphoron *Ach.*

Tribe 3. HOMOTHALAMI.

2354 Alectoria *Ach.*
2355 Ramalína *Ach.*
2356 Corniculária *Ach.*
2357 U'snea *Ach.*
2358 Collēma *Ach.*

Tribe 4. ATHALAMI.

2359 Leprária *Ach.*

Tribe 5. PSEUDO-LICHENES.

2360 Opégrapha *Ach.*
2361 Verrucária *Ach.*
2362 Porína *Ach.*
2363 Arthónia *Ach.*
2364 Gráphis *Ach.*

ORDER IX. FUNGI.

We have now reached the lowest station of vegetable existence, in arriving where the vesicles which compose the vegetable fabric are combined in various forms, according to the contingent circumstances under which they are developed. The mould on the cheese, the ergot of corn, the rust of the rose, and the huge Bolétus, which, in Java, spreads out its many-handed body from the trunks of ancient trees like a vegetating demon, differ only in the number of the vesicles of which they are composed. Many species are eatable, as Agáricus campéstris; others are deadly, as Bolétus scáber; some are used medicinally, as Dædálea suavèolens in coughs; Agáricus túba reginæ in diarrhœa; Agáricus piperátus in calculous disorders; Phállus Mokúsin against cancer; Polypórus annósus against the bites of serpents. Some Coprini are used for healing ulcers; Polypórus officinális as a purgative; Polypórus igniárius as a styptic; Polypórus destrúctor, and a number of others, constitute dry rot. For the poison of fungi, the roots of garlic, the leaves of parsley, and tincture of lacmus, are said to be remedies: so also is common spirit. Fungi swarm in all the coldest countries of the world, but as we approach the equator they are extremely rare; the place where they most flourish is Sweden, and the adjacent regions.

Tribe 1. HYMENOMYCETES.

§ 1. Hymenini.

Div. 1. *Pileati.*

2365 Agáricus *L.*
2366 Coprínus *Lk.*
2367 Gómphus *Fries.*
2368 Cantharéllus *Adans.*
2369 Merúlius *Haller.*
2370 Schizophýllum *Fries.*
2371 Dædálea *Pers.*
2372 Polypórus *Micheli.*
2373 Bolétus *Dill.*
2374 Fistulína *Bull.*
2375 Hýdnum *L.*
2376 Sistotréma *Fries.*
2377 Phlébia *Fries.*
2378 Theléphora *Ehr.*

Div. 2. *Clavati.*

2379 Clavária *Vaill.*
2380 Calócera *Fries.*
2381 Geoglóssum *Pers.*
2382 Spatulária *Pers.*
2383 Mitrula *Fries.*
2384 Týphula *Fries.*
2385 Pistillária *Fries*

§ 2. Uterini *v.* Elvellaceæ.

Div. 1. *Mitrati.*

2386 Morchélla *Dill.*
2387 Helvélla *L.*
2388 Vérpa *Swz.*
2389 Leótia *Hill.*

Div. 2. *Cupulati.*

2390 Peziza *Dill.*
2391 Ascóbolus *Pers.*
2392 Bulgária *Fries.*
2393 Ditiola *Fries.*
2394 Cenángium *Fr.*
2395 Stictis *Pers.*
2396 Cryptomýces *Fr.*

§ 3. Tremellini.

2397 Tremélla *L.*
2398 Exidia *Fries.*
2399 Dacrymýces *Nees.*
2400 Agýrium *Fr.*
2401 Hymenélla *Fr.*
2402 Næmatélia *Fr.*

§ 4. Sclerotiacei.

2403 Acrospérmum *Tode.*
2404 Sclerótium *Tode.*
2405 Rhizoctónia *Dec.*
2406 Perióla *Fr.*
2407 Acinula *Fr.*
2408 Erýsibe *Rebentisch.*

Tribe 2. GASTEROMYCETES.

§ 1. Angiogastres.

Div. 1. *Phalloideæ.*

2409 Phállus *Mich.*
2410 Batárrea *Pers.*

Div. 2. *Tuberaceæ.*

2411 Túber *Plin.*
2412 Rhizopógon *Fr.*

Div. 3. *Nidulariaceæ.*

2413 Nidulária *Bull.*
2414 Myriocóccum *Fr.*
2415 Polyángium *Lk.*

Div. 4. *Carpoboli.*

2416 Atractóbolus *Tode.*
2417 Thelébolus *Tode.*
2418 Pilóbolus *Tode,*
2419 Sphæróbolus *Tode.*

§ 2. Pyrenomycetes.

Div. 1. *Sphæriacei.*

2420 Xylária *Hill.*
2421 Stromatosphæ'ria *Grev.*
2422 Cucurbitária *Grev.*
2423 Cryptosphæ'ria *Grev.*
2424 Hysterosphæria *Grev.*
2425 Sphæ'ria *Haller.*
2426 Lóphium *Fries*

Div. 2. *Cytisporei.*

2427 Sphæronæ'ma *Fries.*
2428 Septária *Fries*
2429 Cytispóra *Ehr.*
2430 Phóma *Fr.*

Div. 3. *Phacidiacei.*

2431 Dothidéa *Fr.*
2432 Rhytisma *Fries.*
2433 Phacidium *Fries.*
2434 Hystérium *Tode.*

Div 4. *Xylomacei.*

2435 Actinothýrium *Kunz.*
2436 Leptostróma *Fr.*
2437 Xylóma *Pers*
2438 Lasiobótrys *Kunz.*
2439 Asteróma *Dec.*

§ 3. Trichospermi.

Div. 1. *Lycoperdinei.*

2440 Onygéna *Pers.*
2441 Tulóstoma *Pers.*
2442 Sclerodérma *Pers.*
2443 Lycopérdon *Mich.*
2444 Bovista *Pers.*
2445 Geástrum *Mich.*

Div. 2. *Trichocisti.*

2446 Cratérium *Trent.*
2447 Stemonitis *Pers.*
2448 Cribrária *Schrad.*
2449 Dictýdium *Schrad.*
2450 Arcýria *Pers.*
2451 Leángium *Lk.*
2452 Trichia *Pers.*
2453 Didérma *Pers.*
2454 Phýsarum *Pers.*
2455 Leocárpus *Lk*

Div. 3. *Fuliginoidei.*

2456 Lycogála *Mich.*
2457 Spumária *Pers.*

Div. 4 *Liceoidei*

2458 Dichospórium *Nees.*
2459 Licea *Schrad.*

§ 4. Mucoroidei

2460 Múcor *Pers.*
2461 Thamnidium *Lk*
2462 A[illegible]ora *Tode.*

§ 5. Perisporia.

2463 Eurótium *Lk.*
2464 Amphispórium *Lk*

Tribe 3. HYPHOMYCETES.

§ 1 Cephalotrichi.

2465 Cerátium *Albertini.*
2466 Isária *Pers.*

§ 2. Stilboidei.

2467 Stilbum *Tode.*

§ 3. Inomycetes.

Div. 1. *Byssacei.*

2468 Torula *Lk*
2469 Monilia *Pers.*
2470 Racódium *Pers.*
2471 Demátium *Pers.*
2472 Cladospórium *Lk.*
2473 Helicospórium *Nees.*
2474 Ozónium *Lk.*
2475 Rhizomórpha *Roth.*

Div. 2. *Mucedines.*

2476 Sepedónium *Lk.*
2477 Acremónium *Lk.*
2478 Sporótrichum *Lk.*
2479 Trichothécium *Lk.*
2480 Acrospórium *Nees.*
2481 Bótrytis *Mich.*
2482 Aspergillus *Mich.*
2483 Stachylidium *Lk.*
2484 Penicillium *Lk*
2485 Trichodérma *Pers.*

§ 4. Phylleriaceæ.

2486 Rubigo *Lk*
2487 Erineum *Pers.*

Tribe 4. CONIOMYCETES.

§ 1 Tuberculariæ.

2488 Tuberculária *Tode*
2489 Fusárium *Lk.*
2490 Exospórium *Lk.*

§ 2. Entophytæ.

Div. 1. *Stilbosporei.*

2491 Fusidium *Lk.*
2492 Polythrincium *Kunz.*
2493 Stilbospóra *Hoffm.*
2494 Sporidérmium *Lk.*
2495 Nemaspóra *Pers.*

Div. 2. *Hypodermia.*

2496 Cylindrospórium *Grev*
2497 Urédo *Pers.*
2498 Æcidium *Pers.*
2499 Puccinia *Mich.*

After the most perfect classification which the present state of botanical knowledge renders practicable, there still remain a *few* genera which are incapable of having their true station assigned to them, either in consequence of their structure being incompletely known, or of their affinity not having yet been discovered. As far as this work is concerned, they are the following, all of which are Dicotyledones.

1966 Aúcuba *W.*
405 Bréxia *Nor.*
442 Vallésia *Fl. per.*
1462 Aitónia *W.*
2068 Antidésma *W.*
2098 Eúclea *W.*
2121 Nepénthes *W.*
2163 Laurophýllus *W.*
1986 Ceratophýllum *W.*

GENERAL INDEX,

COMPREHENDING

THE SYSTEMATIC AND ENGLISH GENERIC NAMES, AND THE ENGLISH AND SYSTEMATIC SYNONYMES IN COMMON USE.

In this Index, the systematic names are distinguished as classical, i. e. names applied to plants by the ancients, by the first letter being in Italic, as *A'*bies; as commemorative, by the terminating letter or letters being in Italic, as Bánks*ia*, and as aboriginal, or of uncertain derivation, by the whole word being in Italic, as *Æ'rua*. All the other names are formed, in almost every case, from the Greek, but sometimes from the Greek and Latin. Where *n.* is added after the name, it refers to the note.

Page of Lin. Arr.	Page of Nat. Arr.		No. of Spec.	No. of Gen.
940	*	Abele-tree	13968	2067
804	1084	A'bies		2013
680	1080	Abroma		1609
118	1080	Abrdula		323
614	1065	A'brus		1546
858	1067	Acàcia		2127
814	1082	Acalypha		2038
	1079	ACANTHA'CEÆ, Or	117	
516	1079	Acánthus		1801
686	1074	Acárna		1671
864	1080	A'cer		2143
752	1085	A'corus		1865
	1081	ACERI'NEÆ, Or	33.	
584	1059	Achània		1479
726	1073	Achillèa		1781
926	1091	Achnánthes		2259
58	1089	Achnodónton		166
150	1076	A'chras		427
190	1080	Achyránthes		562
744	1072	Acicárpha		1842
792	1083	Acidòton		1992
1042	1092	Acinula		2407
364	1068	Acisanthèra		1051
728	1074	Acmella		1793
834	1081	Acnida		2072
474		Aconite, n.		
474	1054	Aconitum		1205
256	1069	A'corus		755
1038	1093	Acremonium		2477
1030	1092	Acrospérmum		2403
1040	1093	Acrosporium		2480
878	1090	Acróstichum		2109
460	1055	Actæ'a		1164
294	1087	Actinocárpus		860
230	1070	Actinophyllum		647
1032	1093	Actinothyrium		2435
214	1070	Actinòtus		644
508	1079	A'cynos		1276
244		Adam's apple, n		
288		Adam's needle		781
592	1059	Adansònia		1471
888		Adder's-tongue		2309
850	1082	Adèlia		2118
180	1067	Adenándra		518
350	1063	Adenanthèra		982
2194	1090	Adiántum		844
98	1072	Adìna		296
600	1058	Adlùmia		1506
484	1054	Adònis		1230
328	1070	Adòxa		930
1044	1093	Æcidium		2497
2134	1090	Æ'gilops		262
96	1079	Ægiphila		274
468	1068	Æ'gle		1196
216	1070	Ægopòdium		652
764	1085	Aeránthes		1922
762	1085	Aërides		1917
192	1080	Æ'rua		560
680	1066	Æschynómene		1582
226	1067	Æ'sculus		666
552	1057	Æthionèma		1409
218	1071	Æthùsa		661
864		African almond		2142
698		African fleabane		1706
260		African lily		767

Page of Lin. Arr.	Page of Nat. Arr.		No. of Spec.	No. of Gen.
	1063	African lote		
718		African marigold	12212	1760
346	1069	Afzèlia		971
260		Agapánthus		767
986		Agaric		2365
986	1092	Agáricus		2365
804	1084	A'gathis		2011
304	1061	Agathophyllum		1077
182	1063	Agathósma		590
244	1087	Agàve		724
690	1073	Agératum		1687
398	1067	Agrimònia		1101
398		Agrimony		1101
388	1058	Agrostémma		1066
56	1089	Agróstis		156
1020	1092	Agýrium		2400
866		Ailántus		2150
58	1089	A'ira		170
160	1089	Airópsis		56
762		Air plant		1917
578	1093	Aitònia		1442
428	1069	Aizòon		1144
494	1079	A'juga		1242
302		Akee-tree		886
488	1068	Alángium		1193
176		Alatérnus	5592	502
274	1086	Albùca		797
88	1067	Alchemílla		255
191		Alcohol, n.		
928	1091	Alcyonídium		2267
780	1083	Alder		1956
690		Ale-cost, n		
970	1092	Alectòria		2354
268	1086	Alètris		776
812	1082	Aleurìtes		2028
216		Alexanders		650
846		Alexandrian laurel,	14046	2111
868		Algaroba-bean, n.		
205		Alicant soda, n		
294	1087	Alìsma		861
	1087	ALISMA'CEÆ, Or	166	
146	1076	Allamánda		407
882	1090	Allantòdia		2187
550	1057	Alliària		1423
480		Alligator apple, n.		
334	1081	Alligator pear	5651	934
272	1086	A'llium		778
880	1090	Allosòrus		2180
74		All seed		221
454	1061	Allspice		1157
418		Allspice-tree	6965	1123
420		Almond		1128
780	1083	A'lnus		1956
268	1086	A'loe		770
534	1078	Alonsòa		1377
56	1089	Alopecùrus		164
518	1079	Aloysia		1312
258		Alpine-brook		1041
4	1085	Alpìnia		8
222	1059	Alsìne		685
284	1086	Alstrœmèria		798
192	1080	Alternanthèra		556
584	1059	Althæ'a		1474

Page of Lin. Arr.	Page of Nat. Arr.		No. of Spec.	No. of Gen.
544	1057	Alýssum		1401
786		Amaranth		1975
	1080	AMARANTHA'CEÆ, Or. 124.		
786	1080	Amaránthus		1975
	1086	AMARYLLIDEÆ, Or	136.	
252	1086	Amarýllis		739
832		Amber tree		2062
788	1073	Ambròsia		1977
428	1067	Amelánchier		1118
726	1074	Amellus		1783
	1083	AMENTA'CEÆ, Or	142	
864		American almond		2142
244		American aloe	4004	724
128		American cowslip		352
321		American cranberry, n		
541		American cress, n		
605		American ebony, n.		
	1061	American gamboge		
160		American marmalade, n		
604	1067	Amerimnum		1590
20	1070	Amethýstea		58
792	1080	Amiròla		1991
102	1068	Ammánnia		302
214	1071	A'mmi		639
686	1073	Ammobium		1681
4	1085	Amomum		11
614	1066	Amorpha		1545
176	1061	Ampelópsis		502
680	1074	Ampherèphis		1691
1036	1093	Amphisporium		2464
148	1077	Amsònia		419
420	1067	Amýgdalus		1128
304	1064	A'myris		869
204	1061	Anabàsis		608
396	1069	Anacampseros		1093
752	1085	Anacámptis		1864
834	1064	Anacárdium		915
724	1073	Anacýclus		1777
128	1080	Anagállis		357
342	1066	Anagýris		941
526	1078	Anarrhinum		1345
548	1057	Anastática		1416
466		Anchovy pear		1168
120	1078	Anchùsa		323
26	1067	Ancistrum		69
142		Andersònia		392
810	1082	Andráchne		2024
916	1091	Andreæ'a		2252
290	1087	Androcýmbium		849
358	1075	Andrómeda		1016
800	1089	Andropògon		2129
126	1060	Andrósace		349
676	1073	Andrýala		1642
36	1067	Aneilèma		89
886	1090	Anèmia		2307
482	1054	Anemòne		1226
218	1071	Anèthum		654
220	1071	Angélica		664
280		Angelica-tree	3869	896
534	1078	Angelònia		1371

Lin.	Nat.		Sp.	Gen.
	1062	Angostura-bark		
794	1085	Angræ'cum		[illegible]
772	[illegible]	Angùria		1940
59		[illegible] oat, n.		
912	1091	Anictángium		[illegible]
244	1085	Anigozánthos		730
60		Animal oat,	1064	171
[illegible]		Anise		[illegible]
678		Aniseed tree		1925
[illegible]	1079	Anisomèles		1343
758	1086	Anisopétalum		1899
[illegible]	[illegible]	[illegible]		[illegible]
[illegible]	[illegible]	Anonàceæ, Or 4		
[illegible]	1069	Anòda		1485
[illegible]	1080	Anomathèca		106
912	1091	Anómodon		2246
702	1073	Antennària		1795
724	1073	A'nthemis		1778
980	1086	Anthéricum		809
534	1078	Anthocércis		1376
[illegible]	1091	Anthóceros		[illegible]
44	1086	Antholyza		107
832	1072	Anthospérmum		[illegible]
28	1089	Anthoxánthum		76
208	1071	Anthriscus		690
612	1066	Anthyllis		1542
834	1095	Antidésma		[illegible]
596	1078	Antirrhinum		1343
882	1090	Antrophyum		[illegible]
584		Antwerp holly-hock	9776	1474
192	1080	Anychia		569
344	1066	Aòtus		959
670	1073	Apárgia		1632
464	1060	Apeiba		1181
924	1090	Aphananthe		918
518	1079	Aphelándra		1306
	1091	APHY'LLÆ, Cl. 2.		
372	1086	Aphyllánthes		794
216	1070	A'pium		651
	1076	APOCY'NEÆ, Or 101		
194	1077	Apócynum		572
292	1080	Aponogèton		854
466		Apothecaries' boxes, n.		
180		Apple-berry		513
420	1067	Apple-tree	7090	1158
422	1067	Apricot	7056	1159
476	1074	Aquilègia		1906
646	1057	A'rabis		1330
614	1067	A'rachis		1543
290	1070	Arália		696
	1070	ARALIA'CEÆ, Or 78.		
846	1094	Araucària		2119
806	1064	A'rbor Vitæ		2018
[illegible]	1075	A'rbutus		1019
502		Archangel		1259
680	1074	A'rctium		1650
872	1070	Arctòpus		2163
714	1073	Arctothèca		1815
710	1073	Arctotis		1831
142	1075	Ardìsia		435
142	1077	Arduìna		436
800	1084	A'reca		2009
378	1059	Arenària		1080
754	1084	Arethùsa		1877
174	1080	Aretia		348
462	1056	Argemone		1172
467		Argol, n.		
244	1085	Argolàsia		719
140	1077	Argyrèia		385
44	1086	Aristèa		112
766	1082	Aristolòchia		1934
	1082	ARISTOLOCHI'Æ, Or 136.		
294	1064	Aristotèlia		1064
[illegible]	1080	Armèria		705
716	1074	A'rnica		1740
666	1073	Arnopògon		1623
404	1058	Arnòtta		1083
	1089	AROI'DEÆ, Or 176.		
290		Arrow grass		841
790		Arrow-head		1898
9	1085	Arrow-root		2
1034	1093	[illegible]		2450
490		Artabòtrys		1221
220	1071	Artèdia		667
696	1073	Artemísia		1724
976	1092	[illegible]		[illegible]
280	1086	Arthropodium		810
684	1072	Artichoke		1666
770	1083	Artocàrpus		1985
800	1089	A'rum		2006
74	1089	Arundinària		219
60	1089	Arúndo		175
[illegible]		Asarabacca		1072
[illegible]	1082	A'sarum		1072
	1077	ASCLEPIA'DEÆ, Or 102.		
196	1077	Asclèpias		586
1018	1092	Ascóbolus		2391
1036	1093	Ascóphora		[illegible]
628	1061	A'scyrum		1616
[illegible]	1076	Ash-tree		2157
[illegible]	1055	Asimina		1222
806	1065	Aspálathus		[illegible]
[illegible]	1085	Aspáragus		816
[illegible]		Aspen	13961	[illegible]
1040	1093	Aspergillus		[illegible]
194	1076	Asperùgo		[illegible]
94	1072	Aspérula		[illegible]
280		Asphodel		808
	1086	ASPHODE'LEÆ, Or 160.		
280	1086	Asphódelus		806
8	1061	Aspicárpa		29
256	1089	Aspidistra		759
884	1082	Aspidium		2192
880	1090	Asplènium		2186
320	1070	Assa-fœtida	5702	668
617		Asses' eyes, n.		
700	1073	Astèlma		1727
708	1074	A'ster		1739
1032	1093	Asteròma		2439
636	1066	Astrágalus		1594
232	1076	Astránthus		873
232	1070	Astrántia		674
660	1060	Astrapæ'a		1469
148		Astrolòma		393
254		Atamasco lily	4873	743
212	1071	Athamánta		634
696	1073	Athanàsia		1717
	1085	ATHEROSPE'RMEÆ, Or 139		
700	1073	Athrixia		1728
1024	1092	Atractóbolus		2416
686	1074	Atractylis		1670
288	1061	Atraphaxis		838
862	1061	A'triplex		2138
154	1078	A'tropa		446
442		Attar, n.		
	1078	Aubergines		
544	1057	Aubriètia		1399
784	1095	Aúcuba		1966
892	1081	Aúlax		2052
	1062	AURANTIA'CEÆ, Or 45		
196		Auricula	2031	359
58	1089	Avèna		171
454		Avens		1156
390	1061	Averrhòa		1086
520	1079	Avicénnia		1323
177		Avignon berries, n.		
588		Awlwort		1447
52	1089	Axónopus		140
772	1081	Axyris		1943
	1072	Ayapana of Brazil		
182	1060	Aytònia		587
144	1075	Azàlea		463
464		Azarole	7078	1132
42	1086	Babiàna		102
678	1074	[illegible]		1658
702	1074	Báccharis		1752
790	1088	Bàctris		1965
804	1068	Bæ'ckea		891
970	1092	Bæ'omyces		2350
176		Bahama red wood	2870	503
896	1090	Balántium		2190
504	1079	Ballòta		1285
508	1079	Balm		1278
	1064	Balm of Acouchi		
804		Balm of Gilead fir	13596	2013
184		Balsam		538
808		Balsam apple	13585	2080
	1061	BALSAMI'NEÆ, Or 41		
686	1073	Balsamita		1718
350	1066	Balsam of Capevi		986
[illegible]	1064	Balsam of Mecca, n.		
	1065	Balsam of Peru		
	1064	Balsam of Tolu		
[illegible]		Balsam-tree		2151
[illegible]	1079	Baltimòra		1893
256		Bamboo-cane		752
256	1089	Bambùsa		752
[illegible]		Banana-tree	4086	721
[illegible]		[illegible], n.		
100		[illegible]	1763	298
460		Bane-berry	7640	1164
	1083	Bang		
932	1091	Bángia		[illegible]
380	1081	Banisteria		[illegible]
86	1081	Bánksia		[illegible]
872		Banyan tree	14450	2167
342	1065	Baptísia		967
846		Barbadoes cedar	14069	2115
380		Barbadoes cherry		[illegible]
414		Barbadoes gooseberry	[illegible]	[illegible]
[illegible]		Barbadoes lily	[illegible]	[illegible]
540	1057	Barbarèa		[illegible]
[illegible]		Barberry		[illegible]
[illegible]		Barilla, n.		
576	1079	Barlèria		[illegible]
79	[illegible]	Barley		[illegible]
75		Barley sugar, n.		
100		Barren-wort		[illegible]
[illegible]	1068	Barringtònia		[illegible]
752	1086	Barthòlina		[illegible]
414	1069	Bartònia		1113
908	1091	Bartràmia		[illegible]
594	1078	Bártsia		[illegible]
180	1068	Baryósma		519
238	1061	Basélla		[illegible]
400		Base-rocket	6678	[illegible]
510		Basil		[illegible]
892		Basket osier	13733	2049
894	1076	Bássia		1074
190		Bastard alkanet, n.		
510		Bastard balm		1280
604		Bastard cabbage-tree		1517
182 880		Bastard cedar	531	1608
332		Bastard cinnamon	5641	934
[illegible]		Bastard hare's-ear		617
616		Bastard indigo		1545
[illegible]		Bastard lupine		1549
[illegible]		Bastard manchineel		417
819		Bastard orpine		2025
96		Bastard pimpernel		277
426		Bastard quince	7104	1135
194		Bastard toadflax		569
20		Bastard vervain		54
636		Bastard vetch		1592
2410	1092	Batárrea		[illegible]
932	1091	Batrachospérmum		[illegible]
120	1078	Bátschia		381
470	1070	Bauèra		1199
348	1067	Bauhinia		970
216		Bawd money		653
831		Bayberry-bush, n.		
332	1081	Bay-tree	[illegible]	934
362		Bead-tree		988
425		Beam tree, n.		
622	1065	Bean	10420	1561
352		Bean-caper		[illegible]
348		Bean trefoil		963
360		Bear-berry	[illegible]	1019
140		Bear-bind		387
516		Bear's breech		1301
128		Bear's-ear sanicle		381
466		Bear's foot	8085	1237
652	1068	Beaufórtia		1612
479		Beaver tree, n.		
66	1080	Beckmánnia		122
92		Bed-straw		286
792		Beech		1996
906	1081	Beet		612
780	1081	Begònia		1989
	1081	BEGONIA'CEÆ, Or 128.		
394	1075	Bejària		1076
808	1064	Bèlis		2010
252		Belladonna lily	4255	739
540		Belleisle cress	[illegible]	[illegible]
162		Bell-flower		463
718	1074	Béllis		1756
718	1074	Béllium		1757
466		Bengal quince		1196
396		Benjamin-tree	5656	934
56		Bent-grass		156
383	1068	Benzoin, n.		
684	1074	Berárdia		1667
	1056	Berberídeæ, Or 6.		
286	1055	Bérberis		[illegible]
286		Berberry		[illegible]
732	1073	Berckhèya		1810
846		Bermudas cedar	14060	2113
544	1057	Bertèroa		1396
534	1078	Beslèria		1376

Lin.	Nat.		Sp.	Gen.
398		Becuma, n.		
206	1061	*Beta*		612
98		Betle-nut	807	77
502	1079	*Betónica*		1292
502		Betony		1292
780	1083	*Bétula*		1958
692	1074	Bidens		1697
514	1077	*Bignonia*		1304
	1077	*Bignoniàceæ*, Or 104		
380		Bilberry	5497	907
192		*Billardièra*		515
195		Bindweed		535
394	1061	*Biophytum*		1086
780	1083	Birch		1958
830		Bird-lime, n.		
160		Bird-pepper	2591	455
196		Bird's-eye	3023	530
628		Bird's-foot		1578
646		Bird's-foot trefoil		1601
766		Birthwort		1932
546	1057	*Biscutélla*		1413
638	1066	*Biserrula*		1595
396		Bistort	5595	991
	1067	Bitter almond		
618		Bitter vetch		1557
454	1059	*Bixa*		1178
	1059	*Bixìneæ*, Or. 18.		
372		Bladder tree, n.		
904		Black ash, n.		
858		Black bryony		2082
942		Black nonesuch, n.		
56		Black quitch, n.		
194		Black saltwort		567
476		Black snakeroot	7877	1297
406	1064	*Blackwéllia*		1108
586		Bladder ketmia	9850	1480
226		Bladder-nut		684
626		Bladder senna		1578
98	1075	*Blæ'ria*		284
394	1068	*Blàkea*		1075
260	1066	*Blandfórdia*		768
320		Blaeberry	5502	907
890	1090	*Bléchnum*		2183
518	1079	*Blèchum*		1306
736		Blessed thistle	12597	1819
768	1085	*Blètia*		1911
302	1060	*Blighia*		885
1041		Blight, n.		
8	1081	*Blìtum*		28
948		Blood-flower		731
460		Blood-wort	7851	1165
734		Blue-bottle	12549	1819
320		Blue tangles	5497	907
320		Bluets q.	5504	907
592		Baobab, n.		
392	1056	*Boccònia*		1073
718	1074	*Bœbèra*		1789
782	1083	*Bœhmèria*		1960
154	1075	*Bœobòtrys*		443
6	1080	*Boerhaàvia*		18
130		Bog bean, n.		
48		Bog rush		119
1008	1092	*Bolètus*		2573
722	1074	*Boltònia*		1772
	1059	*Bombàceæ*, Or. 91.		
592	1059	*Bómbax*		[illegible]
322		Bonace bark	5092	[illegible]
949		Bonana bird's [illegible]		
942	1091	*Bonnemaisònia*		2616
524	1079	*Bóntia*		1324
124		Borage		340
	1077	*Boragìneæ*, Or 102.		
122	1078	*Boràgo*		340
836	1098	*Borássus*		7079
606	1066	*Borbònia*		1526
674	1073	*Borkhausènia*		1637
302	1063	*Borònia*		878
964	1092	*Borrèra*		2342
896	1082	*Bórya*		2044
206	1081	*Bòsea*		613
608	1066	*Bossiæ'a*		1531
838		Botany-bay tea	13234	2081
886	1090	*Botrýchium*		2205
1040	1093	*Bótrytis*		2481
846		Bourbon palm		2870
192	1078	*Bourrèria*		521
98	1072	*Bouvárdia*		287
1034	1093	*Bovista*		2446
464		Bowls, n.		

Lin.	Nat.		Sp.	Gen.
868		Box elder		2144
156		Box thorn		450
780		Box-tree		1957
894	1081	*Brabèjum*		2149
64	1089	*Brachypòdium*		155
342	1066	*Brachysèma*		953
202	1077	*Brachystélma*		597
892		Brake		2189
430		Bramble		1142
380		Brasiletto		[illegible]
768	1085	*Brassávola*		[illegible]
738	1085	*Brássia*		[illegible]
552	1057	*Brássica*		1435
540	1057	*Bràya*		1397
359	1064	Brazil-wood, n.		
770	1083	Bread fruit		1935
870		Bread nut		2159
640		Bread-root	10788	1597
144	1093	*Bréxia*		405
895	1092	*Bridèlia*		2146
705		British [illegible], n.		
68	1089	*Briza*		193
216		Broad-weed		630
555		Brocoli		
44 972	1086	*Brodiæ'a*		118 792
64		Brome-grass		185
246	1087	*Bromèlia*		726
	1086	*Bromeliàceæ*, Or. 163.		
64	1089	*Brómus*		184
16		Brooklime	234	40
108		Brookweed		431
610	1064	Broom rape		1535
870	1083	*Brosimum*		2158
184	1076	*Brossæ'a*		536
746	1074	*Brotèra*		1852
760	1085	*Broughtònia*		1905
832	1083	*Broussonètia*		2059
532	1078	*Browállia*		1360
580	1067	*Brownèa*		1464
418		Brown gum-tree	6966	1196
832	1064	*Brùcea*		2061
134	1078	*Brugmánsia*		377
184	1063	*Brùnia*		536
	1063	*Bruniàceæ*, Or. 55.		
390	1081	*Brunnìchia*		1059
534	1078	*Brunsfélsia*		1374
250	1086	*Brunsvìgia*		737
810	1069	*Bryònia*		2024
810		Bryony		2024
338	1070	*Bryophýllum*		928
940	1091	*Bryópsis*		2306
998	1091	*Brýum*		2940
214	1071	*Bùbon*		640
650	1060	*Bubròma*		1608
532	1078	*Buchnèra*		1369
364	1062	*Bùcida*		1032
130		Buck bean		362
546		Buckler mustard		1413
168		Buck's-horn	2740	464
176		Buckthorn		503
396	1081	Buckwheat	5602	921
362		Buckwheat-tree		1021
98	1078	*Búddlea*		279
642		Buffalo clover	10808	1600
104	1059	*Bufònia*		311
494		Bugle		1942
120		Bugloss		335
476		Bugwort		1214
290	1086	*Bulbìne*		807
936	1091	*Bulbochæ'te*		2298
270	1087	*Bulbocòdium*		784
1018	1092	*Bulgària*		2392
402		Bullace-tree	7046	1129
176		Bull-grape	2953	501
64	1089	Bull-rush	976	146
150		Bully-tree, n.		
204	1063	*Bumèlia*		606
146	1076	*Bumálda*		423
558	1057	*Bùnias*		1444
213	1071	*Bùnium*		631
244	1087	*Buonapártea*		723
728	1075	*Buphthálmum*		1792
219	1070	*Buplèurum*		657
56		Bur	914	134
102	1072	*Burchéllia*		459
699		Burdock		1660
904		Burgundy pitch, n.		
796		Burnet		1990
212		Burnet saxifrage		626
210		Bur parsley		625

Lin.	Nat.		Sp.	Gen.
776		Bur reed		1949
162		*Bursària*		480
878	1064	*Burséra*		2104
344	1066	*Burtònia*		965
846		Butcher's broom		2111
840		Butcher's trays, n.		
606	1066	*Bùtea*		1522
	1087	*Butòmeæ*, Or. 185.		
336	1087	*Bùtomus*		920
500		Butter and eggs	4065	711
726		Butter bur	11891	1737
467		Buttercups, n.		
467		Butter-flower, n.		
759		Butterfly-plant	12912	1895
784		Butter nut	13377	1996
	1076	Button-[illegible]		
38		Butterwort		88
182	1060	*Buttnèria*		528
354		Button flower		1001
158		Button-tree		444
96		Button-weed		270
96		Button-wood		275
906	1091	*Buxbaùmia*		2235
780	1083	*Bùxus*		1957
930	1091	*Byssocládium*		2278
390	1079	*Bystropògon*		1259
	1069	*Byttneriàceæ*, Or. 25		
398		Cabbalet, n.		
552	1057	Cabbage		1432
800		Cabbage-tree		2009
692	1074	*Cacàlia*		1761
	1085	Cachou		
224	1071	*Cáchrys*		677
	1069	*Cácti*, Or. 72.		
410	1069	*Cáctus*		1111
350	1067	*Càdia*		982
620	1073	*Cæléstina*		1668
350	1067	*Cæsalpìnia*		978
250	1086	*Cæ'sia*		812
694	1074	*Cæsùlia*		1712
	1065	Cajan		
	1068	Cajeputi-oil		
652		Cajeputi-tree	10938	1610
548	1057	*Cakìle*		1417
524		Calabash-tree		1336
798	1089	*Caladium*		2005
508		Calamint		1277
508	1079	*Calamintha*		1277
256	1086	*Cálamus*		763
764	1085	*Calánthe*		1896
2	1085	*Calathèa*		3
202		Calathian violet	3306	600
18	1078	*Calceolària*		51
148 521	1079	*Callicàrpa*		422 1384
694	1074	*Càlea*		1907
696	1070	*Caleácte*		1716
756	1084	*Calèana*		1881
740	1074	*Caléndula*		1830
556	1057	*Calepìna*		1441
954	1092	*Calicium*		2333
356		Calico-bush	5015	1011
298	1089	*Càlla*		869
96	1079	*Callicárpa*		272
308	1070	*Callicòma*		1099
406	1081	*Callìgonum*		1106
36	1067	*Callìsia*		87
342	1068	*Callistachys*		959
8	1089	*Callìtriche*		27
1018	1092	*Calòcera*		2390
182	1065	*Calodéndrum*		523
466	1061	*Calophýllum*		1189
756	1084	*Calopògon*		1878
242	1066	*Calostémma*		715
654	1068	*Calothámnus*		1612
932	1091	*Cálothrix*		2286
714	1074	*Calòtis*		1742
198	1077	*Calòtropis*		564
460	1064	*Càltha*		1239
354		Caltrops		996
	1083	*Calycánthæ*, Or 159		
464	1083	*Calycánthus*		1157
	1072	*Calycèreæ*, Or 88.		
	1083	*Calyciflòræ*, Subc 2.		
36	1060	*Calymènia*		81
764	1085	*Calypso*		1899
418	1068	*Calyptránthes*		1192
140	1077	*Calystègia*		397
760	1085	*Camarídium*		1903
550	1057	*Camelìna*		1428
592	1062	*Camèllia*		1476

Lin.	Nat.		Sp.	Gen.
	1066	Camelliæ, Or. 47.		
148	1077	Cameraria		417
162	1075	Campanula		468
	1075	CAMPANULACEÆ, Or. 90.		
392	1081	Camphire-tree	5843	994
338	1081	Camphor, n.		
88	1091	Camphorosma		234
372		Campion		1047
782		Canada rice	16618	1979
298	1075	Canarina		334
58		Canary-grass		168
888		Candleberry myrtle		2035
218		Candy-carrot	[illegible]	654
546	1057	Candy-tuft		1432
74		Cane-brake		219
894	1081	Canella		1085
2	1085	Canna		1
834	1083	Cannabis		2073
	1085	CANNEÆ, Or. 152.		
164		Canterbury bells	2675	463
1006	1092	Cantharellus		2368
172	1072	*Canthium*		482
142	1077	*Cantua*		389
	1082	Caoutchouc		
172		Cape jasmine	2896	467
296		Cape phillyrea	3817	682
402	1058	Caper	6748	1162
458		Caper-tree		1162
	1058	CAPPARIDEÆ, Or. 14.		
458	1058	*Capparis*		1162
532	1078	Capraria		1368
	1071	CAPRIFOLIACEÆ, Or. 82.		
170	1071	*Caprifolium*		474
546	1057	Capsella		1409
160	1078	Capsicum		453
626	1066	*Caragana*		1569
302		*Carallùma*		808
218		Caraway		655
542	1057	Cardamine		1392
4	1085	Cardamom	48	8
166		Cardinal-flower	2715	464
328	1060	Cardiospermum		925
684	1072	Cardoon	11468	1658
686	1074	Cardopatum		1676
680	1074	Carduus		1663
774	1089	Carex		1947
506	1068	Careya		1499
848	1069	Carica		2096
152	1077	*Carissa*		438
694	1074	Carlina		1669
694		Carline thistle		1669
798	1087	Carludovica		2004
372		Carnation	6164	1046
864		Carob-tree		2156
688		Carolina vanilla plant, n.		
582	1059	Carolinea		1490
702	1078	Carpesium		1731
792	1083	Carpinus		1986
626	1066	Carpopogon		1549
556	1057	*Carrichtera*		1436
210	1070	Carrot		625
460		Carthagenian apple, n.		
686	1074	*Carthamus*		1675
36	1087	Cartonema		80
218	1070	Carum		655
	1059	CARYOPHYLLEÆ, Or. 20.		
416	1068	Caryophyllus		1190
800	1088	Caryota		2007
813		Cascarilla-bark, n.		
354	1064	Cashew nut		935
814	1082	Cassava	13049	2093
368	1067	*Cassia*		874
355		Cassia-buds, n.		
926	1063	*Cassine*		582
744	1073	Cassinia		1846
294		Cassioberry-bush	3766	679
534	1081	*Cassytha*		938
792	1083	*Castanea*		1984
534	1078	Castilleja		1337
814		Castor-oil plant	13658	2094
772	1083	Casuarina		1996
	1083	CASUARINEÆ, Or. 144.		
28	1077	*Catalpa*		64
678	1073	Catananche		1625
756	1085	Catasetum		1889
374		Catchfly		1048
83		Catch-weed, n.		
850		Catechu, n.		
698		Caterpillar		1579
100	1072	Catesbæa		289
380	1067	Cathartocarpus		875
490		Cat-mint		1549
854		Cat's-claw mimosa, n.		
576		Cat's-ear		1650
774		Cat's-tail		1946
58		Cat's-tail grass		165
494		Cat thyme	8109	1546
766	1085	Cattleya		1906
210	1071	*Caucalis*		[illegible]
555		Cauliflower		
928	1055	Caulophyllum		886
161		Cayenne butter, n.		
161		Cayenne pepper, n.		
176	1068	*Ceanothus*		510
896	1063	Cecropia		2048
806		Cedar of Goa	13544	2016
806		Cedar of Lebanon	13667	2014
182	1062	Cedrela		581
	1062	CEDRELEÆ, Or. 44.		
460		Celandine		1167
	1063	CELASTRINEÆ, Or. 53.		
176	1063	*Celastrus*		507
217		Celeriac, n.		
216	1070	Celery	3618	651
	1090	CELLULARES, Div. 2.		
192	1080	Celosia		565
574	1078	Celsia		1876
864	1083	Celtis		2145
1026	1092	Cenangium		2394
52	1089	*Cenchrus*		124
792	1073	Cenia		1774
966	1092	Cenomyce		2349
734	1074	*Centaurea*		1819
734		Centaury		1819
6	1072	Centranthus		20
794	1074	Centrospermum		1777
96	1080	Centunculus		271
174	1072	Cephaelis		497
96	1072	Cephalanthus		278
90	1072	Cephalaria		263
680	1074	Cephalophora		1680
936	1091	Ceramium		2306
388	1059	Cerastium		[illegible]
1036	1093	Ceratium		2465
772	1081	Ceratocarpus		1937
234	1054	Ceratocephalus		708
66	1089	Ceratochloa		189
868	1067	Ceratonia		2156
790	1083	Ceratophyllum		1986
148	1077	Cerbera		420
346	1067	*Cercis*		868
410		Cereuses, n.		
122	1078	*Cerinthe*		339
198	1077	Ceropegia		598
164	1078	*Cestrum*		446
878	1090	*Ceterach*		2174
964	1092	Cetraria		2343
208	1071	*Chærophyllum*		621
716	1074	Chætanthera		1748
928	1091	Chætophora		2271
958	1091	Chætospora		2298
54	1089	Chæturus		152
836	1088	Chamædorea		2078
144	1075	Chamælèdon		404
808	1088	*Chamærops*		2154
754	1085	Chamorchis		1867
724	1072	Chamomile		1778
1004		Champignon, n.		
1086		Chantarell		2368
740	1073	Chaptalia		1829
936	1091	Chara		2295
580	1079	Chaste-tree		1317
866		Chawstick	14304	2146
101		Chay-root, n.		
465		Cheese-colouring, n.		
[illegible]		Cheese rennet	1604	976
884	1090	Cheilanthes		2195
536	1057	Cheiranthus		1389
460	1056	Chelidonium		1167
516	1078	Chelone		1388
192	1081	Chenolea		558
	1080	CHENOPODEÆ, Or. 126.		
206	1081	Chenopodium		611
460	1066	Cherimoyer	7921	1290
360	1059	Cherleria		1051
492		Cherry		1129
160		Cherry pepper	2296	453
208	1070	Chervil		621
792	1083	Chestnut		1984
634	1065	Chick pea		1584
76 989		Chickweed		294 836
58	1089	Chilochloa		167
382	1075	Chimaphila		1028
434	1083	Chimonanthus		1182
556		China rose	9819	1480
428		Chinese cherry, n.		
172	1072	Chiococca		480
38	1076	Chionanthus		24
[illegible]		Chio turpentine, n.		
190	1077	Chironia		[illegible]
374		Chives	4688	796
[illegible]	1088	Chlidanthus		[illegible]
886	1077	Chlora		[illegible]
1084		CHLORANTHEÆ, Or. 145.		
2	1084	Chloranthus		25
880	1089	Chloris		2195
250	1086	Chlorophytum		891
450		Chocolate nut		1687
96	1072	*Chomelia*		285
942	1091	Chondria		2316
670	1073	Chondrilla		1629
944	1091	Chordaria		2319
548	1057	Chorispora		1419
342	1066	Chorozema		949
960	1091	Chroolepus		2375
798		Christmas daisies, n.		
488		Christmas rose	8080	1387
178		Christ's thorn		505
728	1073	Chrysanthellum		1766
720	1073	*Chrysanthemum*		1769
242	1086	Chrysiphiala		717
494	1067	Chrysobalanus		1180
694	1074	*Chrysocoma*		1705
740	1074	*Chrysogonum*		1827
130	1076	Chrysophyllum		494
386	1070	Chrysosplenium		1040
60	1089	Chrysurus		176
782	1082	Cicca		1958
626	1066	*Cicer*		1584
678	1073	Cichorium		1637
216	1071	Cicuta		648
476	1055	Cimicifuga		1307
904	1091	Cinclidotus		2257
712	1074	Cineraria		1741
66	1089	*Cinna*		161
332	1081	Cinnamon	5646	984
452		Cinquefoil		1158
96	1069	*Circæa*		71
848	1066	Cissampelos		2116
102	1061	*Cissus*		305
	1058	CISTINEÆ, Or. 19.		
468	1058	Cistus		1197
358		Cistus Ladanum, n.		
580	1079	Citharexylum		1329
654		Citron	10979	1615
652	1062	*Citrus*		1615
26	1089	Cladium		74
1038	1093	Cladosporium		2472
920	1091	Cladostaphus		2303
151		Clammy cherry, n.		
24		Clary	438	62
1012	1092	Clavaria		2379
146	1075	Clavija		409
184	1069	Claytonia		837
152		Clearing nut	2447	437
94		Cleavers	1620	268
492	1054	*Clematis*		1297
[illegible]	1058	Cleome		1446
512	1079	Cleonia		1287
520	1079	Clerodendrum		1325
362	1075	*Clethra*		1080
844	1067	Cliffortia		2165
506	1079	*Clinopodium*		1272
618	1066	Clitoria		1558
482		Cloud-berry	7563	1149
372	1068	Clove	6164	1046
642		Clover	10802	1600
416		Clove-tree		1190
504		Clown's all-heal	8806	1263
58		Club grass		169
892		Club moss		2292
48		Club rush		123
866	1061	Clusia		2151
850	1082	Cluytia		2092
544	1057	Clypeola		1402
26	1064	Cneorum		84
350	1064	Cnestis		1057
692	1074	Cnicus		1665
218	1070	Cnidium		658
792		Cob	13370	1984
373		Cob-pinks, n.		

Lin.	Nat.		Sp.	Gen.
148	1077	Cobæ'a		338
	1077	Cobæàceæ, Or. 105.		
772	1089	[illegible]		1906
168	1078	[illegible]		185
332	1081	[illegible]		[illegible]
844	1069	Cócculus		2101
459		Cochineal fig	[illegible]	1121
548	1057	Cochleària		1497
182	1080	Cock's-comb		638
88		Cock's-foot grass		180
851		Cocoa-nut, s.		
788		Cocoa-nut-tree		1963
484		Cocoa-plum		1130
786	1089	Cocos		1963
10	1067	Codiæum		30
940	1094	Còdium		2306
320		Codlins and cream	5477	903
254	1078	Códon		1000
786	1088	Cœlógyne		1897
170	1072	Coffea		679
170	1072	Coffee-tree		679
688		Cog-wood-tree	5844	266
776	1089	Coix		1951
476	1058	Colbértia		1211
292	1087	Cólchicum		851
106	1078	Coldènia		316
932	1092	Collèma		2358
36	1079	Collinsònia		63
944		Colombo-root, s.		
849	1068	Coloquintida gourd, s.		
	1068	Colocinth resin		
854		Colpoon		2141
298		Colpoon-tree		668
704		Colt's-foot		1738
476		Columbine		1209
	1055	Columbo-root		
788	1073	Columéllia		1788
538	1078	Colúmnea		1365
466	1067	Colùria		1160
626	1066	Colùtea		1537
452	1067	Cómarum		1152
	1068	Combretàceæ, Or. 64.		
394	1068	Combrètum		916
122		Comfrey		384
36	1087	Commelìna		88
	1087	Commelìneæ, Or. 167.		
282	1060	Commersònia		708
686		Common acacia	10460	1318
36	1064	Comocládia		85
	1072	Compósitæ, Or. 89.		
772	1083	Comptònia		1941
284	1086	Conanthèra		749
934	1091	Confèrva		2292
	1083	Coniferæ, Or. 145.		
216	1071	Conium		649
188	1068	Conocárpus		544
906	1091	Conóstomum		2282
88		Contrajerva root	1587	257
370	1086	Convallària		787
	1077	Convolvulàceæ, Or. 117		
140	1077	Convólvulus		384
762	1073	Conyza		1784
356	1062	Cookia		1006
351		Copaiba balsam, s.		
350	1067	Copaifera		985
1004	1092	Coprinus		2365
488	1059	Cóptis		1236
222		Coquimbo parsnep, s.		
756	1085	Corallorrhiza		1892
604	1064	Coral tree		1519
466	1060	Córchorus		1137
150	1078	Córdia		425
	1078	Cordiàceæ, Or. 109.		
732	1074	Coreópsis		1804
208		Coriander		618
208	1071	Coriándrum		618
482	1068	Corìaria		2091
	1063	Coriàrieæ, Or. [illegible]		
130	1080	Coris		360
8	1081	Corispermum		95
794		Cork-tree	13295	2009
480		[illegible]	7965	1230
102		[illegible]		
386		Corn cockle	[illegible]	1045
102		Cornelian cherry	1796	395
42		Corn flag		105
970	1092	Cornicularia		2356
532		Cornish moneywort	9867	1383

Lin.	Nat.		Sp.	Gen.
1072		Corn salad		
52	1089	Cornucopiæ		182
108	1071	Córnus		339
556	1079	[illegible]		[illegible]
	1073	Corolliflòræ, Subc. 2.		
556	1066	Corónilla		1598
256	1057	Corónopus		1447
588	1069	Corræ'a		898
338	1059	Corrigiola		[illegible]
186	1080	Cortùsa		[illegible]
620	1058	Corydalis		1368
788	1083	Córylus		1951
938	1092	[illegible]		2359
52	1089	Corynephorus		189
996	1088	Córypha		782
732	1074	Cósmos		1803
298	1060	[illegible]		821
696		Costmary		1718
4	1085	Cóstus		11
466	1067	Cotoneaster		1139
588		Cotton		1451
50		Cotton grass		125
742		Cotton rose		1828
684		Cotton thistle		1695
722	1073	Cótula		1772
396	1070	Cotylèdon		1069
70		Couch grass	1589	206
162	1072	Coutàrea		881
616		Cowage or cowitch		1591
216		Cowbane		648
332		Cowberry	5519	907
802		Cowdie pine	13001	2041
292		Cow parsnep		672
186	1080	Cowslip	2022	350
	1076	Cow tree of South America		
580		Cow wheat		1515
466		Cradles, s.		
556	1057	Crámbe		1448
320		Cranberry		906
578		Crane's bill		1463
290	1070	Crássula		689
464	1067	Cratæ'gus		1132
396	1058	Cratæ'va		1066
1034	1095	Craterium		2448
674	1073	Crèpis		1638
884	1078	Crescéntia		1336
552		Cress	9512	1468
556		Cress rocket		1437
1034	1095	Cribrària		2448
289	1086	Crìnum		736
588	1059	Cristària		1464
212	1071	Crithmum		633
36	1085	Crocus		93
518	1079	Crossándra		1307
94		Crosswort		271
608	1066	Crotalària		1530
812	1082	Cròton		2038
896		Crowberry		2045
354	1068	Crowea		999
496	1054	Crowfoot		1233
398		Crown of the field, s.		
94	1072	Crucianella		271
	1056	Crucíferæ, Or. 12.		
56	1089	Crypsis		165
760	1085	Cryptarrhèna		1909
874	1090	Cryptogàmia, Cl. 24.		
876	1090	C. Filìces, Or. 1.		
890	1090	C. Equisetàceæ, Or. 2.		
892	1090	C. Lycopodìneæ, Or. 3.		
894	1090	C. Marsileàceæ, Or. 4.		
894	1091	C. Músci, Or. 5.		
918	1091	C. Hepáticæ, Or. 6.		
924	1091	C. Algæ, Or. 7.		
946	1091	C. Lichènes, Or. 8.		
978	1092	C. Fúngi, Or. 9.		
1020	1092	[illegible]		2358
88	1079	Cryptospermum		251
1026	1092	[illegible]		2423
196	1077	Cryptostegia		575
734	1073	Cryptostemma		1814
480		Cubebs, s.		
794		Cuckold	13373	1098
836		Cuckold-tree	14,67	2197
487		Cuckoo buds of yellow hue, s.		
242		Cuckoo flower	9026	1392
372	1059	Cucubalus		1047
852	1068	Cucumber		2062
479		Cucumber-tree, s.		
852	1069	Cucumis		2062
856	1069	Cucurbita		2021
	1068	Cucurbitàceæ, Or. 66.		

Lin.	Nat.		Sp.	Gen.
1028	1092	Cucurbitària		[illegible]
980		Cudbear	14886	2360
298		[illegible]	7997	224
738	1073	Cullùmia		1699
786 216		Cumin		[illegible] [illegible]
214	1071	Cumìnum		[illegible]
50	1079	Cunìla		[illegible]
[illegible]	1070	Cunònia		[illegible]
	1070	Cunoniàceæ, Or. 77.		
[illegible]	1062	Cupània		[illegible]
[illegible]	1083	Cupréssus		[illegible]
578	1065	Curatella		1391
[illegible]	1085	Curculigo		751
4	1085	Curcuma		14
190	1069	Currant		[illegible]
190	1065	Curtisia		300
104	1077	Cuscuta		316
204	1070	Cuspària		997
480		Custard apple		1230
288	1086	Cyanella		824
886	1090	Cyathea		2281
	1084	Cycadeæ, Or. 148.		
946	1084	Cycas		2,07
128	1080	Cyclamen		354
349	1066	Cyclopia		946
466	1067	Cydònia		1138
1048	1093	Cylindrosporium		[illegible]
878	1086	Cyllsta		1586
534	1078	Cymbària		1379
786	1085	Cymbidium		1886
196	1077	Cynánchum		581
684	1074	Cynara		1688
62	1089	Cynodon		203
132	1078	Cynoglòssum		336
348	1067	Cynomètra		973
62	1089	Cynosùrus		178
	1089	Cyperàceæ, Or. 175.		
40	1089	Cypèrus		127
156	1076	Cyphia		546
808		Cypress		2017
800		Cypress powder, s.		
833		Cypress turpentine, s.		
766	1085	Cypripèdium		1931
184	1075	Cyrilla		596
280	1086	Cyrtánthus		736
758	1085	Cyrtopòdium		1886
600	1056	Cysticápnos		1503
965	1091	Cystoseira		2329
1030	1093	Cytispòra		2429
624	1066	Cytisus		1557
1020	1092	Dacrymyces		2390
62	1089	Dáctylis		180
68	1089	Dactyloctènium		201
1005	1092	Dædàlea		2371
196	1077	Dæ'mia		580
242		Daffodil	4040	711
718	1074	Dáhlia		1758
364	1062	Dàis		1082
718		Daisy		1756
624	1067	Dalbérgia		1513
628	1066	Dàlea		1596
814	1083	Dalechámpia		2089
452	1067	Dalibárda		1150
912	1091	Daltònia		2246
294	1064	Damasònium		859
802		Dammar pine		2011
168	1075	Dampièra		470
670		Dandelion		1631
60	1089	Danthònia		177
328	1082	Daphne		910
70		Darnel		207
826		Date palm		2049
870		Date plum		2139
844	1068	Datìsca		2099
154	1078	Datùra		376
210	1071	Daùcus		625
884	1090	Davállia		2108
346	1066	Daviésia		966
260		Day lily		769
214		Deadly carrot		643
154		Deadly nightshade	2479	446
502		Dead nettle		1261
808		Deal wood, s.		
338		Decándria, Cl. 10.		
340		D. Monogýnia, Or. 1.		
364		D. Digýnia, Or. 2.		
378		D. Trigýnia, Or. 3.		
380		D. Pentagýnia, Or. 4.		
390		D. Decagýnia, Or. 5.		
806		Deciduous cypress	13838	2015

Lin.	Nat.		Sp.	Gen.
394	1058	Decumària		1062
192	1080	Deeringia		585
944	1091	Delessèria		2317
472	1054	Delphinium		1394
1038	1093	Demàtium		2471
758	1085	Dendròbium		1890
548	1057	Dentària		[illegible]
162	1072	Dentélla		466
358	1067	Desmánthus		2196
926	1081	Desmidium		2368
192	1089	Desmochæ'ta		456
90		Devil's bit	1563	298
480		Dewberry	7530	1140
598		Diadе'lphia, Cl. 17.		
600		D Penta'ndria, Or 1.		
600		D Hexa'ndria, Or 2.		
602		D. Octa'ndria, Or. 3.		
604		D Deca'ndria, Or. 4.		
8		Dia'ndria, Cl. 2.		
10		D Monogy'nia, Or. 1.		
28		D. Digy'nia, Or 2.		
28		D. Trigy'nia, Or. 3.		
292	1086	Dianélla		514
370	1059	Diánthus		1046
130	1077	Diapénsia		358
74	1089	Diarrhèna		218
996	1091	Diátoma		2359
	1054	Dichlamy'deæ, Subd. 1		
204	1077	Dichóndra		603
290	1087	Dichorisándra		765
1036	1093	Dichospòrium		2458
884	1090	Dicksònia		2197
18	1079	Diclìptera		48
600	1056	Dielytra		1504
	1054	Dicotyle'dones, Cl 1		
902	1091	Dicrànum		2225
354	1063	Dictámnus		987
1034	1093	Dictydium		2449
792	1074	Didélta		1811
1034	1093	Didérma		2453
904	1091	Didymodon		2230
490		Didyna'mia, Cl 14.		
494		D Gymnosperm'ia, Or 1		
512		D Angiospe'rmia, Or 2.		
170	1071	Diervilla		477
530	1078	Digitàlis		1355
52	1089	Digitària		143
44	1085	Dilàtris		113
218		Dill		654
478	1055	Dillènia		1914
	1055	Dilleniàceæ, Or. 2		
344	1065	Dillwynia		980
302	1060	Dimocárpus		883
68	1089	Dinèbra		204
816		Diœ'cia, Cl 22.		
820		D. Mona'ndria, Or 1.		
830		D. Dia'ndria, Or 2.		
826		D Tria'ndria, Or 3.		
828		D. Tetra'ndria, Or. 4		
832		D Penta'ndria, Or. 5		
836		D. Hexa'ndria, Or. 6.		
840		D Octa'ndria, Or 7.		
840		D Ennea'ndria, Or. 8.		
842		D Deca'ndria, Or. 9.		
842		D Dodeca'ndria, Or 10.		
844		D Icosa'ndria, Or 11		
844		D. Polya'ndria, Or. 12.		
846		D. Monade'lphia, Or 13.		
356	1058	Dionæ'a		1009
838	1086	Dioscòrea		[illegible]
	1086	Dioscorèæ, Or. 158		
180	1063	Diósma		517
870	1076	Diospyros		2159
784	1081	Dipidax		1964
286	1055	Diphylleia		827
908	1091	Diphyscium		2235
64	1089	Diplàchne		132
882	1090	Diplàzium		2190
554	1057	Diplotáxis		1435
	1072	Dipsa'ceæ, Or. 87		
90	1072	Dípsacus		262
604	1067	Dipterix		1518
586	1083	Dirca		911
750	1085	Disa		1865
296	1078	Disándra		963
196	1077	Dischídia		585
466		Dishes, s.		
687		Distaff thistle, s.		
1018	1092	Dittiola		2393
506		Dittany of Crete	8398	1274
764	1084	Diùris		1871
292		Dock		858
532	1078	Dodártia		1585
194		Dodder		310
398		Dodeca'ndria, Cl. 11.		
398		D Monogy'nia, Or. 1.		
398		D. Digy'nia, Or. 2.		
398		D. Trigy'nia, Or. 3.		
406		D. Tetragy'nia, Or. 4.		
406		D. Pentagy'nia, Or. 5.		
406		D. Dodecagy'nia, Or. 6.		
128	1080	Dodecàtheon		358
516	1060	Dodonæ'a		897
219		Dog-parsley, s.		
194		Dog's-bane		572
792		Dog's-cabbage	13360	1993
62		Dog's-tail grass		178
270		Dog's-tooth violet		782
102	1071	Dogwood		306
616	1066	Dólichos		1580
580	1060	Dombèya		1467
814	1070	Dóndia		637
880	1090	Doódia		2185
716	1074	Dorónicum		1751
88	1083	Dorstènia		275
254	1086	Doryánthes		745
644	1066	Dorycnium		1604
1050	1093	Dothidèa		2431
580		Down, s.		
544	1057	Dràba		1405
266	1086	Dracæ'na		774
510	1079	Dracocéphalum		1979
298	1089	Dracóntium		868
298		Dragon		86
	1065	Dragon's blood		
510		Dragon's head		1979
266		Dragon-tree		774
932	1091	Draparnáldia		2284
282	1086	Drimia		817
428		Dropwort	7147	1141
292	1058	Drósera		708
	1058	Drosera'ceæ, Or. 17		
88	1081	Dryándra		948
454	1067	Dryas		1159
228	1059	Drypis		687
1006	1092	Dry rot		2369
460		Duck's-foot		1166
772		Duck-weed		1859
942		Dulse		2315
798	1089	Dumb cane	13451	2005
690	1074	Dumerília		1686
71		Dunstable straw, s.		
522	1069	Duránta		1380
208		Dutch elm, s.		
426		Dutch medlar, s.		
380		Dutch pink, s.		
890	1090	Dutch rush	14691	2211
868		Dwarf fan-palm	14319	2154
398		Dyer's-weed	6668	1102
630		Earth pea	10581	1568
1022		Earth tongue		2381
372 614		Earth-nut		631 1563
	1067	Eau médicinale		
	1076	Ebena'ceæ, Or. 92.		
326		Easter giant, s.		85
	1076	Ebony		
604	1067	Ecastaphyllum		1516
88	1089	Echinària		205
926	1091	Echinélla		2366
54	1089	Echinochlòa		144
210	1070	Echinóphora		686
746	1074	Echinops		1850
120	1078	Echinospérmum		327
156	1071	Echites		413
194	1078	E'chium		345
728	1074	Eclipta		1786
938	1091	Ectocárpus		2301
346	1066	Edwárdsia		940
160		Egg-plant	2566	451
462		Egyptian lotus	7691	1174
162	1078	Ehrètia		480
168	1089	Ehrhárta		754
352	1062	Ekebérgia		991
	1082	Elæa'gneæ, Or. 134.		
90	1082	Elæágnus		249
	1060	Elæoca'rpeæ, Or. 28.		
180	1068	Elæocárpus		1192
67	1063	Elæodéndrum		105
636	1088	Elàis		2077
700	1088	E'late		[illegible]
323	1059	Elatine		981
291	1071	Elder		[illegible]
714		Elecampane	18147	1746
898	1087	Elegia		[illegible]
46	1069	Eleocharis		[illegible]
698		Elephant-apple		[illegible]
744	1074	Elephantopus		[illegible]
744		Elephant's-foot		[illegible]
698		Elephant's-foot, or Hottentot's bread		[illegible]
68	1089	Eleusine		[illegible]
760	1073	Elichrysum		[illegible]
152	1078	Ellisia		492
880	1090	Ellobocarpus		2181
208	1083	Elm-tree		675
498	1079	Elsholtzia		[illegible]
72	1089	E'lymus		[illegible]
18	1079	Elytraria		[illegible]
	1083	Empetre'æ, Or. 140.		
926	1083	Empetrum		[illegible]
794	1063	Empleurum		[illegible]
900	1091	Encalypta		2232
782	1074	Encelia		[illegible]
26		Enchanter's nightshade		71
944	1091	Encœ'lium		[illegible]
678	1072	Endive	11388	1687
955	1092	Endocárpon		[illegible]
206		English mercury	3414	621
360	1075	Enkiánthus		1047
332		Ennea'ndria, Cl. 9.		
332		E. Monogy'nia, Or. 1.		
334		E. Trigy'nia, Or. 2.		
336		E. Hexagy'nia, Or. 3.		
464	1060	Entelèa		1183
142		Epàcris		393
848	1083	Ephèdra		2115
760	1085	Epidéndrum		[illegible]
858	1075	Epigæ'a		1016
318	1069	Epilobium		909
160	1055	Epimèdium		297
756	1084	Epipáctis		1890
890	1090	Equisètum		2211
68	1089	Eragróstis		197
18	1079	Eránthemum		49
498	1054	Eránthis		236
278	1086	Eremùrus		806
1022	1092	Ergot		2407
762	1085	E'ria		1912
304	1075	Erica		868
	1075	Eri'ceæ, Or 94.		
704	1074	Erigeron		1736
1040	1093	Erineum		2437
588	1078	Erinus		1560
426	1067	Eriobótrya		1137
	1087	Eriocau'leæ, Or. 161.		
76	1087	Eriocaulon		223
742	1073	Eriocéphalus		1837
334	1081	Eriógonum		937
80	1089	Erióphorum		125
276	1086	Eriospérmum		800
174	1072	Eríthalis		493
180	1079	Ernòdea		291
568	1061	Eròdium		1460
544	1087	Eriphia		1405
588	1057	Erùca		1436
558	1057	Erucària		1445
694	1066	Ervilia		1569
694	1066	E'rvum		1562
210	1070	Erýngium		682
210		Eryngo		682
1022	1092	Erysibe		2406
560	1057	Erýsimum		1424
130	1077	Erythræ'a		366
664	1066	Erythrina		1521
270	1087	Erythrónium		782
501		Essence of peppermint, s.		
442		Essential oil of roses, s.		
388		Essential salt of lemons, s.		
[illegible]	[illegible]	Ethùlia		1705
[illegible]	[illegible]	Eucalyptus		1196
[illegible]	[illegible]	Euchilus		[illegible]
[illegible]	[illegible]	Euclea		2088
[illegible]	1087	Euclidium		1414
[illegible]	1086	Eucomis		791
[illegible]	1086	Eucrosia		713
[illegible]	1068	Eugènia		1249
762	1085	Eulóphia		[illegible]
176	1063	Euónymus		509

Lin.	Nat.		Sp	Gen.
[illegible]	1073	Eupatorium		1685
[illegible]	1063	Euphorbia		2303
	1063	*Euphorbiàceæ*, Or.		126.
[illegible]	1079	Euphrasia		[illegible]
[illegible]	[illegible]	Eurotium		[illegible]
794	1062	Eurya		[illegible]
[illegible]	[illegible]	Euryale		1177
[illegible]	[illegible]	Eurycles		714
[illegible]	1077	[illegible]		[illegible]
[illegible]	[illegible]	Eustrephus		915
344	1063	[illegible]		[illegible]
[illegible]	1075	Eutaxia		[illegible]
746	1074	Euxenia		[illegible]
700	1073	Evax		1734
40		Evening flower		[illegible]
696		Everlasting		[illegible]
[illegible]	1092	Evernia		[illegible]
[illegible]	1077	Evolvulus		[illegible]
98	1077	*Exacum*		390
860	1083	Excoecaria		2147
1080	1093	Exidia		[illegible]
769	1094	Exocarpus		1870
1048		Exosporium		[illegible]
162	1072	Exostemma		459
[illegible]		Eye-bright		1567
414	1069	Fabricia		1118
102	1063	*Fagara*		375
[illegible]	1062	*Fagonia*		[illegible]
792	1083	*Fagus*		[illegible]
991		Fairy rings, n.		
[illegible]	1077	Falkia		602
[illegible]		Fan palm		762
[illegible]	1057	Farsetia		1397
54		Feather-grass		[illegible]
25	1072	*Fedia*		72
902		Felwort		[illegible]
219		Fennel	3926	654
476		Fennel flower		1209
[illegible]		Fenugreek		[illegible]
876	1090	Ferns		
[illegible]	1062	Feronia		2140
[illegible]	1086	Ferraria		1461
[illegible]	1071	*Ferula*		[illegible]
62		Fescue-grass		182
62	1089	*Festuca*		182
[illegible]		Feverfew		1770
170		Feverwort		478
[illegible]	1054	Ficaria		[illegible]
	1069	*Ficoideæ*, Or 70.		
872	1083	*Ficus*		2167
[illegible]		Fiddle	5009	[illegible]
[illegible]		Fiddle-wood		[illegible]
94		Field madder		[illegible]
430		Fig marygold		1146
872	1083	Fig tree		2167
530		Figwort		[illegible]
742	1073	Filago		[illegible]
792		Filbert	13670	[illegible]
[illegible]		Filmy leaf		2303
48	1089	Fimbristylis		[illegible]
62		Finger-grass		143
[illegible]		Fiorin	[illegible]	[illegible]
804		Fir		2013
706		Fire-weed, n.		
[illegible]		Fishing-rods, n.		
[illegible]		Fish-poison	[illegible]	[illegible]
912	1091	Fissidens		[illegible]
1006	1092	Fistulina		2374
844	1058	Flacourtia		2001
	1058	Flacourtiàceæ, Or. 23.		
290	1087	Flagellaria		[illegible]
378		Flakes, n.		
606		Flat pea		[illegible]
744	1076	Flaveria		[illegible]
232	1069	Flax		701
[illegible]		Flax lily		[illegible]
702		Flea bane		1754
98		Fleawort	1714	[illegible]
[illegible]	1086	Flemingia		[illegible]
550		Flix-weed		[illegible]
[illegible]		Flower-fence	[illegible]	977
[illegible]		Flowering ash		[illegible]
[illegible]		Flowering fern	[illegible]	[illegible]
[illegible]		Flowering rush		[illegible]
[illegible]	[illegible]	Fluggea		[illegible]
	[illegible]	Fluviàles, Or [illegible].		
	[illegible]	Foliàceæ, Cl. 1, Div. 2.		
[illegible]	1076	Fontanesia		[illegible]
[illegible]	1091	Fontinalis		[illegible]
215		Fool's parsley		[illegible]
119		Forget-me-not, n.		
[illegible]	1083	Forskohlea		[illegible]
470	1071	Fothergilla		[illegible]
118		Four o'clock flower, n.		
[illegible]		Fox-glove		[illegible]
[illegible]		Fox-grape	[illegible]	801
[illegible]		Fox-tail grass		[illegible]
[illegible]	1067	Fragaria		[illegible]
[illegible]	1091	Fragillaria		[illegible]
[illegible]	[illegible]	Frankenia		[illegible]
	[illegible]	Frankeniàceæ, Or. [illegible]		
	1094	Frankincense of Indian temples		
766	[illegible]	Franseria		[illegible]
96	1077	Frasera		[illegible]
[illegible]		Fraxinella		[illegible]
[illegible]	1076	*Fraxinus*		[illegible]
	1065	French beans		
177		French berries, n.		
632		French honey-suckle	[illegible]	[illegible]
718		French mary-gold	12211	1760
[illegible]		French mush-room	[illegible]	[illegible]
26		French oak, n.		
	1081	French sorrel		
800		Friar's cowl	13477	[illegible]
60		Friesland oat, n.		
	1086	Fringed violet of N. Holland		
12		Fringe-tree		[illegible]
265	1067	Fritillaria		773
265		Fritillary		773
[illegible]		Frogbit		[illegible]
570		Fruit of Jove, n.		
60		Frumenty n.		
[illegible]	1069	Fuchsia		904
946	1091	*Fucus*		[illegible]
602	1056	*Fumaria*		1507
	1056	Fumariàceæ, Or		11
602		Fumitory		1507
[illegible]	1091	Funaria		[illegible]
978		Fungusses		
[illegible]	1091	Furcellaria		[illegible]
[illegible]	1087	Furcræa		725
[illegible]	[illegible]	Furze		[illegible]
[illegible]	[illegible]	Fusanus		[illegible]
[illegible]	1093	Fusarium		[illegible]
[illegible]	[illegible]	Fusidium		[illegible]
[illegible]		Fustick-wood	[illegible]	[illegible]
[illegible]	1061	Gærtnera		1007
[illegible]	[illegible]	Gagea		[illegible]
618	[illegible]	*Galactia*		[illegible]
[illegible]	1074	Galactites		1690
4	1085	Galangale		12
[illegible]	[illegible]	Galanthus		738
732	1073	Galardia		1801
180	1070	Galax		351
[illegible]	[illegible]	Galaxia		1468
	1070	Galbanum		
[illegible]	[illegible]	Galega		1591
[illegible]	[illegible]	Galenia		917
[illegible]	1079	Galeobdolon		1261
502	1079	*Galeopsis*		[illegible]
[illegible]	1074	Galinsogea		1792
16	[illegible]	*Galipea*		41
98	[illegible]	Galium		[illegible]
[illegible]		Gall of the earth, n.		
	[illegible]	Gamboge		
[illegible]	1061	*Garcinia*		1079
18		Garden-balsam	297	47
61		Gardener's garters, n.		
[illegible]	1072	Gardenia		487
[illegible]	[illegible]	Garidella		[illegible]
2		Garland-flower		6
[illegible]		Garlic		796
[illegible]		Garlic pear		[illegible]
[illegible]	[illegible]	*Garrya*		[illegible]
[illegible]	[illegible]	[illegible]		[illegible]
[illegible]	[illegible]	[illegible]		[illegible]
[illegible]	[illegible]	[illegible]		[illegible]
[illegible]	[illegible]	[illegible]		174
[illegible]	[illegible]	[illegible]		[illegible]
[illegible]	[illegible]	Gaura		[illegible]
[illegible]	[illegible]	Gazania		[illegible]
[illegible]	[illegible]	[illegible]		[illegible]
[illegible]	[illegible]	[illegible]		[illegible]
[illegible]	[illegible]	[illegible]		[illegible]
[illegible]	1077	[illegible]		[illegible]
[illegible]	[illegible]	Genipa		[illegible]
[illegible]		Genip-tree		[illegible]
[illegible]	[illegible]	Genista		[illegible]
[illegible]	1077	Gentian		[illegible]
[illegible]	1077	Gentiana		600
	1077	Gentianeæ,		103.
[illegible]	1085	Geodorum		[illegible]
[illegible]	[illegible]	Geoffroya		1517
1072	[illegible]	Geoglossum		[illegible]
	[illegible]	Geraniàceæ, Or.		38.
[illegible]	[illegible]	Geranium		[illegible]
[illegible]	[illegible]	*Gerardia*		[illegible]
[illegible]	1074	Gerbera		1750
[illegible]		Germander		[illegible]
[illegible]		German madwort		[illegible]
	[illegible]	German sarsaparilla		
[illegible]	[illegible]	Geropogon		[illegible]
[illegible]	[illegible]	Gesneria		[illegible]
	[illegible]	Gesneriàceæ, Or 93.		
[illegible]	[illegible]	Gethyllis		[illegible]
[illegible]	[illegible]	[illegible]		[illegible]
[illegible]	[illegible]	Geum		[illegible]
[illegible]	[illegible]	Gilia		[illegible]
[illegible]		Giant fennel		[illegible]
[illegible]	[illegible]	Gillenia		[illegible]
[illegible]	[illegible]	Gillyflower	8046	[illegible]
4	[illegible]	Ginger		10
[illegible]		Gingerbread-tree	[illegible]	[illegible]
[illegible]	[illegible]	Ginseng	[illegible]	[illegible]
[illegible]		Gladwin		760
[illegible]	1086	Gladiolus		105
6		Glasswort		[illegible]
[illegible]		Glastonbury-thorn	[illegible]	[illegible]
[illegible]	[illegible]	Glaucium		[illegible]
[illegible]	[illegible]	*Glaux*		[illegible]
[illegible]	1079	*Glecoma*		[illegible]
[illegible]	1067	*Gleditschia*		[illegible]
[illegible]	[illegible]	Glinus		1107
6	[illegible]	*Globba*		15
194	[illegible]	Globe amaranth		[illegible]
488		Globe flower		[illegible]
746		Globe thistle		[illegible]
80	1080	Globularia		[illegible]
	1080	Globulariàceæ, Or		190.
270	1087	Gloriosa		[illegible]
752	[illegible]	Glossula		[illegible]
512	1075	*Gloxinia*		[illegible]
62	1089	Glyceria		181
[illegible]	[illegible]	Glycine		[illegible]
[illegible]	[illegible]	Glycyrrhiza		1574
[illegible]	[illegible]	Glycosmis		1004
518	1079	Gmelina		1311
[illegible]	1073	*Gnaphalium*		[illegible]
[illegible]	[illegible]	*Gnidia*		[illegible]
[illegible]		Goat's beard		[illegible]
[illegible]		Goat's-foot	6483	[illegible]
[illegible]		Goat's horn	[illegible]	[illegible]
[illegible]		Goat's rue		1591
[illegible]		Goat's thorn	[illegible]	[illegible]
[illegible]		Goat-weed	[illegible]	[illegible]
[illegible]		Gold-cups, n.		
710		Golden rod		1740
[illegible]		Golden rod-tree		613
[illegible]		Golden saxifrage		1040
[illegible]		Golden thistle		[illegible]
550		Gold of pleasure		[illegible]
[illegible]		Goldy locks		1705
756	1085	Gomeza		[illegible]
354	[illegible]	Gomphia		1001
[illegible]	1077	Gomphocarpus		[illegible]
344	1066	Gompholobium		[illegible]
194	1080	Gomphrena		[illegible]
[illegible]	[illegible]	Gomphus		2367
[illegible]	1077	Gonolobus		[illegible]
[illegible]	1075	*Goodenia*		[illegible]
	1075	Goodenòviæ, Or 91		
[illegible]	[illegible]	*Goodia*		1574
[illegible]	1084	*Goodyera*		1870
[illegible]	1069	Gooseberry	3127	[illegible]
[illegible]		Goose-corn	[illegible]	760
[illegible]		Goose-foot		611
[illegible]		Goose-grass, n		
[illegible]	[illegible]	*Gordonia*		1474
[illegible]	1073	*Gorteria*		1812
[illegible]	[illegible]	*Gossypium*		[illegible]
[illegible]	[illegible]	*Gouania*		[illegible]
[illegible]	[illegible]	Gourd		[illegible]
[illegible]		Gout-weed		[illegible]
4		*Grains of parad.*	76	13
	[illegible]	*Gramineæ*, Or 174.		
[illegible]		Granadilla, n		
[illegible]	1073	Grangea		1776
[illegible]	[illegible]	*Grangeria*		[illegible]
[illegible]	[illegible]	Grape	[illegible]	801
[illegible]		Grape hyacinth		[illegible]
976	[illegible]	Graphis		[illegible]

Lin.	Nat.		Sp.	Gen.
228		Grass of Parnassus		694
16	1078	Gratiola		43
88		Great burnet		256
786		Great macaw tree	13322	1983
162		Greek valerian		370
428		Greengage, s.		
940		Green laver	15272	2308
782		Green man	12835	1865
822		Green osier	13732	2042
84	1081	Grevillea		339
466	1060	Grèwia		1186
466	1061	Grias		1189
394	1067	Grièlum		1063
256	1086	Griffinia		741
908	1091	Griffithsia		2297
909	1091	Grimmia		2323
716	1074	Grindèlia		1746
302	1068	Grislea		877
60		Grist, s.		
190		Gromwell		330
190	1069	Gronòvia		551
	1060	Grossula'ceæ, Or. 73.		
592	1079	Ground ivy		1358
494		Ground pine	8097	1362
704		Groundsel		1739
709		Groundsel-tree	11621	1738
640		Gruyère cheese, s.		
	1072	Guaco of Peru		
352	1062	Guaiacum		993
304	1062	Guàrea		858
480	1065	Guattèria		1222
416	1068	Guava		1118
	1062	Guayacine		
294		Guelder rose	3774	679
252		Guernsey lily	4223	738
788	1072	Guettárda		1981
350	1067	Guilandina		979
297		Guinea-hen weed, s.		
174		Guinea peach		496
296		Guinea plum	5072	870
347		Gum anime, s.		
857		Gum arabic, s.		
858	1065	Gum arabic-tree	14192	2127
468		Gum cistus	7740	1197
	1065	Gum lac		
	1084	Gum sandarach		
570		Gum succory		1629
838		Gum tragacanth, s.		
746	1074	Gundèlia		1853
26 766	1083	Gunnèra		78 1931
506	1062	Gustàvia		1496
	1061	Guttiferæ, Or. 36.		
346	1067	Gusmánnia		787
750	1085	Gymnadènia		1858
196	1077	Gymnèma		588
482	1067	Gymnoclàdus		2094
878	1090	Gymnográmma		2171
730	1074	Gymnolòmia		1799
898	1091	Gymnóstomum		2319
748		Gyna'ndria, Cl. 20.		
750		G. Mona'ndria, Or. 1.		
766		G. Deca'ndria, Or. 2.		
768		G. Hexa'ndria, Or 3.		
368	1059	Gypsóphila		1044
954	1092	Gyróphora		2354
752	1085	Habenària		1861
254	1086	Habránthus		746
248	1086	Hæmánthus		731
350	1067	Hæmatóxylon		985
	1085	Hæmodora'ceæ, Or. 154		
44	1085	Hæmodòrum		111
58		Hair-grass		170
84	1081	Hàkea		340
694		Halberd-weed		1710
394	1076	Halèsia		1081
944	1091	Haliseris		2322
524	1078	Hallèria		1398
630	1066	Hállia		1584
	1069	Halora'geæ, Or. 68.		
330	1069	Halorágis		932
942	1091	Halymènia		2315
	1071	Hamamelideæ, Or. 81.		
104	1071	Hamamèlis		312
216		Hamburgh parsley		
172	1079	Hamèlia		464
870	1082	Hamiltònia		2763
62 72 862		Hard grass		169 212 2154

Lin.	Nat.		Sp.	Gen.
278		Harebells	4770	808
218		Hare's-ear		637
884		Hare's-foot fern	14885	2196
54		Hare's-tail grass		153
282		Hare, s.		
100	1063	Hartògia		301
882		Hart's-tongue		2188
222		Hartwort		673
	1083	Haschisch		
100		Hassagay-tree		300
290	1071	Hasselquístia		686
638		Hatchet vetch		1595
462		Hautboy	7569	1161
672		Hawkweed		1635
484		Hawthorn		1138
792		Hazel	13570	1998
186		Heart's-ease	3060	540
328		Heart-seed		928
304	1075	Heath		892
570		Heavenly fruit, s.		
518	1079	Hebenstreitia		1309
90	1079	Hedeoma		59
188	1070	Hédera		549
550		Hedge garlic		1483
16		Hedge hyssop		43
560		Hedge mustard		1494
504		Hedge nettle		1263
2	1085	Hedychium		6
676	1073	Hedypnois		1646
630	1066	Hedysarum		1586
398	1068	Heimia		1096
716	1074	Helènium		1755
470	1066	Heliánthemum		1196
730	1074	Heliánthus		1798
194	1085	Heliconia		570
1058	1093	Helicosporium		2475
580	1059	Helicteres		1461
398	1060	Heliocárpus		1100
558	1057	Heliophila		1440
728	1074	Heliopsis		1786
118	1078	Heliotropium		326
488		Hellebore		1237
488	1054	Helléborus		1237
4	1085	Hellènia		9
676	1073	Helminthia		1639
292	1067	Helònias		858
1014	1092	Helvélla		2387
	1086	Hemerocallideæ, Or. 159		
260	1086	Hemerocállis		769
196	1077	Hemidésmus		576
878	1090	Hemionìtis		2170
216		Hemlock		649
804		Hemlock spruce	13527	2013
834	1083	Hemp		2073
698		Hemp agrimony	11530	1685
502		Hemp nettle		1260
406		Hen and chicken	6634	1110
136	1078	Henbane		381
502		Henbit	8277	1259
316		Henna-plant	5423	898
490	1054	Hepática		1225
263		Hepatic aloes, s.		
298		Hepta'ndria, Cl. 7.		
298		H. Monogy'nia, Or. 1.		
298		H. Digy'nia, Or. 2.		
298		H. Tetragy'nia, Or. 3.		
298		H. Heptagy'nia, Or. 4.		
222	1071	Heracleum		672
798		Herbarota	12366	1781
354		Herb of grace, s.		
328		Herb Paris	5635	929
580		Herb Robert	9665	1468
814	1060	Heritiera		2037
562	1060	Hermannia		1465
865	1070	Hérmas		2147
754	1085	Herminium		1868
772	1081	Hernándia		1942
208	1060	Herniaria		614
558		Heron's bill		1469
532	1078	Herpéstis		1367
40	1085	Hesperántha		98
548	1057	Hésperis		1421
780	1089	Heteropogon		1955
718	1074	Heterospermum		1761
1098	1092	Heterosphæ'ria		2394
204	1070	Heuchera		606
938		Hexa'ndria, Cl. 6.		
940		H. Monogy'nia, Or. 1.		

Lin.	Nat.		Sp.	Gen.
288		H. Digy'nia, Or. 2.		
290		H. Trigy'nia, Or. 3.		
294		H. Polygy'nia, Or. 4.		
252	1062	Heynea		882
472	1065	Hibbértia		1208
584	1059	Hibiscus		1480
794		Hickory-tree	13979	1989
678	1073	Hieracium		1635
286	1072	Hillia		822
60		Hill oat, s.		
742	1072	Hippia		1834
	1060	Hippocastaneæ, Or. 38.		
36	1060	Hippocratea		82
	1069	Hippocrateaceæ, Or. 31.		
632	1066	Hippocrepis		1577
812	1083	Hippómane		2030
224	1071	Hippomarathrum		658
832	1082	Hippóphae		2058
6	1069	Hippùris		23
380	1061	Hiræ'a		1059
174	1067	Hirtélla		488
360	1067	Hoffmanseggia		981
794		Hog nut	13984	1989
382		Hog-plum		1059
6		Hog-weed		19
142	1077	Hoitzia		380
880	1089	Hólcus		2158
104		Holly		315
584	1059	Hollyhock	9772	1474
520	1079	Holmskióldia		1327
74	1059	Holósteum		290
	1054	Holy scyamus		
	1064	Homalíneæ, Or. 57.		
272		Homer's moly	4523	796
542		Honesty		1395
216		Honewort		647
362		Honey-berry		984
414		Honey-flower		1298
858		Honey locust-tree	14383	2155
170	1071	Honeysuckle		474
122		Honeywort		359
20		Hooded milfoil		53
912	1091	Hookèria		2249
864		Hoop-ash	14899	2145
240		Hoop-petticoat	4031	711
88		Hoop-withy, s.		
834	1083	Hop		2074
792		Hop hornbeam		1995
792		Hop-poles, s.		
648		Hop trefoil, s.		
78	1089	Hórdeum		210
504		Horehound		1266
502	1079	Horminum		1257
792	1083	Hornbeam		1996
528	1078	Hornemánnia		1352
66		Horn-grass		189
82		Horn of plenty, s.		
460		Horn-poppy		1169
790		Hornwort		1966
* 296		Horse chestnut		868
546	1057	Horse radish	9059	1407
360		Horse radish-tree		990
635		Horse-shoe vetch		1577
890		Horse-tail		2211
778		Horse-tail-tree	19034	1936
698		Horse thistle		1685
[illegible]		Horse-weed, s.		
530	1079	Hóstia		1310
838		Hottentot bread		2083
296		Hottentot cherry	5319	688
404		Hottentot fig	7371	1146
128	1080	Hottònia		356
132		Hound's tongue		336
408		Houseleek		1110
90	1079	Houstonia		261
610	1068	Hòvea		1536
184	1068	Hovènia		582
192	1077	Hoya		582
386	1058	Hudsònia		1059
202	1077	Huernia		586
854		Humble plant	14164	2194
694	1073	Hùmea		1711
834	1083	Hùmulus		2074
844	1083	Hùra		2085
546	1057	Hutchinsia		1410
284		Hyacinth		819
278		Hyacinth of Peru, s.		
284	1086	Hyacinthus		819
842	1082	Hyænánche		2087

Lin.	Nat.		Sp.	Gen.
942		Hyæna poison		2097
1010	1092	Hydnum		2376
386	1070	Hydrángea		1039
480	1054	Hydrástis		1241
	1084	HYDROCHARI'DEÆ, Or. 149.		
262	1084	Hydrócharis		2080
218	1070	Hydrocótyle		659
926	1091	Hydrodictyon		2291
904	1077	Hydròlea		601
	1055	HYDROPELTI'DEÆ, Or. 8.		
490	1055	Hydropéltis		1240
132	1078	Hydrophýllum		378
950	1091	Hygrocrócis		2290
346	1067	Hymenæ'a		972
1080		Hymenodium		2401
648	1066	Hymenocárpus		1606
468	1080	Hymenógyne		1147
690	1074	Hymenopáppus		1692
898	1090	Hymenophýllum		2208
898	1091	Hymenóstomum		2280
136	1078	Hyoscýamus		381
676	1073	Hyóseris		1646
104	1056	Hypécoum		318
350		Hyperanthèra		980
	1061	HYPERICI'NEÆ, Or. 35.		
656	1061	Hypéricum		1617
914	1091	Hypnum		2251
676	1073	Hypochæ'ris		1650
18	1079	Hypoéstes		46
	1086	HYPOXI'DEÆ, Or. 157		
254	1086	Hypóxis		750
502	1079	Hýptis		1256
496		Hyssop		1248
496	1079	Hyssòpus		1248
1030	1093	Hystèrium		2434
546	1057	Ibèris		1412
968		Iceland moss	15596	2343
458		Ice-plant	7376	1146
146	1076	Ichnocárpus		414
408		ICOSA'NDRIA, Cl. 12.		
410		I. MONOGY'NIA, Or. 1.		
424		I. DI-PENTAGY'NIA, Or. 2.		
442		I. POLYGY'NIA, Or. 3.		
104	1063	I'lex		315
	1060	ILICI'NEÆ, Or. 125.		
192	1060	Illécebrum		555
478	1056	Illícium		1215
184	1061	Impàtiens		538
74	1089	Imperàta		216
230	1071	Imperatòria		662
2		Indian arrow root		
790		Indian cordage, n.		
778		Indian corn		1950
302		Indian cress		875
290		Indian cucumber	4962	846
562		Indian date, n.		
412		Indian fig	6684	1111
426		Indian hawthorn		1136
468		Indian lotus	7682	1174
100		Indian madder		296
860		Indian millet	14230	2131
174		Indian mulberry, n.		
	1058	Indian muslin		
328		Indian soap, n.		
2		Indian shot		1
875		Indian rubber, n.		
634	1065	Indigo		1589
634	1065	Indigófera		1589
854	1067	I'nga		2126
332	1076	Inocárpus		1094
714	1073	I'nula		1744
188	1058	Ionídium		541
762	1085	Ionópsis		1919
402		Ipecacuanha	6789	1108
138	1077	Ipomæ'a		383
834	1080	Irésine		2069
	1085	IRI'DEÆ, Or. 155.		
44	1086	I'ris		118
316		Irish heath	5412	893
613		Irish whin, n.		
100		Iron tree		298
150 416 792, n.		Iron-wood	6947	436
497		Iron-wort		1252
1038	1093	Isària		2463
552	1057	Isàtis		1430
880	1089	Ischæ'mum		2133
970	1092	Isídium		2351
	1061	Isle of France cinnamon		

Lin.	Nat.		Sp.	Gen.
90	1069	Isnárdia		258
694	1074	Isocárpha		1708
760	1085	Isochìlus		1903
894	1090	Isoëtes		2214
48	1089	Isólepis		122
528	1076	Isoplèxis		1354
80	1081	Isopógon		230
488	1054	Isopýrum		1235
184	1075	I'tea		535
744	1073	I'va		1841
188	1070	Ivy		549
38	1085	I'xia		98
694	1073	Ixódia		1715
180	1079	Ixòra		369
514	1077	Jacarándа		1295
770		Jaca tree	13036	1935
772		Jack in a box		1949
344	1065	Jacksònia		956
258		Jacobea lily	4234	739
150	1076	Jacquínia		436
801		Jaggery, n.		
138	1077	Jalap	2231	383
606		Jamaica dogwood	10048	1594
604		Jamaica ebony	10034	1590
870		Jamaica milkwood	14303	2156
418		Jamaica pepper, n.		
418		Jambolana-tree	6868	1122
390	1062	Jambolifera		906
188	1075	Jasìone		547
12	1076	Jasmine		39
	1076	JASMI'NEÆ, Or. 100.		
12	1076	Jasminum		39
812	1082	Játropha		2033
418		Java plum, n.		
316	1055	Jeffersònia		896
738		Jersey thistle	12692	1819
730		Jerusalem artichoke	12439	1798
506		Jerusalem sage	8355	1268
104		Jesuit's nuts, n.		
778		Job's tears		1951
479		Joiner's planes, n.		
298	1067	Jonèsia		867
240		Jonquil	4021	711
346		Judas-tree		968
794	1064	Júglans		1999
	1087	JU'NCEÆ, Or. 168.		
258	1087	Júncus		760
918	1091	Jungermánnia		2253
848		Juniper		2113
848	1084	Juníperus		2113
614		Jupiter's beard	10218	1542
362	1069	Jussiæ'a		1026
18	1079	Justícia		47
4	1086	Kæmpfèria		12
356	1075	Kálmia		1011
102		Kanguru vine	1779	308
246		Karatas	4114	726
714	1074	Kaulfússia		1748
216		Keckies, n.		
205	947	Kelp, n.		
618	1066	Kennèdia		1563
484	1067	Kérria		1156
1004		Ketchup, n.		
614		Kidney bean		1547
612		Kidney vetch		1542
482	1082	Kiggellària		2082
487		King-cups, n.		
210		Kissing comfits of Falstaff, n.		
584	1059	Kitaibèlia		1478
396	1060	Kleinhòvia		1098
694	1074	Kleinia		1702
52	1089	Knáppia		142
734		Knapweed	12544	1819
92	1072	Knaùtia		265
366		Knawel		1037
192		Knot-grass		555
508		Knotted marjoram, n.		
474	1054	Knowltònia		1231
904	1081	Kòchia		610
62	1089	Kœlèria		179
78	1081	Kœnígia		228
304	1060	Kölreutèria		887
696	1073	Krígia		1644
58	1089	Kyllíngia		129
	1079	LABIA'TÆ, Or. 112.		

Lin.	Nat.		Sp.	Gen.
358		Labrador tea		1012
634		Laburnum	[illegible]	[illegible]
392		Lace-bark	5535	909
294	1086	Lachenàlia		868
394	1082	Lachnæ'a		915
668	1073	Lactùca		[illegible]
670		Lactucarium, n.		
360		Ladanum, n.		
[illegible]		Ladies' bed-straw	3342	391
88		Ladies' mantle		286
708		Ladies' slipper		1931
754		Ladies' traces	9980	1874
884		Lady-fern	14585	2199
548		Lady's smock		1392
692	1074	Lagàsca		1690
468	1068	Lagerstrœ'mia		1195
392	1082	Lagétta		909
188	1070	Lagœ'cia		548
674	1083	Lagòseris		1636
592	1059	Lagunæ'a		1488
54	1089	Lagùrus		153
84	1081	Lambértia		242
34		Lamb's lettuce		80
946	1091	Laminària		2325
502	1079	Làmium		1250
	1082	La mort du safran, n.		
506		Lamp-wick	8360	1268
280		Lancashire asphodel	4832	813
480		Lancewood	7989	480
518	1079	Lantàna		1312
42	1086	Lapeyroùsia		103
54	1089	Lappàgo		149
678	1073	Lapsàna		1651
368	1059	Larbrèa		1069
806		Larch		2014
806	1084	Lárix		2014
472		Larkspur		1204
220	1071	Laserpítium		669
220		Laserwort		669
1032	1093	Lasiobótrys		2403
182	1062	Lasiopétalum		523
846	1088	Latània		2109
534	1078	Lathræ'a		1339
660	1066	Láthyrus		1568
332		Laurel		934
	1067	Laurel-water		
294		Laurestine	3754	679
	1081	LAURI'NEÆ, Or 129.		
870	1083	Lauróphyllus		2163
332	1081	Laúrus		934
498	1079	Lavándula		1251
584	1059	Lavatèra		1475
498	1079	Lavender		1251
694		Lavender cotton		1714
692	1073	Lavènia		1700
316	1068	Lawsònia		898
118		Leadwort		324
1034	1096	Leangium		2451
394		Leather-wood		911
612	1066	Lebéckia		1539
968	1092	Lecanòra		2340
74	1088	Lechèa		222
960	1092	Lecidèa		2332
212	1070	Ledebúria		629
358	1075	Lèdum		1012
162	1061	Leèa		454
908		Lee chee	5101	885
272		Leek	4617	796
74	1089	Leèrsia		217
71		Leghorn straw, n.		
	1064	LEGUMINÒSÆ, Or 50.		
964	1091	Lemànea		2318
778	1090	Lémna		1959
638	1062	Lemon	10973	1615
860		Lemon-grass	14210	2129
	1079	LENTIBULA'RIÆ, Or 118.		
634	1066	Lentil	10421	1562
1038	1093	Leocárpus		2455
506	1079	Leonòtis		1270
486	1055	Leontice		886
670	1073	Leóntodon		1631
700	1073	Leontopòdium		1723
506	1079	Leonùrus		1267
716		Leopard's bane		1751
1016	1092	Lèotia		2369
552	1057	Lepídium		1428
974	1092	Leprària		2359
44	1090	Leptánthus		109
540	1057	Leptocarpæ'a		1384
846	1087	Leptocárpus		2110

Lin.	Nat.		Sp.	Gen.
68	1069	Leptochlòa		202
997	1091	Leptomitus		2281
414	1068	Leptospérmum		1116
1032	1093	Leptostròma		2436
912	1091	Lèskea		2250
630	1066	Lespedèza		1585
626	1066	*Lessértia*		1572
192	1080	Lestibudèsia		516
668	1072	Lettuce		1698
830	1081	Leucadéndron		2053
506	1079	Lèucas		1269
912	1091	Leucodon		2244
348	1086	*Leucojum*		733
144		Leucopògon		401
80	1081	Leucospérmum		232
734	1074	*Lèysea*		1818
792		Lever-wood, n.		
790	1073	Leysèra		1765
688	1073	*Liàtris*		1692
1036	1093	*Lìcea*		2459
946	1091	Lichìna		2396
290	1067	Lichtensteinia		842
260	1088	*Licuàla*		763
722	1073	Lidbéckia		1773
188	1075	Lightfoótia		546
352		Lignum-vitæ-tree		993
220	1071	*Ligústicum*		66
12	1076	*Ligústrum*		36
12	1076	Lilac		37
	1087	LILIA`CEÆ, Or 163.		
	1086	Lilies of the field		
264	1087	*Lìlium*		771
264	1087	Lily		771
270	1086	Lily of the valley		787
272		Lily pink		794
100		Lily thorn		289
652		Lime	10974	1615
466	1060	Lime-tree		1186
298	1069	*Limeum*		871
464	1067	Limnochàris		1175
356	1062	*Limònia*		1003
532	1078	Limosélla		1359
526	1078	Linària		1344
532	1078	Lindérnia		1366
	1059	*L*INEÆ, Or 21		
232		Linen cloth, n.		
303		Ling, n		
514	1071	Linnæ'a		1292
28	1076	Linocièra		67
232		Lint, n		
239	1059	*Lìnum*		701
700		Lion's-foot		1723
286		Lion's-leaf	4915	825
506		Lion's tail		1270
624	1066	Lipària		1565
764	1085	Liparis		1928
518	1079	Lippia		1314
798	1083	Liquidámbar		2001
628	1066	Liquorice		1575
628	1066	Liquorìtia		1575
478	1055	Liriodéndron		1216
134	1077	Lisiánthus		378
142		Lissánthe		395
756	1085	Lissochìlus		1887
754	1084	Listèra		1876
302		Litchi	5101	883
120	1078	*Lithospérmum*		330
784	1080	Littorélla		1967
68		Live-grass		197
248		Lizard's-tail		872
75		Loaf sugar, n		
658	1069	*Loàsa*		1619
	1069	*Loàseæ*, Or 67		
166	1075	Lobèlia		464
346		Locust-tree		971
610	1068	Loddigèsia		1535
36	1080	Lœflíngia		82
180	1077	Logània		368
350		Logwood		985
70	1089	*Lòlium*		207
880	1090	Lomària		2182
84	1081	Lomàtia		245
882	1090	*Lonchìtis*		2192
366		London pride	6063	1041
550		London rocket	9172	1482
302		Longan	5102	883
718	1073	Longchàmpsia		1784
170	1071	Lonicèra		475
814		Looking-glass plant		2037
128		Loose-strife		356
6	1060	Lopèzia		18
944	1085	Lophìola		718
1030	1092	Lòphium		2426

Lin.	Nat.		Sp.	Gen.
426	1067	Loquat		1137
	1071	LORA'NTHEÆ, Or. 83		
610		Lord Anson's pea	10368	1558
178		Lote-tree	2897	506
642	1066	*Lòtus*		1601
850	1082	Loureira		2119
528		Lousewort		1349
220		Lovage		665
156		Love-apple	2517	451
68		Love-grass	1210	198
786	1080	Love-lies-bleeding	13502	1975
142	1080	Lubìnia		392
646		Lucern	10892	1606
104	1069	Ludwigia		309
798	1069	*Lúffa*		1976
542	1057	Lunària		1395
122		Lungwort		338
640	1066	Lupinàster		1599
614		Lupine		1544
614	1066	*Lupìnus*		1544
258	1087	Lùzula		761
132		Lychnidea		369
388	1059	*Lychnis*		1067
156	1078	*Lýcium*		450
1036	1093	Lycogàla		2456
1034	1093	Lycopérdon		2443
892	1090	Lycopòdium		2212
124	1078	*Lycópsis*		344
20	1079	Lycòpus		55
52	1089	Lygèum		132
886	1090	Lygòdium		2206
72		Lyme-grass		208
932	1091	Lýngbia		2287
128	1080	*Lysimàchia*		356
142		Lysinèma		398
398	1068	*Lýthrum*		994
840	1076	*Màba*		2056
670	1076	Mabolo-fruit	1437	2159
788		Macaw-tree	13322	1983
850	1081	Mace, n.		
784	1083	Maclùra		1969
758	1085	Macradènia		1898
162	1072	Macrocnèmum		457
542	1057	Macropòdium		1391
394		Madagascar nutmeg		1077
160		Mad apple	2566	451
94	1071	Madder		267
334		Madeira mahogany, n		
352		Madeira wood, n		
704	1074	*Màdia*		1736
544		Madwort		1401
478	1055	Magnòlia		1217
	1055	MAGNOLIA`CEÆ, Or 3.		
352	1062	Mahogany-tree		990
	1055	Mahonias		
884		Maiden-hair		2194
798		Maiden-hair-tree	13441	2003
36		Maiden plum		85
	1088	Maize		
228		Malabar nightshade		693
18		Malabar nut	302	47
584	1059	*Malàchra*		1476
764	1085	Maláxis		1925
416		Malay apple-tree	6958	1119
548	1057	Malcòmia		1420
884		Male-fern	14590	2199
582		Mallow		1472
582	1059	*Màlope*		1471
380	1060	Malpíghia		1054
	1060	MALPIGHIÀCEÆ, Or 36.		
73		Malt, n.		
582	1059	*Màlva*		1472
	1059	*M*ALVA`CEÆ, Or 23.		
466	1061	Mammèa		1190
150		Mammee	2409	427
466		Mammee-tree		1190
812		Manchineel		2030
814		Mandioca, n.		
154	1078	Mandrágora		447
154	1078	Mandrake		447
161		Man-dram, n		
160	1072	Manéttia		296
180	1064	Mangífera		513
182	1076	*Manglìlla*		494
6		Mango-ginger	94	14
394		Mangosteen		1079
180	1064	Mango-tree		513
394	1071	Mangrove		1078

Lin.	Nat.		Sp.	Gen.
862	1089	Manisùris		2135
28	1076	Manna, n.		
26		Manna ash	484	69
62		Manna seeds, n		
631		Manna trungebeen, n.		
6	1085	Mantìsia		16
538	1078	Manùlea		1379
864		Maple		2143
2	1085	Marànta		2
888	1090	Maràttia		2210
456	1060	Marcgraàvia		1163
	1060	MARCGRAAVIÀCEÆ, Or. 32.		
922	1091	Marchántia		2254
6		Mare's-tail		23
46	1086	Màrica		117
806	1079	Marjoram		1274
50	1089	*Marìscus*		130
173		Marmalade box, n.		
504	1079	*Marrùbium*		1266
57		Marrum, n.		
198	1077	Marsdènia		591
690	1074	Marshállia		1694
452		Marsh cinquefoil	7675	1152
584		Marsh mallow		1474
490		Marsh marygold		1239
216		Marsh pennywort	3656	658
7		Marsh samphire, n.		
264		Martagon	4496	771
516	1079	Martýnia		1300
	1079	Marum		
118	1080	Marvel of Peru		322
740		Marygold		1830
278	1086	Massònia		806
220 222		Masterwort		662 674
508		Mastick	8411	1275
834	1064	Mastick-tree	13898	2065
52 56		Mat-grass		137 162
538	1057	Mathìola		1381
722	1073	Matricària		1771
190	1078	Máttia		328
528	1078	Maurándya		1347
838	1088	Mauritia		2080
758	1085	Maxillària		1892
460 566, n		May apple	7652	1166
10	1063	*Maytènus*		31
528	1078	Màzus		1353
128		*Meádia*, n.		
68		Meadow grass		196
484		Meadow rue		1229
292		Meadow saffron		851
214		Meadow saxifrage		642
428		Meadow sweet	7148	1141
60		Meal, n		
462	1056	Meconópsis		1171
290	1086	Medèola		846
646	1066	Medicàgo		1605
646		Medick		1605
424	1067	Medlar		1131
402		Medusa's-head	6697	1103
68	1069	Megastàchya		198
602	1068	Melalèuca		1610
740	1074	*Melampòdium*		1828
520	1078	*Melampýrum*		1316
690	1074	Melananthèra		1693
684		Melancholy thistle, n.		
	1087	*M*ELANTHA`CEÆ, Or 164.		
290	1087	*Melánthium*		845
42	1086	Melasphæ'rula		104
364	1068	Melastòma		1029
	1068	MELASTOMA`CEÆ, Or 62		
564	1060	Melhània		1457
362	1062	*Mèlia*		998
	1062	*M*ELIA`CEÆ, Or. 43.		
514	1062	Meliánthus		1293
68	1089	Mélica		193
66		Melic-grass		193
302	1060	Melicócca		884
640		Melilot		1598
640	1066	*Melilòtus*		1598
506	1079	Melíssa		1276
510	1079	Melíttis		1280
584	1060	*Melochìa*		1456
194	1077	Melodìnus		573
810	1088	Melon	13573	2028
416		Melon-thistle, n		
926	1091	Melosèira		2262

Lin.	Nat.		Sp.	Gen.
322	1082	Memécylon		908
878	1090	Meniscium		2172
	1065	MENISPER'MEÆ, Or. 5.		
844	1055	Menispérmum		2100
500	1079	Méntha		1254
468	1069	Mentzèlia		1194
130	1077	Menyánthes		362
316	1075	Menzièsia		893
840	1082	Mercuriàlis		2088
840		Mercury		2088
1006	1092	Merùlius		2369
430	1069	Mesembryánthemum		1146
932	1091	Mesoglòia		2282
424	1067	Méspilus		1131
304	1060	Metalba		886
700	1073	Metalàsia		1726
416	1068	Metrosidèros		1117
216	1070	Mèum		653
272		Mexican lily	4239	739
638		Mexican tea	10750	1597
562		Mexican tiger-flower	9343	1452
728	1074	Meyèra		1787
322		Mezèreon	5526	910
740		Michaelmas daisy	12037	1739
316	1075	Michaúxia		895
480	1065	Michèlia		1218
72	1089	Microchlòa		211
196	1077	Microlòma		578
744	1073	Micròpus		1839
764	1085	Micróstylis		1927
400		Mignonette	6676	1102
688	1073	Mikània		1683
1022 1041 n.		Mildew		2408
726		Milfoil		1781
52	1089	Milium		141
220		Milk parsley		663
149		Milk tree, n.		
636		Milk vetch		1594
870		Milk wood	14364	2158
602		Milk wort		1508
738	1074	Millèria		1822
52		Millet grass		141
82	1081	Mimètes		233
854	1067	Mimòsa		2124
528	1078	Mimulus		1351
302	1076	Mimusops		881
500	1079	Mint		1254
76	1080	Minuártia		226
118	1080	Mirábilis		322
346	1066	Mirbèlia		967
830	1071	Misletoe		2054
100	1072	Mitchélla		294
368	1070	Mitella		1043
1014	1092	Mitrula		2383
794		Mocker nut, n.		
836	1068	Modécca		2075
324	1059	Mœhringia		920
510		Moldavian balm	8446	1279
702	1074	Molìna		1733
66	1089	Molinia		194
194	1080	Móllia		567
76	1059	Mollugo		225
506		Molucca balm		1271
506	1079	Moluccélla		1271
808	1069	Momórdica		2020
560		MONADE'LPHIA, Cl. 16.		
562		M. TRIA'NDRIA, Or. 1.		
562		M. PENTA'NDRIA, Or. 2		
568		M. HEPTA'NDRIA, Or. 3.		
578		M. OCTA'NDRIA, Or. 4.		
578		M. DECA'NDRIA, Or. 5.		
589		M. DODECA'NDRIA, Or. 6.		
582		M. POLYA'NDRIA, Or. 7.		
1		MONA'NDRIA, Cl. 1.		
2		M. MONOGY'NIA, Or. 1.		
8		M. DIGY'NIA, Or. 2.		
20	1079	Monárda		60
72	1089	Monérma		213
100	1077	Monètia		299
128		Money-wort	2068	356
1038	1093	Monilia		2469
528		Monkey-flower		1351
592		Monkies'-bread, n.		
474		Monk's hood	7872	1205
600	1063	Monnièria		1500
	1080	MONOCHLAMY'DEÆ. Subd. 2.		
	1084	MONOCOTYLE'DONES, Cl. 2.		
768		MONŒ'CIA, Cl. 21.		
770		M. MONA'NDRIA, Or. 1.		
772		M. DIA'NDRIA, Or. 2.		
772		M. TRIA'NDRIA, Or. 3.		
780		M. TETRA'NDRIA, Or. 4.		
786		M. PENTA'NDRIA, Or. 5.		
788		M. HEXA'NDRIA, Or. 6.		
790		M. POLYA'NDRIA, Or. 7.		
800		M. MONADE'LPHIA, Or. 8.		
142		Monótoca		400
356	1075	Monótropa		1008
580	1061	Monsònia		1465
76	1069	Móntia		224
832	1069	Montinia		2064
844		Moon-seed		2100
646		Moon-trefoil	10890	1605
886		Moon-wort		2208
46	1086	Moræ'a		116
1014	1092	Morchélla		2386
1014		Morel		2386
554	1057	Moricándia		1434
26	1072	Morina		70
174	1072	Morinda		496
462		Morphua, n.		
782	1083	Mòrus		1959
678	1073	Moscària		1654
328		Moschatel		930
892		Mosses		
506		Motherwort		1267
994		Mouceron, n.		
934	1091	Mougeòtia		2290
1040	1092	Mouldiness		2482
426		Mountain ash	7101	1133
355		Mountain damson, n.		
346		Mountain ebony		970
	1065	Mountain liquorice		
294		Mountain sorrel		857
863		Mountain spinage, n		
672		Mouse ear	11184	1635
388		Mouse ear chick-weed		1068
64 234		Mouse tail		83 707
632		Moving plant	10568	1588
609		Moxa, n.		
1036	1093	Mucor		2460
532		Mudwort		1359
698		Mugwort	11733	1721
54	1089	Muhlenbérgia		151
782	1083	Mulberry		1959
132		Mullein		375
626	1066	Mullèra		1567
602	1058	Múndia		1510
464	1060	Muntíngia		1184
602	1058	Muráltia		1509
356	1062	Murràya		1005
244	1085	Mùsa		721
	1085	MUSA'CEÆ, Or. 153.		
284	1086	Muscàri		821
423		Muscle plum, n		
75		Muscovado sugar, n		
1002		Mushroom	16013	2365
586		Musk okro	9829	1480
174	1072	Mussæ'nda		491
554	1057	Mustard		1432
552	1057	Myàgrum		1431
930	1091	Mycinèma		2274
64	1089	Mygalùrus		183
104	1063	Myginda		314
362	1075	Mylocárpum		1021
	1079	MYOPORI'NEÆ, Or. 115.		
524	1079	Myopòrum		1332
676	1073	Myóseris		1640
118	1078	Myosòtis		328
234	1054	Myosùrus		707
830	1083	Myrica		2055
1024	1092	Myriocóccum		2414
790	1069	Myriophýllum		1987
850	1081	Myristica		2120
	1081	MYRISTI'CEÆ, Or. 130.		
422		Myrobalan plum	7047	1129
592	1059	Myròdia		1473
212		Myrrh		630
212	1071	Mýrrhis		630
870	1075	Myrsine		2160
	1075	MYRSI'NEÆ, Or. 95.		
290	1086	Myrsiphýllum		843
	1068	MYRTA'CEÆ, Or. 63		
416	1068	Myrtle		1121
416	1068	Mýrtus		1121
1042	1093	Næmaspòra		2495
1020	1092	Næmatèlia		2482
832	1083	Nagèia		2056
	1087	NAI'ADES, Or. 171.		
60		Naked oat, n.		
286	1055	Nandìna		830
484	1054	Naravèlia		1228
240	1086	Narcissus		711
52	1089	Nárdus		137
280	1086	Narthècium		813
150		Naseberry-tree	2411	427
538	1057	Nastúrtium		1383
353		Native gum, n.		
151		Natural marmalade, n		
182	1072	Naúclea		521
744	1074	Nauenbérgia		1847
382		Navelwort		1060
912	109.	Neckèra		2247
341		Necklace-tree, n.		
420	1067	Nectarine	7020	1128
860		Negro guinea corn, n.		
864	1060	Negúndium		2144
478		Nelumbo, n.		
476	1056	Nelúmbium		1213
526	1078	Nemèsia		1346
140	1078	Nemóphila		386
754	1084	Neottia		1873
850	1093	Nepénthes		2121
498	1079	Nepeta		1249
786	1060	Nephelium		1971
966	1092	Nephròma		2346
252	1086	Nerìne		738
146	1076	Nèrium		411
398	1068	Nesæ'a		1095
550	1057	Néslia		1426
782		Nettle		1902
864		Nettle-tree		2145
694	1073	Neurolæ'na		1710
	1062	New Holland cedar		
178		New Jersey tea	2918	510
	1086	New Zealand flax		
430		New Zealand spinage	7161	1145
414		New Zealand tea	6918	1115
134	1078	Nicándra		380
350		Nicker-tree		979
136	1078	Nicotiàna		382
1024	1092	Nidulària		2413
476	1054	Nigélla		1239
13		Night-flower, n.		
318		Night-primrose, n.		
156	1078	Nightshade		451
752	1085	Nigritélla		1880
800	1058	Nipa		2008
678		Nipplewort		1651
604	1066	Nissòlia		1512
936	1091	Nitélla		2294
396	1069	Nitrària		1080
82	1081	Nivènia		235
124	1075	Nolàna		347
292	1087	Nolìna		853
185		Nolitangere, n.		
124	1078	Nònea		343
646		Nonesuch	10898	1605
846		Norfolk island pine	14048	2112
804		Norway deal, n.		
804		Norway spruce	13550	2013
928	1091	Nóstoc		2268
12	1076	Notelæ'a		35
880	1090	Nothochlæ'na		2177
540	1057	Notóceras		1385
758	1085	Notylia		1893
464	1056	Nùphar		1176
850	1081	Nutmeg		2120
702		Nut-tree		1908
	1076	Nux vomica tree		
	1080	NYCTAGI'NEÆ, Or. 123.		
12	1076	Nyctánthes		38
100	1078	Nyctérium		452
462	1056	Nymphæ'a		1174
	1055	NYMPHÆA'CEÆ, Or. 9.		
870	1082	Nýssa		2161
774	1083	Oak		2000
	1083	Oak gall		
58	1088	Oat-grass		171
468	1063	O'chna		1191
	1063	OCHNA'CEÆ, Or. 51.		
564	1059	Ochròma		1458
620	1066	O'chrus		1559

Lin.	Nat.		Sp.	Gen.
548	1057	Ochthòdium		1416
300		OCTA'NDRIA, Cl. 8.		
302		O. MONOGY'NIA, Or. 1.		
324		O. DIGY'NIA, Or. 2.		
326		O. TRIGY'NIA, Or. 3.		
328		O. TETRAGY'NIA, Or. 4.		
762	1085	Octomèria		1913
510	1079	*O'cymum*		1281
744	1073	*Œdèra*		1844
212	1070	*Œnánthe*		632
176	1063	*Œnóplia*		504
318	1069	*Œnothèra*		901
870		Ogechee lime	14385	2161
870		Oil-nut		2162
	1065	Oil of ben		
333		Oil of camphor, *n*		
333 417	1068	Oil of cloves, *n*.		
342		Oil of roses, *n*.		
514		Oily grain		1296
836		Oily palm		2077
	1062	OLACI'NEÆ, Or 48		
100	1072	Oldenlánd*ia*		295
666		Old man's beard		1620
10	1076	*O'lea*		32
146	1076	Oleander		411
90		Oleaster		259
	1076	*OLEI'NÆ*, Or. 99.		
849		Olibanum, *n*		
10	1076	Olive		32
364		Olive bark-tree		1033
212	1071	Olivèr*ia*		628
180		Olive-wood		516
418	1068	Olÿnthia		1124
780	1089	*Olÿra*		1954
510		Omine plant	8482	1282
812	1083	Omphàlea		2029
122	1078	Omphalòdes		377
	1069	*ONAGRA'RIÆ*, Or 69.		
758	1085	Oncidium		1895
274		Onion	4686	796
686	1074	Onobròma		1674
880	1090	*Onoclèa*		2178
612	1066	*Onònis*		1541
684	1074	*Onopórdum*		1666
120	1078	*Onósma*		392
122	1078	Onosmòdium		385
1032	1093	Onygèna		2440
974	1092	Opégrapha		2360
6		Opera girls	99	16
88	1072	Operculària		250
	1072	OPERCULARI'NEÆ, Or. 85.		
888	1090	Ophioglóssum		2209
272	1086	Ophiopògon		790
144	1072	Ophiorhìza		406
866	1077	Ophióxylon		2152
72	1089	Ophiùrus		212
752	1085	*O'phrys*		1866
461	1056	Opium, *n*.		
	1070	Opopanax		
862		Orache		2138
652	1062	Orange-tree		1615
	1091	Orchal		
	1084	*ORCHI'DEÆ*, Or 150.		
750	1085	*O'rchis*		1859
506	1079	*Origanum*		1274
340	1066	Ormòsia		942
760	1085	Ornithidium		1902
762	1085	Ornithocéphalus		1910
276	1086	*Ornithógalum*		802
628	1066	Ornithopus		1578
302	1060	Ornitrophe		882
26	1070	*O'rnus*		69
524	1078	*Orobánche*		1335
	1078	*OROBA'NCHEÆ*, Or. 111.		
618	1066	*O'robus*		1557
256	1089	*Oróntium*		756
228		Orpine		689
46		Orrice-root, *n*.		
36	1059	Ortèg*ia*		91
54	1089	Orthopògon		147
906	1091	Orthótrichum		2233
288	1089	*Orÿza*		837
52	1089	Oryzópsis		138
784		Osage orange		1969
316	1068	Osbéck*ia*		899
932	1091	Oscillatòria		2285
826		Osier	13802	2042
732	1073	Osmìtes		1806
886	1090	Osmùnda		2205
742	1074	Osteospérmum		1832

Lin.	Nat.		Sp.	Gen.
792	1083	*O'strya*		1905
22		Oswego tea	364	60
828	1082	*Osÿris*		2051
382		Otaheite apple	6402	1059
362		Otaheite chestnut		1024
788		Otaheite myrtle		1978
696	1073	Otánthus		1715
742	1074	*Othónna*		1833
	1061	*OXALI'DEÆ*, Or. 39.		
384	1061	*O'xalis*		1065
728		Ox-eye		1797
720		Ox-eye daisy	12238	1769
126		Ox-lip	2021	350
672		Ox-tongue		1634
172	1072	Oxyánthus		489
320	1075	Oxycóccus		906
342	1066	Oxylòbium		951
294	1081	Oxÿria		857
196	1077	Oxystélma		582
636	1066	Oxÿtropis		1593
1038	1093	Ozònium		2474
784	1082	Pachysándra		1963
152	1072	Pædèria		439
472	1055	*Pæònia*		1202
472		Pæony		1202
686	1073	Palafóx*ia*		1678
588	1059	Palàv*ia*		1483
178	1063	*Pallàrus*		505
814		Palma Christi		2034
259	1088	Palm, *n*.		
	1088	*PA'LMÆ*, Or. 173.		
926	1091	Palmélla		2265
790		Palm oil, *n*.		
872	1070	*Pànax*		2166
242	1086	*Pancràtium*		712
	1087	*Pandàneæ*, Or. 17		
820	1087	*Pandànus*		[illegible]
52		Panic grass		144
52	1089	*Pánicum*		144
460	1056	*Papàver*		1170
	1056	*PAPAVERA'CEÆ*, Or. 10		
842	1068	Papaw-tree		1095
832		Paper mulberry	13890	2059
50	1089	*Papÿrus*		128
	1063	Paraguay tea		
48	1086	Pardanthus		118
848	1055	Pareira brava root		2116
789		Pariah arrack, *n*		
862	1083	Parietària		2137
298	1067	*Parinàrium*		870
328	1086	Pàris		929
604	1067	*Parivòa*		1519
350	1067	Parkinsòn*ia*		976
962	1092	Parmèlia		2341
228	1061	*Parnássia*		694
192	1080	*Paronÿchia*		557
540	1057	Párry*a*		1388
216		Parsley		651
88		Parsley-piert	1519	255
222	1070	Parsnep		671
744	1074	*Parthènium*		1840
728	1074	Pascàl*ia*		1795
52	1089	*Páspalum*		139
482		Pasque flower	7957	1226
324	1082	Passerìna		914
564	1068	Passiflòra		1459
	1068	PASSIFLO'REÆ, Or. 65.		
564	1068	Passion-flower		1459
222	1071	*Pastinàca*		671
562	1086	Patersòn*ia*		1450
292		Patience	4997	856
326		Patience dock, *n*.		
34	1072	Patrìn*ia*		79
328	1060	Paullìn*ia*		923
100	1072	*Pavètta*		290
	1060	Pàv*ia*		
584	1059	Pavòn*ia*		1478
620	1065	Pea		1560
480	1067	Peach	7020	1128
496	1067	Pear	7086	1130
73		Pearl-barley, *n*.		
106		Pearlwort		317
718	1074	*Péctis*		1763
	1079	PEDALI'NÆ, Or. 114.		
524	1079	Pedàlium		1331
528	1078	*Pediculàris*		1349
406	1083	Pedilánthus		1104
60		Peel corn, *n*.		
396	1062	*Péganum*		1068
794		Pekan-nut, *n*.		
568	1061	Pelargònium		1461

Lin.	Nat.		Sp.	Gen.
272	1086	Peliosánthes		793
862		Pellitory		2137
724		Pellitory of Spain	12330	1778
544	1057	Peltària		1403
966	1092	Peltidèa		2345
98		Penæ'*a*		283
54	1089	Penicillària		148
1040	1093	Penicillum		2484
52	1089	Pennisètum		135
546		Penny cress	9099	1408
500		Pennyroyal	8254	1254
496		Pennyroyal-tree	8157	1246
218		Pennywort		658
108		PENTA'NDRIA, Cl. 5.		
118		P. MONOGY'NIA, Or. 1.		
194		P. DIGY'NIA, Or. 2.		
224		P. TRIGY'NIA, Or. 3.		
228		P. TETRAGY'NIA, Or 4.		
228		P. PENTAGY'NIA, Or. 5.		
234		P. POLYGY'NIA, Or. 6.		
580	1060	*Pentapètes*		1468
384	1070	Penthòrum		1062
514	1078	Pentstèmon		1297
696	1073	Péntz*ia*		1719
288	1068	*Péplis*		836
28	1084	Pepper		77
942		Pepper-dulse	15285	2313
894		Pepper-grass	14649	2215
500		Peppermint	8229	1254
418		Peppermint-tree	6999	1126
501		Peppermint water, *n*.		
513		Pepper-root, *n*.		
176		Pepper-vine	2867	502
552		Pepperwort		1428
756	1074	*Perdìcium*		1752
198	1077	Pergulària		590
502	1079	*Perílla*		1255
1022	1092	Periola		2406
194	1077	Periplòca		574
588	1059	Periptera		1486
146		Periwinkle		401
74	1089	Peròtis		214
326		Persicària		921
84	1081	Persoón*ia*		238
	1081	Peruvian cinnamon		
705		Pestilent-wort, *n*.		
364	1068	Petalòma		1030
600	1066	Petalostèmum		1501
296	1081	Petivèr*ia*		865
520	1079	Petrè*a*		1328
694	1074	Petròbium		1709
544	1057	Petrocállis		1404
80	1081	Petróphila		229
612		Petty-whin	10176	1538
222	1071	*Peucédanum*		670
844	1083	*Peùmus*		2103
1016	1092	*Peziza*		2390
636	1066	*Phàca*		1592
132	1078	Phacèlia		373
1030	1093	Phacidium		2433
58	1089	*Phálaris*		168
1022	1092	Phállus		2409
228	1059	*Pharnàceum*		691
788	1089	Phàrus		1980
896	1091	*Pháscum*		2217
614	1066	*Phasèolus*		1547
516	1079	Phaylópsis		1303
484		Pheasant's-eye		1230
214	1070	*Phellándrium*		636
	1070	*PHILADE'LPHEÆ*, Or. 76.		
414	1070	*Philadélphus*		1114
12	1076	*Phillÿrea*		33
192	1080	Philóxerus		553
6	1087	Philÿdrum		17
1010	1092	Phlèbia		2377
58	1089	*Phlèum*		165
506	1079	*Phlòmis*		1268
132	1077	*Phlóx*		369
828	1088	*Phœ'nix*		2049
760	085	Pholidòta		1904
1030	1093	Phòma		2430
286	1086	*Phórmium*		823
496	1067	Photínia		1135
512	1079	*Phrÿma*		1289
2	1085	*Phrÿnium*		5
188	1063	*Phÿlica*		542
810	1082	*Phyllánthus*		2087
218	1072	Phÿllis		617
268	1086	Phyllòma		775

Lin.	Nat.		Sp.	Gen.
156	1078	Phýsalis		448
1034	1093	Phýsarum		2454
812		Physic-nut		2033
168	1075	*Phyteùma*		465
390	1081	Phytolácca		1071
202	1077	Piaránthus		595
11	1081	Pichurim-bean		
		Pickled olives, *n.*		
390		Pickpurse, *n.*		
372		Picotees, *n.*		
834	1064	Picrámnia		2067
668	1073	Picrídium		1626
672	1073	*Picris*		1634
624		Pigeon pea	10143	1566
782	1083	Pílea		1961
484		Pilewort		1232
894		Pillwort		2215
1024	1092	Pilóbolus		2415
894	1090	Pilulària		2215
26	1082	Pimelèa		73
418	1068	*Piménta*		1123
128		Pimpernel		357
212	1070	Pimpinélla		635
174	1072	Pinckney*a*		492
802		Pine		2012
246	1086	Pine-apple		726
20	1097	Pinguícula		52
370		Pink		1046
412		Pin-pillow	6897	1111
802	1089	*Pinus*		2012
28	1084	*Piper*		77
	1084	*Pipera'ceæ*, Or. 147.		
76		Pipewort		223
694	1073	Piquèr*ia*		1704
606	1066	Piscídia		1524
296	1080	Pisòn*ia*		864
832	1064	Pistachia-tree		2065
832	1064	*Pistàcia*		2065
1014	1092	Pistillària		2385
620	1065	*Pisum*		1560
246	1087	Pitcairn*ia*		728
	1084	Pitch		
850		Pitcher-plant		2121
182		Pittósporum		592
208	1088	Planèr*a*		616
798	1088	Plane tree		2002
608		Plank-plant	10121	1531
	1080	*Plantagineæ*, Or. 122.		
96	1080	*Plantàgo*		278
96	1089	Plantain		278
244		Plantain tree		721
108		Plant of gluttony, *n*		
750	1085	Platanthèra		1857
798	1088	*Plátanus*		2002
606	1066	Platylòbium		1525
692	1074	Platypterus		1698
510	1079	Plectránthus		1282
188	1068	Plectrònia		348
758	1085	Pleurothállis		1894
174	1072	Plocama		495
702		Plowman's spikenard		1732
816	1082	Pluknèt*ia*		2040
422	1067	Plum		1129
	1080	*Plumbagineæ*, Or. 121.		
118	1080	*Plumbàgo*		324
148	1076	Plumièr*ia*		415
66	1089	*Pòa*		196
342	1066	Podalýr*ia*		948
880		Pod fern		2181
806	1084	Podocárpus		2016
716	1073	Podolèpis		1717
942	1066	Podolòbium		950
	1055	Podophylla'ceæ, Or. 7		
460	1055	Podophýllum		1166
666	1073	Podospérmum		1624
828		Poet's cassia		2051
756	1084	Pogònia		1879
908	1091	Pòhl*ia*		2239
350	1067	Poinciàn*a*		977
250		Poison-bulb	4187	785
152		Poison-nut	2446	437
226		Poison-oak	8901	681
	1077	*Polemonia'ceæ*, Or 106.		
132	1077	*Polemònium*		370
254	1086	Poliánthes		747
6	1081	Pollìch*ia*		21
496		Poly	8187	1244
650		Polyade'lphia, Cl. 18.		
650		P. Deca'ndria, Or. 1.		
652		P. Polya'ndria, Or. 2.		
456		Polya'ndria, Cl. 13.		
458		P. Monogy'nia, Or. 1.		
470		P. Di-Trigy'nia, Or. 2.		
474		P. Pentagy'nia, Or. 3		
476		P. Polygy'nia, Or. 4.		
1024	1092	Polyangium		2415
240		Polyanthus	4006	711
876	1090	Polybótrya		2168
74	1080	Polycárpon		221
96	1081	Polycnèmum		92
602	1058	*Polýgala*		1508
	1058	*Polygaleæ*, Or. 16.		
852		Polyga'mia, Cl 23.		
854		P. Monœ'cia, Or. 1.		
868		P. Diœ'cia, Or 2.		
270	1086	*Polygónatum*		789
	1081	*Polygòneæ*, Or. 127.		
326	1081	*Polýgonum*		921
940	1091	Polyìdes		2310
740	1074	Polýmn*ia*		1826
878	1090	*Polypòdium*		2175
878		Polypody		2175
56	1089	Polypògon		154
1006	1092	Polýporus		2372
988	1091	Polysiphònia		2299
760	1085	Polystàchya		1908
1042	1093	Polythrìncium		2492
910	1091	*Polytrichum*		2241
180	1068	Pomadérris		512
420	1068	Pomegranate		1127
106 772		Pond-weed		816 1098
604	1067	*Pongàmia*		1514
248	1087	Pontedèr*ia*		780
754	1084	Ponthièv*a*		1872
674		Poor Robin's plantain, *n.*		
840	1083	Poplar		2087
460	1056	Poppy		1170
840	1083	*Pópulus*		2087
976	1092	Porìna		2362
940	1091	Pórphyra		2309
162	1072	Portlánd*ia*		462
800		Portland sago, *n.*		
422		Portugal laurel	7090	1129
396	1069	*Portulàca*		1091
228	1069	Portulacària		692
	1069	*Portulaceæ*, Or 71.		
172	1072	*Posoquèria*		485
106	1090	*Potamogèton*		317
205	947	Potash, *n.*		
156	1078	Potato	2521	451
59		Potato oat, *n*		
78		Pot barley, *n.*		
472	1067	Potentílla		1153
790	1067	*Potèrium*		1190
88	1089	*Pòthos*		252
848		Pounce, *n.*		
512	1079	*Prasium*		1288
670	1073	Prenánthes		1630
764	1084	Prescòt*ia*		1926
54		Prickly-grass		146
413		Prickly pear, *n*		
875		Priest's-tree, *n*		
126	1080	Primrose		350
126	1080	Primula		350
	1080	Primula'ceæ, Or. 119		
786		Prince's feather	13729	1955
296	1093	*Prìnos*		828
520	1079	*Prìva*		1320
12		Privet		36
404	1058	*Pròckia*		1179
350	1067	*Prósopis*		984
512	1079	Prostanthèra		1294
80	1081	Pròtea		231
	1181	Proteàceæ, Or. 131.		
927		Protocóccus, *n.*		
930	1091	Protonèma		2279
512	1079	*Prunélla*		1286
422	1067	*Prùnus*		1129
	1067	Prussic acid		
56	1089	Psámma		102
742	1074	Psiàdia		1896
416	1068	*Psídium*		1181
892	1090	Psilòtum		2218
638	1066	Psoràlea		1507
172	1072	Psychótria		488
100	1064	*Ptèlea*		298
892	1090	*Ptèris*		2190
604	1067	Pterocárpus		1515
904	1091	Pterogònium		2229
542	1067	Pteroneùron		1898
686	1074	Pteròma		1679
580	1060	Pterospérmum		1670
940	1091	Ptilòta		[illegible]
1046	1093	Puccínia		2498
460		Puccoon		1165
1034		Puff-ball		2449
716	1073	Pulicària		1745
122	1078	Pulmonària		338
	1064	Pulse		
844	1066	Pultenæ'a		965
808		Pumpkin	13508	2021
420	1068	*Pùnica*		1127
396	1069	Purslane		1091
228		Purslane-tree		692
278	1086	Puschkin*ia*		804
506	1079	Pycnánthemum		1273
424		*Pyracántha*	7072	1132
956	1092	Pyrénula		2337
722	1078	*Pyrèthrum*		1770
302	1075	Pýrola		1022
424	1067	*Pýrus*		1133
	1054	Pythagorean bean of antiquity		
130	1077	Pyxidanthèra		859
66		Quaking-grass		195
278		Quamash	4773	808
354	1063	Quássia		1002
794	1088	*Quércus*		2000
76	1080	Quèr*ia*		227
56		Quick, *n.*		
894		Quillwort		2214
426	1067	Quince		1134
364	1068	Quisquàlis		1028
952	1092	*Quivisia*		869
1088	1093	Racòdium		2470
108	1059	Radìola		321
556	1057	Radish		1443
606	1066	Ráfn*ia*		1527
988		Ragged Robin	6540	1067
742		Ragwort		1888
888	1086	Rajàn*ia*		2084
970	1092	Ramalìna		2355
786		Rambutan		1971
132	1078	Ramònd*a*		374
892		Ramoon-tree		2068
168	1075	Rampion		465
274		Ramson	4671	796
174	1072	Ránd*ia*		490
	1054	*Ranuncula'ceæ*, Or. 1.		
486	1054	*Ranúnculus*		1233
554	1057	Rape	9247	1452
556	1057	*Ráphanus*		1443
426	1067	Raphiolèpis		1136
548	1057	*Rapistrum*		1418
450		Raspberry	7024	1149
256		Rattan-cane, *n.*		
886		Rattlesnake-fern	11619	2208
692		Rattlesnake-root	10005	1708
154	1077	Rauwólf*ia*		441
75		Raw sugar, *n.*		
476	1069	Reaumùr*ia*		1210
384		Red bay	5658	984
798		Red beech, *n.*		
848		Red cedar	14056	2113
802		Red deal, *n.*		
1048		Red gum, *n.*		
418		Red gum-tree	6992	1126
226		Red lac	3792	681
548	1059	Redoutèa		1482
604		Red Saunder's-wood		1515
927		Red snow plant, *n.*		
586		Red sorrel, *n.*		
65		Red-top, *n.*		
176		Red-wood	2872	503
60		Reed		175
720	1073	Relhàn*ia*		1767
50	1089	*Reimaria*		131
762	1085	Renanthèra		1918
396	1068	*Resèda*		1102
	1083	*Reseda'ceæ*, Or. 187		
612		Rest harrow		1541
	1087	*Restia'ceæ*, Or 172.		
828	1087	Réstio		2047
142	1077	Rétz*ia*		801
678	1073	Rhagadìolus		1658
192 862	1081	Rhagòdia		562 2180
	1068	*Rhamneæ*, Or. 54.		
176	1068	*Rhámnus*		503
666	1088	Rhàpis		2158

Lin.	Nat.		Sp.	Gen.
121	1058	Rhatany-root, *n.*		
394	1081	Rhèum		988
318	1068	Rhéxia		900
524	1078	Rhinánthus		1340
414	1069	Rhipsalis		1112
1022	1092	Rhizoctònia		2405
1038	1093	Rhizomórpha		2475
394	1071	Rhizóphora		1078
	1071	RHIZOPHÒREÆ, Or. 80.		
1024	1092	Rhizopògon		2412
358	1075	Rhododéndron		1014
942	1091	Rhodomèla		2312
358	1075	Rhodòra		1013
86	1081	*Rhopàla*		246
334	1081	Rhubarb		938
224	1064	*Rhùs*		681
48	1089	Rhynchóspora		120
1030	1093	Rhytisma		2492
190	1069	*Ribes*		550
96	1080	Rib grass	1687	278
922	1091	Riccia		2255
288	1088	Rice		837
288	1072	Richárdia		893
814	1082	*Ricinus*		2054
642	1057	Richtia		1396
88	1081	Rivina		259
928	1091	Rivulària		2270
676	1073	Robértia		1647
626	1066	Robínia		1568
274		Rocambole	4048	796
966	1092	*Roccélla*		2347
290	1070	Ròchea		698
548 556		Rocket		1421 1436
468	1058	Rock rose		1197
736	1085	Rodriguèzia		1883
168	1075	Roélla		467
746	1074	Rolándra		1851
460	1056	Römèria		1168
162	1072	Rondelètia		460
828		Rope-grass		2047
442	1067	*Ròsa*		1148
	1067	*ROSA'CEÆ*, Or. 60.		
4	1085	Roscòea		7
442	1067	Rose		1148
626		Rose acacia	10465	1568
	1068	Rose apple		
318		Rose bay	5474	938
388		Rose campion		1066
22	1079	Rosemary		61
548		Rose of Jericho		1416
418		Rose water, *n.*		
22	1079	*Rosmarinus*		61
238		Rossoli, *n.*		
676	1066 1073	Ròthia		1648
844	1082	Rottlèra		2105
464		Roucou, *n.*		
208		Rough chervil		620
302	1089	Roxbúrghia		876
394		Royal bay	5618	934
364	1076	Royèna		1085
94	1072	*Rùbia*		267
	1071	*RUBIA'CEÆ*, Or. 84.		
1040	1093	*Rubìgo*		2486
450	1067	*Rùbus L.*		1149
730	1074	Rudbéckia		1800
354		Rue		998
616	1079	Ruéllia		1304
592	1060	Ruizia		1489
234	1060	Rulingia		704
75		Rum, *n*		
292	1081	*Rùmex*		856
222	1071	*Rùmia*		675
106	1090	Rùppia		319
206		Rupture-wort		614
846	1086	*Rùscus*		2111
258		Rush		760
344		Rush-broom		967
50		Rush-nut	896	127
532	1078	Russèlia		1364
	1060	Russian mats		
	1092	Rust		
354	1062	*Rùta*		998
	1062	*RUTA'CEÆ*, Or. 49.		
72	1088	Rye		209
70		Rye-grass	1246	207
968	1091	Rytiphlæ'a		2300
892	1088	*Sàbal*		855
130	1077	Sabbàtia		367
74	1089	Sáccharum		215
476		Sacred bean		1213
58	1085	Saffron	614	93

Lin.	Nat.		Sp.	Gen.
22	1079	Sage		62
23		Sage-apple, *n.*		
106	1059	Sagina		319
790	1087	Sagittària		1368
846		Sago, *n.*		
788		Sago palm		1982
788	1088	*Sàgus*		1982
658		St. Andrew's cross	11047	1618
736		St. Barnaby's thistle	12598	1819
682		Saintfoin	10597	1588
868		St. John's bread	14328	2156
656		St. John's wort		1617
170		St. Peter's wort		476
256 752, *n.*		Salep	4921	758
	1068	SALICA'RIÆ, Or. 61.		
6	1081	Salicórnia		22
798		Salisbùria		2003
820		Sàlix		2042
690	1074	Sálmea		1696
	1084	Salop		
666	1072	Salsafy	11066	1621
204	1081	Salsòla		609
388		Salt of lemons, *n.*		
204		Saltwort		609
22	1079	Sálvia		62
224	1071	Sambùcus		680
168	1080	Sámolus		471
212		Samphire		639
364	1069	Samỳda		1094
	1063	SAMY'DEÆ, Or 56.		
	1065	Sandal		
102		Sandal-wood		307
848		Sandarach, *n.*		
814		Sandbox-tree		[illegible]
978		Sandwort		[illegible]
460	1056	Sanguinària		[illegible]
88	1067	Sanguisórba		256
210		Sanicle		623
210	1070	Sanícula		623
268	1086	Sansevièra		779
	1082	*Santalàceæ*, Or. 133		
102	1082	*Sántalum*		307
694	1073	Santolina		1714
724	1074	Sanvitàlia		1780
177		Sap-green, *n.*		
	1060	SAPINDA'CEÆ, Or. 29.		
328	1060	Sapíndus		926
812	1089	Sàpium		2031
370	1059	Saponària		1045
130	1076	*Sapòta*		427
	1076	*Sapòtæ*, Or. 96.		
156	1078	Sarácha		449
762	1085	Sarcánthus		1915
602	1056	Sarcocápnos		1516
174	1072	Sarcocéphalus		408
608	1066	Sarcophýllum		1529
196	1077	Sarcostémma		579
462	1056	Sarracènia		1173
	1086	Sarsaparilla		
834	1081	Sassafras-tree	5067	934
496	1079	*Saturèja*		1246
750	1085	*Satýrium*		1855
298	1084	Saurùrus		872
680	1074	Saussùrea		1662
186	1058	Sauvagèsia		599
146		Savanna-flower	2536	413
848	1084	Savin	14058	2118
496	1079	Savory		1246
554		Savoy		
260		Savoy spiderwort	4582	769
680		Saw-wort		1661
386	1070	Saxifraga		1041
386		Saxifrage		1041
	1070	SAXIFRA'GEÆ, Or. 75.		
90	1072	Scabiòsa		264
90		Scabious		264
168	1075	Scæ'vola		473
140	1077	Scammony	2210	384
208	1071	Scándix		619
832	1063	Schæfféria		2060
290	1090	Scheuchzèria		840
482	1064	Schinus		2093
66	1089	Schismus		190
898	1091	Schistostèga		2218
786	1055	Schizándra		1972
16 534	1078	Schizánthus		44 1372

Lin.	Nat.		Sp.	Gen.
926	1091	Schizonèma		2264
538	1058	Schizopétalon		1380
1006	1092	Schizophýllum		2570
718	1074	Schkùhria		1762
48	1089	Schœ'nus		119
346	1067	Schòtia		969
854	1067	Schránkia		2125
180	1063	Schrébera		514
806	1084	Schubértia		2015
16	1080	Schwénckia		42
278	1086	Scilla		803
48	1089	Scirpus		123
	1085	SCITAMÍNEÆ, Or. 151.		
366	1060	Sclerànthus		1037
732	1074	Sclerocárpus		1808
68	1089	Sclerochlòa		199
1032	1093	Sclerodérma		2442
344	1066	Sclerothámnus		962
1020	1092	Scleròtium		2404
882	1090	Scolopéndrium		2188
678	1073	Scólymus		1659
96	1078	Scopària		276
118		Scorpion-grass		326
628		Scorpion senna	10494	1576
628	1066	Scorpiùrus		1579
636	1073	*Scorzonèra*		1625
290		Scotch asphodel	4954	844
73		Scotch barley, *n.*		
994		Scotch bonnets, *n.*		
608	1066	Scóttia		1592
93		Scratch-weed, *n.*		
820		Screw pine		2041
580		Screw-tree		1406
530	1078	Scrophulària		1366
	1078	SCROPHULARÍNEÆ, Or. 112		
88		Scunkweed	1504	252
546	1057	Scurvy-grass		1407
512	1079	Scutellària		1985
928	1091	Scythymènia		2272
930	1091	Scytonèma		2277
944	1091	Scytosiphon		2330
206		Sea blite	3443	611
832		Sea buckthorn		2058
380		Sea chickweed		[illegible]
288		Sea heath		835
210		Sea holly	3502	622
556		Sea kail		1442
234		Sea lavender		706
561		Sea matgrass	1011	162
210		Sea parsnep		624
714		Sea ragwort	12158	1741
548		Sea rocket	9144	1417
812		Seaside balsam	13632	2052
326	1081	Seaside grape		922
812		Seaside laurel	13617	2027
64		Seaside oat		186
945		Sea trumpet, *n*		
8		Sea wrackgrass		24
98	1077	Sebæ'a		281
72	1089	Secàle		209
196	1077	*Secamòne*		577
602	1058	Securidàca		1511
788	1062	Securinèga		1978
744	1089	Sedge		1947
392	1070	Sèdum		1061
520	1079	Selàgo		1316
512		Self-heal		1286
220	1071	Selinum		663
720	1074	Sellòa		1766
	1069	SEMPERVIVEÆ, Or. 74.		
406	1070	Sempervivum		1110
178		Senàcia		508
704	1074	Senècio		1738
890		Sensitive fern	14497	2178
854	1064	Sensitive-plant	14101	2124
1038	1093	Sepedònium		2476
1090	1093	Septària		2428
298	1070	Séptas		874
454		Septfoil		1134
754	1085	*Serápias*		1869
328	1060	Seriàna		924
182	1060	Seríngia		525
676	1073	Serìola		1648
172	1072	*Serissa*		481
866		Serpent-wood	14816	2152

Lin.	Nat.		Sp.	Gen.
784	1069	Serpicula		1968
628		Serradilla	10515	1578
680	1074	*Serràtula*		1661
82	1081	Serrùr*ia*		234
152	1076	Sersal*isia*		433
426		Service	7100	1138
514	1079	Sesamum		1296
630	1066	*Sesbània*		1581
214	1070	Séseli		642
60	1089	Seslèr*ia*		177
428	1069	*Sesùvium*		1148
54	1089	Setària		145
654		Shaddock	10980	1615
274		Shallot	4664	796
648		Shamrock, *n.*		
256		Sheep laurel	5916	1011
666		Sheep's beard		1623
188		Sheep's scabious		547
294		Sheep's sorrel		856
794		Shell bark hickory, *n.*		
832	1082	Shephérd*ia*		2057
132		Shepherd's club	2138	375
546		Shepherd's purse		1408 9
94	1072	Sherárd*ia*		269
884		Shield fern		2199
853		Ship-blocks, *n.*		
784		Shore-weed		1967
100		Shrubby trefoil		298
588		Shuttlecock	9865	1486
286	1067	Sibbáld*ia*		710
426		Siberian crab	7092	1138
626		Siberian pea-tree		1509
592	1078	Sibthórp*ia*		1358
810	1069	Sicyos		2023
588	1067	Sida		1487
498	1079	Sideritis		1252
100	1072	Siderodéndrum		292
150	1076	Sideróxylon		425
462		Side-saddle flower		1178
728	1074	Siegesbéck*ia*		1789
456	1059	Sievérs*ia*		1161
374	1059	Silène		1048
592		Silk-cotton-tree		1492
856		Silk-tree	14159	2127
738	1074	Silphium		1824
682	1074	Silybum		1664
830		Silver-tree	13840	2053
140		Silver-weed		385
	1063	*Simarubàceæ*, Or 52		
732	1074	Sims*ia*		1805
554	1057	Sinàpis		1433
810		Single-seeded cucumber		2023
846		Sir Joseph Banks's pine	14047	2112
216	1070	Sìson		647
1010	1092	Sistotrèma		2376
550	1057	Sisýmbrium		1422
214	1071	Sium		646
214		Skirret	3798	646
140		Skirret of Peru, *n.*		
512		Skullcap		1285
406		Slipper-plant		1104
18		Slipperwort		51
464	1060	Sloànea		1180
422		Sloe-tree	7052	1129
	1086	SMILA'CEÆ, Or 161		
270	1086	Smilacìna		788
836	1086	Smìlax		2081
628	1068	Smith*ia*		1580
216	1071	Smýrnium		650
616		Snail-flower	10256	1547
808		Snake-gourd		2019
144	1076	Snake-root		406
272		Snake's-beard		790
886		Snake's tongue		2206
328		Snake's-weed	5594	921
826		Snake-wood		2043
526		Snap-dragon		1341
18		Snap-tree	304	47
726		Sneezewort	12348	1781
294		Snowball-tree	3774	679
172		Snowberry		480
248		Snowdrop		732
394	1076	Snowdrop-tree		1079
248		Snowflake		733
328		Soap-berry		926
370		Soapwort		1045
205		Soda, *n.*		
860		Soft-grass		2132
154	1078	Solándra		444

Lin.	Nat.		Sp.	Gen.
	1078	SOLA'NEÆ, Or. 110.		
156	1078	Solànum		451
128	1080	Soldanélla		352
676	1073	Soldevìlla		1649
854		Soldier-wood		2123
940	1091	Solènia		2307
710	1074	Solidàgo		1740
742	1073	Solìva		1815
270		Solomon's seal		788
950	1092	Solorìna		2331
668	1073	Sónchus		1627
340	1066	*Sophòra*		941
860	1089	*Sórghum*		2131
82	1081	Sorocéphalus		236
294	1081	Sorrel	5031	856
587		Sorrel cool drink, *n.*		
360		Sorrel tree	5952	1016
592		Sour gourd	9941	1491
870		Sour gum	14381	2161
490		Soursop	7920	1220
696		Southernwood	11685	1791
106		South Sea tea	1831	315
272	1086	Sowerbæ'*a*		795
60		Sowins, *n.*		
668		Sow-thistle		1627
616		Soy	10289	1550
218	1070	Spanánthe		659
552		Spanish cress	9221	1428
170		Spanish elm	2415	428
46		Spanish nut	824	46
140		Spanish potato, *n*		
205		Spanish soda, *n.*		
40	1085	Sparáxis		99
774	1090	Spargànium		1946
688	1074	Sparganóphorus		1684
464	1060	Sparmánn*ia*		1182
324		Sparrow-wort		914
52	1089	Spartìna		136
610	1066	Spártium		1537
82	1081	Spatálla		237
226	1064	Spathèlia		683
1014	1092	Spatulària		2382
500		Spearmint, *n.*		
486		Spearwort	8025	1233
14		Speedwell		40
70		Spelt	1235	206
390	1059	Spérgula		1070
94	1072	Spermacòce		270
162	1072	Spermadictyon		455
940	1091	Sphacellària		2302
744	1073	Sphæránthus		1849
1028	1092	Sphæ'ria		2425
1024	1092	Sphæróbolus		2419
922	1091	Sphærocárpus		2258
942	1091	Sphærocóccus		2314
344	1066	Sphærolóbium		958
1030	1093	Sphæronæ'ma		2427
970	1092	Sphæróphoron		2353
896	1091	Sphágnum		2216
734	1073	Sphenógyne		1816
	1081	Spice		
752		Spider ophrys	12838	1866
200		Spiderwort		765
520	1079	Spielmánn*ia*		1321
134	1077	Spigèl*ia*		379
212		Spignell		634
48		Spike-rush		124
690	1074	Spilánthes		1695
970	1092	Spilòma		2330
834	1081	Spinàcia		2070
834	1081	Spinage		2070
178		Spindle-tree		509
428	1067	Spiræ'a		1141
754	1084	Spiránthes		1874
906	1091	*Spláchnum*		2231
880		Spleenwort		2186
392	1064	*Spóndias*		1059
858		Sponge-tree	14190	2127
1042	1093	Sporidérmium		2494
56	1089	Sporóbolus		159
944	1091	Sporóchnus		2321
1038	1093	Sporótrichum		2478
142		Spreng*èlia*		397
28		Spring-grass		76
275		Spring salad onion, *n.*		
804		Spruce-beer, *n.*		
1036	1093	Spumària		2457
400		Spurge		1103
392		Spurge laurel	5530	910
380		Spurrey		1070
278		Squill		803

Lin.	Nat.		Sp.	Gen.
73		Squirrel grass, *n.*		
808	1068	Squirting cucumber	13559	2020
56		Squitch, *n.*		
178	1063	Staàv*ia*		511
1040	1093	Stachylidium		2483
504	1079	Stàchys		1283
20	1079	Stachytárpheta		54
686	1074	Stæhelìna		1677
178		Staff-tree		507
198	1077	Stapèl*ia*		394
226	1063	Staphylèa		684
150	1076	Star-apple		424
198		Star-fish	3278	394
728	1074	Stárke*a*		1784
276		Star of Bethlehem		802
98		Star of the earth	1710	278
736		Star-thistle	12605	1819
706		Starwort		1739
234	1080	Státice		706
764	1085	Stèlis		1924
376	1059	Stellària		1049
324	1082	Stellèr*a*		913
532	1078	Stemòdia		1361
1034	1093	Stemonìtis		2447
144		Stenanthèra		402
84	1081	Stenocárpus		241
524	1079	Stenochìlus		1333
754	1084	Stenorhýnchus		1875
814	1060	Stercùlia		2038
970	1092	Stereocaúlon		2352
254	1088	Sternbérg*ia*		742
690	1073	Stèv*ia*		1669
966	1092	Sticta		2344
1018	1092	Stictis		[illegible]
930	1091	Stigonèma		2278
828	1083	Stilàgo		2050
1042	1093	Stilbospòra		2493
1038	1093	Stilbum		2467
810	1083	Stillíng*ia*		2026
	1083	Stinging nettle		
504		Stinking horehound		1265
54	1089	Stìpa		150
370		Stitchwort		1049
616	1066	Stizolòbium		1551
686	1074	Stobæ'*a*		1673
538	1057	Stock		1381
744	1073	Stæ'be		1846
686	1074	Stokès*ia*		1672
382		Stonecrop		1061
362		Storax		2025
568		Stork's-bill		1461
134		Stramònium	2165	376
228		Strapwort		690
812	1084	Stratiòtes		2096
418	1068	*Stravàdium*		1125
452		Strawberry		1151
8		Strawberry blite		27
412		Strawberry pear, *n.*		
360		Strawberry-tree		1019
194	1085	Strelitz*ia*		571
270	1086	Streptòpus		786
1026	1092	Stromatosphæ'ria		2421
148	1076	Strophánthus		416
250	1086	Strumària		734
86	1082	Struthìola		240
880	1090	Struthiópteris		2179
152	1077	Strýchnos		437
592	1062	Stuárt*ia*		1475
	1075	STYLI'DEÆ, Or 92.		
766	1075	Stylídium		1932
630	1066	Stylosánthes		1583
142		Styphèlia		[illegible]
362	1076	Stýrax		[illegible]
558	1068	Subulària		1447
678	1072	Succory		1657
263		Sucrotrine aloe, *n.*		
556	1057	Succòw*ia*		1439
75		Sugar, *n.*		
75		Sugar candy, *n.*		
74	1088	Sugar-cane		215
222		Sulphurwort		670
224		Sumach		681
206		Summer cypress	2413	610
232	1068	Sundew		702
730		Sunflower		1798
470		Sun rose		1198
328		Supple jack	5615	923
696	1066	Sutherlánd*ia*		1571
626	1066	Swainsòn*ia*		1570
196		Swallow-wort		[illegible]

Lin.	Nat.		Sp.	Gen.
858		Swámp locust-tree	14325	2155
[illegible]		Swamp sassafras, *n.*		
426		Swedish beam-tree	7097	1133
554		Swedish turnip	9245	1432
332		Sweet bay	5646	934
448		Sweet briar	7503	1148
564		Sweet calabash	9394	1459
256		Sweet flag	4316	755
830		Sweet gale	13865	2055
798		Sweet gum	13435	2001
	1076	Sweet leaf		
726		Sweet maudlin	12350	1781
620		Sweet pea	10362	1558
140	1077	Sweet potato	2264	384
480		Sweet sop	7022	1220
738		Sweet sultan	2627	1819
370		Sweet William	6440	1046
202	1077	Swért*ia*		599
352	1062	Swietèn*ia*		990
676		Swine's succory		1645
878		Sword fern		2173
842		Sycamore	14279	2143
170	1071	Symphòria		476
122	1078	*Sýmphytum*		334
	1076	SYMPLOCA'CEÆ, Or. 97.		
652	1076	Sýmplocos		1614
728	1074	Synedréllа		1791
600		SYNGENE'SIA, Cl. 19		
666		S. ÆQUA'LIS, Or. 1		
[illegible]		S. SUPE'RFLUA, Or. 2.		
730		S. FRUSTRA'NEA, Or. 3.		
738		S. NECESSA'RIA, Or. 4.		
744		S. SEGREGA'TA, Or. 5.		
396		Syrian rue	6611	1088
12	1076	*Syringa*		37
148	1077	Tabernæmontàna		418
840	1083	Tacamahac	13970	2087
256	1089	*Tácca*		758
880	1090	Tænitis		2276
718	1074	*Tagètes*		1760
258		Tallera palm	4358	762
396	1069	Talinum		1092
259		Tallipot palm, *n.*		
831		Tallow shrub, *n.*		
810		Tallow-tree	13603	2026
562		Tamarind-tree		1449
562	1067	*Tamarindus*		1449
228		Tamarisk		685
228	1069	Tamarix		685
838	1086	*Tamus*		2082
696	1073	Tanacètum		1720
620		Tangier pea	10365	1558
696		Tansy		1720
814		Tapioca, *n.*		
694	1074	Tarchonánthus		1706
624		Tare		1562
912	1091	Targiònia		2257
	1072	Tarragon		
557		Tartarian-bread, *n.*		
337	1081	Tart rhubarb		
848	1084	*Táxus*		2114
148	1079	Teak-wood		421
90		Teasel		262
592		Tea-tree		1496
148	1079	*Téctona*		421
534	1078	*Teèdia*		1574
546	1057	Teesdàl*ia*		1411
228	1069	*Telèphium*		689
194	1081	Telopèa		244
608	1066	Templetòn*ia*		1533
634	1066	Tephròsia		1590
616	1066	Terámnus		1548
	1064	*TEREBINTHA'CEÆ*, Or. 58.		
864	1068	Terminàlia		2140
	1062	TERNSTRÖM*iaceæ*, Or. 46.		
464		Terra orellana, *n.*		
838	1086	Testudinària		2083
272		Teta, *n.*		
476	1055	Tetrácera		[illegible]
536		TETRADYNA'MIA, Cl. 15.		
430	1069	Tetragònia		1145
644	1066	Tetragonólobus		1602
716	1074	Tetragonothèca		1753
76		TETRA'NDRIA, Or. 1.		
80		T. MONOGY'NIA, Or. 1.		
104		T. DIGY'NIA, Cl. 2		

Lin.	Nat.		Sp.	Gen.
104		T. TETRAGY'NIA, Or. 3.		
898	1091	Tetràphis		2221
302	1060	Tetrathèca		879
494	1079	*Teùcrium*		1244
	1054	THALAMIFLÒRÆ, Subc. 1.		
2	1085	Thàl*ia*		4
484	1054	*Thalictrum*		1229
1036	1093	Thamnídium		2461
214	1071	*Thápsia*		643
1024	1092	Thelébolus		2417
1010	1092	Theléphora		2378
956	1092	Thelotrèma		2336
792	1083	Thelýgonum		1993
650	1060	Theobròma		1607
146	1075	Theophrást*a*		408
342	1066	Thermópsis		944
194	1082	*Thèsium*		569
680		Thistle		1663
546	1057	*Thláspi*		1408
182	1060	Thomàs*ia*		524
134		Thorn apple		376
218		Thorough-wax	3684	657
234		Thrift		705
260	1088	Thrìnax		764
672	1073	Thrincia		1633
168		Throatwort		466
806	1084	*Thùja*		2018
518	1079	Thunbérg*ia*		1308
496	1079	*Thýmbra*		1247
508	1079	Thyme		1279
	1082	*THYMELÆ'Æ*, Or. 132.		
508	1079	*Thýmus*		1275
276	1086	Thysanòtus		799
388	1070	Tiarélla		1042
120	1078	Tiarídium		329
623		Ticks, *n.*		
8		Tickseed		26
562		Tiger-flower		1452
562	1086	Tigrídia		1452
40		Tile-root		97
466	1060	*Tília*		1186
	1060	*TILIA'CEÆ*, Or. 27.		
108	1070	Tillæ'a		320
246	1087	Tillánds*ia*		729
58		Timothy grass, *n.*		
732	1074	Tithòn*ia*		1802
526		Toad-flax		1344
136	1078	Tobacco		382
182	1064	*Toddàlia*		529
789		Toddy, *n.*		
886	1090	Tòd*ea*		2204
290	1087	Tofiéld*ia*		844
676	1073	*Tólpis*		1641
	1078	Tomatoes		
604	1065	Tonquin bean		1518
834		Toothache-tree		2066
524		Toothwort		1539
410		Torch-thistle, *n.*		
222	1071	*Tordýlium*		673
212	1071	Torìlis		627
454	1067	Tormentìlla		1154
904	1091	Tórtula		2228
1038	1093	Tórula		2468
184		Touch-me-not	3019	538
124	1078	Tournefórt*ia*		346
516	1078	Tourrétt*ia*		1299
232		Tow, *n.*		
540		Tower mustard		1389
168	1075	Trachèlium		466
214	1071	Trachyspérmum		638
474	1055	Trachytélla		1206
260	1087	Tradescánt*ia*		765
774	1082	Tràg*ia*		1944
666	1073	*Tragopògon*		1621
104	1069 1084	Tràpa		308
484		Traveller's joy	7963	1227
544		Treacle mustard		1402
392		Tree celandine	6582	1073
884		Tree fern, *n.*		
584		Tree mallow	9777	1475
274		Tree onion	4684	796
294		Tree sorrel	5019	856
640		Trefoil		1600
	1060	TREMANDRE'Æ, Or. 26.		
840		Trembling American-tree	13960	2087
1020	1092	Tremélla		2397

Lin.	Nat.		Sp.	Gen.
350		Trenails, *n.*		
930	1091	Trentepòhl*ia*		2276
532	1078	Trevirána		1362
30		TRIA'NDRIA, Cl. 3.		
34		T. MONOGY'NIA, Or. 1.		
52		T. DIGY'NIA, Or. 2.		
74		T. TRIGY'NIA, Or. 3		
192 366	1069	Triánthema		564 1036
354	1062	*Tríbulus*		996
1034	1093	Trìchia		2452
352	1062	Trichìlia		987
1040	1093	Trichodérma		2485
122	1078	Trichodésma		341
56	1089	Trichòdium		157
886	1090	*Trichómanes*		2202
40	1085	Trichonèma		96
50	1089	Trichóphorum		126
808	1069	Trichosánthes		2019
512	1079	Trichostèma		1283
902	1091	Trichóstomum		2226
1040	1093	Trichothècium		2479
64	1089	Tricúspis		187
726	1074	Trìdax		1782
296	1080	Trientàlis		862
640	1066	*Trifòlium*		1600
290	1090	Triglòchin		841
644	1066	Trigonélla		1603
290	1086	Trìllium		850
214	1071	Trìn*ia*		645
66	1089	Triòdia		191
170	1071	Triósteum		478
174	1062	Triphàsia		500
482	1081	Triplaris		2090
780	1089	Trípsacum		1952
678	1074	Triptìlion		1656
60	1089	Trisètum		172
652	1068	Tristània		1611
56	1089	Trístegis		158
68	1089	*Tríticum*		206
268	1086	Tritòma		777
40	1085	Tritònia		100
396	1060	Triumfétt*a*		1087
740	1074	*Tríxis*		1825
758	1085	Trizeùxis		1890
488	1054	*Tróllius*		1234
	1061	TROPÆÒLEÆ, Or. 40.		
302	1061	Tropæ'olum		875
832	1085	Tròphis		2063
666	1073	Tróximon		1622
426		True service	7100	1133
1022		Truffle		2411
514		Trumpet flower		1294
1022	1092	*Tùber*		2411
1040	1093	Tuberculària		2488
254		Tuberose		747
268	1086	Tulbàgh*ia*		780
266	1087	Tulip		772
266	1087	*Tùlipa*		772
478		Tulip-tree		1216
870		Tupelo		2161
1032	1093	Tulóstoma		2441
256	1089	Tupìstra		757
151		Turkey berry-tree, *n.*		
354		Turkey-blossom, *n.*		
6	1085	Turmeric		14
228	1069	Turnèr*a*		686
534	1057	Turnip	9246	1432
118	1082	Turnsole		325
804		Turpentine, *n.*		
832		Turpentine-tree	13891	2065
540	1057	Turrìtis		1389
704	1074	*Tussilàgo*		1757
656		Tutsan	11000	1617
754		Twayblade		1876
774	1090	*Tý*pha		1945
1014	1092	Týphula		2384
612	1066	*U'*lex		1540
	1083	*U*LMA'CEÆ, Or. 143.		
208	1083	*U'*lmus		615
218	1071	Ulospérmum		660
940	1091	*U'*lva		2308
	1070	UMBELLI'FERÆ, Or. 79.		
478		Umbrella-tree	7914	1217
96		Umbrella-wort		81
778	1089	Uncìnia		1949
275		Underground onion, *n.*		
64	1089	*U*nìola		186
	1083	Upas-tree		
244	1085	Urània		722
958	1092	Urceolària		2339

Lin.	Nat.		Sp.	Gen.
1049	1093	*Urèdo*		2497
584	1059	*Urèna*		1477
282	1086	Uropètalon		818
782	1083	*Urtica*		1962
	1083	*URTI'CEÆ*, Or. 141		
972	1092	*Usnea*		2357
20	1079	Utriculària		53
480	1055	Uvària		1219
270	1086	Uvulària		785
320	1075	*Vaccinium*		907
862	1072	Valántia		2136
34	1072	Valerian		78
34	1072	*Valeriàna*		78
	1072	*Valerianeæ*, Or. 86		
34	1072	*Valerianella*		80
154	1093	Vallisnia		442
252	1086	Vallòta		740
762	1085	*Vánda*		1916
530	1078	Vandéllia		1557
172	1072	*Vanguièra*		486
764	1084	*Vanilla*		1940
956	1092	Variolària		2358
150	1078	Varrònia		429
	1054	VASCULA'RES, Div. I.		
940	1091	Vauchèria		2304
204	1059	Velèzia		604
556	1057	*Vélla*		1437
168	1075	Vellèia		472
268	1086	Veltheimia		778
	1064 1084	Venetian turpentine		
208		Venus's comb	3478	619
356		Venus's flytrap	5913	1009
166		Venus's looking-glass	2595	463
122		Venus's navelwort		337
858	1087	*Veràtrum*		2128
132	1078	*Verbascum*		575
520	1079	*Verbèna*		1322
	1079	*VERBENA'CEÆ*, Or 116		
728	1074	Verbesina		1790
328	1070	Vèrea		927
686	1074	Vernònia		1680
14	1078	*Verónica*		40
1014	1092	Vérpa		2388
974	1092	Verrucària		2361
520	1079	Vervain		1322
544	1057	Vesicària		1400
132	1078	Vestia		571
622		Vetch		1561
620		Vetchling	10349	1558
606	1066	Vibórgia		1523
224	1071	*Vibúrnum*		679
622	1062	*Vícia*		1561
130	1077	Villarsia		353
344	1066	Viminaria		957
146	1076	*Vinca*		410
174	1061	Vine		501
	1061	*VINIFERÆ*, Or. 37.		
186	1058	*Viola*		540
	1058	*VIOLA'RIEÆ*, Or 15		
186	1058	Violet		540
124		Viper's bugloss		345
666		Viper's grass		1625
342	1066	Virgília		945
176		Virginian creeper	2868	502
834		Virginian hemp		2072
390		Virginian poke	6575	1071
482		Virgin's bower		1227
830	1071	*Viscum*		2054
406	1076	Visnea		1105
590	1079	*Vitex*		1317
174	1061	*Vitis*		501
892	1090	Vittària		2191
590	1079	Volkamèria		1326
44	1985	Wachendórfia		110
328		Waistcoat buttons, *n.*		
488	1067	Waldsteinia		1140
892		Walking fern	14646	2212
328		Walking-stick, *n.*		
540		Wall cress		1390
538		Wall-flower		1382
880		Wall rue	14506	2186
794	1064	Walnut		1999
562	1060	Walthèria		1454
356		Wampee-tree		1006
84		Warratah		244
550		Wart cress		1427
104		Water caltrops		308
49		Water chestnut, *n.*		
76		Water chickweed	1597	294
538		Water cress	8964	1383
488		Water crowfoot, *n.*		
212		Water dropwort		632
214		Water hemlock		633
20		Water horehound		55
132		Water leaf		372
565		Water lemon, *n*		
482		Water lily		1174
808		Water melon	[illegible]	2021
790		Water milfoil		1987
214		Water parsnip		646
526		Water pepper	5572	921
204		Water plantain		861
298		Water purslane		836
842		Water soldier		2096
8		Water starwort		27
476		Water vine	7897	1212
128		Water violet		355
328		Water-wort		931
40	1086	Watsònia		101
12		Wax-tree	158	36
98		Way-bread, *n.*		
224		Wayfaring tree	3771	679
174	1072	Webèra		494
738	1074	Wedèlia		1821
324	1070	Weinmánnia		929
900	1091	Weissia		2224
274		Welsh onion	4687	796
294	1055	Wendlándia		858
496	1079	Westríngia		1245
68	1088	Wheat		206
71		Wheat starch, *n.*		
426		Whitebeam-tree	7096	1133
806		White cedar	13545	2017
804		White deal, *n.*		
860		White hellebore, *n.*		
479		White laurel, *n.*		
804		White spruce	13531	2013
694		White wood		1709
544		Whitlow grass		1405
320		Whortle-berry		907
36		Widow-wail		84
506		Wild basil		1272
124		Wild bugloss		344
722		Wild chamomile	13291	1771
4[illegible]8		Wild cinnamon, *n.*		
418		Wild clove-tree	6978	1121
188		Wild cumin	3104	548
6[illegible]4		Wild liquorice		1546
60		Wild oat	1058	171
2		Wild plantain, *n.*		
360		Wild rosemary	5944	1016
424		Wild service	7082	1132
10		Wild tamarind		30
452		Wild tansey	7579	1153
828	1087	Willdenòvia		2046
820	1083	Willow		2042
318		Willow-herb		903
798		Willow oak, *n.*		
423		Winesour, *n.*		
644		Winged pea	10867	1602
498		Winter aconite		1236
286		Winter berry		828
156		Winter cherry		448
540		Winter cress		1386
176		Winter grape	2861	501
296 362		Winter green	862	[illegible]
104		Witch-hazel		[illegible]
96	1078	Witheringia		273
38	1085	Witsènia		94
552		Woad		1430
474		Wolf's-bane		1205
170		Woodbine		474
85		Wooden apple, *n.*		
620		Wood everlasting pea	10373	1559
94		Woodroof		208
496		Wood sage	8123	1244
886	1090	Woodsia		[illegible]
387		Wood sorrel, *n.*		
880	1090	Woodwárdia		2184
134		Worm-grass		379
696		Wormwood		1792
146	1076	Wrightia		412
18		Wulfènia		50
290	1067	Wurmbèa		848
208		Wych	3464	615
786	1073	Xanthium		1974
656	1061	Xanthochýmus		1606
236	1051	Xanthorhiza		709
276	1086	Xanthorrhœ'a		798
834	1063	Xanthoxylum		[illegible]
700	1074	Xeránthemum		1789
290	1087	Xerophýllum		847
836	1087	Xeròtes		2076
716	1074	Ximenèsia		1754
304	1062	Ximènia		890
44	1085	Xiphidium		108
878	1090	Xiphópteris		2173
1024	1092	Xylària		[illegible]
758	1085	Xylòbium		[illegible]
84	1081	Xylomèlum		243
1032	1093	Xylòma		2437
480	1055	Xylòpia		1224
38	1087	Xýris		88
196	1077	Xysmalòbium		580
838	1086	Yam		2085
232		Yarn, *n.*		
290		Yarr, *n*		
726		Yarrow	12383	1781
488		Yellow bachelors' buttons, *n.*		
356		Yellow bird's-nest		1008
502		Yellow dead-nettle	8283	1261
802		Yellow deal, *n*		
524		Yellow rattle		1340
236		Yellow root		709
738		Yellow sultan	12020	[illegible]
3[illegible]6		Yellow-wort		804
848		Yew-tree		[illegible]
268	1087	*Yúcca*		781
678	1073	Zacintha		1652
728	1074	Zaluzània		1796
846	1084	Zàmia		2108
772	1087	Zannichéllia		1938
520	1079	Zapània		1319
778	1089	Zèa		1950
6	1085	Zedoary	81	14
254	1086	Zephyránthes		743
102	1063	Ziéria		304
504	1079	Zietènia		1264
550	1067	*Zilla*		1440
4	1085	Zingiber		10
720	1074	Zinnia		1768
788	1089	Zizània		1979
20	1079	Ziziphora		[illegible]
178	1063	Zizyphus		[illegible]
734	1074	Zoe'gea		[illegible]
944	1091	Zonària		[illegible]
630	1066	Zórnia		1587
222	1071	Zosimia		675
8	1090	Zostèra		24
284	1066	Zucágnia		820
934	1091	Zygnèma		2289
918	1091	Zýgodon		2234
	1061	ZYGOPHY'LLEÆ, Or. 42.		
352	1062	Zygophýllum		994

THE END.

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